

Vetoing Cooperation: The Impact of Veto Players on International Trade Agreements

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Abstract

The causes of international conflict have been a topic of voluminous research, but much less attention has been directed at the sources of international cooperation. Especially little work has been conducted on the domestic determinants of cooperation. We address this issue by investigating the domestic political factors affecting whether countries enter preferential trade agreements (PTAs). We place particular emphasis on the number of veto players within a country and hypothesize that the probability of forming a PTA declines as the number of such players rises. Our data, covering 194 countries from 1950 to 1999, strongly support this hypothesis. Holding various political and economic factors constant, increasing the number of veto players within a country reduces the probability of signing a PTA by a sizable amount. Thus, domestic politics play an important role in shaping international cooperation.

Introduction

For centuries, scholars of international relations have expressed substantial interest in the causes of international conflict. Far less attention, however, has been focused on the sources of international cooperation. Furthermore, most of the work that has been conducted on this topic locates these sources at the global level of analysis. In this paper, we examine the domestic political influences on international cooperation.

Recent research (e.g., Milner and Rosendorff 1996; Milner 1997) suggests that countries with more “veto players” are less likely to cooperate. Where leaders confront an array of domestic groups with diverse preferences and the ability to block policy initiatives, it is difficult to forge international agreements. Much of this existing research has focused on divided government, a situation where the majority party in the legislature differs from that of the executive. Legislatures, however, are only one type of veto player. Many others exist as well, including an independent judiciary, an independent central bank, federal and second legislative chambers, and influential interest groups. We show that increasing the number of veto players never increases and usually reduces the range of agreements that would satisfy the countries involved in international negotiations, thereby reducing the prospect of cooperation among them (Putnam 1987; Milner 1997).

We test this claim by examining the domestic politics surrounding decisions to cooperate on foreign trade policy. Such cooperation often takes the form of a preferential trading agreement (PTA), an institution in which each member agrees to reduce trade barriers on the other participants’ products. PTAs are an important form of cooperation in the global arena: they have grown increasingly pervasive during the period since

World War II and account for a significant portion of the trade liberalization that has been undertaken in recent years (Mansfield and Milner 1999). No research that we are aware of has directly addressed the links between domestic veto players and the prospect of international economic cooperation. Based on an analysis of all PTAs formed over the past fifty years, we find strong statistical support for our argument. States are much less likely to enter a PTA as the number of veto players increases.

Domestic Politics and International Cooperation

Our central argument is that domestic politics bears heavily on the prospects of international cooperation. Thus, we depart from much of the work on international relations that treats the state as a unitary actor. Instead, we view the state as an aggregation of actors with varying preferences that share decision-making authority. More specifically, we focus on two domestic political factors: the policy *preferences* of key actors and the *institutions* for power sharing among them. The distribution of power among these actors and the extent to which their preferences diverge define the number of veto players in a country.

Political institutions tend to define the relevant players in decision-making. When institutions for sharing decision-making exist, they create the potential for veto players. These players are institutional or partisan actors that have divergent preferences and whose assent is necessary to change existing policies (Tsebelis 2002: 2). Tsebelis (2002) has shown that the difficulties of policy-making grow as the number of veto players increases, as their preferences diverge, and as the internal coherence of the actors declines. Policy stasis becomes more likely as the number of veto players increases.

“The size of the winset of the status quo,” Tsebelis (2002: 2) argues, “has specific consequences on policymaking: significant departures from the status quo are impossible when the winset is small—that is, when veto players are many—when they have significant ideological distances among them, and when they are internally cohesive.”

At least three types of actors usually inhabit the domestic political arena. An executive – which includes the head of state as well as the bureaucracy and various departments and ministries of government – and the legislature or parliament compose the two primary actors. The third set of actors is composed of societal interest groups. Each set has the potential to function as a veto player, depending on the rules guiding policy formation in a country. All other things being equal, the more the preferences of these actors differ, the more that veto players affect policy.

Veto players exist in all types of regimes. Even in non-democratic systems, domestic politics is rarely a pure hierarchy with a unitary decision-maker and no veto players. In a dictatorship, the support of the professional military, the landed oligarchy, big business, or a political party is frequently necessary for the leader to retain power and implement policies. These groups often exercise veto power over the executive’s proposals and may help set the country’s policy agenda. As one study of Stalin notes, “Most revisionist accounts of the ‘Cold War’ ... portray the Soviet leaders both as monolithic and essentially passive. ... The Soviet decision-making process, however, was contingent as much upon developments in [internal] factional struggles within the Soviet Empire, as upon ‘objective’ Soviet interests abroad. ... Thus, as in so many other instances, Soviet ‘policy’ ... largely seems to have been a function of the ebb and flow of [domestic] factional conflict” (Ra’anana 1983: 8). Indeed, the existence of these domestic

groups is central to an important body of literature on democratization that argues that inter-group competition in an autocracy is an impetus for political liberalization (Kaufman 1986; O'Donnell and Schmitter 1986; Przeworski 1986, 1991). Thus, even in hierarchical states, dictators are unable to unilaterally dictate policy: domestic groups with varying preferences compete for influence over policy and dictators depend on them to various extents in making policy.

Democratic systems are even more likely to have veto players than non-democratic regimes, although the number of such players in democracies varies considerably. In most democracies, both the legislature and the executive vie for control over decision-making. Sometimes two or more political parties compete, the governing and opposition parties or coalitions. In corporatist systems, three actors are important: the executive ("the state"), organized labor, and organized capital. They share control over the key elements of economic policy-making: setting the agenda as well as devising, amending, ratifying, and implementing policies. An independent judiciary is also an important veto player in some countries. Domestic political institutions determine how such control is distributed among the actors. For example, constitutions often assign certain powers to the executive and others to the legislature or judiciary, yet informal norms and institutions may also guide the relationships between the executive, the legislature, and interest groups.

Domestic actors may either share control over the policy process or possess distinct powers. In the United States, for instance, both the president and Congress have the authority to devise certain legislative proposals, and both share the power to ratify since the president can veto a bill accepted by the Congress. In many parliamentary

systems, legislatures do not initiate proposals; only the executive does and she cannot veto a proposal once the legislature amends and ratifies it. In both cases decision-making powers are jointly held: in the former, both players share control over the same procedures, while in the latter, the players control different aspects of the process.

Although democracies typically have more veto players than non-democracies, this need not be the case. Formally, democracies will have a greater number since they have meaningful institutions that constrain the power of the leader. Informally, however, non-democracies may also have a large number of veto players. We are interested in the actual number of such actors and the homogeneity of their preferences, not just in the constitutionally mandated number of veto players. Conceptually, regime type and veto players are distinct and we treat them as such in the following analysis.

In most countries, the executive branch sets the agenda in foreign affairs and has the power to initiate foreign policy. To negotiate international agreements and to implement foreign policy, however, the executive needs the tacit or explicit support of other domestic groups. Sometimes foreign policy requires a vote of support from the legislative branch. Frequently it requires the tacit support of groups like the military or concerned interest groups. Foreign policy, as with domestic policy, is subject to the influence of domestic veto players. Such groups must ratify the foreign policy choices made by the executive.

We employ a broad notion of ratification in this analysis. Formally, heads of state in democracies – whether the prime minister, president, chancellor, or premier – are often required by the national constitution to obtain the approval of the legislature for international agreements. Hence, the executive leadership must negotiate an agreement

that is acceptable to a majority of the legislature, either a simple plurality or some supermajority depending on the issue-area and the country. In the United States, for example, any treaty negotiated by the president must be approved by two-thirds of the Senate. That the executive must obtain legislative approval will affect how she negotiates. Bringing home an unratifiable agreement is likely to be costly both domestically and internationally for the executive. She will therefore need to anticipate the legislature's (or any other veto player's) reaction to an international agreement and ensure it is domestically acceptable.

