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## THE DETERMINANTS OF ECONOMIC SANCTIONS SUCCESS AND FAILURE

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*With an inconclusive track record, questions about the future utility of sanctions continue to plague policy makers and scholars. Drawing on previous episodes, both successful and failed sanctions tell us a great deal about economic coercion, but the causes of failure have been largely understudied. In order to further understanding of the coercive influence of sanctions, the analysis presented here delineates between the determinants of failure and success. To this end, a competing risks event history model is employed to test the impact that domestic politics have on sanctions success as well as sanctions failure, with strong results suggesting that political structures do affect the way states respond to economic coercion.*

Keywords: Economic sanctions, Economic state craft, coercion

After the imposition of economic sanctions, these coercive episodes can end in two ways — either the target gives in or the sender relents on the policy. In combination with certain subjective criteria, these two outcomes are classified as either success or failure (Hufbauer and Schott, 1983; Hufbauer et al., 1990). The first outcome has merited a great deal of attention (Dashti-Gibson et al., 1997; Pape, 1997, 1998; Elliott, 1998), but few efforts have been made to understand the conditions that lead to failed sanctions. This paper presents the first analysis that attempts to distinguish between the determinants of sanctions success and those of sanctions failure.

In order to clearly delineate between the two outcomes, the sanctioning process can be conceptualized as an instance of international bargaining (Smith, 1996; Morgan and Miers, 1999; Marinov, 2002; Lacy and Niou,

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2004). When sanctions are implemented, uncertainty exists about the other state's willingness and ability to endure the economic burden that associated with sanctions. As time passes, the decisions to continue, made individually by the target and sender, allow both states to update their beliefs about the other's resolve.

Beyond the uncertainty *vis-à-vis* the other state, both government also face concerns about domestic response to the economic costs of coercion. If the burden is great or support for the contested issue is low, public support for the government's policy may wane over time. As a result, there are political costs that accompany both resisting and maintaining sanctions, and both states must be willing to bear those costs for the sanctions to continue. These costs come as a popular judgment on the foreign policy efficacy of the national leadership. Because losing power is the worst possible outcome for leaders (Miller, 1995), neither the sender government nor the target government wants to jeopardize its hold on power over unpopular sanctions.

Thinking about sanctions as a two-level game allows for examination of the domestic political factors that help drive the decision-making processes on both sides of the sanctions equation — target and sender. When sanctions are applied, the sender demands a change in the behavior of the target. If sanctions are to succeed, the target government must concede to the demands of the sender. Regime type will influence the decision to concede, as democratic publics have the ability to exact political costs on their leaders for failed or unpopular policy choices. In contrast, autocratic populations have fewer avenues of influence.

Democratic leaders know they hold a precarious and competitive position, requiring constant effort to curry public favor. Prudent leaders, therefore, attempt to make foreign policy decisions that help to maximize and maintain support (Bueno de Mesquita and Siverson, 1995). Continuing painful resistance as a target or upholding unpopular sanctions as a sender may not maximize support. In the case of autocracies, these concerns take on lesser importance, as popular accountability and fear of removal are minimal. Leaders in such states are also better positioned to oversee the allocation and distribution of scarce goods and to shield themselves and their supporters from the economic hardship of sanctions (Cortright and Lopez, 2000).

When sanctions fail, the decision is not made by the target government, but rather by the leadership of the sender country. Sanctions implemented in hopes of extracting behavioral concessions, at some point, will be abandoned if that change does not occur. Only concession by the sender causes sanctions to fail, and different factors play into that decision than those which affect the target's choice.

Since the decision-making processes in the target and sender states are distinct, I test the impact that domestic politics have on sanctions success as well as failure, finding strong evidence that political structures affect

response to economic coercion. This paper begins with an examination of the use of economic sanctions and the criteria by which scholars and policy makers have traditionally assessed sanctions episodes. In the second section, an international crisis bargaining framework is described through which sanctions can be examined. Drawing on the logic of electorate size and winning coalitions, a theory is then developed to explain the impact of domestic politics on sanctions outcomes. The competing risks research design is described, and the operationalization of pertinent variables is laid out. For this analysis, I utilize the Hufbauer, Schott, and Elliott (HSE) data (1990). Finally, empirical results are presented, and the conclusions that can be drawn concerning the importance of domestic politics on sanctions outcomes are discussed.

