WHEN SIGNALS MATTER: FACTORS THAT DETERMINE SIGNALING SUCCESS

Thomas Brown

The transmission of signals to indicate the intent, resolve, or capabilities of a signaling actor to a signal recipient has been used to justify the enactment of economic sanctions, which many studies have shown to be largely ineffective at achieving their intended goal. However, the mere sending of a signal does not guarantee that that signal matters—that it results in a change in the actions or perceptions of the signal recipient. This paper analyzes the conceptual conditions that allow for a signal to be sent and which aspects can prevent a signal from creating a material change that would not have otherwise occurred. Due to three internal qualities of a signal—its clarity, the costs it imposes on the sender, and its multilateral backing—not all signals signal equally; furthermore, the presence of five qualities—the target's resolve, image gains calculus, relationship with the sender, regime type, and vulnerability—determines that not all signals matter equally. Using this analysis, this paper then examines the 1980 U.S. wheat embargo against the USSR to illustrate the appearance and interplay of these factors.

Introduction

Throughout the past century, economic sanctions have become an "independent instrument of foreign policy": an alternative tool to the "increasingly violent and destructive" hard power of military action (Nephew 2018, 2). Much of the literature on economic statecraft, however, finds that sanctions regimes are rarely successful in achieving a concrete policy goal. While Hufbauer, Schott, and Elliot found that 34% of economic sanctions from 1914 to 1990 were a "success"—much higher than the perceived effectiveness of sanctions at the time—Robert Pape's analysis finds that only 5 of their 115 case studies "are appropriately considered successes" (Pape 1997, 92-93).

There is thus a solid foundation in the literature establishing the "traditional use of sanctions as a punishment or agent of coercion is largely passé" (Gavin 1989, 3). However, when the goals of a sanctions regime are redefined to include a wider variety of strategic objectives, the transmission of intended signals can largely be used to (re-)label a sanctions regime as a success. In fact, data from the Targeted Sanctions Consortium of United Nations Sanctions shows that sanctions intending to signal or constrain are almost three times as effective as sanctions intending to coerce a policy change (Biersteker and van Bergeijk 2015, 19). David Baldwin, who frequently undertakes this kind of revisionist analysis in his book Economic Statecraft, disputes

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claims that signal-sending purposes of sanctions serve nothing more than a "symbolic" purpose, arguing instead that signals "constitute influence attempts" in the same way demonstrations of military force do (Baldwin 2020, xix-xx). He proclaims: "Using sanctions for signaling purposes is not an alternative to using them as instruments of statecraft; it is statecraft" (Baldwin 2020, xx).

The evidence is strong: sanctions can and do send signals. But a key question arises: do they matter? A term like "matter" is broad and does not immediately present a metric for evaluating if signals sent by a sanctions regime result in a material change in outcome that would not have otherwise occurred, nor does it provide an understanding of the extent of a signal's significance. This paper thus looks at changes in a signal recipient's behavior and decision-making that occur as a result of having received a signal; a signal may then "matter" when the actions or perceptions of a recipient change in a way that adheres to the objectives of the sending state, reflects the influence of the signal sender, or otherwise alters the political calculus of the signal sender—equally general words like "significant" or "effective" are defined in this paper by a similar understanding. Ultimately, this paper finds that not all signals signal equally, and furthermore, even signals of equal strength may not matter equally.

The paper that follows consists of five further sections. The first three sections are conceptual: the first defines what signals are and to whom they are sent and why; the second discusses three internal qualities of sanctions (and signals themselves) that lead to signals being sent; and the third hypothesizes and analyzes five external factors to sanctions and signals that can either bolster or mitigate signal effectiveness. The fourth section is empirical. In this section, I use the U.S. grain embargo of 1980 against the USSR following the Soviet invasion of Afghanistan as an illustrative example of how many of the characteristics and analysis contained within Sections Two and Three are revealed in reality. The example analyzes how many of these factors can bolster or mitigate the effectiveness of signals sent to the targeted state, to allies of the sender, and to domestic audiences of the sender. The paper's fifth and final section concludes that this renewed understanding of signal effectiveness should reshape the debate on the utility of economic sanctions and provides further areas of study on signals.

I. SIGNALING: A CONCEPTUAL BACKGROUND

What are Signals, and Why Send Them?

At its most basic level, a "signal" within the study of international relations can be defined exactly as one would define it outside of academia: they are actions that convey information or indicate intent. International relations theorists progress this simple definition by considering how signaling may—or more accurately must—be used strategically by rational actors when enacting foreign policy. Signaling therefore occurs when one state—the sending or targeting state—wants to provide information or indicate their policy preferences to another state — the recipient or targeted state — because the decisions made by the recipient state will affect the sending state.

Gartzke et al. provide a thorough definition: "signaling is the purposive and strategic revealing of information about intent, resolve, and/or capabilities by an actor A to alter the decisions of another actor B to improve the chances that an outcome desired by A is reached when the desired outcomes of A and B are dissimilar" (2017, 3).

The importance of signaling is grounded in a realist worldview. In an anarchic state where no global authority is capable of enforcing promises, threats, or agreements, signaling is an essential practice for rational actors to indicate their capabilities and intent to other actors. Baldwin calls signals "intrinsic to strategic interaction": in order for one actor to come up with "their best strategy," they must rely on what strategy they predict other actors will adopt (2020, xiii). Regardless of whether an actor is being truthful, signals are used to fill gaps created by asymmetric information. It is up to the signal sender to determine how they can use signals to indicate to other actors either what actions they will truly undertake, or what actions it wants other actors to think it will undertake (in order to improve the sending state's informational advantage). This potential for ambiguity means that miscommunication can occur when "the sender and the recipient differ about the meaning of the signal" (Gartzke et al. 2017, 3). In this sense, signaling can occur intentionally or unintentionally surrounding any action an actor takes. In addition to diplomacy, propaganda, and military action, economic sanctions are undertaken for imaging purposes that directly or indirectly convey signals to recipients (Baldwin 2020, xiii).

Signal and Sanction Motivations

When transmitted through sanctions, the purpose of a signal can be observed through the functions of the sanction. A trade suspension, for example, can be adopted to "signal the potential of still worse pain to come if the target fails to comply" (Pape 1997, 94). They can also "trigger a sense of shame, impose a sense of isolation from the world community, signal a willingness to use more radical measures, or simply provoke a reexamination of policy stances in the target country" (Baldwin 2020, 64). Ultimately, signals indicate the preferences of a targeting state — be that their approval and disapproval of other states' policies or their willingness to escalate disputes. They can signal alliance commitments, attempt solutions to collective action problems, and indicate a willingness to cooperate (Gartzke et al. 2017, 4). In the vein of informing other actors of their policy stances, signals are commonly called a "demonstration of resolve," as they indicate the extent to which the targeting actor is willing to stand behind its policy stance (Hufbauer and Schott 1985, 9).

