Conflict Expectations and the Paradox of Economic Coercion

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Despite their increasing importance, there is little theoretical under-
standing of why nation-states initiate economic sanctions or what deter-
mines their success. These events are often explained away as "symbolic
politics" driven completely by domestic-level factors. This article develops
a simple game-theoretic model of economic coercion to show that both
"senders" and "targets" of economic coercion incorporate expectations of
future conflict as well as the short-run opportunity costs of coercion into
their behavior. Conflict expectations have a paradoxical effect on coercion
events. First, senders that anticipate frequent conflicts will be more willing
to initiate economic coercion, even if such attempts are costly. Senders that
anticipate few conflicts will not threaten sanctions unless they incur mini-
mal costs and the target would suffer significantly. While a robust antici-
pation of future disputes might make the sender prefer a coercive strategy,
it also reduces its ability to obtain concessions. Target states that anticipate
frequent conflict with the sender will make fewer concessions. Ironically,
a sender will obtain the most favorable distribution of payoffs when it cares
the least about its reputation or the distribution of gains. These hypotheses
are tested statistically, with the results strongly supporting the conflict
expectations model.

In 1990, the United States convinced the United Nations Security Council to impose
stringent economic sanctions against Iraq in response to Saddam Hussein's invasion
of Kuwait. These sanctions achieved the greatest degree of international coop-
eration in modern history and cost Iraq half of its GNP in lost trade. The Iraqi
regime refused to back down, however, and force was needed to restore Kuwaiti
independence.

In 1991, the United States threatened to withhold loan guarantees from Israel
unless that country agreed to halt the construction of new housing in the West Bank
and attend a multilateral peace conference in Madrid. Unlike the Iraqi case, in this
episode the United States acted alone, without much fanfare, and against the wishes
of an active domestic lobby. The costs of the sanctions to Israel were significant but
far lower than in the Iraqi case. Yet in the end the Israelis acquiesced.

Why were the outcomes so different? More generally, under what conditions will a
sanctioning country (called the *sender*) attempt economic coercion? What determines
the magnitude of the concessions made by the sanctioned country (called the *target*)?

The answers to these questions are not trivial. The use of economic coercion in international relations has a long pedigree; the Athenian boycott of Megara was one of the triggering events of the Peloponnesian War. The end of the Cold War has brought this tool of statecraft renewed prominence. The United States has threatened or implemented economic coercion against more than forty countries since 1990. The Russian Federation has been quite willing to employ economic coercion as a way of gaining political concessions from the newly independent states. As public resistance to military interventions has increased, policymakers are turning more and more to economic statecraft as an alternative policy option.[1]

The increased prominence of economic coercion has led to an increase in the scholarly literature, but not much progress has been made. With some notable exceptions (Martin, 1992; Morgan and Schwebach, 1997) most of the recent contributions consist of well-crafted theories that lack empirical support (Eaton and Engers, 1992; Smith, 1996), or well-crafted case studies that produce generalizations of dubious quality (Galtung, 1967; Cortright and Lopez, 1995; Klotz, 1996). One scholar claims that the one constant about economic sanctions is that each event is purposefully random (Tsebelis, 1990). Furthermore, most of the literature has focused on the *outcomes* of coercion attempts; there has been little research explaining when senders will *initiate* threats or acts of economic sanctions.

This article uses a simple game-theoretic model to develop a theory of economic coercion that can answer those questions. The short-run opportunity costs of sanctions imposition are important, but they are not the only factor. Just as important to explaining economic coercion are the expectations of future bilateral conflict held by the target and sender countries. Conceding in the face of economic coercion implies a redistribution of assets between the target and sender. Nation-states care about this redistribution if they think it will harm their bargaining position in future conflicts. This expectation of future conflict is translated into a short-run concern for relative gains and reputation that varies with the expectation of future threats or conflicts in the bilateral relationship between the sender and target.

Conflict expectations is an abstract concept that can be empirically measured by observing the alignment between the target and the sender. Allies will expect fewer political conflicts than adversaries. Adversaries will expect more zero-sum conflicts in the future, and so will care more about the material and reputational repercussions of existing conflicts. Because of heightened conflict expectations, adversaries will care more than allies about relative gains and reputation for bargaining toughness.

The expectation of future conflict has a contradictory effect on economic coercion. On the one hand, it makes senders more willing to threaten economic sanctions. The greater the concern for relative gains, the more likely the sanctioner will prefer a stalemate outcome of disrupted economic exchange and attempt to coerce. With adversaries, a sender will be willing to incur significant costs, provided the target incurs even greater costs. With an ally, the costs to itself must be less and the costs to the target must be greater before the sender will attempt economic

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[1] In this article, I switch between the terms *economic coercion, economic statecraft,* and *economic sanctions* in the interest of style, but I am much more comfortable with the first term because of its inclusiveness. There is an odd demarcation line between what is described as a sanctions event and what is not. For example, the United States imposed trade sanctions on South Africa in 1985. The sanctions were threatened and then implemented as a way of putting pressure on South Africa's government to end apartheid. In 1997, the United States pressured the World Bank to postpone loans to Croatia until that country more closely adhered to the Dayton Accord provisions on refugees and war criminals. The former event is commonly described as a sanctions episode, while the latter is not. They are both efforts at economic coercion, however, and the theory developed here will try to explain both events. See Baldwin, 1985, for a further discussion.

pressure. Ceteris paribus, senders will be eager to coerce adversaries, and reluctant to coerce allies.

Eagerness does not translate into greater concessions. The second effect of conflict expectations is paradoxical and surprising. While a robust anticipation of future disputes might make the sender prefer a coercive strategy, it also reduces its ability to obtain concessions. The target's conflict expectations determine the magnitude of concessions. Facing an adversarial sender, the target will be worried about the long-run implications of acquiescing. Because it expects frequent conflicts, the target will be concerned about concessions in the present undercutting its bargaining position in future interactions. The sender might exploit the material or reputational effects from conceding in later conflicts. When relative gains concern is prominent, a concession represents a gain for the coercer and a loss for the coerced. When reputation is important, acquiescence bolsters the sender's credibility as a tough negotiator while weakening the target's reputation. With allies, this concern is not prominent, because the target anticipates fewer zero-sum conflicts. Ceteris paribus, targets will concede more to allies than adversaries. Ironically, a sender will obtain the most favorable distribution of payoffs when it cares the least about relative gains.

A conflict expectations model can explain the dynamics of economic coercion with more accuracy and parsimony than other theories. A major problem with the existing literature is that theories are developed from just one or two well-publicized cases of economic sanctions (Galtung, 1967; Hoffman, 1967; Schreiber, 1973; Losman, 1979; Renwick, 1981; Doxey, 1987). The very celebrity of these cases suggests they are atypical, that they stand out in some unusual way. In "classic" cases, the sender and target are usually adversaries. Thus, existing explanations overlook less contentious but more successful coercion attempts between allies. By choosing cases that take on extreme values of both the dependent variable and several independent variables, the literature commits two errors. First, there is a tendency to underestimate the main causal effects on the universe of events. Second, these studies will overestimate effects that are unique to the extreme set of cases (Collier and Mahoney, 1996). In focusing on a limited subset of coercion cases, these writings have painted a distorted picture of economic sanctions. These arguments are not necessarily wrong, but the empirical evidence marshaled for their arguments is insufficient. In contrast to a conflict expectations model, they explain fewer cases, and less of the variation in outcomes.

The following section further develops the notion of conflict expectations. The next section uses a simple coercion game to formalize the argument; the model generates testable propositions about the relationship between opportunity costs, alignment, and coercion events. The following three sections (a) consider what happens when conflict expectations change during the sanctions episode, (b) describe the data and testing procedures, and (c) examine the statistical results on sanctions events data and show they provide moderately strong support for the model. The final section summarizes and concludes.