Ratification can also be less formal. In dictatorships, shifts in foreign policy often require the support of groups like the military, landed elite, or local leaders; implicitly these groups have ratified an agreement that is enacted if they had the ability to veto it. Informal ratification also occurs in democracies. If a leader needs to change a domestic law, norm, or practice in order to implement an international agreement or new foreign policy, even if no formal vote on the agreement itself is required, then a legislative vote on any necessary domestic change becomes a vote on the agreement. This is also the case if the foreign agreement requires budgetary changes. In Great Britain, for example, Parliament is not required to vote on international agreements negotiated by the prime minister, but it must approve any change to the British laws or budget that such agreements entail. Since most international agreements do involve changes of this sort, Parliament effectively exercises a right of ratification over international agreements. In addition, if the executive needs the assistance or acquiescence of a domestic group to implement the international agreement, then it must obtain this group's approval of the agreement and "ratification" becomes necessary. For instance, if the cooperation of the

steel industry is necessary for an international agreement regulating steel production, then it will be implementable only if the agreement is acceptable to this industry. This situation occurs in both democracies and non-democratic countries in situations where political leaders depend on the support of the military, big business, or labor organizations. These groups may be able to exercise a veto over international agreements.

Finally, in many political systems, if the leadership chooses a foreign policy or negotiates an agreement that could hurt large or important segments of society, domestic complaints will prompt veto players to call for a more formal or stringent form of ratification. This may be a consequence of party competition. An agreement that is contentious domestically will often induce the political parties outside the governmental majority to use it as an electoral weapon. Opposition parties will then call for a ratification vote, largely to gain a competitive advantage in upcoming elections. Majority parties may also seek such a ratification vote in order to avoid or assign blame for such an agreement. For instance, during the Maastricht treaty ratification in Germany, as opinion polls showed that public concern over the treaty was rising, the opposition Social Democrats forced the government to put the treaty to a two-thirds vote in its parliament rather than a simple majority vote. This meant the government had to win the support of both the Länder in the Bundesrat and of some Social Democrats in the Bundestag in order to pass the agreement. In general, the more domestic complaints or the more domestically contentious a foreign policy or international agreement is, the more likely the government will be faced with a more formal and stringent ratification process. The

number of veto players affects the process of domestic ratification and thus shapes political leaders' behavior in international negotiations involving cooperation.

This domestic ratification game is a central element of our argument. In the simplest case, the executive and a single veto player share power: the veto group must ratify the proposed international agreement that the executive negotiates with the foreign country. The executive and the foreign country understand this in advance and realize that any proposed agreement must survive this domestic test before it can be implemented. The veto player need not have the power to amend the proposed agreement. Hence, the executive proposes, anticipating the reaction of the veto player, which in turn accepts or rejects the agreement.

A Model of International Cooperation

Using the model developed by Milner (1997), we describe the effects on international cooperation as the number of veto players fluctuates. Figure 1 shows the results of a two-player international game without any domestic politics, where P is the executive negotiating in the home country (call her the president or prime minister) and F is the foreign country. No veto players exist in either country except the executives. This game assumes complete and perfectly symmetric information. The ideal points of P and F (p and f) are common knowledge as is the position of the status quo (q). Each state is a unitary, rational actor. We assume P and F have no domestic political considerations that are not factored into their ideal points. The horizontal axis depicts all the possible values of the status quo (q). The vertical axis represents a continuum of policy outcomes on a single issue. It captures both the ideal points of the actors and the outcomes of the

negotiations (a). The dark line represents the equilibrium policy choices given the value of the status quo, as shown along the horizontal axis.

What are the equilibria of the Nash Bargaining Solution in this simple model?¹ When $f < q < p$, the status quo is always the outcome in Figure 1. No agreement is the result because a mutually profitable bargain is not possible. When q takes any other value, mutually profitable bargains can be forged. This may mean, however, that one player ends up better off than the other. A rational player will accept gaining less than her counterpart if the bargain improves her position relative to the status quo.

Figure 1 shows that when the status quo is not between p and f , agreement is possible. It also demonstrates that the cooperative outcome will always lie between the ideal points of the two actors. Exactly where it will lie within this area is determined by the location of q . If $q > p > f$, then p is the outcome; conversely, when $q < f < p$, then f is the equilibrium. The player with the ideal point closest to the status quo q exerts greater influence. This is a fairly standard outcome in bargaining analysis. The actor with the best alternative to the agreement has greater leverage (Raiffa 1982).

As the difference between the countries (p and f) grows, two implications follow. First, the area of no agreement becomes larger ($f < q < p$), rendering cooperation less likely. Second, the constraint exercised by the status quo grows. As the difference between the actors ($p-f$) increases, they must accept more extreme outcomes. When $q < p \ll f$, then F will accept P's ideal point, which is now much farther away. These results coincide with conventional wisdom.

What is surprising about these results is that the absence of an agreement is frequently the outcome in the *complete* information setting. Unlike many other studies,

¹ See Milner 1997 for a full derivation of the results.

these results show that the difficulties of cooperation do not stem solely from incomplete or asymmetric information. Even with complete information, international cooperation may not be possible.

Now compare the unitary actor case described above with Figure 2, where we introduce domestic politics in its simplest form. We assume a non-unitary state by adding a ratification game. We introduce a veto player, V , who must “ratify” any agreement negotiated internationally; that is, the veto player must tacitly or explicitly agree to accept the proposed international agreement. For example, the veto player could be a legislature, which takes some kind of vote – on a new law, budget allocation, or constitutional amendment, for example – that allows it to accept or reject the executive’s proposal. V is portrayed as a unitary actor, representing the median member of the veto group; therefore, V ’s vote decides the outcome of the ratification contest. The veto player here must either accept the proposal negotiated by P and F , or reject it and return to the status quo. It does not have amendment powers. We maintain the assumption of full and symmetric information in this section: P , V , and F know each others’ preferences and the nature of the proposed agreement. The veto group, which must approve the agreement, knows the preferences of P and F and the nature of the agreement. P and F likewise recognize that the agreement they negotiate must be ratified by V and they understand exactly what terms V will accept.

Figure 2 shows the outcome of the ratification game when the executive’s preferences are located closer to those of the foreign country than are the veto player’s ($f < p < v$). The veto group here is a “hawk” because its ideal point differs most from the foreign executive’s. In Figure 2 the vertical axis represents the ideal points of the players

and the proposed agreement. The horizontal axis is the position of the status quo. The darkened line shows the equilibrium agreement reached along the vertical axis, given the position of the status quo along the horizontal one. It demonstrates when cooperation is possible and whose preferences are more closely adhered to by any agreement when the structure of preferences is such that the veto player is extremely nationalist or hawkish. Figure 3 shows the outcomes when the structure of preferences is altered, so that the executive is nationalist or hawkish, $f < v < p$. The structure of domestic preferences affects the ratification game and hence the cooperative outcomes.

When the executive is the more hawkish or nationalist, as in Figure 3, domestic politics has no effect on international negotiations. This is evident since the equilibrium outcomes in Figures 1 and 3 are exactly the same. In the domestic game, when $f < v < p$, the veto group cannot constrain the executive, even when the status quo is closest to the veto player's ideal point. The autonomy of the executive is maximized when she is a hawk. For example, when the status quo lies between f and v , no agreement will occur since neither V nor P will move to F's side of the status quo, and vice versa. When the status quo is between P and V ($f < v < q < p$), the veto player is still impotent, since P will never accept any proposal from which it derives less than the status quo.

Under what conditions do veto players matter? Consider what happens when the status quo is between p and v . If P and F negotiate to the point p , V will reject such an agreement and implement the status quo, q , since q is closer to v than is p . Hence for P and F to induce ratification, they must offer q or better. The best ratifiable agreement then is q , which is offered and accepted. So no cooperation is the outcome when the status quo lies between p and v . P and F are unable to cooperate to realize the joint gains

available under the international game. Adding a veto player to the game whose preferences lie to the right of P and F creates a new zone of non-agreement when the status quo is also to the right of P.

Consider now what happens when the status quo is to the right of the veto group, v ($f < p < v < q$), but not too extreme (i.e., $v < q < 2v - q$). For every $q > v$, there is a point ($2v - q$) to the left of v that V finds indifferent to q . That is, the utility of the status quo for V is equal to the utility obtained at $2v - q$. Since V is indifferent between q and $2v - q$, we allow V to accept an offer of $2v - q$ if it is made. Now P and F both prefer $2v - q$ to q when $q > v$. So the executives P and F offer $2v - q$, a point that the veto group V will accept. In this region, then, domestic politics exercises a substantial constraint on the international negotiations. The negotiators will have to offer a cooperative agreement that is ratifiable, but it is one that they do not like as much.