Economic sanctions can be a particularly effective transmitter of signals. The idea of using a bloodless alternative to military statecraft is an attractive option in and of itself, but one of the many reasons why sanctions are undertaken is because the pain they cause has a similar desired effect to that of military statecraft. In the words of Richard Nephew, states targeted by sanctions "face a choice between capitulation and resistance, between the comparatively easy path of compromise and the sterner path of confrontation" — similarly to staring at troops lined across a battlefield (2018, 11).

On the other side of the spectrum, diplomatic condemnation can rhetorically convey a sending state's stance but does not create pain for the targeted state. Thus sanctions, which create costs for the recipient and the sender (as will be discussed in Section Two), are a "powerful way to communicate norms" (Biersteker and van Bergeijk 2015, 19).

In a more nuanced argument, sending signals through sanctioning can be preferable to the alternative signal that can be sent by inaction. Even when the potential for a sanctions regime to alter the behavior of an adversarial state is low, cost-benefit analysis may reveal that the costs of "lost confidence at home and abroad in the ability or willingness" of the targeting state "to act" may be greater than the costs incurred by the sanction itself (Hufbauer and Schott 1985, 9).

Signal Recipients

The motivations driving the sending of signals is elucidated when looking at whom the recipients of any signal may be. Signals can be sent to parties other than just the state targeted by a sanctions regime. This paper recognizes three possible types of signal recipients: the targeted state and its population, allies and non-involved third parties, and domestic audiences within the targeting state. Within any single sanctions regime, different signals can be sent to these three groups, whose interests and relationship to the targeting state vary greatly.

The most obvious recipient of a signal is the state or states targeted by a sanction. Policy goals of sanctions beyond signaling involve substantively influencing the policies or regime of the targeted state, which can take on the form of deterrence, regime change, policy change, or norms setting. In theory, but rarely realized, economic sanctions can achieve these goals due to the pain they inflict on the targeted state. By inflicting hardship upon the target, the sender hopes to create a "sufficiently onerous" environment to the extent that the target no longer considers the benefits of continuing its first-choice policies to outweigh the costs it will continue to incur from a sanctions regime directed at the maintenance of their first-choice policies (Nephew 2018, 9). The ability of the target to endure this pain over a long enough period of time can determine whether a sanctions regime was successful or not.

Signals from sanctions can also target the domestic audiences within the targeted state. When the goal of a sanctions regime is to signal disapproval of the targeted state's government, the imposition of sanctions can "increase previously existing dissent" or mobilize a "previously uncommitted and passive" population to create new opposition within the targeted state (Grauvogel et al. 2017, 86). The signal to would-be protesters carried by sanctions is successful because it indicates an "international stamp of approval for antiregime activity" (ibid., 86). These signals increase protest rates in targeted countries: Grauvogel et al. find that the incident rate of protests increases by 59% in the presence of a new threat of sanctions (ibid., 92).

Targeting states must also be aware of signals that are sent to their allies or countries not directly involved in the sanctions regime. Signals can be sent to allies

to prevent them from "escalating a conflict and resorting to the use of military force" or can serve as a warning to "other actors tempted to pursue similar policies" to any undertaken by the targeted regime (Biersteker and van Bergeijk 2015, 19). Signals can also help allies find common ground as a form of "purposive communication that helps states realize their interests are aligned on issues such as technical standards, climate change, or human rights" (Gartzke et al. 2017, 5). Ultimately, the repeated transmission and reception of signals between allies builds up a state's reputation — a "long-term" perception that differs from the "short-term" perceptions offered by signals — in a way that can foster relationships and lead to greater cooperation (ibid., 6).

Domestic audiences of the targeting state, a category which refers to groups like opposition parties and interest groups and the targeting state's population and electorate, are rarely considered in sanctions literature but can still receive signals from their state's decision makers. When a targeting state creates a sanctions regime — either through legislators voting for it or an administration enacting it — a signal indicative of a legislator's or the state's support for the motivation driving the sanction itself can be sent to the relevant electorate. Legislators are particularly receptive to this signaling logic. Voting to approve a sanctions regime is a visible signal to the public that a decision maker agrees with condemning the action or policy that a sanction is targeting. When a sanctions regime is driven by a reaction to "popular causes" like human rights abuses, for example, a legislator's vote against enacting the sanctions "risks damaging [their] constituent support" (Gavin 1989, 7).

II. INTERNAL FACTORS TO SIGNAL SUCCESS

It is important to understand not only how signals work, but also what sets up the potential for signals to be effective. This section discusses three established characteristics — signal clarity, the imposition of costs on the sender, and multilateral support — that ensure signals aligning with the objectives of the sender are most likely to be sent. In many signaling cases, these factors help to indicate the resolve of the sender, meaning that the presence of these factors can increase the awareness of the targeted state of the sender's preferences and determination to have those preferences be realized. The varying presence of these three factors within a sanctions regime evidence the conclusion that not all signals signal equally.

CLARITY

Signal clarity is at once the most obvious factor that relates to signals. Intuitively, one can understand that in order for a state to indicate its resolve relating to a specific action or policy, there must be very little ambiguity about what that resolve actually looks like. Clarity is thus important for the interrelated elements of signal transmission and signal content.

When sending a signal, a state must only send one signal (per issue or action) to the target state, which means that the signal must be unified among the differing preferences among decision makers. Although the unitary actor assumption simplifies

decision-making theory by reducing a government's decision-making process to being under the control of one person, there are realistically hundreds of elected officials, policy wonks, Cabinet level authorities, and high-ranking staff members who influence it. Each person likely has their own opinions and preferences for determining which states and policies should be targeted, and what position of the sender is to be sent in a signal. However, the resulting signal must provide a sole, unified platform that will not be undermined by deviating opinions.

The same signal must also be sent from all levels of the sending state. A state governor in the U.S., for example, may contradict an official immigration policy of the federal government that restricts immigration by granting asylum to refugees. In this case, conflicting signals are about American preferences for immigration policy. Thus, in a federal system, one way to guarantee signal clarity is to "fully control policy at the national level" to avoid the sending of conflicting signals at the state or local level (Gavin 1989, 9). Political unity must also be high within the federal level itself: in order for a clear signal to be sent in the U.S., for example, Congress must avoid "grappling" with the Presidency for control of the direction of sanctions policy (ibid., 9). Such unity may thus be difficult to sustain when the executive and legislative branches of government are controlled by different political parties.

