

DOMESTIC CONSEQUENCES OF ECONOMIC SANCTIONS

A Dissertation

by

CLAYTON MCLAUGHLIN WEBB

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Chair of Committee, Quan Li  
Committee Members, Nehemia Geva  
Sara Mitchell  
Ren Mu  
Erica Owen  
B. Dan Wood  
Head of Department, William Clark

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## ABSTRACT

Are economic sanctions costly for the sanctioning state? Some scholars argue that sanctions are costly tools used to achieve foreign policy goals, while others argue that sanctions are relatively costless tools leaders use to generate domestic political support. These arguments cannot be true at the same time. This dissertation examines this contradiction and evaluates the costs of sanctions at the national, firm, and individual levels of analysis. Economic sanctions have domestic economic and political consequences. Economic sanctions interrupt otherwise profitable commercial activities. These interventions create winners and losers. Like other forms of economic intervention, winners will support the use of sanctions and losers will oppose them. But the consequences of sanctions can be difficult to predict. Sanctions are heterogeneous and have heterogeneous effects. Sanctions don't lead to major changes in sender trade volumes or unemployment levels because the costs of sanctions are not evenly distributed throughout senders' economies. Economic sanctions are only costly for firms that have commercial interests in targeted states. On average, sanctions are economically costly and politically unpopular, but there are exceptions. How the public responds to sanctions depends on the features of the individual episodes. I use a variety of time series techniques and a laboratory experiment to test these arguments. The results from this dissertation suggest a need to rethink the way sanctions scholars conceptualize the economic and political costs of sanctions for the sanctioning state.

## DEDICATION

To my father, Gary Webb.

## ACKNOWLEDGEMENTS

This project began with my first graduate assistant research assignment in the fall of 2009. Elena McLean asked me to collect information on the initiation and enforcement of sanctions. While not directly pertinent to my assignment, I came across a 2001 *Political Research Quarterly* article written by Cooper Drury that examined the relationship between presidential approval and economic sanctions. I wrote my first seminar paper on the domestic consequences of sanctions the next semester, and have been working on this project in some form ever since. There are a number of people I would like to acknowledge that helped me along the way.

I would like to begin by thanking B. Dan Wood. I was assigned to work for Dan as a graduate research assistant in the fall of 2009. Working with Dan on his presidential saber rattling project afforded me the opportunity to work with an accomplished scholar, introduced me to many of the methods I used in this project, and helped stoke my interest in the political economy of foreign policy. It also allowed me to develop a closer relationship with Dan. His door was always open. Over the past six years I have dropped by his office countless times to ask questions. Without failure, Dan would stop what he was doing to offer advice. These impromptu sessions not only played an important role in the completion of this project, but in my personal and professional development as well. My first conference paper was a paper I wrote with Dan, Dan was a coauthor on my first publication, and Dan taught my first time series class. Dan has been a great mentor and a tireless advocate. I appreciate the time he has invested in my education and his many efforts on my behalf.

The project continued to develop over the next several semesters. Early versions of chapter three were submitted as seminar papers in Dan Wood's time series class

and Ahmer Tarar's international conflict class. Their optimism about the intellectual merits of the project encouraged me to continue. I used the paper for a professional development seminar organized by the department to help graduate students improve their work. Several members of the department read my draft and offered valuable feedback. I would like to thank Paul Kellstedt in particular for his help on the project at this time. His comments helped me reformulate the design of the project in ways that lead to a number of important theoretical developments. Throughout my coursework I had the opportunity to learn from a number of excellent professors. Thank you Paul Kellstedt, Taehee Whang, Shuhei Zurizaki, Dan Wood, Ahmer Tarar, Quan Li, Elena McLean, Nehemia Geva, Guy Whitten, David Anderson, and Gary Williams. I received a first class education because of your efforts.

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## 1. INTRODUCTION

Throughout history states have used barriers to trade and financial exchange to pressure their political rivals. One of the first recorded instances of this kind of pressure was the Megarian Decree issued by Athens in 432 B.C. (Hufbauer et al. 2009). The Megarian decree excluded citizens from the Greek city state Megara from trade with Athens, from access to all Athenian imperial ports, and from travel across Athenian territory (French 1976). The decree not only barred Megara from profitable commercial exchange with Athens, but cut Megara off from its colonial territories. Many of the ports controlled by Athens were essential way points too and from Megarian colonies. While the exact terms of the decree and the decree's ultimate economic implications remain controversial, the historical significance of the decree is not.

The Megarian decree represents an important milestone in human history. The decree was an unprecedented innovation in economic statecraft. It was the first diplomatic tool that used economic pressure to achieve political ends. More importantly, the decree contributed to Athens' demise. Megara was a member of the powerful Peloponnesian league lead by Sparta. Sparta demanded Athens lift the decree or risk war. Athens refused. The conflict that ensued lasted 27 years, and changed the course of human history (Kagan 2003). The balance of Greek power shifted a number of times throughout the Peloponnesian war, and there where a number of times both parties could have reached a peace agreement. The war may have been inevitable, but the course of history shows that the Athenian refusal to lift the decree was the official motivation for the Spartan invasion of Attica. Sparta ultimately triumphed, and Athens fell.

The justification for the decree is a matter of controversy. Officially, the decree was put in place to punish the Megarians for the cultivation of land sacred to Demeter, the Greek goddess of the harvest, and the subsequent killing of the Athenian herald sent to Megara to reprimand them (Brunt 1951; MacDonald 1983). An alternative interpretation is that the decree was imposed as part of a personal vendetta. Pericles was the most influential Athenian general of the era, and the woman Aspasia was his consort. Pericles and Aspasia could not be married under Athenian law because Aspasia was not born in Athens. Despite her foreign status, Aspasia was close to Pericles and wielded a considerable amount of influence. The Megarians allegedly kidnapped three women close to Aspasia, and she convinced Pericles to persuade the Athenian senate to impose the decree (Hufbauer et al. 2009).