Comparison of the international game and the domestic politics game shows what happens when one veto player is introduced. When the veto player and the executive share decision-making power in a ratification game, international agreement is less likely, *ceteris paribus*. With this additional domestic veto player, there is a range ($p < q < v$) where the status quo is the outcome while mutual gains for the international negotiators simultaneously exist and remain unexploited. The range where q is the outcome expands when the veto player and executive “share” decision-making power. Hence the presence of veto players makes international cooperation less likely than in the international game. It is not just the anarchic nature of the international system but also domestic politics that renders cooperation difficult, suggesting that even realists (e.g., Waltz 1979) underestimate the difficulties of international cooperation.

The impact of adding more veto players depends on their preferences, but in no case does such an addition increase the likelihood of agreement. If another veto player, V_2 , is added to the game and its preferences lie to the right of V (i.e., $f < p < v < v_2$), then as long as q is to the left of V ($f < p < q = v < v_2$) the outcome is not changed. But when q is between V and V_2 , the second veto player will oppose any change to the status quo that the other players prefer and a new region of non-agreement is created. Figure 4 shows this situation. The equilibria when the status quo lies between V and V_2 are now confined to the status quo. No cooperation is possible in this zone, whereas it was possible before the additional veto player was introduced into the game. This result is identical to moving the first veto player, V , further away from P ; or, as in Milner (1997), it is equivalent to making government more divided as the preferences of the legislature and the executive grow further apart. Tsebelis (2002) shows that this is the case in two-dimensional and multidimensional space generally. His proposition 1.1 is equivalent to our central hypothesis: adding new veto players never makes cooperation more likely and often reduces its probability.²

Cooperation in international politics implies a change in policy and hence a move from the status quo. Following Keohane (1984: 51-52), scholars have defined cooperation as occurring when “actors adjust their behavior to the actual or anticipated preferences of others, through a process of policy coordination.” Policy coordination, in turn, implies that each state’s policies are adjusted so that their adverse consequences for the other countries are reduced. Cooperation usually involves countries changing their policies from the status quo.

² The rest of chapter 1 in Tsebelis 2002 generalizes this to a multidimensional policy space.

Our focus on trade agreements fits with this idea. PTAs require countries to lower their barriers to trade. Each must agree to change their existing trade policies, usually through domestic legislation. Trade theory alerts us to the fact that such policy change has domestic distributional consequences. Lowering trade barriers creates groups that gain from the policy (“winners”) and groups that pay costs (“losers”). When veto players exist that represent the preferences of the losers, changing policy and cooperating with other states in a PTA become much more difficult and unlikely. As the number of veto players rises, the probability that the losers from trade liberalization are represented by one or more veto players also rises, and thus the chances of ratifying a PTA fall. Previous studies have examined cooperation in trade, but this is the first study to analyze the role of domestic veto players (e.g., Mansfield, Milner and Rosendorff 2002).

The Statistical Model

To test our theory, we begin by estimating the following model:

$$(1) \quad \text{PTAOnset}_{ij} = \beta_0 + \beta_1 \text{Veto Points}_i + \beta_2 \text{Regime Type}_i + \beta_3 \text{Trade}_{ij} + \beta_4 \text{GDP}_i + \beta_5 \text{GDP}_j + \beta_6 \text{Dispute}_{ij} + \beta_7 \text{Ally}_{ij} + \beta_8 \text{Former Colony}_{ij} + \beta_9 \text{Contiguity}_{ij} + \beta_{10} \text{Distance}_{ij} + \beta_{11} \text{Hegemony} + \beta_{12} \text{GATT}_{ij} + \epsilon_{ij}$$

The dependent variable is the log of the odds that a pair of states, i and j , enters a PTA in year $t+1$, where we observe 1 if this occurs and 0 otherwise. Note that the observed value of this variable is 1 only when states initially join a PTA, not in subsequent years when the agreement is in force. We are interested in the initiation of cooperation, which depends on domestic ratification, and not its durability. We draw our sample of PTAs primarily from the World Trade Organization (1995), but also include arrangements that

were not notified to either this organization (WTO) or its predecessor, the General Agreement on Tariffs and Trade (GATT), since there is no reason to believe that veto players influence the decision to enter only those PTAs notified to these bodies.³ PTAs are a broad class of international commercial agreements that include common markets, customs unions, free trade areas, as well as other arrangements. All types of PTAs are included in the following analysis, since each type of agreement requires some degree of policy change on the part of at least one state.

From the standpoint of testing our theory, the central independent variable in equation (1) is *Veto Points_i*. This variable, which is measured in year *t*, indicates the extent of constitutionally mandated institutions that can exercise veto power over decisions in state *i* and the alignment of actors' preferences between those institutions. The data are taken from Henisz (2002), who measures the presence of effective legislative branches of government outside of the executive's control, the extent to which these branches are controlled by the same political party as the executive, and the homogeneity of preferences within these branches. Henisz (2002: 363) makes two assumptions regarding veto points in a political system: "(1) each additional veto point (a branch of government that is both constitutionally effective and controlled by a party different from other branches) provides a positive but diminishing effect on the total level of constraints on policy change and (2) homogeneity (heterogeneity) of party preferences within an opposition (aligned) branch of government is positively correlated with constraints on policy change."

³ We draw data on PTAs that were not notified to either GATT or the WTO from Mansfield and Pevehouse (2000).

The resulting measure is a continuous variable ranging from 0 to 1. When *Veto Points_i* equals 0, there is a complete absence of veto players in state *i*. Higher values indicate the presence of effective branches of government to balance the power of the executive. In cases where effective branches exist, the variable takes on larger values as party control across some or all of these branches diverges from the executive's party. For example, in the US, *Veto Points_i* takes on larger values during periods of divided government.⁴ This variable is well-suited to test our claim that the likelihood of concluding international economic agreements declines as the number of domestic veto players rises.

We also include a number of variables that previous studies have linked to the formation of PTAs to ensure that any observed effect of veto points is not due to other international or domestic factors. Past research has found that democracies tend to join PTAs at a higher rate than non-democracies (Mansfield, Milner, and Rosendorff 2002). Consequently, we introduce *Regime Type_i*, a 21-point index of country *i*'s regime type in year *t*. The value of this variable, which is constructed using the Polity data set, rises as states become more democratic and falls as they become more autocratic (Jagers and Gurr 1995). As such, we expect it to be directly related to the onset of PTAs.⁵ It is essential to include this variable since it captures some of the same institutional features as *Veto Points_i* (e.g., constitutionally mandated limitations on executive authority). We need to ensure that the influence of veto players is not simply an outgrowth of the effects of regime type.

⁴ For more details concerning this measure of veto points, see Henisz (2000, 2002).

⁵ Gleditsch (2004) has updated the Polity IV data set (Marshall 2004) to include data on smaller states excluded by the Polity project, but included in the Correlates of War project list of system members. We use this updated version of Polity IV here.

Next, $Trade_{ij}$ is the total value of trade (in constant US dollars) between countries i and j in year t . Various observers argue that increasing economic exchange creates incentives for domestic groups that benefit as a result to press governments to enter PTAs, since these arrangements help to avert the possibility that trade relations will break down in the future (Nye 1988). Moreover, heightened overseas commerce can increase the susceptibility of firms to predatory behavior by foreign governments, prompting firms to press for the establishment of PTAs that limit the ability of governments to behavior opportunistically (Yarbrough and Yarbrough 1992).⁶

In addition to economic relations between countries, economic conditions within countries are likely to influence PTA formation. Particularly important in this regard is a state's economic size. Large states may have less incentive to seek the expanded market access afforded by PTA membership than their smaller counterparts. We therefore analyze GDP_i , country i 's gross domestic product (in constant US dollars) in year t . Moreover, fluctuations in economic growth may affect whether states enter preferential arrangements. On the one hand, some research indicates that downturns in the business cycle lead states to seek membership in such arrangements (Mattli 1999). On the other hand, increased growth is likely to increase a country's demand for imports and supply of exports, creating an incentive to gain preferential access to overseas markets. To address this issue, we introduce ΔGDP_i , the change in GDP_i from $t-1$ to t .⁷

Political relations between states may also influence whether they join the same PTAs, independent of their respective domestic political structures. Military hostilities

⁶ We use Gleditsch's (2002) data on trade flows. Gleditsch draws much of his data from the International Monetary Fund's *Direction of Trade Statistics*. Like the IMF data, however, Gleditsch's data are in current dollars. We deflate these data using the US consumer price index.