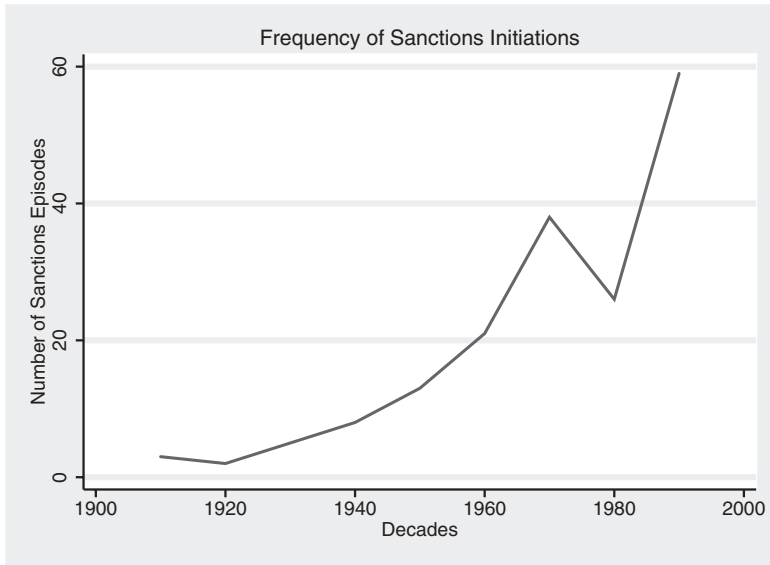
### **THE EMPIRICAL PUZZLE**

Why do some states give in to sanctions pressure while others resist? Why do some sender states opt to maintain failed sanctions policies for decades while others choose alternate strategies? Clearly, there are certain political conditions that lead to better sanctioning outcomes. How do the domestic politics of the target and sender alter the likelihood for success? Do domestic politics influence the likelihood of failure?

Since the founding of the League of Nations, economic sanctions have been an important tool of coercive influence (Cortright and Lopez, 2000). After a brief decrease in sanctions initiation in the 1980s, the end of the Cold War marked renewed interest in the possibilities for non-violent economic coercion. (See Figure 1 below.) In the last decade of the twentieth century, more sanctions of more types were employed by more different states and international organizations than ever before (Jentleson, 2000).

This upward trend does not, however, represent agreement concerning the utility of sanctions as a tool of statecraft. Many scholars have concluded that sanctions simply do not “work.” The first multiple-case study examined twenty-two instances of trade sanctions, and only four of those were deemed successful (Knorr, 1975).<sup>1</sup> More recent studies encompassing a greater number of sanctions episodes tend to estimate the success rate to be around 35% (Hufbauer, *et al.*, 1990). This success rate and the standards used to arrive at this figure have been disputed both as being too lenient (Pape, 1997, 1998) and too strict (van Bergeijk, 1997).

<sup>1</sup>Knorr concluded that targets will always be able to find alternative trading partners, and that sanctions tend to bring about domestic integration rather than political destabilization.



**Figure 1. Sanctions Initiations by Decade.**

Sanctioners apply economic pressure to bring about a change in political behavior. The modern concept of sanctioning developed from the early warfare tactic of the siege, whereby an attacker hoped to close off a walled city to such an extent that the citizens inside would be starved into submission (Simons, 1999). Following from the logic of the siege, it is unsurprising that the economic effect of sanctions and resultant isolation has been considered the single most important predictor of the coercive impact of these measures (Dashti-Gibson et al., 1997; Drury, 1998; Crawford, 1999; Hart, 2000).

For sanctions to influence behavior, it is imperative that the target state be vulnerable to economic coercion. Recognizing this, Hirschman (1945) suggests that powerful states will try to minimize their vulnerability to economic disruption and maximize the trade dependence others have for their goods. Despite such precautions, target states should want to avoid being sanctioned or try to evade the measures, as bearing the economic burden will not be in their national interest, especially if the resultant economic hardship is greater than the value of the issue under dispute. The threat or reality of having economic ties disrupted is expected to elicit compliance.

The above discussion suggests a simple mechanism by which sanctions are effective — impose economic costs on the population of the target state who, in turn, put political pressure on their government to alter its behavior.

Mirroring the logic of early aerial bombing strategies (Pape, 1996), the economic deprivation explanation for sanctions' influence suggests that there are limits to what a society can and is willing to withstand, and after that threshold is reached, political disintegration will quickly occur. Although intuitively appealing, this basic logic has been criticized for being naïve, as it disregards the potential for adaptation (both economically and politically) by the target state. (Galtung, 1967; Renwick, 1981).

High levels of economic impact are not always highly correlated with high, levels of success, as experiences in Iraq and Cuba suggest. Cortright and Lopez (2002, p.15) suggest that "sanctions are only as effective as the overall policy they are designed to serve." Sanctioning states must find ways to make credible commitments and imposing sanctions that also impose some costs on the sender state is one clear means of doing so. Drezner (1999) finds that when targets and senders suffer similar costs, concessions by the target are more likely.

How economic costs are translated into political costs will also be crucial to the success or failure of sanctions. Regardless of the extent of the economic pressure exerted, without political costs, there is no reason for targeted states to comply (Blanchard and Ripsman, 1999/2000). Sanctions policies that are thought to fail often do have economic effects, but that impact is not successfully translated into the desired political outcome (Kirshner, 1999). To effect change, sanctions must be politically costly relative to the issue at stake between the target and the sender (Morgan and Schwebach, 1996). Targeted governments must also sufficiently value the benefits gained by compliance. In this view, sanctions are a bargaining tool, rather than a punitive one. Successful sanctions then serve to encourage dialogue to gain compliance rather than creating isolation to do so.

