

# Are Economic Sanctions a Substitute for the Use of Force?

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## Abstract

Some believe that economic sanctions and the use of military force are substitutable means of exercising coercive diplomacy. Moreover, many advocate a greater reliance on sanctions because they are a less lethal alternative to the use of force. We have virtually no evidence suggesting that sanctions and force are ever substitutable, however, let alone any evidence identifying the conditions of substitutability. The Two-Good Theory of foreign policy, recently developed by Palmer and Morgan, provides a theoretical basis for understanding foreign policy substitutability relationships. We apply this theory to the question of sanctions/force substitution and we derive hypotheses identifying the nature of this relationship. We test these hypotheses for the 1971-2000 period using the Militarized Interstate Dispute (MID) and Threat and Imposition of Economic Sanctions (TIES) data sets. We draw on our results to speculate about future trends. For example, our results suggest that the spread of global wealth and increasing economic globalization should provide more opportunities for states to use sanctions rather than military force.

# 1 Introduction

The use of economic sanctions in the foreign policy behavior of states has seen an increase in recent years (Morgan, Bapat and Krustev 2009). State leaders often rely on sanctions in an effort to induce those targets to change objectionable policies. Correspondingly, there has been a rise scholarly attention to sanctions. Most of the attention has been focused on the effectiveness economic sanctions in achieving altering target states' behaviors. Very little has been devoted to explaining when and why states appear to increasingly rely on economic sanctions in the first instance. Also few have investigated the relationship the use of sanctions has to other policies. Our purpose in this article is to address these questions and explain when states increase, or decrease, their overall reliance on sanctions, and how that relates to the use other policy instruments.

More specifically, we address the widespread belief that sanctions are a substitute for other policy options, primarily the use of military force. While many studies of economic sanctions indicate that they are not especially effective at getting targets to alter their policies in ways favorable to the sender, sanctions are viewed by policy makers as being both cost effective and more politically palatable than the use of force. That is to say, sanctions are viewed as a substitute for force. However, the literature provides virtually no evidence that sanctions and force are ever substitutable, let alone any evidence identifying the conditions of substitutability.

Our goal is not to explain specific uses of sanctions. Rather, it is to understand when states increase, or decrease, their overall reliance on sanctions as a foreign policy tool. We further explore how that relates to the use of other policy instruments, namely the use

of force. To address theoretically these questions, we adopt the concept of foreign policy substitutability (Most and Starr 1984). We draw heavily from recent work on creating a general theory of foreign policy to derive general expectations relating the use of sanctions to the use of other policy actions and subject them to large-N empirical tests (Morgan and Palmer 2000, Palmer and Morgan 2006)

The following sections present the model and an application to the use of sanctions. Following this, we discuss our research design. Finally, we present our results and discussion of implications for the study of foreign policy behavior in the international system.

## **2 The Two-Good Model of Foreign Policy**

Traditional theories of foreign policy are based on the fundamental assumption that all foreign-policy actions are guided by a desire to enhance national security. Our model starts from a different base. In our model of foreign policy politics is conceptualized as the attempt to affect the status quo on multiple issues (Morgan and Palmer 1997, 2000; Palmer and Morgan 2006). At any moment a state will be relatively pleased with the status quo on some issues and relatively displeased with the status quo on others. A state will construct a foreign policy portfolio comprised of policies that are aimed at changing those aspects with which it is displeased and protect those with which it is pleased. That is, we assume that states pursue two general goals. The first good, change, is defined as a state's ability to alter the status quo. Maintenance is a state's ability to inhibit changes in the status quo.

Since resources are finite, a state that devotes some of those resources to preventing unwanted changes cannot simultaneously be spent to pursue change, trade-offs across the two goods are necessary. Any action, such as conflict initiation or sanctions, require that a

state expend some of its foreign policy resources. However, since these resources are scarce, decision-makers must make trade offs when deciding which policy instruments to rely on to pursue its foreign policy goals. In general, we believe that certain policies are better able to provide the state with maintenance, while others are better suited to bringing about changes in other states' policies. We assume that a state chooses the policy inputs across the two goods to form a foreign policy portfolio designed to provide its preferred mix of change and maintenance.

Our second assumption is that the international environment determines limits on a state's ability to produce these two goals. One important environmental factor is the state's relative capabilities. That is, more capable states can produce more change and maintenance than can weaker states. Other states' policies also affect the ability of one to produce maintenance and change.