Others argue that the Athenians were acting strategically. Megara, formerly an ally of Athens, was located on the eastern end of the Isthmus of Corinth. Some argue that the decree was meant to coerce Megara into an alliance with Athens so that Athens could use Megarian territory as a staging base from which to build a forward defense against potential Spartan incursions from the Peloponnesus (French 1976). An alternative strategic argument is that the Megarian decree was imposed to deny Megara's principle ally, Sparta, access to Athenian ship building materials (Legon 1973). Sparta's ground forces were more skilled than the Athenian army, but the Athenian navy was far superior to Sparta's. This perspective maintains that Sparta was unable to secure the necessary lumber to build a rival force except from Athens through Megara. Hence, the decree was imposed as a defensive measure to maintain the balance of Naval power in the region.

The most compelling argument about the motivation for the decree ties the decree to Megarian military aggression. Kagan (2003) points out that Megara had recently aided Corinth in a naval campaign against Corcyra, an Athenian ally. Athens could

not risk a military campaign against Megara because Megara was formally allied with Sparta. An agreement not to wage war against Sparta's allies was part of the peace treaty negotiated between Athens and Sparta following the first Peloponnesian war. Athens could not stand by idly while Megara harassed a member of the Athenian alliance, but could not invade Megara without compromising the fragile peace. The decree offered a third way to respond to Megarian aggression without provoking Sparta. Ultimately the strategy failed. The Megarians appealed to Sparta to pressure Athens on their behalf, and Sparta invaded Athens when the Athenians refused to lift the decree (Brunt 1951). This account explains why the Athenians were forced to develop such an innovative means of achieving their foreign policy objectives. The Athenian innovation was born out of necessity. While historians have spent a considerable amount of time debating the motivations of the decree, and its role in the Peloponnesian War, a number of important questions remained unanswered.

What did the Athenians think about the Megarian decree? Athens was a democracy, so Pericles would have needed the senate's support to implement the embargo, but little is known about the nature of the support for the decree. Were Athenians reluctant to impose economic pressure, or did the decree receive widespread public support? Historians have also spent a considerable amount of time debating the economic consequences of the decree for Megara, but very little is known about the economic consequences of the decree for Athens (French 1976). Surely there were farmers, merchants, and artisans who profitted from trade with Megara. Were they supportive of the decree as well? Understanding how domestic economic and political interests were affected by the decree would help historians resolve disputes about why the decree was imposed. These types of questions remain relevant. This kind of economic pressure continues to be used today to punish states' violations of international laws, pressure states to make political and economic reforms, and retaliate

for unfair trade practices.

When states use economic pressure to achieve political goals they are imposing economic sanctions. The sanctioning state (the sender) limits trade or financial transactions with the sanctioned state (the target) and outlines a set of demands that must be met before customary economic relations can resume (Hufbauer et al. 2009). This includes suspensions of trade, the limitation of imports and exports through manipulation of tariff policies, asset freezes, travel bans, and other impediments to the flow of goods and finances (Pape 1997).

Sanctions have two functions - an instrumental function and a symbolic function. A Sanction has instrumental utility because it can influence the target state's behavior. A sanction has symbolic utility because it can signal a leader's preferences and priorities to a domestic audience. Some argue this second function is more important. Policymakers use sanctions to "avoid the image of an inattentive leader who passively ignores" public demands for attention to international events (Whang 2011: 789). The instrumental utility of sanctions is only a secondary concern.

These two perspectives on the utility of sanctions paint very different pictures about the forces that motivate the use of sanctions. These arguments require very different assumptions. Scholars analyzing the instrumental utility of sanctions for solving international disputes assume sanctions are costly. Scholars analyzing the symbolic utility of sanctions as domestic political tools assume sanctions are costless. These assumptions are inconsistent, and lead to vastly different conclusions. The questions that continue to animate debates about Athen's motivations for implementing the Megarian decree continue to confound analysts interested in the implementation and effectiveness of economic sanctions. Many of same questions need to be answered to understand why policymakers continue to threaten and impose sanctions. This dissertation wrestles with these divergent assumptions in an effort to

make sense of competing arguments and conflicting results. This conflict motivates the primary research question addressed in the dissertation. Are economic sanctions costly for the sanctioning state?

Economic sanctions have domestic economic and political consequences. Economic sanctions interrupt otherwise profitable commercial activities. These interventions create winners and losers. Like other forms of economic intervention, winners will support the use of sanctions and losers will oppose them. These consequences, however, are diverse and can be difficult to predict.

Sanctions are heterogenous. The term “economic sanctions” applies to a variety of forms of economic intervention used to achieve a number of different goals. In terms of public opinion, different types of goals illicit different responses from the public. In terms of economic consequences, different types of economic intervention have different costs. These costs are not distributed evenly throughout senders’ economies. The generalizations one can make about the domestic economic and political consequences of sanctions for the sender are limited because these consequences depend critically on which states are targeted and how sanctions are designed. The results from the analyses presented in this dissertation have important implications for existing theory relevant to the initiation and success of economic sanctions.

The remainder of the introductory section proceeds as follows. In the next subsection I define economic sanctions and other important concepts. Subsection two describes the key puzzles associated with sanctions’ limited success and continued use. Next, I discuss existing perspectives and inconsistencies in the sanctions literature. The section concludes with a brief overview of the dissertation, the theories tested in each section, and the main theoretical findings.

## 1.1 Why Sanction?

### 1.1.1 *The Puzzle*

The most significant puzzle debated in the sanctions literature revolves around two, seemingly inconsistent, trends. Economic sanctions rarely succeed, but leaders continue to threaten and impose economic sanctions. Hufbauer et al. (2009) show that economic sanctions only succeed, or partially succeed, about one third of the time (158). Pape (1997) argues that these estimates are overly generous. There are a number of explanations that have been developed to account for this poor rate of success.

Several scholars argue that sanctions can strengthen the target regime. Foreign economic pressure can create a “rally around the flag” effect (Galtung 1967; Hufbauer et al. 2009). The target population coalesces around the target regime, increasing the government’s popularity and power. The economic turmoil created by sanctions can also increase the target government’s control over economic affairs. This can happen through formal policy channels or through black markets (Allen 2005; Lektzian and Souva 2007). Finally, sanctions can weaken opposition groups. The economic costs of sanctions trickle down from elites to the weaker elements of society because target governments increase repression in response to economic pressure (Wood 2008).