Clarity must also be found within the content of the signal and sanction itself. "Targets are more likely to comply with narrowly articulated goals" instead of "vaguely defined, general goals" (Biersteker and van Bergeijk 2015, 26). Unless the sole purpose of a sanctions regime is to punish a state, signals must contain an "expectation" about what objective or standard the targeted state must attain in order to satisfy the targeting state and compel them to cease the inflicting of pain (Nephew 2018, 48). Thus, clear signals are those that give the targeted state the best idea of what policy is being targeted and why.

While this subsection establishes the importance of clarity and the factors that can impede it, the rest of this first conceptual section discusses factors that can indicate the clear resolve and unity of the targeting state or states: costs and multilateralism.

CLARITY

The imposition of costs — unpleasant and undesirable economic, political, social, military, or strategic consequences — on the targeting state itself aids the establishment of the targeting state's resolve, which drives the credibility of a sanctions regime. The significance of costs in signaling theory can best be understood when looking at the preference of targeting states to use signals to warn targeted states of future military action should the targeted state refuse to cease the policy disliked by the targeting state; such signaled warfare would incur its own high and undesired military and economic costs on both the targeting and targeted states which are more undesired than predicaments under the status quo (Fearon 1997). However, because the targeted state "cannot directly observe the threatener's preferences" and the targeted

state "knows the threatener has an incentive to pretend to be 'resolved," the targeted state must rely on only received signals from the targeting state to gauge whether threats of future military action — which would be conveyed by preemptive actions like sanctions — carry any weight behind them (ibid., 69). The problem that arises centers around credibility: how can a signal be believed if the sender "has an incentive to bluff"? (Quek 2021, 537). Incurring costs, which imply the targeting state's resolve to potentially go to war over the issue at the heart of a sanctions regime, builds this credibility that the chances of war should the targeting state's demonstrated preferences be unrealized are probable, if not certain. Figure 1 explains the decision-making process behind sending and interpreting signals from a cost perspective:

A highly resolved state will be able to successfully deter a targeted state, who understands that failing to comply will result in the worse, costlier outcome of war. In contrast, when a targeted state either calls the targeting state's bluff or is willing to incur these potential worse costs, a war scenario will occur. When a targeting state has low resolve, the targeted state can safely maintain the status quo — an unfavorable policy to the targeting state — without fear of repercussion. This game reveals that there is no incentive for a targeted state to comply with a signal sent by an unresolved state. The logic is simple: there is no reason, for example, why a cheating student will stop cheating if he believes that his teacher will never go so far as to fail him. (In this example, a teacher with low-resolve may simply take off an acceptable number of points from the cheater's exams.) Fearon explains: "For a threat to increase the target's belief that that sender would be willing to fight, it must be more likely that a resolved state would make the threat than an unresolved state" (1997, 69). It is thus always in the interest of the targeting state to signal a high resolve to establish credible perceptions in the mind of the targeted state, even if — especially if — its resolve is low. This necessary resolve can be indicated by incurring costs.

To establish the credibility of a signal, Fearon states that a targeting actor "can send signals that either tie their hands or sink costs" (ibid., 70). The "tying hands" approach establishes a cost that the targeting state would incur if it either backs down from an intended policy decision or fails to achieve the goal of the policy decision. For example, tying hands signals are created when a state leader makes "public statements of intent" (ibid., 70). The success of the tying hands approach lies in its ability to create audience costs. Audience costs, which arise from "the reaction of domestic political audiences interested in whether foreign policy is being successfully or unsuccessfully handled by the leadership," can punish the leadership of the targeting state for a poor performance (ibid., 69). If the leader backs down, he looks naïve and hypocritical, but if his policy decision fails, he looks foolish and incompetent as a leader. Thus, the potential costs to be incurred by the targeting state are political, as a leader may lose credibility, domestic support, or even a future election, and reputational, as the "national prestige" of the targeting state may be reduced (ibid., 70).

Sunk costs are more literal: they are incurred when a state takes an action that incurs a cost, but the action itself does not change the political calculus of escalating tension

to combat or acquiescing. "Pure" examples of sunk costs include "building arms or mobilizing troops" (ibid., 70). The loss of trade and financial burden placed on the targeting state during an economic sanctions regime also serve as sunk costs. The greater the imposed cost, meaning the more severe penalties the targeting state is willing to impose on its own economy and citizens, the greater its resolve will appear to be to the targeted state.

More recently, Quek observes that the tying hands and sunk costs approaches can be differentiated based on time frame differences — tying hands costs are incurred in the future and sunk costs are incurred in the present — and their contingency — tying hands costs are only incurred if the signaler backs down or fails and sunk costs are incurred regardless of future actions of the signal sender (2021, 538). Quek thus derives two further ways to incur high costs that send credible signals from Fearon's theories: installment costs and reducible costs (ibid.). Installment costs "are fixed costs that will be incurred in the future"; an example would be the costs a targeting state incurs while maintaining a nuclear base in a different state it wants to defend, which is beyond the initial cost needed to build the base (ibid.). A significant difference between sunk costs and installment costs is that the latter involves calculating costs on "beliefs about the future" (ibid., 539). Thus the targeted state, in determining its response, must determine if the targeting state's resolve is strong enough to maintain this cost for potentially years to come.

Reducible costs are "costs that have been paid but can be offset in the future contingent on the signaler's action." Like tying hands costs, reducible costs are contingent on the sender's fulfillment of the signal threat, but they are instead incurred in the present (ibid., 540). Whereas the calculation of installment costs are based on the time dimension, reducible costs are calculated by determining how likely the sending state is to fulfill its signaled message (ibid., 541). Quek identifies three frames of reducible costs that can best be described through examples of preparing for war (which signal to the targeted state the high resolve of the sender.) Costs can be reduced "computationally": purchasing weapons reduces the costs that would need to be paid if the state progresses to war. Costs can also be reduced "substantively": evacuating citizens away from a conflict zone eliminates the costs needed to protect them during war. Finally, costs can be reduced "indirectly" by increasing the benefits of war: an increase in taxes for military defense spending may spur political consequences for the government, but having to go to war would benefit from this outcome, and the government would receive political rewards for its foresight (ibid., 541-542).