The argument to this point is captured in Figure 1. In the figure, a state's foreign policy portfolio is represented by a point in the space defined by the Change and Maintenance axes. The curves concave to the origin are representations of production possibility frontiers (PPFs). Points on these curves are the mixes of change and maintenance that a state *can* produce if it expended all its available foreign policy resources. In general, we assume that a state makes maximum use of its resources so that observed foreign policies will be located along the state's PPF. The greater the resources available to a state for foreign policy, the farther to the "north east" will be the PPF.

The curves convex to the origin are the bundles of goods that provide the state with the same utility. These are a state's isoutility, or indifference contours, with contours reaching higher levels of utility the further to the "north east" one moves from the origin. We show

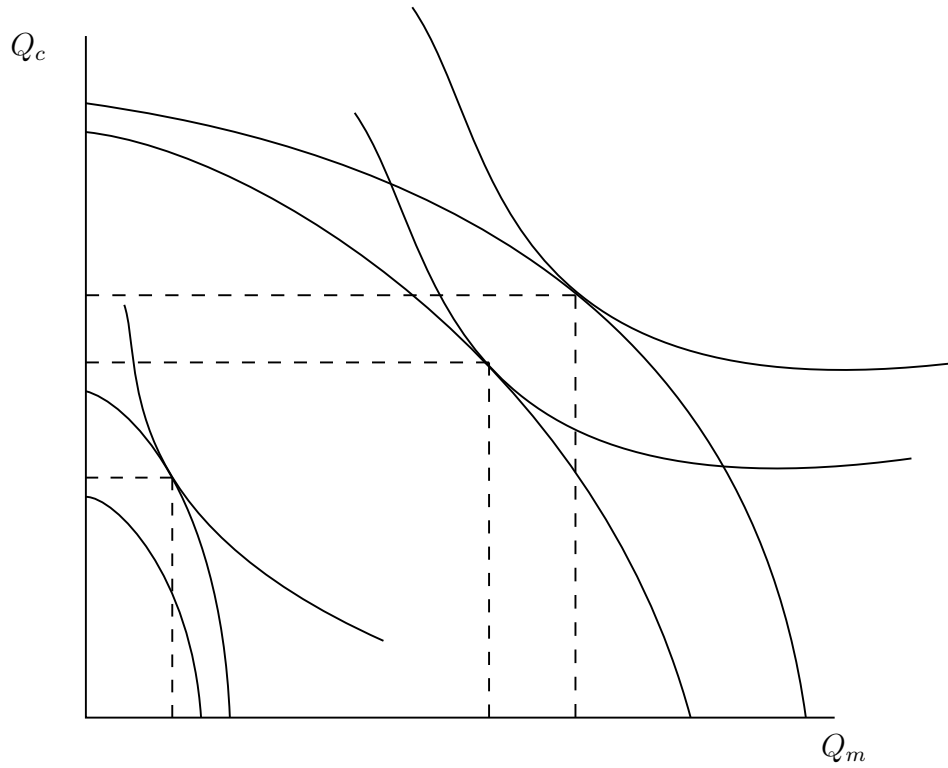


Figure 1: PPF

only those tangent to the PPFs for illustrative purposes. The point where the isoutility curves are tangent to the PPF are the specific allocations across change and maintenance that provide the state it's highest level of utility given its budget constraint.

Two assumptions are made about the relationship between the quantity of change and maintenance on one hand and a state's power, or resources, on the other hand. First, the PPFs further from the origin mean that a state can produce more of both change and maintenance. That is, as a state's resources increase, it can engage in more foreign policy activity, all else equal. Importantly, it is not the absolute level of resources available to a state that we assume matters most. Rather, we argue that a state's capabilities relative to the international system that determines how much change and maintenance it may produce (Morgan and Palmer 1997, 2000; Palmer and Morgan 2006). The actions of other states

surely act as a constraint on what a given state is able to do. If the putative state is relatively weak in the international system, it will not be able to produce much change (get other states to alter their behavior), or maintenance (stronger states will more easily alter the state's behavior).