Second, it can be difficult to exert economic pressure on the target state. The target state must be vulnerable to coercion (Allen 2005). Sanctions that impose greater costs on the target are more likely to succeed, but a sender can only impose costs if they are an important trading partner (Drury 1998). If the sender is not an important trading partner, international cooperation is necessary to ensure the target can’t easily offset the costs of sanctions by trading with other countries (Martin 1992). This cooperation can be difficult to maintain. States may have

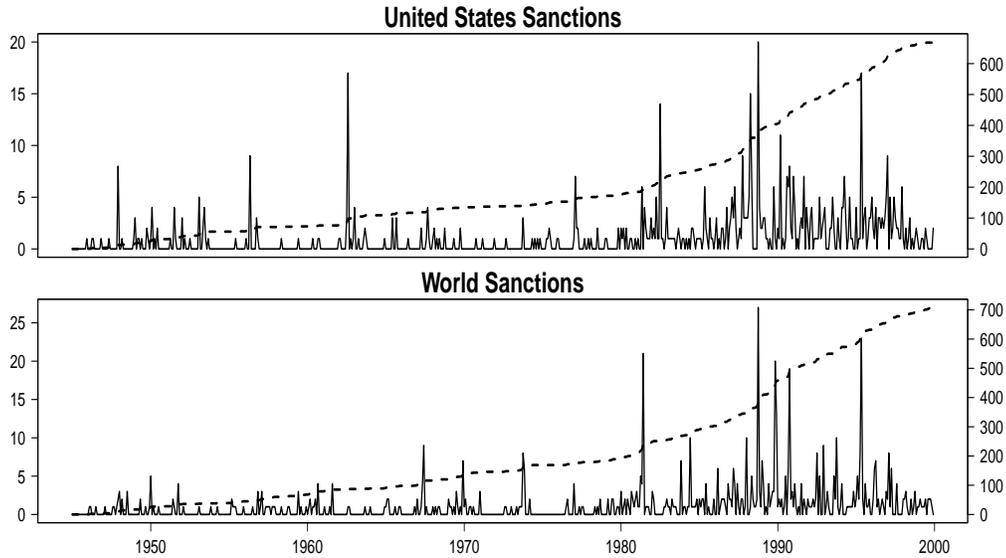
different goals, and disagree on design or enforcement (Miers and Morgan 2002). Once sanctions are in place, states have economic incentives to violate cooperative agreements (Drezner 2000). These conditions are further complicated because the target's allies have strategic incentives to offset the target's losses and unaffiliated states have commercial incentives to engage in "sanction busting" trade (Early 2009, 2011). Sanctions create opportunities for these third parties to expand their presences in vacated markets. Taken together, these forces militate against the effective allocation of economic pressure.

Finally, some sanctions' goals are too ambitious. Allen (2005) argues that the target state must sufficiently value the benefits gained from compliance for sanctions to be successful. Sanctions that require regime change, or concessions that would harm the target leadership's winning coalition, are less likely to succeed. If the target state is truly invested in the status quo, it will not concede (Smith 1995).

Despite these barriers to success, leaders around the world continue to threaten and impose economic sanctions. This trend is depicted in figure 1.1. The top panel of figure 1.1 shows United States sanctions from 1945 to 2000. The bottom panel shows sanctions for all other countries over the same time period. There are two time series depicted in each panel. The solid lines are the monthly rates of sanction episodes. The dashed lines are the cumulative sums of sanction episodes. The scales for the rates are given on the left y-axes. The scales for the cumulative sums are given on the right y-axes. Time is shown on the x-axis.

The first thing that stands out about the plots is their similarity. The United States sanctions almost as much over the time period as every other country combined. The United States initiated 670 sanction episodes - including threats and imposed sanctions - over this time period. The total for the rest of the world was 708 sanction episodes. The average monthly rates are similar - 1.01 (US) and 1.07

Figure 1.1: United States and World Sanction Episodes 1945 - 2000



(World) - as are the ranges over the time frame - 0 to 20 (US) and 0 to 27 (World).

The second point worth noting is the increase in the rate of sanctions following the Cold War. The cumulative sums offer the best visual evidence. The slopes for the cumulative sums begin to change significantly at the end of the sample. Economic pressure was more popular during the 1990s than any previous period. The United States accounted for 321 sanction episodes prior to January 1992, and initiated 349 sanction episodes during the next eight years. There is a similar change in the rate of all other countries - 345 episodes before January 1992 and 363 sanctions between January 1992 and December 2000.

The increased use in sanctions since the end of the cold war underscores the theoretical puzzle. The first attempts to systematically analyze the effectiveness of economic sanctions came in the 1980s and 1990s (Hufbauer et al. 1985, 1990). The ensuing academic debate was characterized by scepticism and pessimism about the instrumental utility of economic sanctions. Despite this consensus, policy makers

around the world began using economic sanctions more often. Once scholars identified this discrepancy, scholars began focusing less on whether sanctions worked and more on policymakers' decisions to use sanctions.

### 1.1.2 Explanations

The discrepancy between the perceived ineffectiveness of economic sanctions and their continued use has received a significant amount of attention. There are two primary explanations. The first has to do with the way sanctions have been conceptualized by sanction scholars. Hufbauer et al. (1985) produced the first collection of case studies data used in large-n statistical analyses. The convenience of these data influenced the research design choices scholars made for the next two decades. The primary shortcoming of the dataset is that it only includes imposed sanctions. Morgan et al. (2009) point out that this does not account for the way sanction episodes typically unfold.

Targets can anticipate costs. If the target knows the value it places with the status quo is less than the costs that will be incurred by sanctions, the target will concede to the sender's demands before the sanctions are imposed (Morgan and Miers 1999; Drezner 2003). These cases are not observed in the Hufbauer et al. (1985;1990; 2009) data. If the target values the status quo more than the costs of the sanctions, the target will ignore the sender's demands. Sanctions are only imposed in cases where the target plans to resist. Sanctions appeared to be ineffective because analysts had been attempting to estimate the effectiveness of sanctions using a set of cases where sanctions were least likely to succeed.