The Effect of Conflict Expectations

For the purposes of this model, the actors are the foreign policy leaders of nation-states. It is assumed that the foreign policy regimes within these states act as a unitary, rational actor. This assumption has been made repeatedly in international relations theory (Krasner, 1978; Bueno de Mesquita, 1981), and the justification for it will not be delved into here.

Conflict expectations influence state preferences about conceding to coercive pressure in a conflict in two ways. First, states are concerned that concessions made in the present can be used later to threaten their security. This possibility leads to

an explicit concern for relative gains. This concern becomes more important if states expect frequent disputes. Second, states prefer to have a reputation for tough bargaining. The importance of reputation increases as the likelihood of repeated conflict increases.

The debate about the role of relative gains concern in international relations is an all too familiar one. For the past decade, it has been couched in terms of the debate between the neoliberal and neorealist paradigms.[2] Realists argue that states must be wary of gaps in gains because of the ever present possibility that those gaps will be exploited in a future military attack. Neoliberals, by contrast, argue that these factors are salient only under extreme circumstances. This debate is concerned with variables such as polarity and the offense–defense balance to determine the extent of relative gains. The logic developed here sidesteps this debate. It argues that states will care about relative gains if they anticipate that those gaps will reduce their absolute utility in the long run (Viner, 1948; Matthews, 1996). This could be due to the possibility of a military conflict, as realists argue. It could also be due to the possibility that a small concession in the present could lead to the long-run disintegration of a state's position on a particular issue. Either way, foreign policy leaders will care about relative gains if they expect that an unequal distribution of gains in the present will lead to reduced benefits in future conflicts.

Concessions made in the present can be translated into future leverage. Robert Keohane observes:

> For relative gains, rather than simply the desire to maximize utility
> to account for tough negotiations, there must be some plausible
> way by which one's partner could use advantages gained from the
> international agreement to hurt oneself in a future period, and a
> significant motivation to do so. Only if the advocate of a relative
> gains interpretation can show that these conditions are met, is it
> plausible to entertain this hypothesis. (1993:281)

The subject matter of economic coercion is well suited to Keohane's criteria. In a sanctions dispute, economic leverage is used to extract political concessions. Unlike economic cooperation, a successful sanctions episode results in an explicit transfer of political assets from the target to the sender. States will be concerned about relative gains due to the possibility of today's concessions becoming tomorrow's leverage. A variety of demands could be used in this fashion. A Great Power may use economic coercion to secure basing rights, and those bases are used in a later coercion episode to threaten the targeted country. A demand for greater liberalization within the target regime might permit the sender country to exploit domestic divisions in a later dispute. The importance of the transfer increases as the likelihood of future conflict increases. When a country makes a political concession to a potential aggressor, the decision to acquiesce has a greater probability of coming back to haunt the country in the future.

How important are these transfers? The standard realist argument assumes that between states of unequal power, the concern for relative gains is unimportant, because the distribution of power is already lopsided. Such an argument assumes that all power is fungible, and therefore Great Powers can readily impose their will on smaller states. Any transfer is of little importance in the overall distribution of power. There are two flaws in this logic, however, that suggest that unequal adversaries will care just as much about material transfers as equal adversaries. First,

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[2] For the realist argument see Grieco, 1988, 1990; Gowa, 1994; Powell, 1991; Mearsheimer, 1995; and Rousso, 1996. For the neoliberal responses see Snidal, 1991; Keohane, 1993; Keohane and Martin, 1995; and Liberman, 1996.

some types of concessions have very poor or expensive substitutes. Political assets are more heterogeneous and less substitutable than economic assets. Concessions that transfer information, institutional access, or asset-specific investments alter the local distribution of power in a way that other power resources cannot without serious political externalities. Second, the assumption of fungible power is not necessarily true in the short run. It may be possible to redirect power resources toward a particular target, but it cannot be done immediately, and there are associated opportunity costs with it. While states must keep the aggregate distribution of power in mind, they will be more concerned about the local correlation of forces and policy levers.

The importance of relative transfers depends on the expectation of future conflict. If the concession is significant but the number of expected disputes in the bilateral relationship is small, the relative distribution of payoffs will matter less. Previous game-theoretic models have highlighted the importance of conflict expectations. Robert Powell (1991) argues that relative gains concern is salient when a military attack is expected. The logic developed here includes instances beyond military force, but is consistent with Powell's argument. Duncan Snidal (1991) concludes that relative gains concern will be salient when the locus of a foreign policy leader's attention is on the bilateral dispute. A high expected probability of future confrontations and threats from another state will lead to an enhanced concern for relative gains in bilateral dealings with that state.

Conflict expectations will also affect states through their concern over their bargaining reputation. In a future conflict, foreign policy leaders will consider the history of prior bilateral negotiations in developing conjectures about the other states' behavior. For example, if a country has a history of acquiescing in the face of deadlock, the other country will have the incentive to act tough in crises, so as to obtain a better outcome. By contrast, if that state has a history of refusing to fold even if that action is costly, the other foreign policy leader will take that history into account in later rounds of negotiations.

If a nation-state demonstrates that it prefers to incur a costly outcome, provided it hurts the other side even more, it can affect the outcomes of those future conflicts. Furthermore, reputations are interdependent; one state's boost in reputation can come at the expense of the other. In a crisis, whichever side backs down is perceived to have lost credibility. At the same time, the side that triumphed will find its credibility enhanced. Therefore, leaders must be concerned that backing down in the present will raise the other state's expectation of success in later episodes. States will care about the distribution of payoffs in the present because it will alter their perceived reputations in the other state.

Reputation becomes more important as the expectation of repeated interactions, and the shadow of the future, increases. If players anticipate that a game will be played often, they will be more willing to sacrifice current gains for a larger payoff in the future. Countries will always have some incentive to be concerned about their reputation. Nevertheless, the incentive will be much stronger when they expect a greater number of potential conflicts. States have both tangible and abstract reasons to factor in conflict expectations when crafting their existing strategies.

Casual empiricism suggests that the expectation of future conflict varies with the dyad. For example, during the Cold War, the United States clearly expected more zero-sum disputes with the Soviet Union than with West Germany. At present, India can anticipate a greater number of disagreements with Pakistan than with Bangladesh. For the foreseeable future, the United States is more concerned with a possible North Korean nuclear program than a probable Israeli nuclear program. In each of the cases where more future conflict is expected, one or both states perceive a significant threat from the other. In relationships where threat perception is high, so is the expectation of future zero-sum conflicts.

A logical extension of this argument is that the concern for relative gains and reputation is inversely correlated with the degree of alignment. Allies will anticipate few disputes, and care less about relative gains and reputation. Adversaries will anticipate frequent threats of conflict, and therefore care a great deal about relative gains and reputation.

It is often unclear what theorists mean when they talk about allies, adversaries, or alignment. My definitions are as follows: states are allies if they share a history of cooperation and mutual trust on security and other issues that is not disrupted by shifts in the international distribution of power. States are adversaries if they share a history of discord and conflict on various issues that is not disrupted by large shifts in the international distribution of power. By allies I do not mean states that temporarily join coalitions to fight a common enemy, such as the United States and the Soviet Union in World War II or the United States and Syria in the Gulf War. By adversaries I do not mean states that have highly public but ephemeral spats over a single issue, such as the dispute between France and the United States over the Uruguay round.