### ***SANCTIONS AS A BARGAINING GAME***

The interstate dynamics of a sanctions episode are similar to those in other international crisis bargaining situations and can best be conceptualized as a war of attrition. To examine these dynamics, a simple model of crisis bargaining should be considered. First, we must assume that the two states — sender and target — have a dispute over some good. It may be a material good, such as a piece of territory or resource, or more likely, it will be a policy enacted by the targeted state that is viewed as harmful by the sender.

Initially, the sender state must decide whether to challenge the target with sanctions or to accept the status quo, allowing the target to possess the disputed good. Under some circumstances, the mere threat of sanctions may be enough to convince the target to alter its actions (historically, this can be seen in the case of the League of Nations threats against Greece

over their border skirmish with Bulgaria in 1925; theoretically, this is demonstrated by Morgan and Miers, 1999). Bargaining between the sides begins with the imposition of sanctions and does not end until the sanctions are terminated.

If both sides possessed perfect and complete information, neither side would have doubts about the outcome, nor would sanctions ever actually be implemented in order to modify behavior. Because information asymmetries do exist, sanctions are sometimes utilized, and these are the cases that are of interest here.

If the challenge is made and sanctions are imposed, the target may either concede to this economic pressure or resist the sanctions. The order of moves in the game is depicted in Figure 2. If the target concedes, the sanctions end, and the sender is given possession of the good. If the target does not concede, then the onus is back on the sender to decide to continue to sanctions or to back down and end the sanctions. If the sender backs down, then the sanctions end with the target in possession of the good.

Sanctions episodes end, not because the sides are unable to continue under the economic pressure, but rather because one side agrees to stop. This aspect of sanctions bargaining differs from wars, where fighting ceases because both sides agree to quit (Kecskemeti, 1958). At some point, at least one party in the sanctions dispute will prefer settling the issue to the expected costs of continuing the sanctions. Initially, however, both states may hope for a better settlement by maintaining sanctions on the basis of their expectations about the other side's ability and willingness to bear the costs of sanctions.

While information is transmitted through this strategic interaction, the decision-making processes within the two states are still separate. If the



**Figure 2. Bargaining after Sanctions are Imposed.**

target state chooses to back down when faced with economic pressure, then sanctions succeed. On the other hand, if the sender decides to abandon the policy, sanctions fail. These are two distinct decisions made by different sets of decision-makers.

### ***Domestic Politics and Sanctions Success***

The decision to concede to sanctions pressure is dependent on the internal political dynamics in the target country. Within each state, there is a set of individuals who possess political rights (or *selectorate*). Since office-seeking is the primary goal of politics, leaders, hoping to maintain their hold on power, select policies that they believe will have beneficial consequences for the selectorate (Miller, 1995; Bueno de Mesquita, et al., 1999). The leader need not be supported by all members of the selectorate, but rather only of some portion of this group (or winning coalition).

To guarantee loyalty, leaders often provide benefits to the winning coalition. These benefits can accrue in two ways — public goods in the form of favorable policy outcomes or private rewards (or privileges). National security can be considered a public good that benefits all members of society, but military contracts to supply the armed forces, enabling them to provide national security, can be awarded in a preferential manner, rewarding supporters of the government.

The imposition of sanctions does not alter the motivations of leaders. Losing power is still the worst possible outcome. The policy choices made in response to sanctions will still reflect a leader's motivation to retain power in the future. With fewer resources available, sanctions can upset the reward system for supporters, forcing leaders to make difficult decisions about scarce resources. As the economic fortunes of the state are likely tied to the selectorate's evaluation of the leader's performance (Bueno de Mesquita, et al., 2003), his or her fate may be dependent on how the challenge of sanctions is met. Sanctions that are targeted to affect the central government, either directly or indirectly by heaping costs on key supporters, can force concessions (Kirshner, 1997).

Democracies have larger selectorates as well as larger winning coalitions than do other types of states. In these states, governments must focus greater attention on the public good of policy outcomes because the share of private rewards afforded to any single member of the winning coalition is minimal, thus creating only a limited sense of loyalty (Bueno de Mesquita, 2000; Bueno de Mesquita et al., 2003).

Given these dynamics, sanctions pose a larger threat to democratic leaders. With limited resources, both rewards and policy outcomes are compromised. In the face of sanctions pressure, democracies are forced either to concede quickly or to sacrifice some portion of the rewards

available to the winning coalition. Having a larger electorate weakens a democratic country's bargaining position *vis-a-vis* the sender state. Because democratic leaders must be more responsive to these large numbers of supporters, target states with large electorates will be more sensitive to the pressures of economic coercion, a fact that is not lost on sanctions senders.

In addition to the need to maintain the support of a large winning coalition, the regularity of democratic elections also forces the hand of democratic leaders. Knowing that citizens will have the opportunity to exact political costs on leaders in the near term will cause democracies to concede to sanctions pressure more quickly. This leads to a first testable hypothesis:

*H1: Democracies will concede more quickly to sanctions pressure.*

In contrast, the rewards structure for the winning coalition (private rather than public goods) is critical in autocratic states. Because continued rule highly depends on maintaining loyalty from a small segment of the population, each individual member's influence is great. As the power of a society to remove its leadership decreases, the more leaders are likely to use their position for personal gain (Miller, 1995). To this end, sanctions may be beneficial for leaders. Autocrats have more direct control over the resources of the state and are able to protect their supporters from the economic burden of sanctions in a way that democrats cannot.