The common themes that emerge from the four kinds of signaling cost mechanisms — tying hands costs, sunk costs, installment costs, and reducible costs — are the establishment of the sending state's credibility and resolve. In order for signals to be both sent and believed, they must convey at least the appearance of high credibility and high resolve. Incurring costs can "separate a signal of resolve from a bluff" and employing multiple kinds of costs can "augment" a state's signal (ibid., 542). Signals that fall short provide no cost-benefit change in the decision-making calculus of the

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targeted state to warrant a change in policy. In fact, "sending a smaller, half-hearted signal" can have a more negative effect for the targeting state than sending no signal at all, as the targeted state may determine the targeting state lacks any resolve at all, and thus unlikely to escalate a challenge to the targeted state (ibid., 545).

The imposition of costs highlights why economic statecraft — particularly sanctions — are an effective transmitter of signals. Baldwin notes that because "economic techniques usually cost more than propaganda or diplomacy," they have a higher "inherent credibility"; on the other end of the spectrum, military statecraft "entails higher costs" and therefore possess even greater credibility, but their costs may be untenable or undesired by the targeting state (2020, 110).

MULTILATERALISM

Multilateral threats and sanctions send stronger signals because "they indicate a broader base of international support" than signals sent by a single state (Grauvogel et al. 2017, 93). In other words, multilateralism demonstrates a common resolve among multiple targeting states. Building upon the first signal characteristic of this section, multilateralism provides the "clarity and consistency" from the targeting actors to transmit a signal (ibid., 95). This observation is in line with cooperation theory, a "central tenet" of which states that collaboration between "a sufficient number of powerful states" can "manage the international system and punish defections" from international norms (Drezner 2000, 74).

However, some scholars have found that multilateralism provides no greater chance for sanctions success than do unilateral sanctions. Bapat and Morgan cite four studies that find "unilateral sanctions appear much more effective than do multilateral efforts" (2009, 1075). However, when they use a different data set "with a greater number of cases over multiple dispute types" to those four studies, they come to a conclusion in line with that of Grauvogel et al.: "multilateral sanctions are indeed more effective than unilateral sanctions" (ibid., 1076). While this paper focuses on signal and signaling success, instead of sanctions success, the contradiction on multilateralism is considered here because the arguments against multilateral effectiveness can be mitigated in the presence of international institutions.

International institutions resolve the bargaining and enforcement problems that emerge from multiple actors working together without the presence of an overarching authority (Drezner 2000). Multilateral cooperation can be "sabotaged by roadblocks at the bargaining stage," as targeting states determine what will specifically comprise the sanctions regime (Drezner 2000, 83). And when multiple states cooperate on a sanctions regime, a collective action problem results: an individual state could likely break the conditions of the sanctions to stop incurring costs and hope that its lack of resolve does not disrupt the entire sanctions regime (Drezner 2000, 83). Drezner finds that institutional support resolves these problems through the establishment of "reputation costs" (created through international mandates) that come into effect after a reversal of a state's position; institutional support thus signals to the targeted state that "backsliding is not likely to occur" (ibid., 87). Again, we can see that clarity and costs among targeting states are crucial for signaling success, especially among multilateral efforts. Sitting down at a table provided by an international institution ensures that all targeting actors are on the same page of how the sanctions will operate and how they will participate in the regime throughout its existence. International institutions are able to accomplish this feat because signal recipients "value the opinions" they provide in assessing the "validity" of the sender's threats (Gartzke et al. 2017, 14). The contribution of reputation costs to signaling success, which have a similar effect to audience costs, demonstrates not only the importance of targeting states self-imposing costs on themselves, but also highlights the visibility of those costs to targeted actors.

III. EXTERNAL FACTORS TO SIGNAL SUCCESS

The above internal factors describe characteristics of signals that make them most likely to be transmitted in a way that both represents the objective of the sender and is also likely to be understood by the recipient. However, even if the clearest, costliest, and most multilaterally backed signal is received by a state, that does not necessarily mean that the signal then matters. This paper hypothesizes that five external factors to a signal — recipient resolve, imaging calculus, sender-recipient relationship, regime type, and vulnerability — can either bolster or mitigate a signal's effectiveness. Grounded in both international relations theories and specific signaling theories, these factors demonstrate that the mere sending of a signal does not guarantee that it will result in a material outcome.

The consideration of these external factors raises an interesting observation about the central question of this paper, which seeks to determine when signals matter. As has been discussed earlier, signals, when transmitted and received, consistently inform the decision-making process of the signal recipient. In this sense, sent signals will always matter, because they play a fundamental role in determining a rational actor's response to the signal sender. This section, however, examines external impediments that may hinder a signal's ability to act as an influence attempt by the targeting state. The potential presence of the following factors in the environment of a sanctions regime broach the conclusion that signals of equal strength — those with similar clarity, costs, and multilateralism — may not matter equally.

RESOLVE OF RECIPIENT

Much of the literature on sanctions focuses on the resolve of the targeting state, as it is their resolve that must be demonstrated by a sanctions regime and any corresponding signals. This paper now considers the resolve of the recipient actor. Here, "resolve" reflects not only the willingness of a signal recipient to endure a sanctions regime, but also their determination and desire to continue to achieve its own first-choice policy objectives.

For states, resolve may take on the appearance of geopolitical ambition. Co-

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hen looks at this characteristic in relation to a different form of economic statecraft, currency statecraft, and finds that it is the dominant factor that determines whether a state with the capability to internationalize its currency actually will do so (2019). A state's geopolitical ambition is "a reflection of how a nation defines its proper place in the global order" (ibid., 48). This ambition carries over to a state's receptiveness to sanctions. A target may receive a signal from the sender that attempts to deter them from a current course of action. Even if the target fully understands that the sender disapproves of this course of action and is willing to impose costs, the recipient may decide that its desire for power and influence supersedes such costs.

This apparent "risk tolerance" of targeted states underscores how the perception of costs can interfere with the framework under which sanctions operate (Biersteker and van Bergeijk 2015, 23). At the end of the day, signals aim to fill an information gap in order for more accurate cost-benefit analyses to be conducted. An actor can consider the costs of acquiescing or continuing, and then ultimately decide that even the higher costs incurred by sanctions or the higher future cost of an escalated conflict are worth the continued undertaking of their current path. As the formation of a state's geopolitical identity and policy decisions are "fundamentally grounded" in its "most cherished values and norms," the presence of high ambition of that state can be extremely difficult to overcome by a sending state (Cohen 2019, 54).

CHANGES TO IMAGE

Another factor that recipients must consider is how their reaction to the signal will affect their image. After being met by a sanctions threat, a state "may reveal weakness" if it acquiesces, which may "spill over to and have an adverse effect on other international negotiations" (Biersteker and van Bergeijk 2015, 22). In effect, an actor's response to a signal can constitute a new signal itself, as it clarifies information and perceptions held by the originally targeting actor.