In sum: the model will assume that states act as rational, unitary utility-maximizers. National preferences are partially motivated by conflict expectations. There are two effects of this expectation. First, states will have some concern for relative gains, because concessions made in the present can be used against nation-states in the future. Second, countries are concerned that conceding in the present will damage their reputation in future interactions. Both of these concerns vary with the expectation of future conflict. Therefore, states will care more about relative gains and reputation effects when their perception of threat is palpable. Because states balance against their threats, conflict expectations will be greatest between adversaries. Disputes will also be anticipated between allies, but to a lesser degree.

A Game-Theoretic Model of Economic Coercion

There are two ways to formalize the conflict expectations model. The first is to assume states are egotistic utility-maximizers with an expectation of a future dispute where the outcome depends on relative capabilities. The second is to create a reduced-form utility function, incorporating the conflict expectations into the actors' utility functions in the form of a concern for relative gains. As Powell (1994:336) observes, there is no a priori answer as to which approach is better. For this article, the reduced-form model will be used for two reasons. First, this version of the conflict expectations model is easier to present and analyze.[3] Second, the focus of this article is the effect of conflict expectations on economic statecraft, not on the causes of those expectations.

All games must have players, strategies, and payoffs. The coercion game has two actors: Sender and Target, occasionally labeled S and T for notational convenience.[4] These actors are rational and are assumed to have full information about the possible strategies and payoffs. The game is played only once.[5]

The structure of the game can be seen in Figure 1. Sender moves first; it can elect to do nothing and end the game at Status Quo Ante (SQA), or it can choose to make

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[3] Versions of the model that are more explicit about the future implications of present concessions produce results that are substantially similar to the reduced-form game presented here. See Drezner, 1998.

[4] It could be argued that many high-profile coercion efforts do not have just one sender but many. An examination of these events shows that most sanctions episodes have one dominant sender who persuades and cajoles other states into cooperation. For more on this see Martin, 1992.

[5] A different variant of the game used two stages in an effort to incorporate the shadow of the future. The results are not fundamentally affected.

a demand (D), attached to a threat of economic coercion.[6] It might represent a shift in Target's policy on an international issue, a shift in one of Target's policies toward Sender, or a change in one of its domestic policies that has international ramifications. The demand is an action that hurts the target regime and benefits the sender regime. Note that the sender can calibrate the size of its demand; this decision is endogenous to the game.

If Sender chooses to make a demand, then Target must decide between backing down and standing firm. If it chooses to back down, the outcome is Acquiescence (AQ); Target agrees to Sender's demand. If it chooses to stand firm, however, Sender has the last move. It could choose to back down and accept the Status Quo (SQ), or carry out the threat of disrupting economic exchange, which produces an outcome of Deadlock (DL). The Deadlock outcome means that Sender disrupts some bilateral economic exchange. This could include suspending aid, imposing trade barriers, freezing financial assets, or reducing investment flows. This action would obviously be painful to Target, and presumably painful to Sender. The opportunity costs of such an action would be the scarce resources needed to compensate for the interrupted exchange. Small opportunity costs imply that the costs of substitution are low (i.e., low levels of asset-specific investment). The Deadlock outcome is essentially a stalemate; Sender and Target both incur costs, but Target makes no concessions.

Figure 1 also shows the payoffs for each outcome. All of the payoffs are relative to the Status Quo outcome. Sender and Target payoffs in the Status Quo are normalized to zero. Status Quo Ante produces the same outcome, plus a small increase (α) for both actors. The difference between SQ and SQA is that Sender's threat temporarily freezes the bilateral relationship, preventing further increases of trade or investment. Even if the threat is not carried out, the crisis is sufficient to cast a pall on the economic relationship. Acquiescence also delivers the Status Quo payoffs, but there is also a direct transfer; Sender gains and Target loses the demand D.[7] Finally, the Deadlock outcome disrupts the bilateral relationship. Both actors suffer costs from the loss of economic exchange. Sender and Target receive penalties of $-c(s)$ and $-c(t)$, respectively.

If the sender and target countries cared only about their short-run absolute benefits, backwards induction produces a unique outcome. Sender, choosing between backing down or standing firm, will always back down; it will prefer the benefits of continued economic ties to the costs of economic disruption. That is to say, $0 > -c(s)$. Moving backwards, Target, at its decision node, knows that Sender will back down. Therefore, its strategic choice is between acquiescing to Sender's demands, or standing firm and reaching a Status Quo outcome. Since Target must concede in an AQ outcome, it will always prefer the Status Quo payoff and elect to stand firm. Finally, Sender must decide between doing nothing and arriving at Status Quo Ante, or making a threat and reaching the Status Quo. Because Sender always prefers the additional benefit from the SQA payoff, it will do nothing. Therefore, if one assumes that Sender and Target care only about their own payoffs, the unique equilibrium of this game is Status Quo Ante. Because the sender will not prefer to carry out a costly threat, it will opt to do nothing.

If one assumes that only immediate absolute gains matter, the game is, frankly, boring. Even if Target suffers much greater costs than Sender, Sender cannot credibly threaten coercion, because it will always prefer to back down and incur fewer

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[6] Another variant could be that Sender implements sanctions and threatens to keep them in place unless Target meets its demands.

[7] The results do not change appreciably if Sender and Target place different values on the demand.
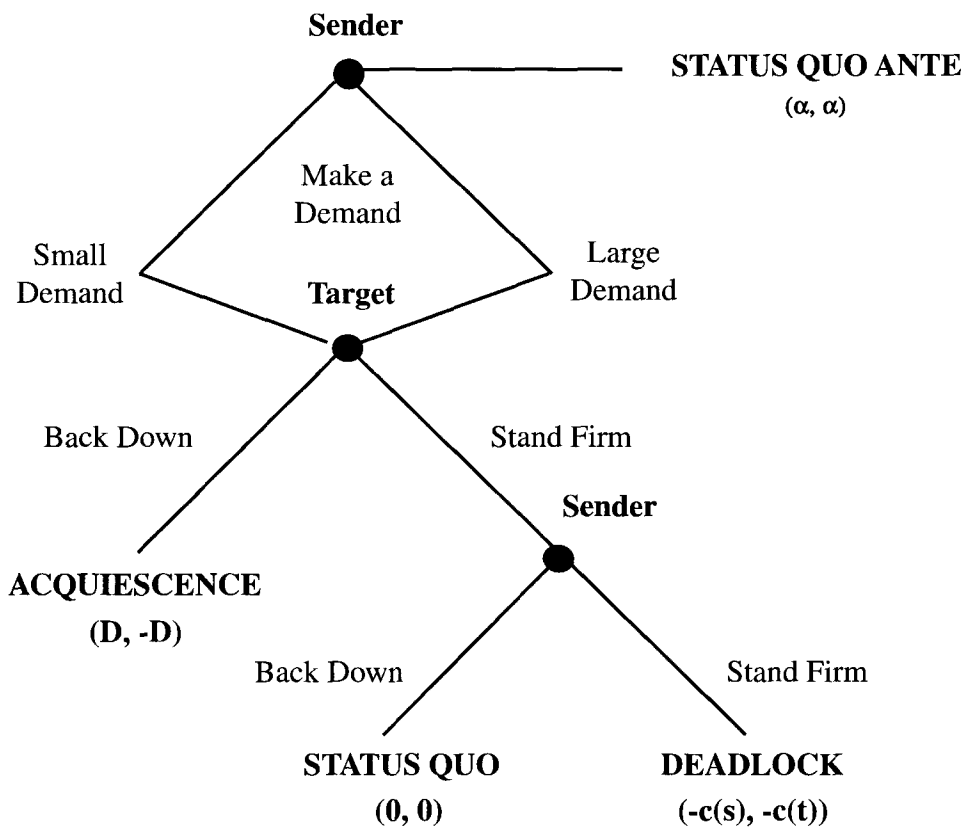
Sender

FIG. 1. The coercion game

costs. The only way Sender's threat to coerce can produce concessions is if it genuinely prefers Deadlock to the Status Quo.