In times of scarcity, the influence that autocratic leaders have is a great source of power. Promoting the growth of black markets under sanctions and fostering a system of corruption may be highly beneficial for these leaders, particularly if the windfall from these activities accrues to the leaders themselves or to important political supporters. The black marketeering and influence over the distribution of scarce goods strengthens the regime's bargaining power domestically, which in turn strengthens its position *vis-a-vis* the sender state. Under such circumstances, the desire for the continuation of sanctions may actually be rational for the leader (Enterline, 2002). Sanctions against authoritarian governments tend to last longer regardless of which party concedes (Bolks and Al-Sowyei, 2000) because of the ability of leaders to adapt without political ramifications.

The risk (or hazard) of sanctions concession may not be monotonically increasing over time for democrats, however, particularly if sustained resistance signifies resolve. The challenge of sanctions for democratic leaders may lessen over time. While the public will not support a government who subjects its people to unnecessary deprivation, the populace may rally around their government if they feel they are receiving a public good by standing up to the sanctioner. As time passes, the targeted



government becomes less uncertain about the public's feelings about sanctions resistance. If members of the selectorate feel this way, sanctions may continue for long periods of time against democratic targets and still be unsuccessful. Those sanctions that are likely to succeed against democracies are likely to do so quickly or not at all. This suggests an additional hypothesis:

*H2: As time passes, sanctions against democracies become less likely to end successfully.*

### ***Domestic Politics and Failure***

As discussed above, when sanctions fail, the decision to end the policy is made by the initiating country. The sender's withdrawal of the policy demonstrates either an acceptance of the revised circumstances or a renewed effort to extract concessions using alternative methods of coercion. In either case, sanctions end, as a failed coercive policy. Resistance on the part of the target provides new information for the sender, which can be used to update beliefs on who will concede first.

When bargaining in a military crisis, a state's regime type provides information to its adversary concerning its resolve (Reiter and Stam, 2002), and the same is true for sanctions. When open political competition exists, as in democracies, governments can more clearly and credibly signal their preferences (Schultz, 1998). Since the government is not the only voice in the state, there is no incentive to conceal or misrepresent their true interests because opposition groups have an incentive to expose the truth. The transparency of the state, a hallmark of democracy, enables foreign decision-makers to assess a democratic state's preferences more easily (Siegal, 1997). When a democracy continues to resist sanctions, this is a fairly clear indication that the government, as well as the broader population, feels they are receiving benefits or that the costs of concession are too high.

The decision to resist sanctions is a costly signal, particularly for democratic leaders. When a sender sees resistance from a democratic target, the time until that sender decides to abandon the policy should be shorter. On the other hand, senders may continue sanctions against authoritarian states interminably because there is no clear signal concerning their willingness to concede. Because of the information that a target's decision to resist provides to the sender, this signal should alter the utility calculations of the sender for continuing the policy. This suggests the following hypothesis:

*H3: Sanctions will end in concession by the sender more quickly when there is demonstrated resistance from a democratic target.*

This hypothesis may, on the surface, appear to contradict the earlier conclusion that democratic targets will concede more quickly. It is important to remember, however, that the decision-maker for sanctions failure is the sender, not the target. If the decision to resist is made by a democracy, it sends a clearer message to the sender about its willingness to accept the costs related to standing firm. In this case, I am hypothesizing about the impact of the target's decision on the decision-making of the sender.

Following the lead of McGillivray and Stam (2004) on sender state politics, I also hypothesize that leadership change in the sender state will increase the likelihood that sanctions will end in concession by the sender state. New leaders want to choose policies that will enhance their ability to stay in power. Those policies should be in line with their supporters. A different coalition of supporters will likely support different policies.

New leaders may also have other information to signal to both their international and domestic audiences. This creates an incentive for new leaders, hoping to enhance perceptions about their effectiveness by cutting ties with policies from the past that have failed to produce results. When Reagan took office, he abandoned many of the sanctions implemented by the Carter administration such as those against Uruguay and Paraguay over human rights violations, in an effort to demonstrate differences in his foreign policy goals. From this logic, a final hypothesis can be constructed:

*H4: Following a leadership change sender state, it is more likely that sanctions will end in concession by the sender.*

## **DATA AND METHODS**

Addressing the effect of time has been an important question for sanctions research. As more time passes, the costs of sanctions continue to mount, and thus it has been argued that longer sanctions have a higher probability of success (Brady, 1987; Daoudi and Dajani, 1983). On the other hand, others suggest that the coercive influence of sanctions is strongest at the outset, and sanctions are going to be effective are likely to end shortly after they have been implemented (HSE, 1983, 1990; Smith, 1996). To clarify this issue, recent works on economic sanctions have employed duration models (McGillivray and Stam, 2004; Lektzian and Souva, 2001; Bolks and Al-Sowayel, 2000), but these analyses have not taken into account the differences between sanctions success and sanctions failure, only long sanctions and short sanctions.<sup>2</sup>

<sup>2</sup>Lektzian and Souva do use policy outcome as a control variable, but their dependent variable is different in that they are considering the time required for states to return to normal trade relations following a sanctions episode.