The Threat and Imposition of Sanctions (TIES) dataset includes information on sanctions and sanction threats. The success rates for sanction threats and imposed sanctions bear out the empirical problem created by this selection effect. Hufbauer et

al. (1985;1990;2009) estimate that imposed sanctions are successful 34 % of the time. This is consistent with the success rate of imposed sanctions in the TIES dataset. According to TIES, 34.85 % of sanctions imposed by non-U.S. senders between 1945 and 2000 were successful. The United States success rate is slightly higher at 37.56 %. The success rates for sanctions that ended in the threat stage are much higher - 46.69 % and 48.88 % respectively. U.S. sanction threats are successful almost half the time. Accounting for threats, sanctions have been more successful than previous research suggests.

An alternative explanation for the apparent ineffectiveness of sanctions is that scholars have incorrectly identified sanctions' *real* goals. Politicians tell the public sanctions are imposed to solve international problems and achieve foreign policy goals. In reality, politicians are imposing sanctions to achieve domestic political gains. Sanctions have an expressive faculty that allow leaders to do something in response to international events without actually "doing something" (Drury 2005). In this view, leaders care more about the symbolic political benefits of sanctions than the effects sanctions have on targeted states.

This view is controversial. It requires one to suspend several assumptions about the domestic consequences of sanctions for the sender that have been used to explain why sanctions work, when sanctions are used, and how sanctions end. Sanctions cannot be costless political tools leaders can use to obviate domestic criticism and costly signals of preferences and resolve. This dissertation considers the merits of this alternative perspective and analyzes the assumptions this argument makes about the domestic political and economic consequences of economic sanctions for the sanctioning state. In the next section I briefly describe the various forms of this argument, and the major puzzles the argument creates for the sanctions literature.

## 1.2 Symbolic Sanctions

### 1.2.1 *Two Perspectives*

Proponents of the symbolic perspective argue policymakers use sanctions to “avoid the image of an inattentive leader who passively ignores” public demands for attention to international events (Whang 2011: 789). There are two versions of this symbolic argument. The classic version of the argument describes sanctions as a means of satisfying public demand for action in the wake of international events (Ang and Peksen 2007; Galtung 1967; Schreiber 1973). Sanctions are a “tension release from a latent intensity” (Wallensteen 1968: 252). Leaders need to respond to international crises or they risk looking weak. This could embolden the leader’s political opponents. Deploying military personnel is costly and can be politically dangerous. Sanctions are a less costly alternative.

The second version of the argument takes the symbolic utility a step further. Leaders can actually use sanctions to generate political support (Lindsay 1986). Sanctions draw attention to international crises, and allow leaders to look strong. Sanctions offer leaders a means of generating a “domestic popularity boost” when their approval ratings are low (Whang 2011: 791). While the first version of the argument conceives of sanctions as a way for leaders to passively respond to international events, the second version of the argument suggests leaders actively seek out economic conflict for political gain. Sanctions are diversionary war by other means.

There is only limited empirical evidence to support either perspective. Most proponents of these arguments use case studies to elucidate their claims. Galtung (1967) examines the symbolic utility of British sanctions against Rhodesia in the 1960s. Several scholars incorporated Galtung’s (1967) notion of the sanctions’ “expressive” utility into classification schemes used to organize cases based on their goals

(Wallenstein 1968; Lindsay 1986). A number of other case studies make reference to leaders' domestic political motives (Barber 1979; Schreiber 1973). The symbolic utility of sanctions has also been incorporated into formal models of senders' decisions to initiate sanction disputes (Smith 1995).

There is only one study that uses data to test the symbolic utility of sanctions. Whang (2011) examined 624 sanctions imposed during the eleven U.S. presidential administrations between 1945 and 2000. His case information was collected from the Hufbauer et al. (2009) dataset and other news sources. He found evidence that public support for the president increased after sanctions were imposed. He also found that presidents were more likely to impose sanctions when their approval ratings were low. He concluded that presidents use sanctions to generate domestic political support (Whang 2011: 787).

While there is only limited evidence that sanctions have domestic political benefits, many accept the symbolic argument as a reasonable explanation for the use of sanctions. To date, the arguments that sanctions can be used to generate domestic support and pacify domestic criticism have not been directly challenged in the political science literature. One can also find references to these arguments by policy analysts and journalists (Espiner 2014; Battaglia 2014; Miks 2014). Despite the tacit acceptance of these arguments, they are inconsistent with most work on economic sanctions and the domestic origins of foreign policy.

### *1.2.2 Inconsistencies*

Both versions of the symbolic argument make a number of problematic assumptions about the domestic consequences of economic sanctions. First, the symbolic arguments assume the public is attentive to economic sanctions and international events. This is inconsistent with most public opinion research. Outside of major

international crises, the public is generally uninformed about international affairs. This is particularly true for issues like trade and foreign aid that are not as proximate to peoples' daily lives as issues like inflation, unemployment, and crime (Holsti 2004). Survey research has demonstrated that people have little knowledge of the complex issues surrounding foreign policy, and that the preferences they express over these types of policies rarely aggregate into voting behavior (Guisinger 2009). The modal response to the American National Elections Studies (ANES) survey question commonly used to measure attitudes toward trade is, "haven't thought much about it" (Ahlquist et al. 2013). If people are not following international affairs, it seems unlikely that they would have an intimate knowledge of how, and why, sanctions are being applied.

Second, the symbolic arguments assume sanctions are costless. Presidents can impose sanctions to generate domestic political support or obviate public criticism because the actual imposition of sanctions doesn't have any serious political consequences. This is inconsistent with work on international trade. The distributional consequences of trade are used to explain public preferences over protectionist barriers (Mansfield and Mutz 2009; Rogowski 1987). Sanctions also interrupt the free flow of goods and services. Hence, sanctions should have political consequences similar to protectionist barriers because sanctions create winners and losers.