A second assumption regarding the allocation of resources as a function of power is that the production of change becomes relatively more efficient as state power increases. The growth in resources has a greater increasing effect on the quantity of change a state is able to produce for more powerful state relative to weaker states. As noted in previous work, it may be easier to prevent changes (maintenance) than to effect changes (Morgan and Palmer 1997, p. 231; Morgan and Palmer 2000; Palmer and Morgan 2006). The argument is that a state's defensive capabilities may deter many potential attackers, but an effort to alter the status quo requires that a state compel a change in policy of specific targets.<sup>1</sup>

Based on these production advantages and the relationships between state power and goal-seeking behavior they imply, the model produces general expectations for the conditions under which we should expect states to be more likely to engage in certain types of foreign policy activities. In this manner, the model speaks directly to the substantive issue at hand: when we should expect a state to be most likely to use sanctions as a foreign policy tool, and the extent to which we should expect a state's use of sanctions to impact its other foreign policy behaviors, military force in particular. The following section introduces the derived hypothetical relationships between state power and sanctions use, and proposes some initial hypotheses to test the nature of substitutability between sanctions and the use of force.

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<sup>1</sup>This assumption does not say that weak states are maintenance-seeking and strong states are change-seeking. Recall that the balance of change and maintenance seeking in a state's foreign policy portfolio is determined not by power, but by the salience for change or maintenance in the set of issues a state cares about.

These are broad theoretical steps that need to be taken if we are to solve the puzzle of when and why states choose to impose sanctions when they have any number of foreign policy options available to them.

### **3 Sanctions, Force, and the Two-Good Model**

In this section we apply the two-good model to the use of economic sanctions and derive expectations regarding the relationship of sanctions to uses of force. Here we apply the two good model to the use of economic sanctions in order to get a handle on the extent to which they are a substitutable foreign policy option for states who seek some goal that places them in direct conflict with another state's preferences. This is an essential first step in establishing the conditions under which a state will opt to impose sanctions as part of a complete foreign policy portfolio. In order to do so, we first assume that the imposition of economic sanctions is a type of change-seeking foreign policy behavior. We justify this assumption based on the argument that sanctions are meant to effect change, and thus will be used by states who seek change as a foreign policy good. Examples of the objectives that sanctions are employed to accomplish demonstrate that they are a tool that states use when they want to alter the status quo, rather than maintain it: destabilization of foreign governments, halting human rights abuses, retaliation against terrorist activity, ending protectionist trade policies. Economic sanctions most often are imposed in order to change some aspect of a targeted state's behavior, and very rarely are they used when the hope is that a target will respond by maintaining a certain policy.

The distinction between the two types of goods is a critical aspect of the theory, and provides the two good model with greater theoretical advantage and empirical leverage over

previous models of foreign policy behavior. Doubtless, specific instances of sanctions' imposition can be interpreted as maintenance-seeking, rather than change-seeking. For instance, recent sanctions against India and Pakistan (which were neither wide spread or long-lasting) can be viewed as maintenance-seeking by those who insist that the ultimate objective of the United States was to maintain the non-nuclear status quo in the region. We would argue, though, that the objective was primarily change-seeking, as India and Pakistan already had begun to proliferate when the sanctions were imposed and the U.S. objective was to reverse this behavior -that is, change it. Interpretations may differ, however, we believe that the overwhelming majority of sanctions' cases occur because of the sender(s)' desire to alter the target's actions. Thus, we feel our assumption is justified suitably.

From the two good model, we are able to derive a number of straightforward expectations regarding the use of economic sanctions by states who seek to change some aspect of the status quo. The first set of empirical expectations involve the relationship between sanctions use and the relative capabilities of a state. The model leads us to expect that more powerful states (i.e. states with greater levels of capability, e.g. major powers) will engage in more types of all foreign policy behavior, as mentioned previously. Therefore, the greater a state's capabilities, the more we can expect that state to pursue both change and maintenance as foreign policy goods. Although states' preferences for change and maintenance will vary independently of their capability share, we expect on average that more powerful states will be more likely to engage in change-seeking behavior than weaker states, because they are simply more able to do so. Overall, more powerful states have a greater amount of resources to devote to both types of behavior. Because we assume that the imposition of sanctions is a change-seeking foreign policy tool, the expectation results that states with greater relative

capabilities will be more likely to impose sanctions; the relationship between capabilities and sanctions use will be positive.

Furthermore, the model predicts that more powerful states should have a production advantage over weaker states in change-seeking behavior. The shapes of the production possibility frontiers (PPFs) for each type of state reflect this expectation. Stronger states who experience an increase in relative capabilities can convert their increase in resources more efficiently than weaker states, and therefore an increase in resources will result in a greater increase in change-seeking behavior for a powerful state than for a weak state. This leads to an expected relationship between changes in capabilities and the use of economic sanctions. We expect that strong states that are experiencing an increase in capability to use sanctions with a significantly greater probability than weaker states who also experience an increase in capability, as the weaker states will be more likely to convert their additional resources into maintenance-seeking behavior (in which they have a production advantage). These expectations regarding the relationships between sanctions use and a state's capability result in the following testable hypotheses: for sanctions.