In the duration analysis presented here, sanctions episodes can end in two distinct ways. When sanctions succeed, the target makes a concession to the demands of the sender, but when sanctions fail, no concession is made. Sanctions failure indicates that the sender had decided to abandon sanctions in order to approach the problem differently. Since different decision-makers are involved in the two distinct choices, it is important to model them separately.

In every time period, there is some probability that sanctions will end in each of these two possible outcomes. In an event history context, the likelihood of one of these outcomes constitutes an instance of competing risks (Zorn and Van Winkle, 2000; Diermeier and Stevenson, 1999; Smith and Zick, 1994; David and Moeschberger, 1978). To capture this dynamic, I utilize a paired Cox duration model, examining how long both successful sanctions episodes last as well as failed episodes, rather than lumping both outcomes together as has been done in previous studies.

The dependent variable for each model is the number of years<sup>3</sup> the sanctions were in place until resolved either by concession on the part of the target (success) or the sender (failure). For successes, cases ending in failure are treated as right-censored and vice-versa. Sanctions episodes which had not ended by 1990 are also right-censored. The hazards for the two outcomes are assumed to be independent. Delineating the outcomes incorporates into the empirical model the idea that the decisions about concession are made separately by the two states. Since the two decisions cannot occur simultaneously and are unique, the assumption of independence is appropriate.

Cox (1972) regression is based on the idea of proportional hazards. In a Cox model, the hazard functions for any two observations (assuming they have distinct values on the independent variables) differ by a factor of proportionality. In addition, Cox regression allows for the effects of the independent variables on the duration of sanctions episodes to be estimated without having to assume a specific parametric form for the distribution of these durations. Such distributional assumptions are likely to be difficult to meet, and as with most political science applications of duration models, I do not have *a priori* belief about what the distribution should look like (Box-Steffensmeier and Zorn, 2001). For the Cox model, the shape of the hazard function is estimated nonparametrically, providing greater flexibility.<sup>4</sup>

<sup>3</sup>While the sanctions durations could be estimated to the month, many of the independent variables used in the analysis were coded annually, thus dictating the time increments.

<sup>4</sup>A paired Weibull regression was also performed with similar results. Because of the challenge of meeting the distributional assumptions associated with the Weibull model, I have opted to present the Cox results.

The coding for the duration of the sanctions episodes, as well as the categorization of which side gives in, has been drawn from the HSE data (1983, 1990). In the original data, HSE calculated scores for both the successfulness of the sender's policy and the contribution of sanctions to obtaining this outcome. These two scores are then multiplied together. Using this score is problematic because it creates a noncontinuous measure of success that is difficult to use for statistical analysis. For the purposes of this paper, only the score for the success of the coercive policy is considered. Cases rated as a four (or a "successful outcome") by HSE are scored as a concession by the target (Drury, 1998; Dashti-Gibson, *et al.*, 1997). All other cases are considered to be a concession by the sender because they have not been able to obtain the full aim of their policy.<sup>5</sup>

The HSE data include complete information on 112 instances of economic sanctions initiated between 1915–1990.<sup>6</sup> Due to missing data, only 106 (constituting 696 sanction-year time periods) are included in the estimation.<sup>7</sup>

To model the two sanctions outcomes, I operationalize explanatory variables that fit into three major categories: economic factors, international context, and most importantly for the purposes of this analysis, domestic politics. Descriptive statistics for these variables appear in Table 1.

From an economic standpoint, the sanctioning strategy chosen, as well as the impact of those sanctions, are both important predictors of the outcome. The comprehensiveness measure is drawn from HSE and is not time-varying. Sanctions that are more comprehensive, employing both trade restrictions and financial constraints, should be more likely to succeed.

Measuring the economic impact on the target directly is difficult over the full period of interest (1915–1990). Since figures for GNP and GDP are difficult to calculate consistently for most states prior to 1950, another measure must be substituted. HSE estimate annual change in GNP due to sanctions, but their measure is a single average estimate for each episode rather than a measure that varies over time during the sanctions period. For the purposes of this project, I use a logged measure of the annual energy

<sup>5</sup>As a robustness check, I also lowered the threshold to 3 for success and performed the analysis again, finding similar results.

<sup>6</sup>Two instances of successful threats (The League of Nations vs. Greece and the League vs. Yugoslavia) have no durations and provide no data for this analysis. In addition, only incomplete information is provided on the UN sanctions against Iraq.

<sup>7</sup>Of the excluded cases, two cases (U.S. vs. the Arab League (1965-) and U.S. vs. Eastern Europe (1975-)) are dropped because no credible measure of aggregate regime type could be calculated. In other cases where two or three countries were named as direct targets of sanctions, an average regime score for the states was calculated. In these cases, the targeted states tended to have similar regimes (e.g., the Netherlands and U.S. who were jointly sanctioned by the Arab League, 1973–1974).