A state that wants to appear strong — meaning powerful and independent from outside influence — has incentives to refuse to capitulate to the targeting state. A signal may clarify information and communicate a clear stance of the sender, but it may still be ineffective due to the lack of desire of the targeted state to even consider the acquiescence option. This external factor contrasts with the geopolitical ambition factor discussed above. Whereas the latter is indicative of a state's desire to chase benefits even in light of potentially increasing costs, the former reflects a desire to maintain credibility and appearance of power. Furthermore, the targeting state can appear more powerful if the state acquiesces. There is thus a zero-sum game between sender and recipient, in which if the recipient resists, the power of the sender appears diminished and the reverse occurs if the recipient capitulates.

The creation of images can be found in a state's reputation and desire to maintain its credibility. Several game theory models look at reputation as a kind of "property that can be invested in and built up" (Guisinger and Smith 2002, 176).

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Within a sanctions game, a sender is aware that it "can make and follow through on threats not for the immediate gains but to achieve a reputation for a certain trait" which can often lead to the establishment of traits typical of a powerful state, like "aggressiveness, resolve, and toughness" (ibid., 176).

HISTORY OF SENDER-RECIPIENT RELATIONSHIP

A signal recipient can also consider the past usage of sanctions by the targeting state and its own historical relationship with that state. A state with a "history of strong sanctions" may magnify its "reputation and make its threats more credible" (Biersteker and van Bergeijk 2015, 22). In parallel, a state that has a history of rarely following through on sanctions threats can indicate to the targeted state that regardless of what a signal says, the targeting state's resolve may be low. In this case, a sender's reputation must be built up again before the signals it sends are credible enough to be believed by the recipient.

This factor highlights the differences in reputation and signaling between signal senders and their allies and their rivals. Mercer (1996) finds that it is perceptions of reputations, not reputations themselves, that can alter signal effectiveness. For example, "in the case of a rival, even 'weak' behavior is typically perceived as a strategic move rather than a demonstration of a lack of resolve." Thus, the credibility of signals between rivals (and likely foes as well) is at an inherent disadvantage. Reputation and past behavior may thus be a greater indicator of signaling success between the sending state and their allies. If alliances are based on mutual trust between states, it takes a buildup of credible commitments for these relationships to stick. This is a reason why Guisinger and Smith find that a state's honesty in past behavior is crucial for the development of its reputation (2002). Gibler reaches a similar finding, writing that "leaders seek other leaders who honor their commitments and avoid those leaders who do not" within alliance formation (2008, 446).

REGIME TYPE AND INSTITUTIONS

A fourth external signal factor that can impact signal effectiveness is the regime type and institutions of the targeting state, a trait that depends largely on the ability of a state to establish audience costs. Signals established through a tying hands approach work because of the political consequences of audience costs; the presence of "credible opposition parties and a free press" in democracies means that elected decision makers are more adept at demonstrating their resolve (Lektzian and Sprecher 2000, 418). The presence of these institutions makes threats more credible "because the domestic risk of bluffing forces the government to choose threats selectively" (Gartzke et al. 2017, 12). In contrast, non-democratic states, which "lack the institutional mechanisms to generate domestic costs," are "unable to use economic sanctions as signals of resolve" (Hart 2000, 268). Whereas all states regardless of regime type are able to establish costs—as sunk costs do not require the presence of audience costs—the tying hands approach is a more effective way of demonstrating

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a credible commitment (Fearon 1997, 71). Hart agrees with Fearon (1997) and Lektzian and Sprecher (2007) that democracies tend to experience greater success with economic sanctions because of this credible commitment, finding that "democratic senders are 54% more likely" to experience successful sanctions regimes (2000, 279). However, signals from democratic states can still be weaker than those sent by non-democratic states. Liable to their electorate, democratic regimes face domestic pressure to devise sanctions to be costless to the sender" (Lektzian and Sprecher 2000, 415). When a sanctions regime benefits the targeting state, "very little, if any, resolve is displayed" (ibid., 426). In line with the earlier established idea that demonstrating a lack of resolve increases the probability of military action, democratic sending states are also more likely to go to war because they do not wish to incur the political costs of backing down (ibid., 418).

Thus, signals coming from democratic states' economic sanctions are more likely to matter because they are more credible. When analyzing the finding that democratic states' sanctions are more likely to lead to war—which is what sanctions typically aim to avoid—it is important to remember that the signal still had an effect. This paper does not contest that economic sanctions may fail or that signals may convey an unintended message or lead to an undesired outcome. Even if signals indicate a lack of resolve to the targeted state, this is still an example of a signal being sent and then playing a significant role in the decision-making calculus of that recipient.

VULNERABILITY

The vulnerability factor is grounded most clearly in the standard cost-benefit analysis of rational decision-making. When confronted by a signal from a targeting state, the signal recipient can choose to either ignore the signal and maintain the status quo, or acquiesce to the desires of the sender. The literal costs of economic sanctions and the self-imposed costs on the sender create a cost-benefit analysis that the recipient must undertake to determine the sender's resolve. In essence, should the recipient call the sender's bluff and continue as it had been, or is the risk of incurring future costs too great and certain and therefore must obey? However, this calculus can be altered. What if the targeted state cannot afford to call the sender's bluff?

A state's economic and political vulnerability can alter the risks that state would be willing to take in a way that would not apply to economically prosperous and politically stable signal recipients. In other words, signals are more likely to work against vulnerable recipients because these states would incur much higher costs should sanctions continue or the conflict escalate. Galtung discusses the significance of target state vulnerability in terms of the economic pain inflicted by sanctions. Small powers, islands, and former or current colonies all have a high external vulnerability, while countries whose economies are concentrated on a single product or a single trade-partner have a high internal vulnerability (Galtung 1967, 385). 'Superpowers', like the U.S. and USSR, are "particularly invulnerable," as are similar

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great powers like the People's Republic of China, France, and the United Kingdom (ibid., 385). Politically, leaders who are vulnerable to the consequences of sanctions may make less rational decisions based on received signals than if they were more secure. For example, leaders "who may have to fear for their lives if they comply with sanctions" will be more likely to take a risk — like calling the targeting state's bluff — and choose to "gamble that the sanctions will not be implemented" (Biersteker and van Bergeijk 2015, 23).