I now introduce conflict expectations into the model. Sender's and Target's utility functions are a linear, weighted function of absolute and relative preferences. Note that the utility functions incorporating conflict expectations do not require a direct interpersonal comparison of utility, but rather are derived from the observable differences in the various payoffs.[8]

$$U_{SENDER} = U_S = \beta(P_{SENDER}) + (1 - \beta)(P_{SENDER} - P_{TARGET}) \quad (1)$$

$$U_{TARGET} = U_T = \beta(P_{TARGET}) + (1 - \beta)(P_{TARGET} - P_{SENDER}) \quad (2)$$

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[8] One could argue that assuming both states place an equal value on the demand in question does introduce interpersonal utility comparisons. However, allowing for different valuations of the issue in question does not affect any of the comparative statics of the model, so the assumption is in the interest of simplicity.

where

$$P_{SENDER} = \text{Sender's payoff from the outcome}$$

$$P_{TARGET} = \text{Target's payoff from the outcome}$$

$$ß = \text{Mutual expectation of harmonious relations.}$$

ß, by definition, lies between zero and one. By extension, (1 - ß) is the mutual expectation of the likelihood of future conflict. If the two states anticipate few political conflicts, then $ß \rightarrow 1$, Sender and Target care only about absolute gains, and the utility function collapses back into the simple case of the utilities equaling the payoffs. If the two actors anticipate endless political conflicts, then $ß \rightarrow 0$, Sender and Target care only about relative gains, and view the game as a strict zero-sum negotiation. As conflict expectations increase, so does the concern for the material and reputation effects of any concession by either actor.[9]

Incorporating conflict expectations makes the game slightly more complex. At its final decision node, Sender does not necessarily prefer the Status Quo to Deadlock. To be sure, there are still conditions under which Sender still prefers to back down. When this happens, the outcome of the game is still SQA. If the sender prefers DL to SQ, however, then the game has a different outcome. Moving backwards, Target now faces a choice between Acquiescence and Deadlock, as this choice is less clear-cut than between Acquiescence and the Status Quo. Its decision depends on the size of Sender's demand.

Finally, it is unclear whether Sender will prefer Acquiescence to either Deadlock or the Status Quo Ante. If it prefers the Status Quo Ante, then it can simply choose not to make a threat. If Sender prefers Deadlock to all other outcomes, it can make its demand request so large that the target would never acquiesce, guaranteeing an outcome of DL.

In order to determine the outcome of the game, the following questions must be answered:

1. When will Sender prefer Deadlock (DL) to Status Quo (SQ)?
2. For what demands will Target prefer Acquiescence (AQ) to Deadlock (DL)?
3. Given those values of D, will Sender prefer Acquiescence (AQ) to Deadlock (DL) or Status Quo Ante?

To answer the first question, Sender's utility from the Status Quo outcome must be compared with its utility from the Deadlock outcome. If $U_s(DL)$ is greater than $U_s(SQ)$, then Sender is willing to stand firm:

$$U_s(SQ) = ß(0) + (1 - ß)(0 - 0)$$

$$U_s(DL) = ß\{-c(s)\} + (1 - ß)\{-c(s) + c(t)\}$$

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[9] There are two ways to incorporate concerns about reputation into this model. The first is to argue that reputation is formed by outcomes; a country's bilateral reputation for negotiation is determined by how well that country's payoff compares to that of the other actor. This means that reputational effects are felt through the concern for relative gains. The second way is to argue that reputations are formed by strategies; a country's reputation is formed by the consistency with which its foreign policy leaders stick to their positions. Actors are penalized when they go back on a strategy; in this case, when Target acquiesces or when Sender backs down after threatening sanctions. I have chosen the first approach for reasons of tractability. Modeling reputation effects using the other approach does not affect the results, it only *reinforces* the hypotheses.

U_s(DL) is greater than U_s(SQ) if and only if:

$$\text{ß}\{-c(s)\} + (1 - \text{ß})\{-c(s) + c(t)\} > 0$$

$$c(t) - c(s) > \text{ß}c(t)$$

$$1 - \frac{c(s)}{c(t)} > \text{ß}^* \qquad (3)$$

I will call equation 3 the *coercion condition*. If ß < ß*, then Sender prefers standing firm to backing down, and the coercion condition is *satisfied*; if ß > ß*, then Sender prefers backing down to standing firm, and the coercion condition is *not satisfied*.[10]

The coercion condition is not a fixed point. As conflict expectations recede (i.e., ß increases) the coercion condition becomes more difficult to satisfy. If both states anticipate a great deal of future conflict, and therefore are extremely concerned with relative gains and reputation effects, the coercion condition is not a difficult threshold to meet. The opportunity costs would have to be close to parity (c(s) approaches c(t) in value) for Sender not to coerce. However, even if Sender views the game only as a zero-sum contest, Sender will not threaten coercion unless Target suffers more. Conversely, if the two countries are allies and few disputes are expected, then the gap in opportunity costs needs to be significant (c(t) must be high and c(s) low) for Sender to prefer Deadlock over Status Quo.

This result shows that the Sender will rationally threaten sanctions if and only if there is some concern about relative gains and reputation effects. Even if conflict expectations are low, there exists a set of circumstances under which Sender would prefer Deadlock. This would happen if the difference between the relative opportunity costs is significant, or if the price of sanctions to the sender is small. This does not imply that the existence of conflict expectations automatically leads to sanctions. If the sender's opportunity costs are greater, then it would prefer to back down even if it viewed the relationship with Target as strictly conflictual; it would be worse off in Deadlock. The coercion condition represents a blending of short-run and long-run concerns. Foreign policy leaders must balance the short-run costs and benefits with the repercussions that present actions will have in future clashes. Unless states are perfect allies or perfect adversaries, it is a world of mixed motives. Even if Sender is facing an allied target, there could still exist a set of circumstances in which threatening sanctions is the rational course of action. Likewise, even if the target is an adversary, Sender might still prefer not to disrupt exchange. Figure 2 shows the relationship between the cost and alignment variables and the decision to coerce.

The coercion condition generates the following testable hypothesis:

HYPOTHESIS 1. *Within the set of coercion events, the alignment between the target and sender should be negatively correlated with the cost to Sender, but positively correlated with the cost to Target.*

This is not the first hypothesis that comes to mind in testing the coercion condition. The ideal test requires comparing the actual set of coercion events with situations where the sender *considered* sanctions but elected to accept the Status Quo