**Table 1. Summary Statistics**

Variable	Mean	Std. Dev.	Min.	Max.
<i>Dependent Variables</i>				
Success (N = 32)	3.406	3.191	1	14
Failure (N = 58)	5.207	6.008	1	30
<i>Independent Variables</i>				
Sender Leadership Change	0.776	1.137	0	5
Target Regime	-2.270	7.097	-9	10
Democracy Indicator	0.208	0.406	0	1
Democracy*Time	2.774	7.653	0	44
International Cooperation	2.261	1.127	1	4
Alliance	0.264	0.441	0	1
Comprehensive Sanctions	0.427	0.495	0	1
In(Energy/TPop)	-0.277	1.491	-5.777	2.376

consumption (in thousands of coal-ton equivalents) per capita for the target country, drawn from the Correlates of War Capabilities data (Singer and Small, 1996) following the suggestion of Jackman (1973). This rough measure approximates the level of development in a state rather than directly capturing the impact of the sanctions. It can be helpful, however, for understanding sanctions outcomes. As a state becomes more developed and economically diversified, it should be better equipped to resist sanctions, but if sanctions retard development or perhaps reverse growth, a state may become less able to stand firm in the face of economic coercion.

Internationally, both the prior political relations of the states (Drezner, 1999) and the support other states lend to the sender state's initiative (Martin, 1992; Drezner, 2000) should affect sanctions outcomes. The presence of an alliance between the parties involved is coded from the Correlates of War Alliance data (Small and Singer, 1991). The international compliance variable is drawn from HSE, scored from one for no support to four, indicating significant cooperation.

As discussed above, more democratic targets should be more susceptible to economic coercion due to domestic political pressure than their autocratic counterparts. To measure regime type, I use the Polity score for the target state, scaled -10 to 10 (democracy-autocracy) (McLaughlin et al., 1998). Scores are lagged one year in order to capture regime change that may have come about due to sanctions pressure but were not reflected in the regime score until the year after the policy ended. With the focus on time inherent in the selection of the duration model, I am also interested in testing the proposition that time has a unique effect on the behavior of democratic states (*Hypothesis 2*). To this end, an interactive term, which is the product of a democracy dummy (also included in the regression,

coded 1 for states with Policy scores 7 and above) and a time counter from the initiation of the sanctions, is also included.

On the sender side, I suggest that if a sender state experiences a leadership change, the new leader may be more likely to abandon sanctions imposed by her predecessor. When a leadership shift does occur, the sender country is coded as a 1 in the year in which the change occurs and for each year forward. When multiple changes occur during the course of a single sanctions episode, this coding is additive for each change.<sup>8</sup>

Taking the economic factors, the international context, and domestic politics into account, the estimated models look like:

$$\begin{aligned} \textit{Time until Sanctions End} = & \alpha + \beta_1 (\textit{Comprehensive Sanctions}) + \\ & \beta_2 (\log (\textit{Energy/Topop})) + \\ & \beta_3 (\textit{Alliance}) + \beta_4 (\textit{International} \\ & \textit{Cooperation}) + \beta_5 (\textit{Target Regime Type}) + \\ & \beta_6 (\textit{Democracy} * \textit{Time}) + \\ & \beta_7 (\textit{Sender Leader shipChange}) \end{aligned}$$

## RESULTS

To begin, cumulative hazard rates for the two outcomes are presented in Figures 3 and 4 in the Appendix. From these figures, we can see that the relationship of time to success and failure is different, conditioned on the independent variables. After a relatively short amount of time (less than five years), the hazard rate for success peaks and quickly declines. On the other hand, the rate of failure peaks somewhere between five and ten years and then declines more slowly. This hazard rate also appears to rise again slightly between twenty and thirty years, but the wide confidence bands around those estimates suggest that we cannot be too certain about that increase.

In light of the differences in the two hazard functions, the results of the Cox regression for both sanctions outcomes, success and failure, are presented in Table 2.<sup>9</sup> Standard errors appear in parentheses beneath the coefficients.

Turning first to the more familiar success model, we see that the comprehensiveness of the sanctions does increase the likelihood that target will give in more quickly than it would if the sanctions were less severe. If the sender employs trade restrictions on both imports and exports as well as financial controls in order to economically isolate the target, the target

<sup>8</sup>Ideally, I would also include a measure of the regime type of the sender state. This is complicated by sanctions imposed by international organizations, which are difficult to classify in a way comparable to single states. For this reason, no such measure is included in the model.

<sup>9</sup>Both models were estimated using Stata 8.2 with robust standard errors. The Efron methods for dealing tied durations was specified.