IV. US WHEAT EMBARGO OF THE USSR

This paper now looks to history: how can signals sent and received during past sanctions regimes be analyzed to illustrate the bolstering or mitigating factors discussed in Sections Two and Three? We turn now to the U.S.' imposition of a wheat embargo on the USSR in 1980, a case chosen for its demonstrated sending and receiving of signals at all three levels of analysis: the targeted state, allies and uninvolved states, and domestic audiences.

BACKGROUND

On December 24, 1979, the USSR launched an invasion into Afghanistan. The Soviets' explanation for the invasion — "an attempt to halt the flow of Afghan insurgents into the Soviet Union" — was not accepted by the U.S. (Roney 1982, 192). The action, which indicated the "clear evidence of the failure of American containment policy" and was the first "extensive expansion of Soviet territorial control since 1950," necessitated immediate action in Washington (Baldwin 2020, 249). In addition to withdrawing the American ambassador in Moscow, an (eventually carried out) threat to boycott the 1980 Olympics, and the codification of the Carter Doctrine, among many others, the administration of President Jimmy Carter responded with an embargo on the 17 million tons of grain that it had already agreed to let the USSR purchase (Baldwin 2020, 272).

A year earlier, Soviet grain production had fallen 21% due to dry conditions. To maintain its livestock supply, the USSR arranged to purchase grain, "the largest share" of which would come from the U.S., which in contrast had experienced a fruitful harvest (Paarlberg 1980, 144). Initial CIA analysis found that the loss of grain from the embargo would cost the USSR around 20% of their meat output (Roney 1982, 193). On this front, however, the sanctions regime was largely unsuccessful. For the U.S. to successfully wield its "food power," it must have maintained control over food export volume and prevented the "leaking" of other states' grain supplies into the USSR, and the intended food reduction itself must have been enough to cause significant pain; Paarlberg finds that no long-term success was met on any of these fronts (1980, 145). The USSR largely made up its grain deficit. Argentina, for example, provided 20 million tons of corn and grain to the Soviets in what would become a "booming Soviet-Argentine commercial relationship" (Paarlberg 1980, 153).

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However, the conditions of the sanctions provide fruitful ground for signaling, which was the main purpose of the embargo. We can re-examine the internal factors of signals that led to their transmission. The grain embargo is clearly not multilateral: only the U.S. imposed the sanctions regime. Although Carter proclaimed when announcing the embargo that he had consulted with "other principal grain-exporting nations," there is "no evidence that Carter, any top White House official, or any Cabinet member" ever spoke with officials of the other grain-exporting countries before the embargo" (Roney 1982, 195).

The clarity of the U.S.' resolve varied throughout the sanctions regime. As will be discussed under the domestic section, Carter faced much disagreement from Congress and political rivals like Ronald Reagan. However, the sanctions regime was bolstered by many other condemnatory actions of the U.S. The most significant of these was the Carter Doctrine, issued shortly after the embargo was announced. The doctrine explicitly threatened "to repel 'by any means necessary, including military force,' any attempt by an 'outside force to gain control of the Persian Gulf region'" (Baldwin 2020, 272). While technically outside the sanctions regime, the more explicit the condemnation and the threat of future military engagement, the more credible the U.S.' signal would be.

As one can expect, the grain embargo (definitionally) imposed costs on both the U.S. and the USSR. In the most literal sense of costs, the U.S. and American farmers lost out on receiving the funds that the USSR would have paid for the grain exports. The regime also imposed political costs on Carter. As the embargo's announcement came just two weeks before the agrarian-focused state of Iowa voted in their presidential election caucus, an embargo that places costs on farmers was likely to be unpopular. However, a quote from National Security Advisor Zbigniew Brzezinksi implies that this political cost was considered in advance of the 1980 presidential primaries and caucuses: "[Carter] knew [the embargo] was going to hurt him in that Iowa thing that was coming up" (Roney 1982, 195).

Some scholars have since argued that the U.S. should have done nothing. However, because the U.S. had already agreed to sell the grain, imposing no change "would have meant going ahead with the largest Russian grain deal on record" (Baldwin 2020, xix). Such inaction, as discussed in Section One, could send an unintended and false signal that the U.S. does not care about the advancement of Soviet aggression.

BACKGROUND OBJECTIVES OF THE US

Before evaluating the effectiveness of any sent signals, this section will first establish how the goals of the U.S. and its sanctions regime were primarily focused on signaling, especially to the USSR. Since 1948 and throughout the Cold War, the "restrictions on trade with communist countries" were a part of U.S. foreign policy, with the primary target of such embargoes being the USSR (Baldwin 2020, 245). U.S. embargoes throughout the Cold War were conducted to achieve several

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goals related to containing the USSR, many of which involved signaling attempts to the USSR, U.S. allies, and the Third World. Since the start of these embargoes beginning in 1948, the "primary objective" of the U.S. "was to contain and minimize Soviet influence of any kind everywhere in the world"; two further secondary goals relate to signaling: the weakening of "the ideological appeal of communism by symbolic condemnation and moral stigmatization" and the "deterring of Soviet expansion by demonstrating the intensity of American resolve to resist such moves" (ibid., 247).

The grain embargo and its targeting of the USSR underscores the importance of signaling objectives in foreign policy decision-making. Baldwin recontextualizes the U.S.' response to the Soviet invasion as not to protect the sovereignty and stability of Afghanistan, in which the U.S. had very few strategic investments, but to clearly signal "American perceptions of future Soviet intentions" in Southwest Asia and the world and to inform "Soviet perceptions of future American intentions" (ibid., 273). The main signaling regarding the USSR was thus that "any attempt to move beyond Afghanistan would be much more unacceptable to the United States" (ibid., 274).

For American allies, embargoes "were intended to demonstrate the strength of American resolve to resist communism and dramatize the importance of the split between communist and non-communist countries (ibid., 248). To the Third World — those countries who were not ideologically aligned with either the U.S. or the USSR — the U.S. wanted to further demonstrate its resolve to fight communism and reduce the appeal of Soviet development approaches "by making American repugnance for communism unmistakably clear" (ibid.). After the Soviet invasion of Afghanistan, there was also a specific need to "avoid alienating Islamic countries" as such a goal "ruled out" the usage of military action in the region (ibid., 268-270). The domestic level of analysis is particularly interesting in this case, as signals sent to domestic audiences largely revolve around the lifting of the sanctions regime, not its imposition. Recognizing that the embargo had become unpopular within farming groups, then Governor Ronald Reagan made repealing the embargo a campaign promise. However, Reagan did not repeal the embargo when he was inaugurated in January 1981 after realizing that doing so "would have called into question his commitment to a 'hard-line' approach to dealing with the Soviets," he delayed the repeal until April (ibid., 112). One can thus observe the interplay of signaling between levels of analysis.