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[10] Note that if the target's costs exceed the sender's cost, ß* would be less than zero, and therefore the coercion condition could never be satisfied. If there were many observed sanctions episodes where the sender's opportunity costs exceeded the target's, it would represent a falsification of the conflict expectations model. However, a quick check of the data reveals that of the 114 events used in this article, in only one case was the sender's costs greater.
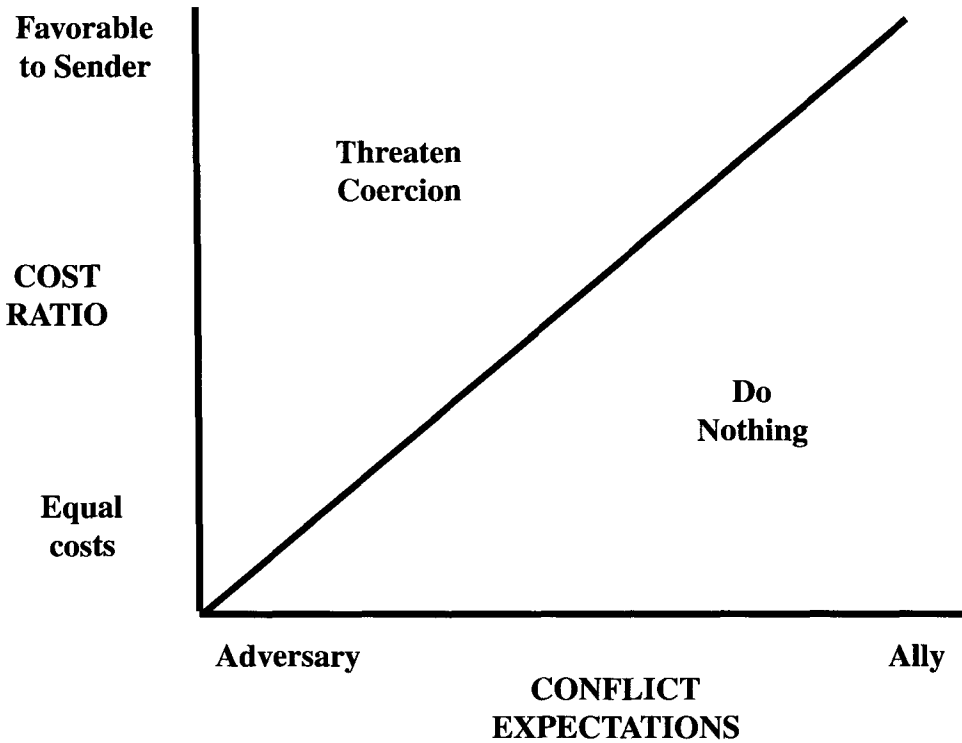
FIG. 2. The sender's coercion decision

Ante. Unfortunately, it is tricky to observe nonevents, and trickier to measure variables observed in events but not nonevents. Sample bias makes it difficult to test when states will attempt to coerce. While it is empirically impractical to compare events with nonevents, it is possible to observe correlations among variables *within* the set of observed events. The coercion condition becomes a tougher threshold to satisfy as the two countries anticipate fewer conflicts. If the two countries are allies, the gap in the opportunity costs of Deadlock must be even larger in order for Sender to still satisfy the coercion condition. Therefore, an increase in ß should cause a concomitant increase in $c(t)$ and a decrease in $c(s)$.

If the coercion condition is not satisfied, backwards induction shows that the game will end as before: the sender will not threaten sanctions because it knows it will back down in the end. However, if the coercion condition is satisfied, the next step is to determine the range of concession values for which Target prefers Acquiescence to Deadlock. Target must now choose between Acquiescence and Deadlock. Its choice depends on the magnitude of Sender's demanded concessions. Sender will maximize its utility by demanding as large a concession as possible. The demand size is constrained, however. If Sender asks for too many concessions, Target will prefer a stalemate over backing down. Therefore, the demand size is endogenously determined. Sender needs to calculate the range of values of D such that Target prefers Acquiescence to Deadlock, or when $U_T(AQ)$ is greater than $U_T(DL)$:

$$U_T(AQ) = ß(-D) + (1 - ß)(- D - D)$$

$$U_T(DL) = ß\{-c(t)\} + (1 - ß)\{c(s) - c(t)\}$$

$U_T(AQ)$ is greater than $U_T(DL)$ if and only if:

$$\beta(-D) + (1 - \beta)(-D - D) > \beta\{-c(t)\} + (1 - \beta)\{c(s) - c(t)\}$$

$$c(t) - (1 - \beta)c(s) > (2 - \beta)D$$

$$D^* < \frac{c(t) - (1 - \beta)c(s)}{2 - \beta} \qquad (4)$$

I will call equation 4 the *concession function*, and D^* the *optimum possible concession*. The concession function indicates how $c(s)$, $c(t)$, and β affect D^*. Not surprisingly, as the gap in opportunity costs increases, so does the optimum possible concession. An increase in the gap makes Deadlock less appetizing for Target; it will be willing to acquiesce to a larger demand. More intriguing is the effect that conflict expectations has on D^*. By inspection, one can see that as β increases, the numerator unambiguously increases in value while the denominator unambiguously decreases in value. Partial differentiation confirms that a decrease in conflict expectations *increases* the optimum possible concession, D^*.

This result, at first glance, seems counterintuitive. The concession function implies that Sender will extract a larger transfer from Target when it cares less about its relative performance. Therefore, the optimum possible concession is maximized when the two countries have no conflict expectations. Ironically, it would seem that the sender maximizes the gap in gains when it cares about relative gains the least. Of course, the lower the conflict expectations, the tougher it becomes to satisfy the coercion condition. The entire concession function can be seen in Figure 3.

The intuitive explanation rests on correcting the attention bias international relations theory places on Great Power preferences. Senders are usually Great Powers, and it is frequently assumed that their preferences and power guide international events. This is true only in their ability to increase the costs to Target
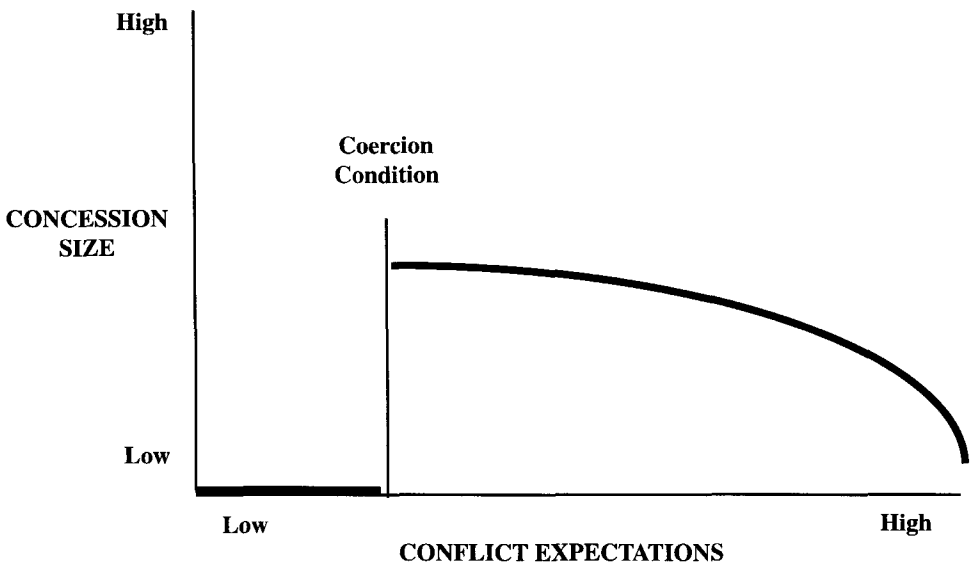

FIG. 3. The effect of conflict expectations on concession size

without incurring significant costs itself. The concession function shows that the target state's preferences also affect the outcome. While the target's preferences do not affect whether economic sanctions are threatened, they do affect the size of the concessions if the coercion condition is satisfied. If Sender's demands exceed the optimum possible concession, Target will prefer to stand firm and go to Deadlock. This is a suboptimal outcome for Sender. Thus, in crafting its demand, Sender must be sensitive to Target's preferences. Its power is expressed in this model through the ability to make Target incur significant opportunity costs. This influences the demand size. That power, however, is still constrained by Target's preferences.

Seen from the target country's perspective, it is not at all surprising that, ceteris paribus, it would acquiesce to a larger demand if it was less concerned about future disputes. Acquiescence implies a transfer; the sender gains and the target loses some political asset. In the calculus of relative gains or reputation effects, the agreement to accede to the demand is doubly negative; not only does Target lose, but Sender wins. By contrast, both countries suffer losses in a Deadlock outcome. A stalemate outcome is not as damaging from a conflict expectations perspective, because Sender does not acquire what Target loses; it suffers some costs as well. If the concern for relative gains and reputation is significant, Target will acquiesce only to smaller demands to avoid Deadlock. As conflict expectations fade, Target is less concerned with how much Sender benefits from the game. Acquiescing to Sender's demand looks preferable to the alternative of Deadlock. As the target country's preference function moves from distributional to egoistic concerns, its grudge about conceding wanes, so the sender country can ask for more.