Third, the symbolic arguments are inconsistent with all the research in the sanctions literature that assume sanctions are economically and politically costly. The costly nature of sanctions is part of what makes them valuable tools of economic statecraft. These costs help sender states signal preferences and resolve (Ang and Peksen 2007; Drezner 2001; Goenner 2007; Hart 2000). This has been used to explain when and why sanctions work (Allen 2005; Bolks and Al-Sowayel 2000; Hovi 2005; Kaempfer and Lowenberg 1999; Lacy and Niou 2004; Miers and Morgan 2002).

Scholars have argued that costs influence timing and targeting (Dorussen and Mo 2001; Drezner 1998; Tsebelis 1990). Costs determine what types of sanctions are imposed and affect leaders' decisions to employ alternative means - like military intervention - to achieve their foreign policy goals (Jing et al. 2003; Kaempfer and Lowenberg 1999; Lektzian and Souva 2003; Lektzian and Sprecher 2007; Palmer and Morgan 2006). The assumption that sanctions are costly to the sender has also been used to explain the willingness of states to cooperate on sanctions, and explain how sanction episodes end (Drezner 2000; Martin 1992, 1993; McGillivray and Stam 2004). Recent findings that sanctions have positive political payoffs for sanctioning states contradict most previous work.

Arguments about the symbolic use of sanctions present an interesting theoretical puzzle. Most public opinion scholars would argue that sanctions have limited political utility because most people don't pay attention to economic sanctions and the international events surrounding economic sanctions. Most sanctions scholars would say sanctions are costly for sanctioning states because they interrupt commercial activities. Yet, recent findings show that sanctions increase presidential approval. This suggests that the public is not only paying attention to international events, but that those events are more important in shaping public evaluations of sanctioning leaders than the economic consequences of sanctions. This dissertation wrestles with these inconsistencies.

### 1.3 Analyzing the Domestic Political Consequences of Sanctions

Are economic sanctions costly for the sanctioning state? There are three parts to this puzzle. First, do economic sanctions have concrete economic consequences? If sanctions are costless, leaders may be able to rely on sanctions to generate political support. If not, leaders should expect the imposition of sanctions to produce at least

some domestic political blowback. Second, how are economic sanctions related to domestic political support for sanctioning leaders? Do sanctions affect leadership approval, does leadership approval affect sanctions, or are they endogenously related as contemporary versions of the symbolic argument suggest? Finally, why do sanctions affect leadership approval? What features of sanctions do people find important and how do these features shape leadership support?

I consider these questions in the context of United States economic sanction disputes. I concentrate on U.S. cases for three reasons. First, the U.S. sanctions more than any other country. Of the 1,246 episodes in the TIES dataset where a primary sender is identified, the United States accounts for 681 episodes - almost 55%. Canada is responsible for the second most episodes in the dataset with 102. The United Kingdom is responsible for third most with 38. Clearly, understanding United States sanctions is important in its own right. Second, U.S. economic sanctions, political, and economic data are reliable and available. Finally, there is ample precedent for focusing on U.S. sanction episodes. While many theories are not country specific, many empirical studies have tended to focus on the U.S. (Cox and Drury 2006; Drury 2000; Drury 2001; Nooruddin 2002; Whang 2011).

The next section asks whether economic sanctions are economically costly for the sanctioning state. I argue that divergent perspectives about the economic costs of sanctions stem from a failure to effectively conceptualize the economic consequences of sanctions. Sanctions are costly because they are costly for domestic firms. The economic effects of sanctions may not be visibly reflected in macroeconomic indicators because the economic costs of sanctions are not evenly distributed among firms in senders' economies. Sanctions only directly affect firms with commercial interests in targeted states. These effects can be seen in financial markets. Comparing companies across and within sectors within years and over time, I use generalized autoregressive

conditional heteroskedastic (GARCH) time series models to examine the effects of sanctions on stock market returns. I find that uncertainty surrounding sanctions only affects returns of firms engaged in commercial activities with targeted states.

The third section empirically examines competing perspectives about the directions of the causal relationships among economic sanctions, economic performance, and presidential approval. Conventional perspectives suggest sanctions are costly tools used to achieve foreign policy goals. The symbolic perspective argues sanctions are costless tools leaders use to generate public support when approval ratings are low. I argue that this theoretical impasse can be explained, in part, by an endogeneity problem. I use Vector Autoregression to test competing hypotheses about the direct and indirect relationships among the variables. I find that sanctions reduce approval but approval does not affect sanctions. Sanctions are, on average, economically costly and politically unpopular. However, there is evidence of important exceptions.

Section four examines the microfoundations of the links between economic sanctions and presidential approval. Existing theories about the domestic political consequences of sanctions either assume that all sanctions are costly, or they assume that all sanctions are costless. Both perspectives are incorrect. Sanctions have heterogeneous effects on presidential approval because sanctions have heterogeneous features. These features have independent, competing influences on public evaluations of sanctioning leaders. I use two  $2 \times 2$  between-group factorial experiments to analyze the importance of issue salience and economic costs on evaluations of sanctioning leaders. Economic costs reduce support for sanctioning leaders but event salience increases support. The results suggest there are specific circumstances where leaders can expect to profit politically from the use of sanctions. There are also specific circumstances where leaders can expect to suffer politically from the imposition of

sanctions, and there a wide variety of cases where the political effects of sanctions are ambiguous. This explains why scholars have found support for a variety of competing perspectives.

The fifth and final section summarizes these findings. I discuss the theoretical and practical implications of my findings, and outline my plans for future research. While the main sections of the dissertation make progress toward understanding the domestic political and economic consequences of sanctions, there is a considerable amount of work that still needs to be done. Sanctions have two kinds of economic consequences. Each has distinct political ramifications. Sanctions can undermine public support for a leader if they have broad macroeconomic consequences. Sanctions can influence interest group behavior and campaign contributions if they are costly for individual firms. This dissertation considers the macroeconomic costs of sanctions, the relationship between sanctions and presidential approval, and the costs of sanctions for individual firms. It also establishes a theoretical foundation for the analysis of the ways sanctions influence interest group behavior in the future.

In the next section I take the first step toward building my theoretical framework. The political consequences of sanctions are tied to the economic impact of sanctions. While many people assume that sanctions are costly, there is little evidence that sanctions have widespread macro-economic consequences. Proponents of symbolic perspectives have used the absence of any strong findings that sanctions affect trade, gross domestic product, or unemployment to support their claims that sanctions are politically benign. The next section shows that this conclusion is misguided. Existing research has failed to capture the economic consequences of sanctions because attempts to estimate the costs of sanctions using macroeconomic data have fundamentally misunderstood the economic consequences of sanctions.