⁷ GDP data are also taken from Gleditsch (2002) and are deflated using the US consumer price index.

between states may discourage economic cooperation and thus their propensity to sign PTAs. Similarly, political-military cooperation may promote economic cooperation. As such, we include two dummy variables. *Dispute_{ij}* is coded 1 if countries *i* and *j* are involved in a militarized interstate dispute (MID) during year *t*.⁸ *Ally_{ij}* equals 1 if countries *i* and *j* are members of a military alliance in year *t*. Since previous research on economic regionalism has found that a former colonial relationship between *i* and *j* increases the likelihood that they will enter the same PTA, we also include *Former Colony_{ij}*, which equals 1 if countries *i* and *j* had a colonial relationship that ended after World War II (Mansfield, Milner, and Rosendorff 2002).⁹

Geographic distance is another important influence on PTA membership. States often enter PTAs to obtain preferential access to the markets of their key trade partners. These partners tend to be located nearby, since closer proximity reduces transportation costs and other impediments to trade. We introduce two variables to capture distance. *Contiguity_{ij}* is coded 1 if countries *i* and *j* share a common border. *Distance_{ij}* measures the capital-to-capital distance between *i* and *j*. It is useful to include both variables since some states have distant capitals (for example, Russia and China) yet share borders, while other states do not share borders but are in relatively close proximity (for example, Benin and Ghana).¹⁰

In addition, systemic conditions are likely to affect the prospects of PTA formation. Many studies have found that declining hegemony contributes to the proliferation of preferential arrangements (Bhagwati 1993; Krugman 1993; Mansfield

⁸ For a description of the MIDs data, see Jones, Bremer, and Singer (1996). For a review of the updated MIDs data, see Ghosn and Palmer (2003).

⁹ Data on former colonial relations are taken from Kufian (1992). Data on alliances are taken from the Correlates of War Project (Gibler and Sarkees 2003).

¹⁰ Data on distance and contiguity are taken from Oneal and Russett (1999).

1998). We therefore include *Hegemony*, the proportion of global GDP produced by the state with the largest GDP (in our sample, the US for each year) in year t . This variable therefore takes on the same value for each country in t .

Because both the GATT and the WTO recognize and attempt to govern the establishment of PTAs, it is possible that members of these global institutions are also disproportionately likely to enter preferential arrangements (Mansfield and Reinhardt 2003). To account for this possibility, we introduce $GATT_{ij}$ in the model. It equals 1 if countries i and j are both members of GATT in each year, t , prior to 1995 or if they are both members of the WTO in years from 1995 on, and 0 otherwise.¹¹ Finally, ϵ is a stochastic error term.

The dependent variable in equation (1) is dyadic, indicating whether a pair of states entered the same PTA in a given year. However, many of the independent variables – including veto points – are monadic. To accommodate this feature of our data set, we analyze directed dyads. Each pair of states generates two observations per year – one where each state in the pair is country i . For example, in the case of France and Russia in 1995, there is one observation where France is country i and a second observation where Russia is i . In this set-up, each monadic variable enters equation (1) once and corresponds to whichever state is designated as country i . This approach is quite useful, but including each dyad-year twice artificially depresses the standard errors in our statistical analysis.

Consequently, we take two steps. First, we cluster the standard errors on the undirected dyad, eliminating any efficiency gains that stem from including each

¹¹ Data is taken from the WTO web site: <http://www.wto.org>.

observation twice. Second, in order to ensure that our results are not an artifact of the use of directed dyads, we estimate the following model using *undirected* dyads:

$$(2) \quad PTAOnset_{ij} = \beta_0 + \beta_1 \text{Veto Points}_S + \beta_2 \text{Veto Points}_L + \beta_3 \text{Regime Type}_S + \\ \beta_4 \text{Regime Type}_L + \beta_5 \text{Trade}_{ij} + \beta_6 \text{GDP}_S + \beta_7 \text{GDP}_L + \beta_8 \Delta \text{GDP}_S + \beta_9 \Delta \text{GDP}_L \\ + \beta_{10} \text{Dispute}_{ij} + \beta_{11} \text{Ally}_{ij} + \beta_{12} \text{Former Colony}_{ij} + \beta_{13} \text{Contiguity}_{ij} + \\ \beta_{14} \text{Distance}_{ij} + \beta_{15} \text{Hegemony} + \beta_{16} \text{GATT}_{ij} + \epsilon_{ij}$$

When the data are organized as undirected dyads, each dyad-year is included only once. In equation (2), there are two variables associated with each monadic factor: veto points, regime type, GDP, and the change in GDP, respectively. We sort the two variables by their size in each year. The subscript “S” denotes the smaller value of each monadic variable, while the subscript “L” denotes the larger value. The measurement and sources of data for the variables in equation (2) are identical to those in equation (1).

In rare cases, a pair of states has joined more than one PTA during the period covered in this study (1950 to 1999). In a few other cases, states have signed a new preferential arrangement that replaced an existing one (e.g., the Latin American Integration Agreement replacing the Latin American Free Trade Agreement). In our initial tests, we exclude the formation of both a second PTA between a country-pair and a replacement PTA from our list of arrangements. To ensure our results are not affected by this coding decision, however, we also re-estimate equations (1) and (2) after recoding $PTAOnset_{ij}$ to include these additional cases of PTA accession. Descriptive statistics for all of the variables included in our analysis are presented in Table 1.

The sample in the following analyses is comprised of all pairs of states during the period from 1950 to 1999. Because the observed value of the dependent variable in each

model is dichotomous, we use logistic regression to estimate the models. To account for temporal dependence in the formation of PTAs, we include a spline function with three knots of the number of years that have elapsed (as of t) since each dyad last formed a PTA (Beck, Katz, and Tucker 1998). In the following tables, however, the estimates of this function are omitted to conserve space.¹²

The Results

Table 2 presents the estimates of equation (1). In the first set of results, we do not code instances where PTA members form a second PTA and cases where they form a replacement PTA as the establishment of a preferential arrangement. In the second set, we do code these events as cases of PTA formation. Consistent with our argument, *Veto Points_i* is negative and statistically significant in both estimations, indicating that states are less likely to forge trade agreements as the number of veto players rises. Based on the estimates in the first column, an increase from the mean number of *Veto Points_i* to the maximum number yields about a 20 percent decrease in the predicted probability of PTA formation.

In addition to the predicted probability of PTA formation, it is also useful to assess how changes in veto points influence the predicted annual number of PTAs created. Figure 5 shows the predicted number of dyads forming a PTA per year over the range of observed values of *Veto Points_i*, based on 3000 simulations of the parameter

¹² In equation 1, the base of the spline function and three knots are statistically significant. In equation 2, only the base of the function is statistically significant, so all knots are removed from the estimation.

estimates in this column.¹³ Shifting *Veto Points_i* from its mean to its maximum value yields a reduction of more than 6 PTAs formed by country-pairs each year. An increase from the minimum value of *Veto Points_i* to the maximum value yields nearly 10 fewer PTAs. Thus, not only are our results statistically significant, but substantively important.

Furthermore, the estimates of most of the control variables are statistically significant and have the predicted sign. Political conditions within countries and political relations between them have an especially strong bearing on PTA formation. The positive and significant estimate of *Regime Type_i* confirms that democracies are more likely to enter such arrangements than other states. Equally, the estimate of *Dispute_{ij}* is negative, the estimates of *Former Colony_{ij}* and *Ally_{ij}* are positive, and all of them are statistically significant. These results indicate that former colonial relations and military alliances encourage accession to PTAs, while military disputes reduce the incentive to join regional trade agreements. Each of these findings is consistent with past empirical work.