EVALUATING RESPONSES OF THE USSR

An evaluation of the effectiveness of signals sent to the USSR must determine how clarifying U.S. resolve to use future military action changed the Soviets' political calculus to expand their territorial influence. After the invasion of Afghanistan, the USSR did not invade another country. Poland's Solidarity Movement and the threat it posed to the Soviet goal of maintaining the international strength of

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communism provides an excellent opportunity to explore how signaling may have influenced the USSR's ultimate decision to not intervene in Poland. For this purpose, this paper can look to see how the threat made by the U.S. during the grain embargo may have built up U.S. credibility when further sanctions were enacted. The day after Reagan lifted the embargo, Secretary of State Alexander Haig produced a new signal: if the USSR invaded Poland, "the United States would impose a ban on all trade with the Soviet Union" (Roney 1982, 200). Carter is also quoted in his memoirs as saying: "I sent Brezhnev a direct message warning of the serious consequences of a Soviet move into Poland" (Kozłowski, n.d.).

Ultimately, signals sent from the U.S. and allies expressing condemnation of an invasion of Poland, building off the grain embargo condemnation, likely had some effect on the Soviet decision to not invade, but the decision was ultimately made by internal Soviet decision-making when looking at other costs of invasion. The focus of the USSR was instead to replace the leader of the Solidarity Movement with someone more sympathetic to the Soviets who would impose martial law to quell the protests (Kozłowski, n.d.).

The potential impact of signaling is indicated by its presence before the Solidarity Movement, but not before the Soviet invasions of Hungary in 1956 and Czechoslovakia in 1968. With the invasion of Hungary, the U.S. "did nothing beyond issuing public statements of sympathy" for Hungarians (History 2021). Regarding Czechoslovakia, "the Soviets guessed correctly that the United States would condemn the invasion but refrain from intervening" (Office of the Historian, n.d.). The reliance of the USSR on non-military methods to try and control the spread of anti-communist reform in the case of Poland, when Hungary and Czechoslovakia presented similar problems and were invaded, is the best evidence that the U.S.' firm signaling of resolve deterred the Soviets' return to similar actions. The reputation that the U.S. had built up made future threats deterring an invasion of Poland more credible, and thus created a signal that was more likely to matter.

EVALUATING RESPONSES OF ALLIES AND OTHER STATES

Soon after the announcement of the embargo, Canada, Australia, and the European Community "announced their support" (Roney 1982, 197). However, an unintended signal was also sent to Argentina, the world's second largest grain exporter. Argentina, which was "miffed" at having not been informed of the embargo before it was enacted, declined to endorse it (Roney 1982, 197). Cracks began to emerge in the U.S.-led blockade. Whereas the above three historic allies of the U.S. had agreed to support the embargo (despite also agreeing to maintain their current levels of grain supply to the USSR), Argentina's market success highlighted the opportunity cost of the embargo (ibid.). From 1979 to 1980, Canada, Australia, and the EC provided to the USSR double the average grain that they had supplied for the prior seven years (ibid.). Whereas the relationship of the U.S. to its grain-producing allies may have predisposed those allies to support their embargo diplomati-

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cally and also materially (by refusing to exploit the lack of U.S. market presence), the tie was not strong enough here to guarantee the support that was most desired by the U.S.

However, greater success can be seen in how allies recognized U.S. leadership and quickness to act. A former British diplomat observed an increase in leadership "momentum" coming from the U.S. after the imposition of the embargo, noting that it had the effect of increasing cooperation "rather dramatically" (Baldwin 2020, 281).

EVALUATING RESPONSES OF DOMESTIC AUDIENCES

Initial domestic responses to the embargo, even among farmers, were "favorable," largely reflecting the patriotic signaling of the embargo as a stance against the spread of communist influence and territorial control (Roney 1982, 197). Despite the prediction that Carter would suffer political costs, he won the Iowa Democratic Caucus by a two-to-one margin (Paarlberg 1980, 146). It was not until April, when the Carter administration had failed to protect wheat prices that support began to wane; both the House and Senate would draft bills calling for the embargo's repeal, and Reagan soon after adopted the repeal as a campaign promise (ibid., 148). In the 1980 elections, "the farm vote" was one of the "most solid voting blocs" for Reagan, and overall, Democrats running in agricultural districts were "crippled" in their races due to Carter's embargo (Edsall 1982).

Wary of the political benefits he had received, Reagan confirmed his campaign promise and lifted the embargo. (To not have done so could have activated audience costs into electoral consequences.) Despite the repeal of the embargo, Reagan was still able to maintain patriotic signaling with Haig's statement about Poland. While less costly, such a signal satisfies both his policy goal of condemning Soviet territorial encroachment and satisfying the American electorate with reduced costs.

V. Conclusion

This paper argues that signals can and do matter, but not all signals signal or matter equally. Internal factors of signals, like their clarity, the costs they establish, and the multilateral support they carry can bolster their effectiveness. And while their importance to the decision-making process of states by providing information about other actors does matter, this significance can be rendered void (or heightened) due to the signal recipient's resolve, image gains calculus, relationship with the sender, regime type, and vulnerability. The U.S. grain embargo of 1980 illustrates how many of these concepts and theories appear in the foreign policy arena across all three levels of signal recipients — the targeted state, allies and third parties, and domestic audiences. Ultimately, signals frequently do matter. But as this paper demonstrates, it is integral to foreign policymaking that the goals of sanctions regimes are based on a thorough understanding of the above factors. One cannot plan for a signal to matter and therefore justify creating a sanctions regime if, for example,

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the recipient will never listen to the signal, or if the sending state does not have the ability to generate a clear signal in the first place.

Beyond its use to foreign policy analysis, the future study of signals in the international relations field is rich and diverse. While the focus of this paper is on general signaling theory and the signals that result from economic sanctions, further analysis should be conducted on how the three internal and five external factors that this paper identifies apply to military and diplomatic sanctions. Similarly, future studies should analyze which of these factors are the most important for determining signal transmission and effectiveness, and how they interact with each other to influence decision makers acting on behalf of a signal recipient.