## 2. DOMESTIC ECONOMIC COSTS OF SANCTIONS: A FIRM LEVEL ANALYSIS

Are economic sanctions economically costly for the sanctioning state? Sanctions are economic pressure applied to achieve political goals. The sanctioning state (the sender) limits trade or financial transactions with the sanctioned state (the target) and outlines a set of demands that must be met before customary economic relations can resume (Hufbauer et al. 2009). This includes suspending trade, the limiting of imports and exports through tariffs, freezing assets, banning travel, and other impediments to the flow of goods and finances (Pape 1997). These policies inflict economic losses on the target state, but scholars often disagree about the economic consequences of sanctions for the sanctioning state.

Some scholars argue that economic sanctions are *costly* because they interrupt commerce and reduce bilateral trade with the target state. The costly nature of economic sanctions has been used to explain when and why sanctions work (Allen 2005; Bolks and Al-Sowayel 2000; Hovi 2005; Kaempfer and Lowenberg 1999; Lacy and Niou 2004; Miers and Morgan 2002). A number of studies describe sanctions as costly signals used to communicate preferences and resolve (Ang and Peksen 2007; Drezner 2001; Goenner 2007; Hart 2000). Scholars have argued that costs influence timing and targeting (Dorussen and Mo 2001; Drezner 1998; Tsebelis 1990). Costs determine what types of sanctions are imposed and affect leaders' decisions to employ alternative means - like military intervention - to achieve their foreign policy goals (Jing et al. 2003; Kaempfer and Lowenberg 1999; Lektzian and Souva 2003; Lektzian and Sprecher 2007). The assumption that sanctions are costly to the sender has also been used to explain the willingness of states to cooperate on sanctions, and explain

how sanction episodes end (Drezner 2000; Martin 1992, 1993; McGillivray and Stam 2004).

Others argue sanctions are relatively *costless*. Most sanctions do not have large economic footprints. They only affect a handful of firms, and many of these companies can find loopholes or apply for exemptions (Ang and Peksen 2007). This is an essential assumption made by proponents of the symbolic benefits of sanctions. Leaders are able to use sanctions to increase public support because sanctions have negligible effects on domestic economic performance (Whang 2011). Leaders can “do something,” and look strong, without committing to costly troop deployments (Ang and Peksen 2007). Some have pointed out that sanctions can be beneficial for certain domestic firms, and argue that these benefits help offset costs (Kaempfer and Lowenberg 1988). The assumptions employed by this second group of scholars are fundamentally at odds with those arguing that sanctions are economically and politically costly. I believe that this contradiction persists because of a failure to effectively conceptualize how sanctions affect senders’ economies.

I argue sanctions are costly for the sanctioning state because they are costly for domestic firms. Macroeconomic indicators like inflation and unemployment don’t adequately reflect the hardships imposed by sanctions because the economic costs of sanctions are not distributed equally throughout senders’ economies. Sanctions affect firms with commercial interests in targeted states, but have little direct effect on firms that do not have interests in targeted states.

I use stock market data to proxy the costs of economic sanctions for domestic firms. Information about the specific investments made by firms is confidential. Firms do not release large volumes of data about their specific investments abroad for fear that this information could be used by their competitors. In the absence of this information, stock market data can shed light on the way changing political

conditions threaten firms' revenue streams. Investors use information about firms' fundamentals to execute trades. I use autoregressive moving average generalized autoregressive conditional heteroskedastic (ARMA-GARCH) time series models to analyze the volatility of stock market returns of U.S. firms. Sanctions affect investment behavior because sanctions create uncertainty. Will sanctions be imposed? If so, what goods will be affected? And how long will sanctions be maintained? Will exemptions be available for certain products? Will the target state retaliate? Uncertainty associated with the design, application, and enforcement of economic sanctions makes it impossible for markets to effectively value companies with commercial interests in the target states. This uncertainty is reflected in the stock market. Returns for these companies are more volatile.

Not only does volatility reflect the costs suffered by firms from forgone commercial activities, volatility is costly for firms. At the micro level this volatility can limit a firm's access to financing and reduce the companies performance. At a macro level, stock instability caused by economic sanctions can affect the entire market. This means that the perceived economic consequences of economic sanctions makes them costly.

I test these arguments using firm level return data. Comparing companies across-and-within sectors within-and-over time, I find that share prices of firms with commercial interests in the targets states are more volatile when sanctions against these states are being threatened and imposed. In the next subsection I briefly review existing research that looks at the economic consequences of economic sanctions. I then develop a micro-level theory to explain the costs of sanctions for different firms, and test these arguments using firm level data. The findings demonstrate how domestic firms are directly affected by economic sanctions, and suggest a need to rethink the way we conceptualize the economic consequences of sanctions.

## 2.1 Previous Research on the Economic Costs of Sanctions

The literature is divided about the economic consequences of economic pressure. Some suggest that economic sanctions are *costly* for the sanctioning state. The sender interrupts commerce with the target state to achieve a political goal. These reductions, like all barriers to trade, generate dead weight losses. This is the “price” the sender pays to achieve that goal (Eyler 2007: 90). Some have attempted to estimate the macroeconomic effects of sanctions on the economy. These studies estimated that the costs of sanctions to the United States ranged from \$15 billion to \$19 billion annually and cost the U.S. economy hundreds of thousands of jobs (Askari 2003; Hufbauer et al. 1997). This line of research also points to a number of indirect costs that are not captured by macroeconomic estimates.

Sanctions cede valuable international markets to foreign competitors and affect future sales because sanctions have “chilling effects on international trade” (Askari 2003, Carpenter 1999; Hufbauer et al. 2009; Lash:1999). They signal to international firms that U.S. companies are not reliable business partners. These prospective trading partners will be reluctant to establish commercial relationships with U.S. firms if political interference seems likely.