In addition, systemic factors influence preferential arrangements. Both *Hegemony* and *GATT_{ij}* are statistically significant. As hegemony wanes, states are more likely to form preferential arrangements, a finding that is consistent with existing research on economic regionalism (Mansfield 1998). Membership in the GATT and the WTO encourages membership in PTAs as well.

Economic conditions within states also influence PTA membership. *GDP_i* is negative and statistically significant, indicating that states with larger markets are less likely to enter trade agreements. *? GDP_i* is positive and statistically significant,

¹³ This figure and the predicted probabilities in the text are generated using the CLARIFY program. All continuous variables are set to their sample means while the discrete variables are set at their modal category. See King, Tomz, and Wittenberg (2000).

suggesting that economic growth spurs the establishment of PTAs. $Trade_{ij}$, however, has a relatively weak influence on PTA membership, a result consistent with past research (Mansfield, Milner, and Rosendorff 2002).

When we recode the dependent variable to include situations where PTA members form a second arrangement or replace their arrangement as the establishment of a new PTA, the results are unchanged. As seen in the second column of Table 2, the estimates of $Veto Points_i$ and the control variables are quite similar to those in the first column. Thus our results are quite robust in this regard.

The estimates of equation (2), which are derived using the undirected dyad-year as the unit of analysis, provide even stronger support for our hypothesis. Table 3 presents these results. Recall that for these models, each monadic variable is sorted by its higher and lower value. Both estimates of $Veto Points$ are negative and statistically significant, confirming our argument. Moreover, the substantive impact of each variable is considerable. Increasing $Veto Points_S$ from its mean value to its maximum value generates nearly a 50 percent decrease in the predicted probability of a PTA. A somewhat smaller, but still sizable, decrease occurs when we analyze the estimate of $Veto Points_L$. Moving from the mean value to the maximum value of this variable yields more than a 25 percent reduction in the probability of joining a PTA. Increasing *both* variables from their respective means to their respective maximum values yields about a 65 percent decrease in the probability of a PTA.

Figure 6 shows the predicted number of country-pairs forming a PTA annually for the observed values of $Veto Points_S$ and $Veto Points_L$, based on 3000 replications of the

parameter estimates in the first column of Table 3.¹⁴ Increasing the mean value of *Veto Points_S* to its sample maximum yields a decrease of over 19 arrangements. Increasing *Veto Points_S* from its minimum value to its maximum value in the sample decreases the predicted number of PTAs by over 25 per year. The mean-to-maximum change in *Veto Points_L* generates a predicted decrease of nearly 10 dyads establishing a PTA per year, while increasing this variable from its minimum to maximum value yields a predicted drop of 17 PTAs. Clearly, increasing the number of veto players in *either* state has a statistically and substantively significant influence on the number of PTAs formed. Raising *both* variables simultaneously from their respective means to their maximum values reduces the number of PTAs formed each year by almost 25. This evidence directly confirms the hypothesis that countries have greater difficulty engaging in international cooperation as the number of domestic veto points grows.

Most estimates of the control variables in equation (2) mirror those in equation (1). As states become more democratic, for example, the likelihood of entering a PTA rises, regardless of whether one examines the most or least democratic state in a pair. The estimate of *Trade_{ij}* is negative but continues to be statistically insignificant. One possible explanation for this finding is that the relationship between trade flows and PTA formation is quadratic rather than linear. States with high levels of bilateral trade may be more likely to form a PTA because it helps to ensure that they will continue to have open access to each other's market and that their commercial relations will not be disrupted in the future. Yet states that trade very little may also have reason to form a PTA as a means to stimulate economic exchange. In fact, the available evidence supports this

¹⁴ As in Model 1, all predicted probabilities and graphs are generated using CLARIFY. Continuous variables are set at their sample means, while discrete variables are set at their modal value.

hypothesis. When we add $Trade^2_{ij}$ to equations (1) and (2), the estimate of $Trade_{ij}$ is negative, the estimate of $Trade^2_{ij}$ is positive, and both of them are statistically significant. Thus, states tend to enter PTAs when they trade extensively and when they conduct little trade, but not when they engage in moderate amounts of overseas commerce.

In addition, the results in the first column of Table 3 indicate that former colonial relationships, military alliances, and GATT membership increase the probability of accession to PTAs, while militarized disputes and the existence of a stable hegemon reduce this probability. Each of these effects is highly significant. In contrast to our earlier results, however, economic size has little influence on the propensity to join PTAs for either the smaller or larger state in a pair. Neither GDP_S nor GDP_L is statistically significant, due at least partly to a high degree of collinearity between them. Further, the business cycle does not exert a consistent effect on PTA formation. Heightened growth significantly increases the likelihood of PTA formation for the state with the lowest growth rate in each pair, whereas lagging growth insignificantly increases this likelihood for the state with the highest growth rate.

The second column of Table 3 presents the estimates of equation (2) after we recode the dependent variable to include situations where PTA members form a second arrangement or replace their original arrangement. As in our analysis of directed dyads (Table 2), this recoding does not produce any substantial change in the estimates. While the absolute value of the estimate of $Veto Points_S$ shrinks by nearly 30 percent, it is still negative and highly significant. Moreover, the effect of $Veto Points_L$ is roughly 20 percent larger than before. Thus recoding the dependent variable has no bearing on our finding that veto players have an important influence on international cooperation.

Before concluding, it is important to assess the robustness of our results. To begin, we analyze whether members of the European Community (EC) and the European Union (EU) have a strong influence on our results. Participants in these arrangements have been especially active in forming PTAs; they also face an unusual set of veto players at both the domestic and the supranational (EU) level that could affect international economic cooperation. Removing country-pairs that belong to the EC/EU, however, has little bearing on our results for both directed and undirected dyads. The coefficient estimates of *Veto Points* remain negative, large, and highly statistically significant.

Next, we analyze a set of variables that are not included in equations (1) and (2) but that could influence the establishment of PTAs. First, all else being equal, as a state participates in an increasing number of PTAs, it may have less reason to enter additional arrangements. Consequently, we include in equation (1) the number of PTAs in which state i is a member in year t . In equation (2), we include the number of PTAs that states S and L , respectively, belong to. Second, because of strategic interaction among states competing in the international economy, PTAs tend to form in reaction to one another (Fernández and Portes 1998; Mansfield 1998). As a result, a given country-pair may be more likely to form a PTA soon after various other dyads have done so. To address this possibility, we include in equations (1) and (2) the number of dyads joining a PTA in year t . Third, we include a time trend to account for any temporal changes in the international political economy that could affect the formation of preferential arrangements.

Regardless of whether we consider the formation of a second arrangement by PTA members or the replacement of their existing arrangement to be the establishment of a PTA, there is a strong, inverse relationship between the number of preferential arrangements a state currently belongs to and the probability of entering such an arrangement with the other country in each pair. We also find statistically significant evidence that states are more likely to join PTAs as the number of dyads in the international system that recently formed a preferential arrangement rises, although there is no evidence of a secular trend in the establishment of PTAs. Most important for our purposes, however, is that including these variables has no influence on the observed effects of veto points in Tables 2 and 3, indicating that our results are quite robust.

Finally, it is important to recognize that the establishment of a PTA is a rare event, especially given the large number of observations in both our data sets. King and Zeng (2001) contend that using logistic regression with rare events can lead to biased estimates. To guard against this possibility, we re-estimate equations (1) and (2) using King and Zeng's rare event logit procedure. The resulting estimates are nearly identical to those generated by the traditional logit model. Thus, we are confident that our estimates do not suffer from a rare event bias.

Conclusions

A large and growing body of literature addresses the effects of domestic politics on international conflict. Far fewer studies have examined the links between domestic politics and international cooperation. In this paper, we have analyzed these links. We argued that it becomes increasingly difficult for states to engage in international

cooperation as the number of veto players rises. A series of empirical tests, based on an analysis of PTA membership from 1950-1999, support our argument. Countries are much less likely to sign trade agreements as the number of veto players increases. These results are substantively as well as statistically significant. An increase in the number of domestic veto players can cut the probability of forming a PTA by as much as 50 percent. Moreover, these results do not stem from the effects of regime type on PTA formation. We find that democracies are more likely to sign trade agreements than other countries, but that the number of veto players exerts an independent influence on the prospects for economic cooperation. Neglecting any of these domestic factors in studies of international cooperation is therefore a risky strategy.