From the concession function, I can obtain the following hypotheses:

HYPOTHESIS 2. *The target's concessions will increase when the gap between Target's and Sender's opportunity costs of Deadlock increases.*

HYPOTHESIS 3. *The target's concessions will increase when Target and Sender are more closely aligned with each other.*

The logic of these hypotheses flows directly from the optimal concession function.

The final question is whether, given the coercion condition and the optimum possible concession, Sender will prefer Acquiescence to either Deadlock or Status Quo Ante. It can reach any of those outcomes through its strategy election, so it will choose the outcome that maximizes its utility. Evaluating the effect of D^* on $U_s(AQ)$, it turns out that Sender will always prefer Acquiescence to Deadlock given the optimum possible concession. This is shown in the first lemma in the Appendix. Comparing $U_s(AQ)$ with $U_s(SQA)$, it is clear that unless the payoff from not disrupting the relationship at all (α) outweighs the magnitude of the concessions, AQ is preferred to SQA. Indeed, even if the gains from not threatening outweigh the expected demand, the sender will still threaten if the degree of relative gains concern is high. This is shown in the second lemma in the Appendix.

In summary, the dynamics of the statecraft game are as follows:

1. If $\beta > \beta^*$, Sender prefers Status Quo to Deadlock. The stick is of little use. In this situation, the optimal strategy for Sender is to do nothing and accept the Status Quo Ante.
2. If $\beta < \beta^*$, Sender prefers Deadlock to the Status Quo. This allows it to coerce successfully, obtaining as many concessions as the optimal concession function permits. Sender knows that if it chooses the stick strategy, the outcome is Acquiescence.

Table 1 sums up the predictions of the conflict expectations model. The model indicates that the gap in opportunity costs has a consistent effect on the outcome. As c(t) increases and c(s) decreases, economic sanctions are more likely, and the optimal possible concession gets larger. Conflict expectations have a contradictory effect on economic coercion. The greater the concern for relative gains and bilateral reputation, the more likely that Sender will employ economic sanctions. At the same time, however, the optimum possible concession decreases, because the target country is more resistant to transferring concessions to the sender. The condition which makes the sender wish to threaten coercion in the first place also makes the target more reluctant to concede to large demands.

A Caveat: Switches in Preferences

Until now, the model has implicitly assumed that the policy disagreement between Target and Sender was independent of the long-term alignment between the two actors. This is not always true. For example, since the early sixties the United States has used economic pressure against Cuba because of the latter country's switch in alignment following Fidel Castro's rise to power. Since the 1979 Iranian revolution, the U.S. has also economically coerced that country. The U.S. anticipated more conflicts with a Cuba led by Castro than Batista. Similarly, the United States had fewer conflicts with Iran ruled by the Shah than with Iran ruled by Khomeini. In these cases, Sender might be motivated to attempt coercion because of a shift in Target's entire foreign policy. This shift would certainly change both states' conflict expectations, affecting the utility of a sanctions strategy.[11] If Target radically restructured its foreign affairs so as to oppose Sender's policies, their relations would naturally become antagonistic. These changes would affect the game structurally by changing the extent to which Sender and Target anticipate future political conflicts.

If Target decides to realign its national interests, the result would be a change in the expectation of future conflict between the two states. The previous section shows the contradictory effect an increase in relative gains concern would have on the statecraft game. This leads to the fourth hypothesis:

HYPOTHESIS 4. *If Target realigns against Sender during the coercion dispute, the target's concessions will be smaller.*

Conflict expectations, as observed earlier, have a contradictory effect on the statecraft game. A decision by the target to balance against the sender implies a greater expectation of conflict, and therefore more concern for relative gains and reputation effects. This makes it more likely that Sender will prefer Deadlock to the Status Quo, and thus make a sanctions event more likely. On the other hand, the increase in distributional concerns also makes Acquiescence a less appealing outcome to Target. In order for AQ to be the equilibrium outcome, Sender must reduce its demand to make it more palatable for Target. Balancing behavior only reinforces the effect of conflict expectations; the result is more events of economic coercion, but fewer concessions made.

The Data

The model produces four testable hypotheses. These hypotheses are tested using sanctions events data from Hufbauer, Schott, and Elliott (1990a), or HSE for short.

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[11] Another possibility is that Sender's threat of coercion would change the value of ß.

TABLE 1. The Predicted Pattern of Economic Coercion

	ALLY	ADVERSARY
LARGE GAP IN COSTS	Significant concessions	Moderate concessions
SMALL GAP IN COSTS	No coercion attempt	Minor concessions

The HSE study has the greatest number of cases and the greatest number of measured variables. Two changes have been made to the data set. First, cases beyond the scope of this study are deleted. The conflict expectations model deals with situations where one sender country only uses economic levers to coerce one target country into a policy concession. Cases where regular military force was used[12] or where the object of the sanctions was containment or the impairment of war potential rather than coercion (i.e., CoCom or the Allied embargo during World War II) were removed.

Second, the remaining HSE cases are parsed into observations. The HSE study is a collection of cases. Most of the cases contain only one observation. However, several contain multiple events. For example, the coercion efforts by the United States to liberalize emigration in Eastern Europe are grouped into one case by HSE. This case really contains five different coercion events; the U.S. failed to coerce Czechoslovakia, East Germany, and Bulgaria in 1975, successfully coerced Hungary in 1978, and successfully coerced Romania in 1983 (Hufbauer, Schott, and Elliott, 1990b:397–405). From the data and commentary on the outcomes provided by HSE, it will be possible to give each of these observations their own coding. An additional fourteen observations are collected through this procedure for a total of 103 observations.[13] These events range from 1917 to 1989, and represent a sufficiently large and diverse sample for statistical testing.

Table 2 provides a description of the dependent and explanatory variables. Concession size incorporates both the magnitude of the original demand and "the extent to which the policy outcome sought by the sender country was in fact achieved" (Hufbauer, Schott, and Elliott, 1990a:41). Using this method, concession size treats a large concession to a minor demand as equal to a minor concession to a large demand. This prevents an undervaluing of small concessions made on large demands. It is coded on a 5-degree ordinal scale, with 0 equaling no concessions and 4 equaling significant concessions.

An admirable quality of the HSE research effort is the care taken to estimate the cost to Target of sanctions. Rather than use gross figures, HSE estimate the price elasticities of demand and supply in order to determine the effect. This represents a good approximation of the cost of asset-specific investment to the target. They then divide this number by the target's GNP to compute cost. For the cost to the sender, they introduce an ordinal measure ranging from 1 to 4. A cardinal measure can also be calculated from HSE, although the measure is less reliable.[14] Testing the hypotheses about the concession function requires using the difference between the target's and sender's opportunity costs. The cost measure represents the natural log of the difference between the cost terms.

The proxy measure for conflict expectations will be the alignment between the two countries prior to the sanctions event. It ranges from one (hostile) to three

[12] The cases involving regular military force are included in tests of the coercion condition, since the decision to sanction was generally made prior to the decision to use force.

[13] The cases that were disaggregated include: USSR vs. Western Allies, 1948; U.S. vs. Israel, 1956–82; U.S. vs. Chile, 1973–87; and U.S. vs. Eastern Europe, 1975.

[14] This cost term makes the tenuous assumption that the price elasticity of demand in the target country is equal to the price elasticity of supply in the sender country.