These relationships are also threatened by the prospect of economic retaliation. In July 2014, for example, the United State imposed economic sanctions against the Russian government following Russia’s annexation of Crimea. Moscow responded in early August by banning the import of meat, fish, milk and fruit from the United States, European Union, Australia, Canada, and Norway (Hjelmgaard 2014). This is significant because Russia is the second-largest importer of agricultural goods after China. The threat to U.S. firms did not stop there. On September 25 a bill was proposed in the Russian Parliament that, if passed, would give Russian President

Vladimir Putin the authority to nationalize assets of foreign companies (Rapoza 2014). Often, the target's response to economic pressure can be more costly for domestic firms than the initial round of sanctions.

A second perspective argues that economic sanctions are relatively *costless*. Economic sanctions only affect a small number of industries in any significant way. Generally, Companies can easily find new opportunities for trade and investment because economic sanctions are not imposed against major U.S. trading partners (Farmer 1999). Consider U.S. sanctions against Iran. A recent report by the National Iranian American Council estimates that the U.S. lost \$ 175 Billion in trade with Iran between 1995 and 2012 (Leslie et al. 2014). While that seems like a significant amount, the number is less than five thousandths of one percent of total U.S. exports over that period (Kessler 2014). Elmar Brok, the Chairmen of the European Parliament Committee on Foreign Affairs, also recently noted that it is easy for the United States to call for increased economic pressure on Iran because the U.S. hasn't traded with Iran for more than three decades. The situation is different, he argued, for a country like Greece which imports a significant amount of oil from Iran (Konig 2014).

In many cases trade is not interrupted, only diverted, because companies affected by sanctions flout, or “bust”, sanctions (Early 2009; Kaempfer and Lowenberg 1999). Firms have bartered goods; used front companies to buy, ship, and sell banned goods; offered bribes to high ranking government officials; reflagged ships from sanctioned states; moved goods through airports where export and customs controls are weak and officials are susceptible to bribery; moved goods through religious charities; and sold goods to and from targeted states through third-country storage facilities (Dubowitz 2012). International financial institutions have also played important roles in diverting trade. PNB Paribas was fined by the U.S. Justice department this

June after years of helping companies evade U.S. regulations by stripping identifying information from wire transfers to and from sanctioned countries (Smith and Walter 2014). HSBC, Barclays, Credit Suisse, Standard Chartered, Kunlun Bank, and EI Bank have also recently been fined for similar practices (Dubowitz 2012).<sup>1</sup>

Proponents of this perspective also argue that sanctions are designed to limit the effects of economic pressure on domestic firms. Companies whose interests are affected by sanctions are often involved in determining how sanctions are designed and enforced (Kaempfer and Lowenberg 1988, 1992, 2000). Powerful groups will find ways to limit their costs by making sure loopholes are built into the sanctions and/or lobbying the executive for exemptions and waivers. For example, the United States imposed a moratorium on arms sales to China in the wake of the government's violent crackdown on Chinese dissidents in Tiananmen Square in 1989. Boeing, a major U.S. aerospace company, had negotiated the sale of several jets to China that were restricted under the moratorium. Within a month of the sanctions being imposed, Boeing was given allowances to complete the sale (Ang and Peksen 2007: 136).

This line of argument suggests that governments are often willing to offer exemptions to domestic firms because senders are rarely interested in imposing economic hardship on targeted states. Rather than being a means of prosecuting U.S. foreign policy, presidents use economic sanctions as symbolic tools to mollify domestic criticism and increase domestic support (Allen 2005; Wallenstein 1968; Whang 2011). In this view, sanctions are rarely designed to be costly because these costs would take away from their political utility. While this new perspective seems to explain

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<sup>1</sup>EI (ELAF Islamic Bank - Iraq), HSBC (Hongkong and Shanghai Banking Corporation - England), PNB (Banque Naionale de Paris - France)

the relative lack of evidence supporting the notion that sanctions have important economic costs, both lines of research suffer from a number of important flaws.

Proponents of the view that sanctions are costly to the sender have yet to produce any reliable evidence that sanctions negatively affect the economy. These scholars use gravity models of bilateral trade to make the case that sanctions have negative economic effects (Askari 2003; Hufbauer et al. 1997; Hufbauer and Oegg 2003; Hufbauer et al. 2009; Leslie et al. 2014). They are based on a number of problematic assumptions. First, Hufbauer et al. (1997) assume that there is, “no offsetting increases in exports to other markets”. This, of course, is one of the main reasons given by proponents of the opposing view to explain why concerns about the costs of sanctions are overblown.<sup>2</sup> Askari et al. (2003) try to estimate the third party effects, but only look at increased trade with Europe and Japan.<sup>3</sup> Second, these studies only look at trade in individual years. They do not try to estimate the effects of sanctions on trade with the target states over time. A more appropriate way to interpret the results from these analyses is that the U.S. traded less with countries that it sanctioned in these years than with countries it did not sanction.<sup>4</sup> This result is hardly surprising, and doesn't seem to address whether sanctions are costly for the sanctioning state. Perhaps states are more likely to sanction states they do not

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<sup>2</sup>The method by which they derive their estimate of “200,000 jobs” is even more dubious. The authors arrive at this conclusion by citing a 1996 U.S. Department of Commerce Study and multiplying their regression coefficients by 15,000 jobs - the number of jobs the report says that are associated with the \$ 1 billion dollars of exports in the year 1992.

<sup>3</sup>They find no evidence of “fill in effects”, but Europe and Japan hardly account for all places where trade might be diverted.

<sup>4</sup>Hufbauer et al. (1997) look at 1985, 1990, and 1995, Askari et al. (2003) look at each year from 1980 to 1998 separately, and Hufbauer et al. (2009) look at the year 1999.

trade with. No one has reported any estimates showing economic sanctions have observable effects on GDP or unemployment. While scholars intent on arguing that economic sanctions have no effect on economic performance might point to the absence of such findings as evidence for their positions, this alternative line of research suffers from similar shortcomings.