Domestic factors are not the only influences on cooperation; a host of international factors are associated with PTA formation as well. Interstate disputes and rising hegemony tend to discourage preferential arrangements. Alliances and prior colonial relations tend to promote these arrangements. GATT and WTO membership also stimulates the establishment of PTAs, even though these multilateral institutions attempt to discourage discriminatory economic agreements (Mansfield and Reinhardt 2003). Still, the domestic influences on cooperation have been given short shrift in existing research and our findings indicate that they are quite important.

Our analysis focused on the effects of veto points, but other domestic factors may also shape patterns of international cooperation. A government's partisan character, for example, may play such a role. Dutt and Mitra (2002) show that partisanship affects trade policy in a large sample of countries and this could also be the case for PTAs.

Partisanship and other domestic variables should be explored in further theoretical and empirical work on international cooperation.

Although our focus has been on PTAs, it bears on various other issue-areas in the field of international relations. Some empirical work has found that divided government influences trade policy (Lohmann and O'Halloran 1994; Sherman 2002), the escalation of military disputes (Huth and Allee 2003), and in the US context, the use of military force abroad (Howell and Pevehouse forthcoming). These studies suggest that domestic politics in general and veto points in particular may exert a strong influence on the decision to cooperate. Indeed, as Milner (1997) argued, domestic politics may be a greater obstacle to international cooperation than political or military relations among states. It has certainly been a more neglected influence. Although we provide only one empirical test of this proposition, the strong association between domestic veto players and international cooperation supports our hypothesis and suggests the promise of future research in this area.

Table 1. Descriptive Statistics.

<i>Model 1</i>	<i>Mean</i>	<i>Standard Dev.</i>	<i>Min.</i>	<i>Max.</i>
PTAOnset ¹	0.008	0.087	0	1
PTAOnset ²	0.010	0.102	0	1
Veto Points	0.177	0.213	0	0.708
Regime Type	10.618	7.734	1	21
Trade	82.971	879.142	0	1.10 x 10 ⁵
GDP	1.62 x 10 ⁸	5.43 x 10 ⁸	4.88 x 10 ⁵	8.56 x 10 ⁹
? GDP	5.43 x 10 ⁶	2.68 x 10 ⁷	-7.71 x 10 ⁸	4.06 x 10 ⁸
Dispute	0.005	0.072	0	1
Ally	0.073	0.260	0	1
Former Colony	0.004	0.061	0	1
Contiguity	0.036	0.187	0	1
Distance	8.230	0.779	1.872	9.423
Hegemony	0.220	0.018	0.201	0.276
GATT	0.326	0.469	0	1
<i>Model 2</i>	<i>Mean</i>	<i>Standard Dev.</i>	<i>Min.</i>	<i>Max.</i>
PTAOnset ¹	0.008	0.087	0	1
PTAOnset ²	0.011	0.102	0	1
Veto Points _S	0.067	0.142	0	0.674
Veto Points _L	0.285	0.217	0	0.708
Regime Type _S	-4.519	5.986	-10	10
Regime Type _L	3.706	7.113	-10	10
Trade	90.30	930.84	0	1.10 x 10 ⁵
GDP _S	3.02 x 10 ⁷	7.98 x 10 ⁷	4.88 x 10 ⁵	3.97 x 10 ⁹
GDP _L	2.90 x 10 ⁸	7.34 x 10 ⁸	5.41 x 10 ⁵	8.56 x 10 ⁹
? GDP _S	-4.65 x 10 ⁵	8.16 x 10 ⁶	-1.61 x 10 ⁸	2.36 x 10 ⁸
? GDP _L	1.16 x 10 ⁷	3.23 x 10 ⁷	-9.39 x 10 ⁷	4.06 x 10 ⁸
Dispute	0.005	0.071	0	1
Ally	0.073	0.261	0	1
Former Colony	0.004	0.063	0	1
Contiguity	0.038	0.190	0	1
Distance	8.220	0.783	1.872	9.42
Hegemony	0.220	0.018	0.201	0.276
GATT	0.343	0.475	0	1

¹ Cases where PTA members form a second PTA or a replacement PTA are not coded as PTA formation.

² Cases where PTA members form a second PTA or a replacement PTA are coded as PTA formation.

Table 2. The Determinants of PTA Formation 1950-1999, Directed Dyads.

	<i>Model 2.1</i>	<i>Model 2.2^a</i>
Veto Points _i	-0.331** (0.087)	-0.347** (0.079)
Regime Type _i	0.023** (0.002)	0.025** (0.002)
Trade _{ij}	-2.71 x 10 ⁻⁵ (1.74 x 10 ⁻⁵)	-1.91 x 10 ⁻⁵ (8.64 x 10 ⁻⁶)
GDP _i	-1.45 x 10 ⁻¹⁰ ** (2.71 x 10 ⁻¹¹)	-7.69 x 10 ⁻¹¹ ** (2.29 x 10 ⁻¹¹)
? GDP _i	3.77 x 10 ⁻⁹ ** (5.22 x 10 ⁻¹⁰)	1.61 x 10 ⁻⁹ ** (5.10 x 10 ⁻¹⁰)
Dispute _{ij}	-0.592* (0.250)	-0.383* (0.188)
Ally _{ij}	0.562** (0.035)	0.626** (0.032)
Former Colony _{ij}	0.697** (0.101)	0.579** (0.112)
Contiguity _{ij}	-0.430** (0.055)	-0.303** (0.050)
Distance _{ij}	-0.568** (0.017)	-0.621** (0.019)
Hegemony	-23.500** (0.856)	-27.615** (0.930)
GATT _{ij}	0.430** (0.027)	0.456** (0.025)
Constant	7.513** (0.223)	8.698** (0.254)
Log-likelihood	-26581.02	-32969.07

Note: Parameters are estimated using logistic regression, after including a cubic spline function with three knots. Entries in parentheses are Huber standard errors clustered on the undirected dyad. For each model, $N = 787,374$. ** $p \leq .01$; * $p \leq .05$. All tests of statistical significance are two-tailed.

^a Cases where PTA members form a second PTA or a replacement PTA are coded as the onset of a PTA.

Table 3. The Determinants of PTA Formation 1950-1999, Undirected Dyads.

	<i>Model 3.1</i>	<i>Model 3.2^a</i>
Veto Points _S	-1.247** (0.214)	-0.854** (0.185)
Veto Points _L	-0.645** (0.182)	-0.778** (0.171)
Regime Type _S	0.057** (0.005)	0.060** (0.002)
Regime Type _L	0.034** (0.006)	0.030** (0.005)
Trade _{ij}	-8.12 x 10 ⁻⁵ (4.84 x 10 ⁻⁵)	-4.95 x 10 ⁻⁵ (2.95 x 10 ⁻⁵)
GDP _S	-4.82 x 10 ⁻¹⁰ (3.78 x 10 ⁻¹⁰)	-4.27 x 10 ⁻¹¹ (2.99 x 10 ⁻¹⁰)
GDP _L	-4.18 x 10 ⁻¹¹ (6.93 x 10 ⁻¹¹)	1.81 x 10 ⁻¹¹ (5.67 x 10 ⁻¹¹)
? GDP _S	2.13 x 10 ⁻⁸ ** (4.53 x 10 ⁻⁹)	1.37 x 10 ⁻⁸ ** (3.02 x 10 ⁻⁹)
? GDP _L	-6.66 x 10 ⁻¹⁰ (1.81 x 10 ⁻⁹)	-3.89 x 10 ⁻⁹ * (1.74 x 10 ⁻⁹)
Dispute _{ij}	-0.823** (0.303)	-0.643** (0.247)
Ally _{ij}	0.295** (0.061)	0.608** (0.058)
Former Colony _{ij}	0.661** (0.186)	0.489** (0.174)
Contiguity _{ij}	-0.680** (0.094)	-0.380** (0.090)
Distance _{ij}	-0.841** (0.026)	-0.896** (0.031)

(Table 3 continued)

	<i>Model 3.1</i>	<i>Model 3.2</i>
Hegemony	-12.604** (1.412)	-27.179** (1.384)
GATT _{ij}	0.232** (0.042)	0.375** (0.040)
Constant	4.408** (0.389)	8.422** (0.404)
Log-likelihood	-14234.04	-17548.93

Note: Parameters are estimated using logistic regression, after including a cubic spline function with no knots. Entries in parentheses are Huber standard errors clustered on the dyad. For each model, N = 341,073. ** $p \leq .01$; * $p \leq .05$. All tests of statistical significance are two-tailed.