$H_1$ : The relationship between a state's relative capabilities and its use of sanctions will be positive, *ceteris paribus*.

$H_2$ : Increases in relative capabilities will have a greater positive effect on sanctions use for stronger states as compared to weaker states, *ceteris paribus*.

Together, these hypotheses provide the first piece of the puzzle with which we are concerned. As the two good model predicts, the key to understanding general propensities for sanctions' use lies in an understanding of the capabilities a state has and its resulting ability to convert that power into foreign policy goal-seeking activity.

## 4 Policy Substitution

The expectations regarding state capabilities and the use of sanctions to induce change in a target's behavior, although simple and straightforward, provide an essential basis for the model's predictions regarding the conditions under which a state will choose to employ sanctions, and the substitution of economic sanctions for other foreign policy behaviors. Based on the initial theory of foreign policy substitutability laid out by Most and Starr (1984), international relations scholars have come to expect something which policymakers have been putting into practice for centuries: if multiple types of foreign policy tools are capable of accomplishing the same objective, they may be used interchangeably -that is, substituted for one another depending on the circumstances surrounding the desired outcome. In terms of the two good model, this suggests that a state who seeks change as a foreign policy good may substitute anyone of a number of foreign policy actions in order to secure the desired change. Similarly, if a state seeks maintenance of some aspect of the status quo as a foreign policy good, then one type of maintenance-seeking behavior may be used in place of another.

Based on our previous assumption that the use of economic sanctions is a type of change-seeking foreign policy behavior, we can outline the expectations that the model produces with regard to foreign policy substitutability and sanctions. Primarily, we argue that the use of economic sanctions is a substitutable behavior for other change-seeking foreign policy actions. Specifically, we apply this theoretical insight to the initiation of disputes, observed as the use of military force.

The application of the two good model to foreign policy substitutability is based on the

previous assumption that states have a finite amount of resources which they can use at any given time to achieve their foreign policy goals. When a state engages in one type of change-seeking behavior in order to obtain a specific objective, we should expect that other types of change-seeking behaviors aimed at that same objective will decrease. At the same time, we would not expect the same substitutable relationship to exist between behaviors that are aimed at different goods, i.e. change-seeking behaviors and maintenance-seeking behaviors.<sup>6</sup> This results in the general hypothesis that in a given year, increases in a state's use of economic sanctions will be negatively related to its use of other change-seeking behaviors. More specifically, the concept of substitutability implies that we cannot explain a state's general sanctions strategy without knowledge of the extent to which it is engaging in other change oriented foreign policy behavior.

Our argument has a basis in the previous empirical research which has found that dispute initiation is change-oriented and substitutable for other change-seeking behavior (i.e. foreign aid donation). If a state chooses to devote its resources to one type of change-seeking behavior, we expect that it will have to decrease the amount being devoted to other types of change-seeking behavior. When a state chooses to implement economic sanctions against a target, it is making a simultaneous decision not to initiate a military dispute with that state at that time. In this manner, the two activities are substitutable phenomena. History is replete with instances in which a state chose to impose sanctions against some target, only to find that they were failing to achieve the desired objective, and to resort to the use of military force as a result. Because of this sequence of affairs, sanctions and military force may be seen as complementary foreign policy tools by some rather than as substitutable ones. However, we maintain that because both are change-seeking behaviors, they are in fact substitutable.

The use of sanctions should have a negative relationship with the likelihood that a state initiates a dispute. This hypothesis, while based primarily on the expectations provided by the model, also stems from reasonable expectations about the sanctioning process. The following hypothesis results:

*H<sub>3</sub>*: The initiation of the use of military force should have a negative relationship with the initiation of economic sanctions, controlling for changes in resources.

The two good model allows us to produce a variety of general expectations about the relationships between the use of foreign policies. The hypotheses above provide an illustration of some of the major implications of the model as well as an initial basis to evaluate it empirically with respect to the use of economic sanctions. In the next section we turn to describing our empirical analyses of the hypotheses laid out above.

## 5 Research Design

We evaluate our hypotheses on cases of country-years from 1971-2000 using three specifications for our statistical model. Our goal in this analysis is twofold. First, we examine how relative power and changes in relative power affect the allocation of resources to the use of sanctions. Second, we seek evidence for the substitutability of economic sanctions and uses of force. To explore these relationships, we employ a poisson regression with random effects according by countries and years. The use of this model is appropriate since our dependent variable, resources allocated to sanctions use, is measured as a count of sanctions initiation for each country-year.