TABLE 2.   Explanatory and Dependent Variables Used in Statistical Tests

Name	Description
Concession size	Ordinal measure of the significance of the concession: 0 = No concession 1 = Minor concessions to a minor demand 2 = Minor concessions to a major demand, or major concessions to a minor demand 3 = Full concessions to a minor demand, or major concessions to a major demand 4 = Full concessions to a major demand
Expectation of future conflict	HSE's coding of the prior relationship between the sender and target: 1 = Antagonistic relationship 2 = Neutral relationship 3 = Cordial relationship
Target realignment	Measurement of target realignment immediately before or during the coercion event: 0 = No realignment 1 = Realignment from previously neutral relationship 2 = Realignment from previously cordial relationship
Target's opportunity cost of sanctions imposition	The cost of sanctions to the target as a percentage of GNP
Sender's opportunity cost of sanctions imposition	*Cardinal measure:* The cost of sanctions to the sender as a percentage of GNP *Ordinal measure:* HSE's coding of the costs to the sender: 1 = Net benefit 2 = Minimal or no costs 3 = Minor costs 4 = Significant costs
Gap in opportunity costs	Natural log of the difference between the target and sender costs

(amicable). This measure is useful, because it incorporates both tangible and intangible elements of the bilateral relationship.

The alignment measure is valid only if the target does not engage in realigning behavior. Hypothesis 4 postulates that balancing behavior should increase conflict expectations, and thus lead to a reduced number of concessions. If the target realigns, the prior relationship does not affect the outcome; the post-balancing alignment is the important term. A dummy variable would not be useful, because it fails to register the *degree* of realignment. As Table 2 shows, the realignment measure incorporates the extent of the balancing behavior.

Table 3 lists the six control variables that will be used.[15] They are commonly cited in the sanctions literature. Three dummy variables are used; whether the target received assistance from other countries, whether the target regime was democratic, and whether the sender threatened to use more forceful measures during the sanctions episode. Two other ordinal measures are included. There is a four-category measure of the international cooperation the sender received in its coercion

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[15] These measures come from HSE, except for the target's regime type, which comes from Doyle, 1986.

TABLE 3.   Control Variables Used in Statistical Tests

Name	Description
Target's regime type	Dummy variable = 1 if the target regime is a democracy
Target assistance	Dummy variable = 1 if the target received international assistance during the coercion event
Threat of military force or covert action	Dummy variable = 1 if the sender used threats of force during the coercion event
Target regime's domestic stability	Measurement of Target's overall economic health and political stability prior to the coercion attempt: 1 = Distressed political economy 2 = Political economy with significant problems 3 = Strong and stable political economy
Aggregate power	Natural log of the ratio of the sender's GNP to the target's GNP
Cooperation with the sender	Measurement of international cooperation garnered by the sender in implementing sanctions: 1 = No cooperation 2 = Minor cooperation 3 = Modest cooperation 4 = Significant cooperation

attempt. The target country's political stability and economic health is coded on a trichotomous scale. Finally, a measure of aggregate power will equal the natural log of the ratio of the two countries' size as measured by gross national product. A higher number increases the sender's size relative to the target.

Empirical Results

Testing the Coercion Condition.   The coercion condition is examined by using a difference of means test. Table 4 shows the average costs to the sender and target countries at the three different levels of sender-target alignment. For the sender's costs, I use the ordinal measure from Hufbauer, Schott, and Elliott as well as the cardinal measure developed here. The results provide strong support for the model. As the bilateral relationship switches from antagonistic to neutral, the average of the target country's opportunity costs unambiguously increases, more than doubling in value. The means are different at the 5 percent significance level. The target's average costs increase more dramatically when the relationship switches from neutral to cordial; the mean increases by a factor of three. The means are different at 1 percent significance. This result confirms that the target's opportunity costs are negatively correlated with the concern for relative gains. For the sender to prefer threatening economic sanctions in a relationship with minimal concern for the distribution of gains, the target must suffer significantly greater costs.

Looking at the sender's opportunity costs, a weak but contrasting pattern emerges that is consistent with the model's predictions. Using the ordinal measure, the sender's opportunity costs decrease unambiguously as the bilateral relationship switches from antagonistic to neutral. The difference is significant at 1 percent. This result also lends support to the model's plausibility. The sender's costs increase slightly as the bilateral relationship switches from neutral to cordial, but the change is not statistically significant. This suggests that the key empirical difference is the

TABLE 4.   Difference of Means Test of the Coercion Condition

	Mean Value with Hostile Alignment (standard error)	Mean Value with Neutral Alignment (standard error)	Mean Value with Cordial Alignment (standard error)
Ordinal measure of Sender's opportunity costs	2.20 (0.17)	1.55 (0.08)	1.66 (0.11)
Cardinal measure of Sender's opportunity costs	.15 (0.14)	.03 (0.02)	.10 (0.09)
Target's opportunity costs	.37 (0.21)	1.02 (0.23)	3.50 (0.68)
Number of observations	20	53	41

switch from antagonistic to neutral. The cardinal measure of the sender's costs displays a similar pattern, but there is no significant difference of means between the different alignment categories.

As a further check on the model, an additional test was performed with the realignment cases excluded. If the target realigned itself away from the sender prior to the coercion event, then the HSE coding would be inaccurate and skew the results. Table 5 displays the results of a difference of means test for coercion events without the realignment cases. The numbers are comparable to Table 4. If anything, the results are slightly stronger.

Testing the Concession Function and Balancing Hypotheses. The conflict expectations model makes straightforward predictions about the signs on the key independent variables. For reasons of functional form, the gap in opportunity costs will be used rather than two different cost terms.[16] As the gap in opportunity costs increases, the target should be willing to concede more to avoid a Deadlock outcome. Therefore, this term should be positively correlated with concession size. Since the expectations for future political conflict are lower between allies, the alignment term should be positively correlated with the magnitude of the target's concessions. If the target engages in realignment, the model predicts fewer significant concessions. The realignment measure, therefore, should take a negative sign.

Table 6 shows two ordered-probit results using 103 observations.[17] The first set of estimates includes only the cost, alignment, and balancing terms; the second includes the set of control variables listed in Table 3. The results provide strong support for the basic model. In both regressions, the gap in opportunity costs takes a positive sign; the greater the gap in opportunity costs, the more the target will concede. The cost term is significant at the 1 percent level. The alignment term also takes a positive sign. As the expectation of future conflict between the two countries declines, the target will make a larger concession. This means that if an ally and an adversary face the same opportunity costs of Deadlock, the ally will still concede more. This result is significant at the 1 percent level in the first regression, and significant at the 5 percent level in the second. Realignment takes a negative sign; if the target balances against the sender's threat, conflict expectations increase, leading to fewer concessions. The realignment term is significant at 1 percent in the first regression and 5 percent in the second. Likelihood-ratio tests confirm that the entire model is significant at 1 percent for both regressions.

The alternative set of explanatory variables does not perform nearly as well. One significant variable in the group is the target's economic health and political stability,

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[16] This is to better approximate the concession function equation. Using two different cost terms does not change the results presented here.

[17] All statistical analysis was performed using STATA 5.0.

TABLE 5. Difference of Means Test of the Coercion Condition Without Realignment Cases

	Mean Value with Hostile Alignment (standard error)	Mean Value with Neutral Alignment (standard error)	Mean Value with Cordial Alignment (standard error)
Ordinal measure of Sender's opportunity costs	2.20 (0.17)	1.53 (0.08)	1.52 (0.11)
Cardinal measure of Sender's opportunity costs	.15 (0.14)	.03 (0.02)	.01 (0.01)
Target's opportunity costs	.37 (0.21)	.72 (0.13)	2.54 (0.65)
Number of observations	20	49	31

which is a catch-all measure of several domestic and international factors. The coefficient is negative; as the target's health improves, it makes fewer concessions. This result is significant at the 5 percent level, suggesting that the domestic political situation within the target country does play a role in determining the outcome of a sanctions attempt.