^a Cases where PTA members form a second PTA or a replacement PTA are coded as the onset of a PTA.

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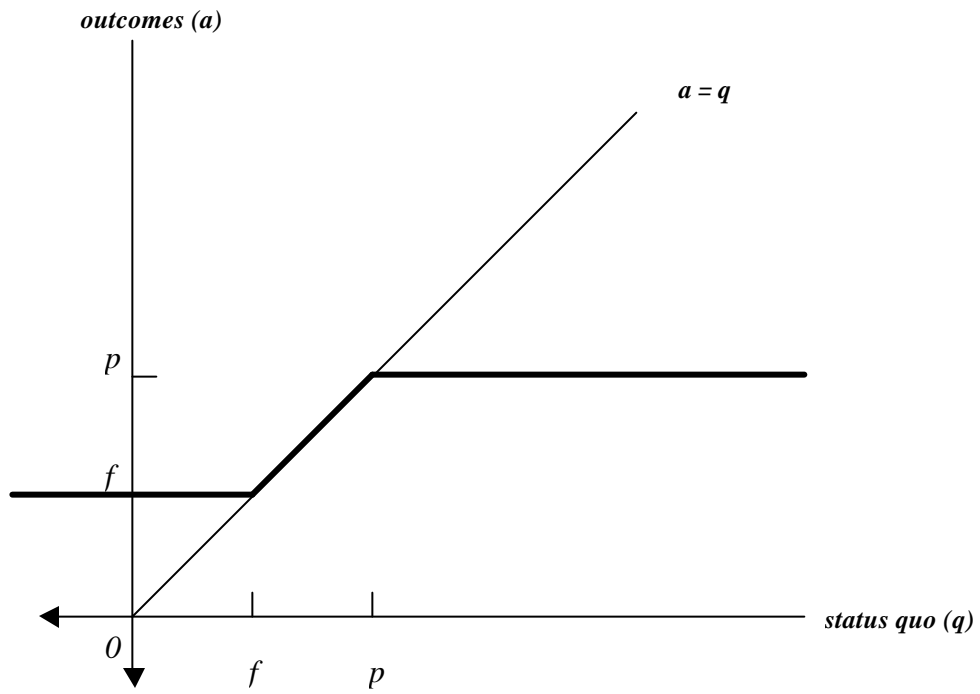