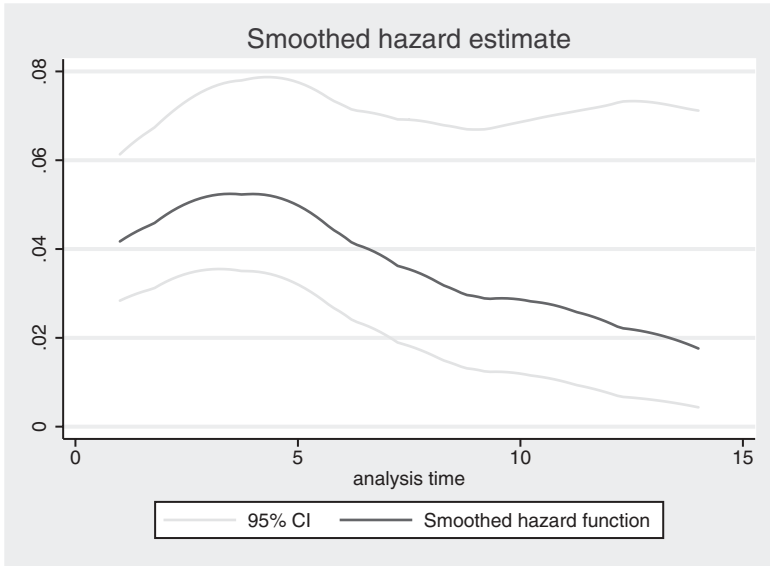


Figure 3. Estimated Hazard Rate for Sanctions Success.

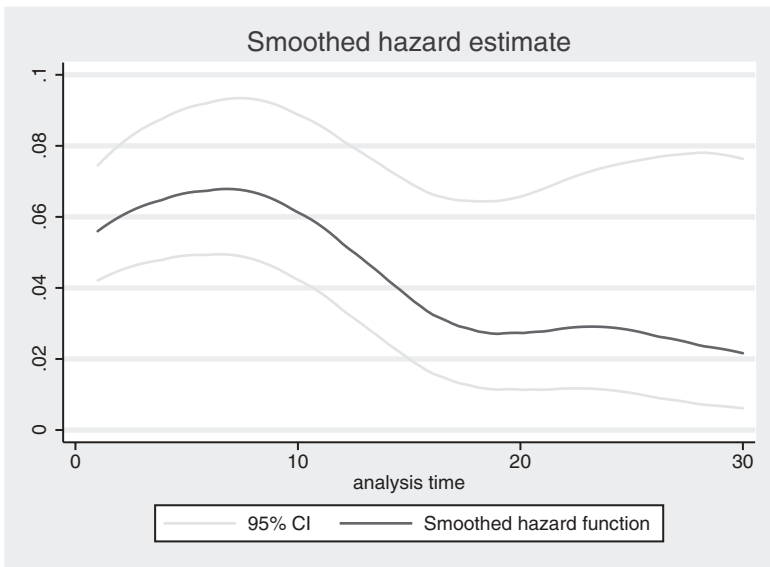


Figure 4. Estimated Hazard Rate for Sanctions Failure.

**Table 2. Cox Regression for the Duration of Sanctions, 1915–1990**

Variable	Success Model	Failure Model
Sender Leadership Change	-0.466 (0.607)	0.605** (0.249)
Target Regime	0.122** (0.038)	0.044* (0.026)
Democracy Indicator	0.109 (0.713)	-0.044 (0.487)
Democracy * Time	-0.302† (0.190)	0.024 (0.051)
International Cooperation	-0.530** (0.198)	0.141 (0.192)
Alliance	0.733* (0.412)	0.359 (0.296)
Comprehensive Sanctions	1.623** (0.395)	-0.871* (0.427)
Log (Energy/Tpop)	-0.046 (0.124)	-0.037 (0.099)
Time at Risk	696	696
Log-likelihood	-133.889	-213.118
$\chi^2(8)$	29.75	21.32

Significance levels: †: 10% \*: 5% \*\*: 1%

will have fewer means to adapt and avoid being squeezed by sanctions. The other economic variable, energy consumption per capita, does not attain statistical significance. This may suggest that the measure is insufficiently fine-grained to capture the economic effects of sanctions, or that the distributional effects of sanctions (who bears the burden within the target) are more important to the outcome than the overall effect.

Running somewhat counter to this logic is the negative result for international cooperation. As other states in the international community join in the efforts of the initial sanctioner, the likelihood of sanctions success decreases. This statistically significant finding runs counter to the work of Martin (1992) but provides further support for Drezner (2000), who explores the difficulties inherent in enforcing and maintaining international sanctions over time with a large number of participating senders.

The presence of an alliance, signifying a positive pre-sanctions relationship between the target and sender states, increases the likelihood that sanctions will end more quickly with concession from the target state. This lends credence to the supposition that it is easier to use sanctions to coerce states with whom you have friendly relations (Drezner, 1999). Without a cordial prior relationship, influence (as well as trade) is likely to be limited, making sanctions a poor choice as a coercive tool. Sanctions



by the U.S. against Taiwan and South Korea over nuclear development have been much more successful than similar sanctions against North Korea.

With respect to the domestic political variables, the regime type of the target does provide information as to the likelihood of a successful outcome. In line with *Hypothesis 1*, states that are more democratic are likely to concede to sanctions pressure sooner.<sup>10</sup> Democratic leaders, fearing public reprisal, gain little by holding out and bearing the economic burden of sanctions.

On the other hand, authoritarian leaders have little incentive to concede to economic coercion in most situations and are unlikely to do so in the near term, if ever. Anecdotal evidence of this phenomenon can be seen in the cases of sanctions against Cuba, North Korea, and more recently, Iraq. Without a sense of domestic accountability, the leaders of these rogue states are willing to stand firm in the face of sanctions pressure indefinitely.