Other variables failed to register any statistical significance. The dummy variables for the threat of military force, the democratic nature of the target regime, and the existence of third-party assistance to the target country trend in the expected direction. The target will make fewer concessions if it does not face the specter of military force or covert action, and if its regime is authoritarian and it receives assistance from another country during the sanctions episode. None of the variables comes close to significance, however.

The other two control variables provide more interesting results. The measure of the sender's relative aggregate power has an insufficient but negative coefficient. This suggests that the neorealist explanation for relative gains concern is inadequate. Neorealists argue that states become more concerned with their relative performance when states share similar positions in the international system. If this is true, then target states should be more reluctant to concede when the power ratio between the two countries is roughly equal. The precise opposite is true. Furthermore, the t-statistic suggests that aggregate capabilities do not influence the magnitude of the target's concessions one way or the other.[18]

The biggest surprise is international cooperation. This variable is *negatively* correlated with concession size. The result is significant at the 5 percent level. Ceteris paribus, increasing the number of sanctioning states decreases the expected number of concessions. This result contradicts an assumption made by most policy analysts and international relations theorists. International cooperation is far from a necessary prerequisite for a successful coercion episode. A partial explanation is that added costs to the target from enhanced cooperation are absorbed by the cost measure; the measurement for international cooperation does not take into account the increased damage to the target caused by the increased cooperation. Nevertheless, some policy analysts claim that international cooperation lends greater legitimacy and "moral suasion" to the sanctions effort. This statistical result shows that this argument needs further study (Drezner, 1997; Kaempfer and Lowenberg, 1998).

Given the inherent noise in the data, the statistical results provide robust empirical support for the model. These results are particularly encouraging given the state

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[18] It could be argued that the high degree of multicollinearity between aggregate size and the cost/alignment terms is suppressing the significance of the size term. As a further test, multiple regressions were run without either the cost or alignment terms. Of the ten regressions, aggregate power does take a positive sign in most of these regressions, but the variable is significant at 5 percent in only one of the models.

TABLE 6. The Determinants of Concession Size

Independent Variable	Model 1		Model 2	
	Estimated Coefficient	t-statistic	Estimated Coefficient	t-statistic
Gap in opportunity costs	.159	2.909**	.227	3.268**
Alignment	.466	2.659**	.413	2.080*
Realignment	−.667	−2.610**	−.574	−1.961*
Threat of military force			.170	0.571
Target regime type			.129	0.439
Sender's aggregate power			−.119	−1.763
Assistance to the target			−.492	−1.455
Health of the target regime			−.455	
Cooperation with the sender			−.321	
Cut point 1	.071		−2.187	
Cut point 2	.594		−1.616	
Cut point 3	1.267		−.897	
Cut point 4	1.792		−.326	
Log likelihood	−149.80		−142.22	
Number of observations	103		103	

**significant at 1%
*significant at 5%

of the literature on economic sanctions. Although there has been some testing of when sanctions "work," there has been almost no serious analytic study of the origins of a coercion event. In most narratives, the origins of sanctions are explained away by domestic factors in the sender country (Mayall, 1984; Lindsay, 1986; Kaempfer and Lowenberg, 1992). Frequently the effort is described as an instinctual response to target behavior. The results in this section suggest that sender governments do engage in strategic calculations at the systemic level prior to coercion attempts, and these calculations involve comparing the relative costs and benefits. They are threatened or employed only when the state prefers Deadlock to the Status Quo. Sanctions costly to the sender are likely only if there are expectations of frequent conflict between the target and sender. The concession size is likely to be greater if the costs to the target are large and the costs to the sender are low. Cases where the target engages in realigning behavior are likely to produce smaller concessions. Greater expectations of future conflict reduce the size of the target's concessions.

Conclusion and Qualifications

The conventional wisdom about economic coercion is that it never works, and that attempts are motivated solely by domestic forces. That view of economic statecraft is at best incomplete and at worst misleading. Sender governments make rational calculations in employing economic coercion, and target governments make similar calculations in deciding whether and how much to concede. Senders will be more willing to threaten coercion and incur significant costs of sanctioning if there are expectations of frequent conflict with the target. Paradoxically, heightened conflict expectations reduce the magnitude of the target's concessions. Senders will get larger concessions from the states they are most reluctant to coerce.

The conflict expectations model highlights the problems with existing explanations of economic coercion. The model shows that much of the existing literature suffers from selection bias, because it focuses on celebrated sanctions cases involving

adversaries. The model developed here can explain when states choose to employ coercion, and how concessions are determined. It improves on the previous theoretical literature by developing testable hypotheses, and receives strong support from the statistical tests.

Qualifications need to be made, of course. First, correlation does not imply causation. Case studies are needed to determine whether the sender and target elites incorporated conflict expectations into their decision-making calculus. Second, the model presented here does not preclude the importance of domestic factors, but it does suggest the need for more explicit theories as well as testable hypotheses. Finally, there needs to be further theoretical and empirical work on how states choose among their policy options. Economic coercion is one of several policy tools, ranging from military coercion to nonaction. The model developed here provides a useful first step, and could be generalized to include all forms of coercive pressure, but further research is necessary.

Appendix

LEMMA 1. In the coercion game, there exists a demand D such that Sender will always prefer the outcome AQ to DL.

PROOF. Compare the utilities of Acquiescence and Deadlock for Sender:

$$U_s(AQ) = (2 - \beta)D^* +$$

$$U_s(DL) = -c(s) + (1 - \beta)c(t)$$

$U_s(DL) > U_s(AQ)$ *if and only if*: $-c(s) + (1 - \beta)c(t) > (2 - \beta)D^* +$

$$\frac{-c(s) + (1 - \beta)c(t)}{2 - \beta} > D^*$$

From equation (4),

$$\frac{c(t) - (1 - \beta)c(s)}{2 - \beta} = D^*$$

Substituting for D^*:

$$\frac{-c(s) + (1 - \beta)c(t)}{2 - \beta} > \frac{c(t) - (1 - \beta)c(s)}{2 - \beta}$$

$$0 > \frac{c(s) - (1 - \beta)c(t)}{2 - \beta} + \frac{c(t) - (1 - \beta)c(s)}{2 - \beta}$$

Normalizing, we get:

$$0 > [1 - (1 - \beta)^2][c(s) + c(t)]$$

We know that $(1 - \beta)$ is less than one, so the coefficient is greater than zero. We also know that $c(t)$ is greater than zero, and that $c(t) > c(s)$ in order for Acquiescence to be a possible outcome. The righthand side can never be less than zero, which means $U_s(DL)$ can never be greater than $U_s(AQ)$. Thus, $U_s(AQ) > U_s(DL)$. Q.E.D.

LEMMA 2. Unless $\alpha > D^*$, Sender will prefer Acquiescence to Status Quo Ante.

PROOF. Compare the utilities of Acquiescence and Status Quo Ante for Sender:

$$U_s(AQ) = (2 - \beta)D^* +$$

$$U_s(SQA) = \beta\alpha - (1 - \beta)(t + \alpha)$$

$$= \beta\alpha$$

$$U_s(SQA) > U_s(AQ) \text{ if and only if}$$

$$\beta\alpha > \{2 - \beta\}D^*$$

In order for $U_s(SQA)$ to be greater than $U_s(AQ)$, the benefit from an unthreatened relationship (as distinct from an uninterrupted relationship) would have to exceed the optimum possible demand, at the very least. In other words, α would have to be greater than D^*. Q.E.D.

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