Figure 1 The International Game: No Domestic Veto Players

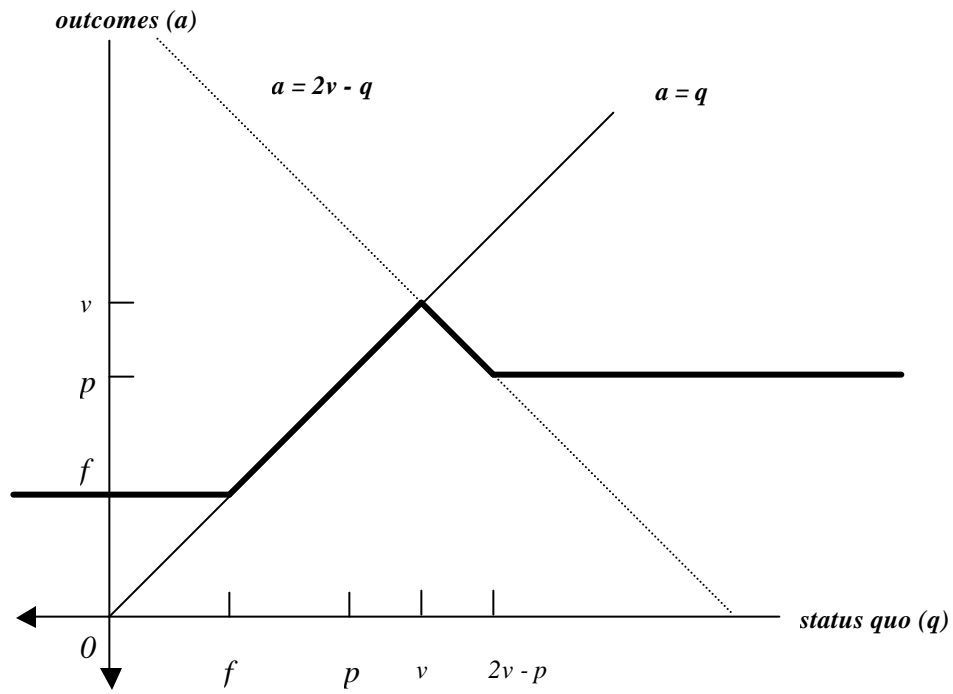


Figure 2 Domestic Politics with One Veto Payer, $p < v$

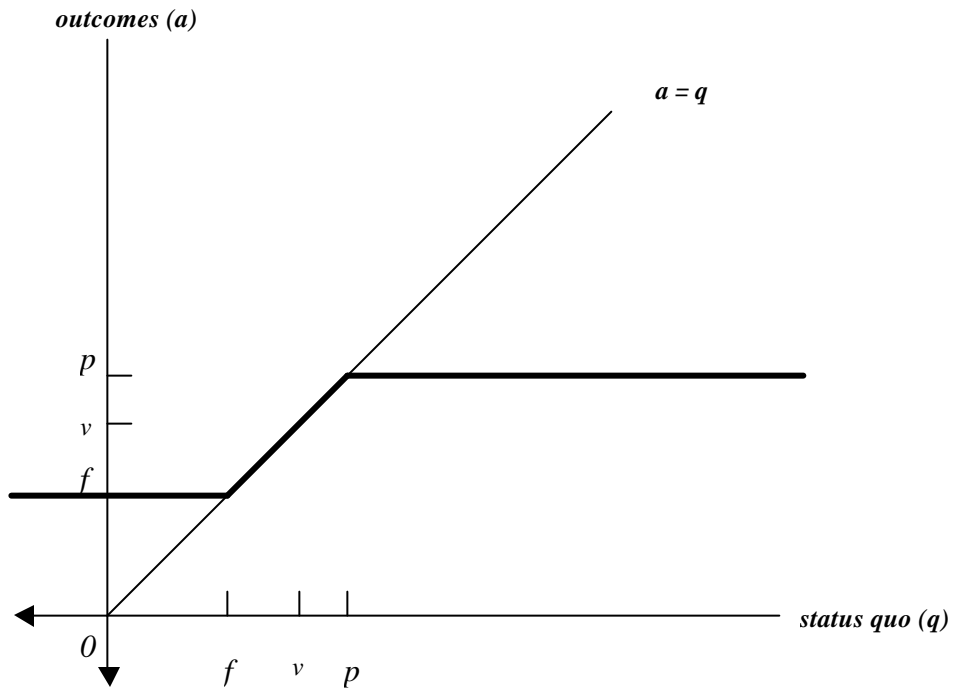


Figure 3 Domestic Politics with One Veto Player, $p > v$

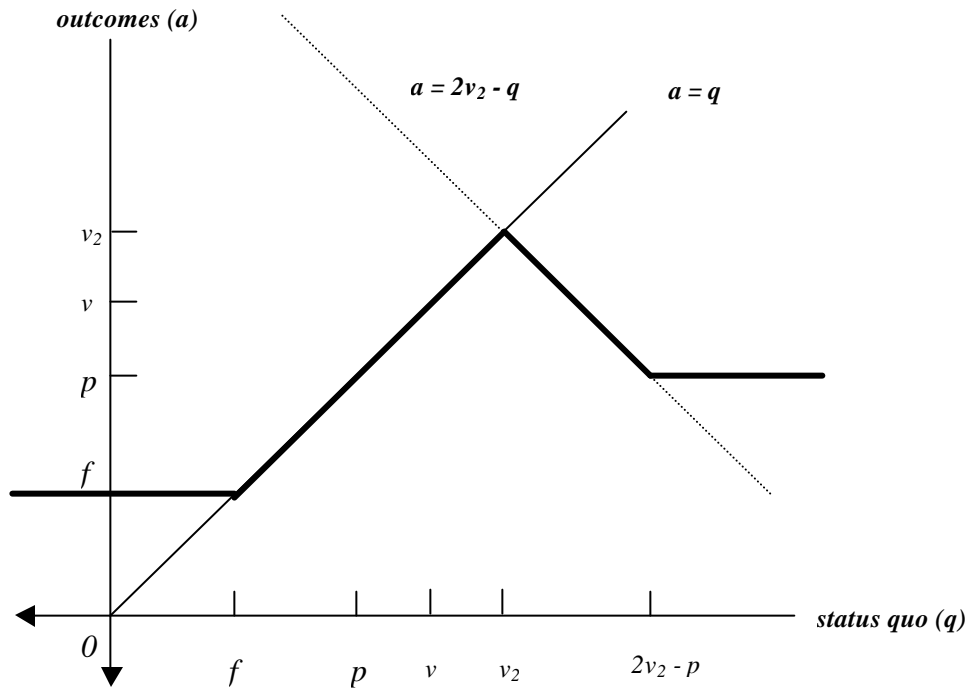
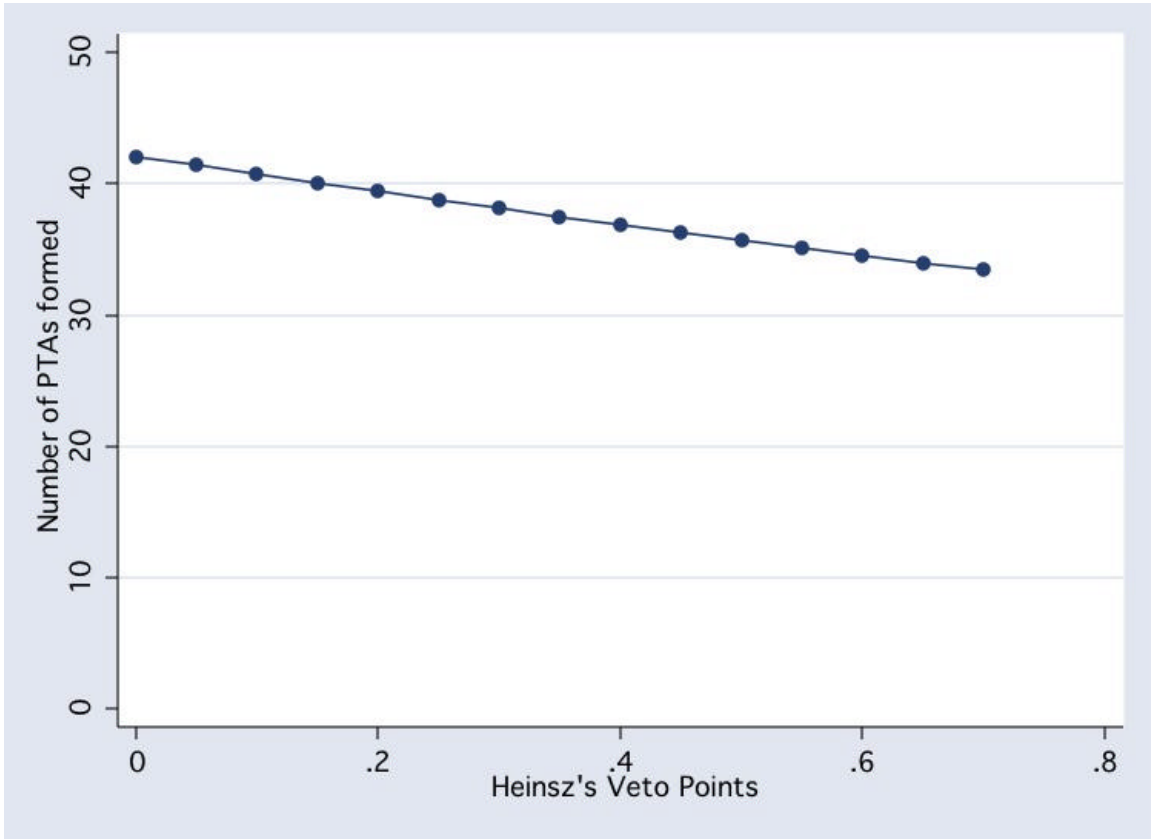


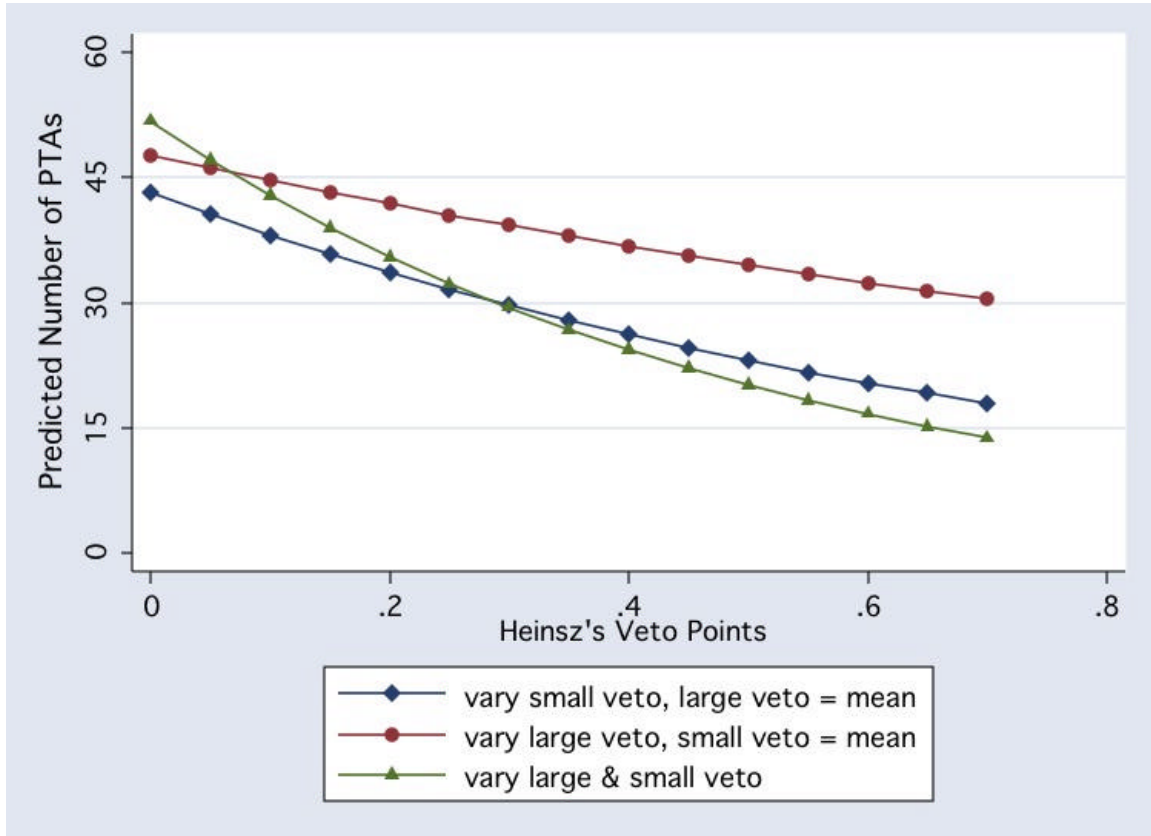
Figure 4 Adding a Second Veto Player, $p > v > v_2$

Figure 5. Predicted Number of Directed Dyads Forming a PTA per Year.



Note: These predicted values are generated by using the estimates in model 2.1 of Table 2.

Figure 6. Predicted Number of Undirected Dyads Forming a PTA per Year.



Note: These predicted values are generated by using the estimates in model 3.1 of Table 3.