There does appear to be a unique relationship between the passage of time and the likelihood of sanctions success against democratic targets. Although only weakly significant by traditional standards, this result does suggest that when dealing with democratic targets, sanctions success will come quickly or not at all. The longer that sanctions remain in place against democracies, the less likely they are to end in concession by the target state. When Spain's sanctions against Britain over Gibraltar, which began in 1954, did not succeed initially, the decision by the sender state to continue them for thirty more years did not increase the likelihood of concession by Britain. In fact, just the opposite occurred; the more time that passed, the more the likelihood of concession diminished. In the end, Spain abandoned the policy.

Unsurprisingly, leadership change in the sender country does not have a significant impact on the likelihood of success. The importance of this variable figures much more prominently in the failure model. Building on the work of Bolks and Al-Sowyel (2000), who look at the impact of democratization on sanctions duration, including a variable for leadership change or regime shift in the target country as well might yield more significant results for the success model.

Shifting to the failure model, the leadership change variable becomes an important predictor. Following the leadership change in the sender state, the expected time until concession decreases by 85% (calculated as  $e^{\text{coefficients}}$  (Box-Steffensmeier and Jones, 1997)). This result provides

<sup>10</sup>This model may underestimate the effect of regime type on sanctions success. The democracy indicator needed to create the interaction term and the regime measure are highly correlated (.7944). When the democracy variable is dropped from the model, the size of the coefficient for regime type increases slightly in magnitude.

empirical support to *Hypothesis 4* that sanctions are more likely to be terminated by the sender state following a leadership change. When a new government comes into office, foundering policies of the previous administration may be among the first to go.

The regime type of the target state also has a statistically significant positive influence on the sender's decision to terminate sanctions. The more democratic a target is, the less time a sender is willing to stick with sanctions, but the coefficient for the interaction term does not approach significance. This suggests mixed support for *Hypothesis 3*. In their bargaining game, the sender state does gain some information from the regime type of the target, but the impact of that information does not change over time.

Neither of the international context variables attains statistical significance. This is fairly intuitive. Before the sender implements sanctions, the presence of an alliance and the level of likely support in the international community are known. The international cooperation variable is non-time varying, so no new information is received by the sender during the course of the sanctions. To a greater degree, the international context is initially not fully known by the target, so it is reasonable to believe that the target's decisions would be more influenced by international context, particularly immediately following the imposition of sanctions.

On the economic side, the severity of the sanctions is again a significant predictor. This finding may suggest that when senders are willing to accept higher costs themselves, as are likely to accompany more comprehensive sanctions, they are less likely to concede. The energy consumption variable again does not approach statistical significance.

One potential weakness of the failure model is the lack of consideration of symbolic sanctions. Because sanctions allow a sender state to take action at a relatively low cost, senders may implement sanctions to signal displeasure with a target's action. Imposing sanctions demonstrates a willingness to act to both domestic and international audiences (Barber, 1979). Some scholars have gone so far as to say that sanctions are most important as symbols. Schreider (1973, p. 413) concludes that "regardless of its concrete impact on the target state, a government may consider economic coercion useful if it serves to declare its position to internal and external publics, or helps to win support at home or abroad. As long as economic coercion can serve such primarily symbolic functions, governments will no doubt continue to use it as a tool of foreign policy."

If sanctions are motivated by a desire to signal rather than coerce, the incentives for leaders in the sender state may be slightly different than those discussed above. Because the results do show statistically significant support for *Hypothesis 3*, senders' decisions are being driven to some degree by the actions of the target state. If the senders were only attuned

to domestic audiences or third states; these results would not attain. These results however, are weaker than those in the success model, so there may be differing sets of motivations at work in sender states — those which hope to coerce and those which hope only to signal.

## CONCLUSION

This paper makes an important contribution to our understanding of the decisions that lead to sanctions outcomes. Moving the debate beyond the basic question “Do sanctions work?”, this paper explores the unique determinants of sanctions success and failure. Because two different states with two different sets of decision-makers are involved in a given sanctions episode, scholars must recognize that the decision-making processes behind successful sanctions and failures are different. Factors that do not cause sanctions success do not necessarily cause sanctions to fail. The relationship between the two outcomes is more complex. Exploring the factors that affect decision-making in each state is important for gaining an understanding of the whole sanctioning picture. This project provides a first cut, but a direction for future research would be to create a clearer picture of sanctions failure.

Domestic political concerns seem to play a role in the decision-making of both the target and sender governments. Neither bearing the burden of unpopular sanctions as a target nor maintaining ineffective sanctions benefits leaders involved in a sanctions episode. Further research into the distributional effects of sanctions and how sanctions affect members of the selectorate directly could provide further insight into when leaders decide enough is enough for a given sanctions episode.

Finally, the regime type of the target state is an important factor on both sides of the sanctions equation. The presence of a democratic target shortens the duration of sanctions, regardless of which side concedes. The causal mechanism on the success side is fairly well developed, but more careful consideration of what information is provided to the sender state by the political system of the target state may also be important.

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## CONTRIBUTOR

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