Our dependent variable is the resources devoted to economic sanctions, which we operationalize as the frequency of sanctions use by a country in a given year. These data are

constructed using the Threat and Imposition of Economic Sanctions (TIES) dataset to capture whether a country threatened or imposed sanctions on a target.<sup>2</sup> Economic sanctions are defined to be “actions that one or more countries take to limit or end their economic relations with a target country in an effort to persuade that country to change its policies” (Morgan, Bapat, and Krustev 2009). The dataset contains 888 cases of sanctions use by one or more countries against a single target. We convert this into country-year data first by identifying the primary sender, defined as the country “primarily responsible for the threatening or the imposition of sanctions against the target...the primary sender is coded as the state that proposes sanctions, initiates the threat, or is responsible for mobilizing other states to initiate sanctions” (Morgan, Bapat, and Krustev 2009). We then sum the number of cases of sanctions initiation by the primary sender over each year to obtain a count variable.

For the first two hypotheses, the explanatory variable of interest is a state’s relative capabilities. Recall that the first hypothesis leads us to expect that states will devote greater resources to sanctions if its relative power increases. We operationalize the relative capabilities variable using data drawn from the Correlates of War’s Composite Indicator of National Capabilities (CINC) (Singer, Bremer, and Stucky 1972; Singer 1988). We utilize these data in two ways. First, we measure a sender state’s resources as a proportion of the world total of national capabilities using the CINC score (Hypothesis 1). Then, for our second hypothesis, which linked the change in capabilities to the use of sanctions, the first difference of the CINC score for each country-year is utilized to capture changes in levels of a state’s resources from the year previous. Finally, we interact the year-to-year change in capabilities with the levels to capture the relationship proposed by hypothesis 2, which stated our expectation

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<sup>2</sup>The TIES data go back to 1971 and end in 2000.

that increases in capabilities will be larger for more powerful states than for weaker states.

Our third hypothesis pertained to the substitutability of sanctions with the use of force. Our expectation is that these policies should be substitutable since they are both change seeking, controlling for resources. We again use a count of sanctions use for the evaluation of this hypothesis. The independent variable of interest, resources devoted to uses of force, is measured using the Correlates of War project's Militarized Interstate Dispute (MID) data set to measure uses of military force, which involve threats, displays, or actual uses of force by one state against another (Ghosn, Palmer, and Bremer 2004). We code a count of the uses of force by summing the initiations of MIDs for each state in a given year.

These data yield 4953 country-year observations between 1971 and 2000 for 193 countries. The first set of hypotheses lead us to expect that a state's relative capabilities, operationalized as a country's CINC score, should be positively associated with the use of sanctions (Hypothesis 1). Furthermore, we expect that increases in capabilities should have a greater positive effect on sanctions use for relatively more powerful states (Hypothesis 2). We also expect that as the number of MIDs a state initiates increases, they will decrease their reliance on economic sanctions, when controlling for resources (Hypothesis 3). That is, the coefficient on MIDs should be negative and statistically significant. This results in the following specifications:

$$\textit{Hypothesis1} : E[\# \textit{ of Sanctions}] = \alpha + \beta_1 \textit{ CINC}$$

$$\textit{Hypothesis2} : E[\# \textit{ of Sanctions}] = \alpha + \beta_1 \textit{ CINC} + \beta_2 \Delta \textit{ CINC} + \beta_3 \textit{ CINC} \times \Delta \textit{ CINC}$$

$$\textit{Hypothesis3} : E[\# \textit{ of Sanctions}] = \alpha + \beta_1 \textit{ MIDs} + \beta_2 \textit{ CINC}$$

## 5.1 Analysis

Hypotheses 1 expected that a state's relative capabilities should be positively associated with its use of sanctions. States with more resources relative to other states can engage more change seeking behaviors. The results, shown in Table 1 show this that this hypothesis is confirmed.

Table 1: Relative Capabilities and Use of Sanctions

Count of sanctions per year	
<i>Share of CINC</i>	11.72*** (3.181)
Constant	-2.606*** (0.259)
Constant	2.252*** (0.184)
Observations	4951

Standard errors in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

As expected, the coefficient on relative capabilities, measured as a country's share of world national capabilities, is positive and statistically significant. This shows that as relatively more powerful countries utilize sanctions as part of their foreign policy portfolio to a greater degree than do relatively weaker countries. That is, the more resources a state has relative to all others in the international system, the more it will sanction in order to induce changes to the status quo.