Such studies will prove vital, as signals remain a crucial aspect of states' foreign policy today. In the first week of December alone, the U.S. twice employed signaling to indicate their disapproval of another state's action. In a parallel to the U.S.' action following the USSR's invasion of Afghanistan when it boycotted the 1980 Olympics, the U.S. announced on December 6 that it will not send government officials, as is custom, to the 2022 Winter Olympics in Beijing in light of ongoing human rights abuses in China, including the genocide of the Uyghur minority group in Xianjing and the repression of pro-democracy efforts in Hong Kong (Kanno-Youngs 2021). Signals have also been cued by the U.S. as tensions with Russia have increased over a perceived imminent Russian invasion of Ukraine. In a meeting with Vladimir Putin on December 7, President Biden announced that the U.S. would "meet a military invasion of Ukraine with strong economic penalties, moves to bolster Ukrainian defenses, and fortify support for Eastern European nations" (Salama et al. 2021). From these ongoing examples, it is easy to see that the U.S. designs its signals to be direct to deter unfavorable actions. The sanctions threat issued against Russia will likely make an interesting case study in the future over the success of signaling through economic sanctions.

WORKS CITED

Baldwin, David A. 2020. Economic Statecraft. New edition, Princeton University Press.

Bapat, Navin A., and T. Clifton Morgan. 2009. "Multilateral Versus Unilateral Sanctions Reconsidered: A Test Using New Data." International Studies Quarterly 53 (4) (Dec. 2009): 1075–94. https://doi.org/10.1111/j.1468-2478.2009.00569.x.

Biersteker, Thomas, and van Bergeijk, Peter A.G. 2015. "How and When do Sanctions Work? The Evidence." On target? EU Sanctions as Security Policy Tools, eds. Iana Dreyer and José Luengo-Cabrera, European Union Institute for Security Studies: 17-28. https://www.iss.europa.eu/sites/default/files/EUISSFiles/Report_25_EU_Sanctions.pdf.

Cohen, Benjamin J. 2019. Currency Statecraft. University of Chicago Press.

Drezner, Daniel W. 2000. "Bargaining, Enforcement, and Multilateral Sanctions: When Is Cooperation Counterproductive?" International Organization 54 (1): 73–102. https://doi.org/10.1162/002081800551127.

Edsall, Thomas B. 1982. "The 1982 Elections: The Farm Vote." The Washington Post, 21 October 1982. https://www.washingtonpost.com/archive/politics/1982/10/21/the-1982-elections-the-farm-vote/c6ad9b71-0bef-4286-a13e-19479bf8a473/.

Fearon, James D. 1997. "Signaling Foreign Policy Interests: Tying Hands versus Sinking Costs." Journal of Conflict Resolution 41, no. 1 (Feb. 1997): 68–90. https://doi.org/10.1177/0022002797041001004.

Galtung, Johan. 1967. "On the Effects of International Economic Sanctions, With Examples from the Case of Rhodesia." World Politics 19, no. 3 (Apr. 1967): 378–416. https://doi.org/10.2307/2009785.

Gartzke, Erik A., et al. 2017. "Signaling in Foreign Policy." Oxford Research Encyclopedia of Politics, Oxford University Press. https://doi.org/10.1093/acrefore/9780190228637.013.481.

Gavin, Joseph G., III. 1989. "Economic Sanctions: Foreign Policy Levers or Signals?" Cato Institute, November 7, 1989. http://www.jstor.com/stable/resrep04898.

Gibler, Douglas M. 2008. "The Costs of Reneging: Reputation and Alliance For-

mation." Journal of Conflict Resolution 52, no. 3 (June 2008): 426–54. https://doi.org/10.1177/0022002707310003.

Grauvogel, Julia, et al. 2017. "Sanctions and Signals: How International Sanction Threats Trigger Domestic Protest in Targeted Regimes." International Studies Quarterly 61, no. 1 (March 2017): 86–97. https://doi.org/10.1093/isq/sqw044.

Guisinger, Alexandra, and Alastair Smith. 2002. "Honest Threats: The Interaction of Reputation and Political Institutions in International Crises." Journal of Conflict Resolution 46, no. 2 (Apr. 2002): 175–200. https://doi.org/10.1177/00220027020 46002001.

Hart, Robert A., Jr. 2000. "Democracy and the Successful Use of Economic Sanctions." Political Research Quarterly 53, no. 2 (June 2000): 267–84. https://doi.org/10.2307/449281.

Hufbauer, Gary Clyde and Jeremy J. Schott. 1985. Economic Sanctions Reconsidered: History and Current Policy. Washington, DC: Institute for International Economics.

Kanno-Youngs, Zolan. 2021. "U.S. Will Not Send Government Officials to Beijing Olympics." New York Times, 6 December 2021. https://www.nytimes.com/2021/12/06/us/politics/olympics-boycott-us.html.

Kozłowski, Tomasz. n.d. "December 1980: The Soviet Invasion of Poland." Polish History. https://polishhistory.pl/december-1980-the-soviet-invasion-of-poland/.

Lektzian, David J., and Christopher M. Sprecher. 2007. "Sanctions, Signals, and Militarized Conflict." American Journal of Political Science 51, no. 2 (Apr. 2007): 415–31. https://doi.org/10.1111/j.1540-5907.2007.00259.x.

Mercer, Jonathan. 1996. "Getting Respect Gets No Respect." Mershon International Studies Review 41, no. 1 (May, 1997): 117-119. https://doi.org/10.2307/222808.

Nephew, Richard. The Art of Sanctions. 2018. New York: Columbia University.. Paarlberg, Robert L. 1980. "Lessons of the Grain Embargo." Foreign Affairs 59, no. 1: 144–62. https://doi.org/10.2307/20040657.

Pape, Richard A. 1997. "Why Economic Sanctions Do Not Work." International Security 22, no. 22 (1997): 90-136. https://doi.org/10.2307/2539368.

Quek, Kai. 2021. "Four Costly Signaling Mechanisms." American Political Science Review 115, no. 2 (May 2021): 537–49. https://doi.org/10.1017/S0003055420001094.

Roney, John C. 1982. "Grain Embargo as Diplomatic Lever: Fulcrum or Folly?" SAIS Review 2, no. 4: 189–205. https://doi.org/10.1353/sais.1982.0025.

Salama, Vivian et al. 2021. "Biden Warns Putin Invasion of Ukraine to Be Met with Economic Response and More." The Wall Street Journal, 7 December 2021. https://www.wsj.com/articles/biden-russian-president-putin-start-call-11638894107.

History. 2009. "Soviets Put a Brutal End to Hungarian Revolution." Last modified September 2, 2021.https://www.history.com/this-day-in-history/soviets-put-brutal-end-to-hungarian-revolution.

Office of the Historian. n.d. "Soviet Invasion of Czechoslovakia, 1968." https://history.state.gov/milestones/1961-1968/soviet-invasion-czechoslavkia.