Table 2 shows the results of the model evaluating hypothesis 2. We expected that greater increases in capabilities leads to a greater reliance on sanctions for relatively more powerful states as compared to less powerful states. That is, stronger states enjoy a production advantage in change-seeking policies relative to weaker states: increases in capabilities for

them are more efficiently utilized to pursue change of the international status quo.

Table 2: Changes in Relative Capabilities and Use of Sanctions

	Count of sanctions per year
<i>Share of CINC</i>	12.05*** (3.322)
$\Delta CINC$	-1.311 (0.825)
$CINC \times \Delta CINC$	55.23*** (9.121)
Constant	-2.631*** (0.260)
Constant	2.246*** (0.187)
Observations	4888

Standard errors in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

The results in Table 2 support our expectations. The coefficients on the main effect of relative capabilities is remains positive, and the interaction term is positive and statistically significant as expected. This indicates that relatively more powerful states are more likely to include sanctions use in their foreign policy portfolio. Interestingly, the main effect of a change in relative capabilities is negative, while the interaction is large and positive. This indicates that changes in relative capabilities lead to increases in sanctions use when states reach a threshold of relative capabilities. An increase in relative capabilities leads to more use of sanctions for powerful states relative to weaker states, but this effect leads to a greater number of sanctions for states who are very powerful to begin with.

Finally, Table 3 displays the results from the model evaluating Hypothesis 3. The expectation is that, assuming military force and economic sanctions are both change-seeking behaviors, we should see an inverse relationship between the initiation of military force and

the use of economic sanctions, but only when controlling for relative capabilities. Our results are supportive of Hypothesis 3, which related the use of MIDs and the use of economic sanctions.

Table 3: Use of Force and Use of Sanctions

	(1)	(2)
<i># MID initiations</i>	0.0789** (0.0256)	-0.101* (0.0435)
<i>CINC</i>		-7.870 (6.159)
Constant	-2.019*** (0.256)	-2.584*** (0.392)
Constant	2.518*** (0.165)	2.586*** (0.224)
Observations	4951	4270

Standard errors in parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

The results in Table 3 shows the models used to evaluate hypothesis 3. We include two models in this table to illustrate our expectations. First, model 1 associates the use of sanctions with the use of force. This model illustrates that these policies are positively associated with one another. Our expectation is that when we control for resources, the relationship should turn negative. Model 2 shows that this expectation is supported. The coefficient on the count of MID initiations is negative and statistically significant.

These results illustrate a critical aspect of a state's use of sanctions. First, a general understanding of a state's overall reliance on sanctions cannot be gained without knowledge of other foreign policy activity. As these analyses demonstrate, the use of other policies affects the extent to which a state will utilize sanctions. The concept of substitutability suggests that multiple foreign policy behaviors must be accounted for in a general model

of foreign policy decision making. The two-good model presented herein led to falsifiable expectations regarding the extent to which the use of force and economic sanctions are related. Our main conclusion is that the sanctions use is inversely related to the use of force so that to understand the use of economic sanctions, we must, at a theoretical level, have an understanding of how these policies are related. We cannot understand the use of economic sanctions if our analyses are divorced completely from an understanding of foreign policy decision making.

## **6 Concluding Remarks**

The existing literature on economic sanctions has taught us that, although they are popular foreign policy tools, sanctions are not highly likely to accomplish their intended goals. However, they are viewed by policymakers as cost effective, and powerful states who seek to change some aspect of the status quo can rely on sanctions as at least an initial means of attempting to do so. Research has not yet determined which states will be more likely to use sanctions, or how their use fits into an overall foreign policy portfolio in which a variety of other options are available. The work presented here offers some preliminary answers to these questions. The two good model, a general model of foreign policy, provides a theoretical basis previously lacking from the sanctions literature on which to build a more developed understanding of state sanctions use.

Our results confirm the nature of the substitutability of sanctions use and the use of force. This fits nicely with the expectations borne out in other sanctions research that suggest an overall sanctioning strategy can be understood only through knowledge of when a state is not going to initiate sanctions against a potential target (Morgan and Miers, 2000). The

implication of substitutability is that a state who seeks to alter the status quo by changing another state's behavior, and who has the power to do so, will choose to employ some other foreign policy tool should they choose not to implement sanctions. Thus, to the extent that we understand a state's sanctions use, we must do so within a general model of foreign policy that allows us to account for the entire range of behavior in which a state can engage at a given time to accomplish its goals in the international system.

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