Proponents of the argument that sanctions are costless argue that businesses do not care about sanctions because they are not strictly enforced and/or because they participate in the design process. To date, these scholars only have anecdotal evidence to support the argument that businesses control the process. This position is problematic because it is inconsistent with what the business community is saying about economic sanctions. For example, in light of Russia's recent activities in Crimea members of major U.S. corporations - including ExxonMobil, Caterpillar, Ford, Pfizer, and Disney (among others) - actively lobbied against the White House's expansion of economic sanctions for fear that escalation could seriously harm their interests' abroad (Politi and McGregor 2014). U.S. companies were similarly outspoken when U.S. sanctions against Colombia (imposed to stop drug trafficking), Iran (weapons development), and Sudan (human rights violations) were being debated (Cummings 2010; Foer 1997; Lane 1998; Reinsch 2007). Special trade associations - USA-Engage and the National Foreign Trade Council (NFTC) - have been created for the specific task of containing the "proliferation of unilateral foreign policy sanctions at the federal, state, and local level" (USA Engage 2012). There are even examples of these groups engaging in "education campaigns" initiated to sway public opinion about economic sanctions (Chatterjee 1997).

Beyond anecdotal evidence, a number of related studies point to the negative economic consequences of economic sanctions. Recent research suggests that economic sanctions affect the investment behavior of multinational firms (Biglaiser and

Lektzian 2011). There is also evidence that aggressive foreign policy can generate uncertainty that affects actors' attitudes toward economic risk, reducing consumption and demand for capital (Wood 2009). These findings are inconsistent with the perspective that economic sanctions are costless.

The proponents of the costly perspective have failed to provide systematic evidence for the costs of economic sanctions, but proponents of the alternative perspective haven't fared much better. Existing research tends to treat senders' economies like monolithic totems. Sanctions are either costly for the whole economy, or sanctions are completely costless. These approaches miss important nuances. In the next subsection I develop an original theory to explain the effects that economic sanctions have on individual firms. Later, I argue that these effects have important implications for senders' economies.

### *2.1.1 How do Sanctions Affect Firms?*

#### *2.1.2 Sanctions Costs for Firms*

Sanctions are costly for firms with commercial interests in targeted states. This argument is based on two simple assumptions. First, economic sanctions limit commercial exchanges between senders and targets. These limits can take on many forms - import restrictions, export restrictions, partial economic embargoes, etc. - but all sanctions impinge on the free flow of goods and finances. Second, firms try to profit from commercial exchanges. Corporations, limited liability companies, partnerships, and all other business entities endeavor to generate revenues and limit expenses. They engage in commercial activities and choose business opportunities that provide the most efficient means of achieving their primary objectives. These two assumptions form the basis for my argument.

Economic sanctions are costly for *some* domestic firms. Firms with commercial

interests in targeted states suffer when senders limit commercial exchanges with targets. Sanctions bar these companies from engaging in profitable activities. If firms were engaging in profit maximizing behavior prior to sanctions; the imposition of sanctions reduces revenue. Firms may be able to find other investment opportunities, but these opportunities should be less profitable than the relationships established prior to sanctions. Otherwise, profit maximizing firms would have already established these relationships. Sanctions are costly for firms with commercial interests in targeted states, but firms without commercial interests in these states should not be directly affected by economic sanctions. Sanctions do not require these companies to alter their behaviors. This argument has two testable implications.

These expectations are best illustrated through the comparison of two hypothetical firms. First, consider two firms at  $time_t$ . Suppose  $Firm_A$  is a company with commercial interests in  $Country_i$ , and  $Firm_B$  is a company that does not have significant interests in  $Country_i$ . The firms are alike in all other respects. If these conditions hold, the argument suggests that the first firm's revenue -  $Firm_A$  - should be negatively affected when sanctions are imposed against  $Country_i$ .  $Firm_B$ 's revenue, on the other hand, should not change. This intuition is the basis for the first theoretical expectation.

**Expectation One:** At any point in time, a sanction should be costly for firms with commercial interests in the target state, and should not be costly for firms that do not have commercial interests in the target state.

The second comparison considers a single firm,  $Firm_B$ , at two points in time.  $Firm_B$  did not have significant interests in  $Country_i$  at  $time_t$ . Now suppose that  $Firm_B$  develops such an interest at  $time_{t+p}$ . The argument presented above suggests that sanctions should not negatively affect  $Firm_B$  at  $time_t$ , but should reduce

*Firm<sub>B</sub>'s revenue at time<sub>t+p</sub>.*

**Expectation Two:** For any individual firm, a sanction should not be costly for the firm when it does not have commercial interests in the target state, but a sanction will be costly for the firm if it develops commercial interests in the target state.

The theory is simple, and explains the gap between existing research and observed behavior. First, sanctions generally do not produce significant changes in macroeconomic performance when sanctions are imposed because the economic consequences of sanctions are not evenly distributed throughout the economy. Sanctions only affect firms with commercial interests in the target states. Second, firms are not equally outspoken about the imposition of economic sanctions because sanctions are not costly for all firms. The only firms that should be willing to pay the costs associated with lobbying against the use of sanctions should be firms directly affected by sanctions, or firms that anticipate being affected by sanctions.

While the argument and expectations detailed in this subsection are straightforward, the process of testing the expectations is not. In the next subsection I propose a measurement strategy to capture the phenomena of interest and refine the expectations into testable hypotheses.

### *2.1.3 Observing the Costs of Sanctions in Stock Markets*

Measuring the effects of economic sanctions on domestic firms is difficult. Without specific information on what goods are affected, and how diverse firms' international interests are, it is difficult to estimate how the imposition of sanctions will affect that firms' revenue streams. In the absence of this data, I argue that there is an alternative, indirect method one can use to gauge the costs of sanctions for firms in the sanctioning state. Sanctions affect commerce because they limit, or end,

economic relations with the target state (Morgan et al. 2009: 94). These reductions influence investment behavior. Investors try to stay abreast of domestic and international events that affect the profitability of their investments (Lucas and McDonald 1990). Hence, if sanctions are costly for firms in the sanctioning state, these costs should influence the choices investors make.

Sanctions can affect behavior in two ways. First, sanctions create incentives to short-sell stocks of companies working with target states. In a short sell the seller borrows shares of a stock and sells them, waits for the price of the stock to fall, and uses some of the profits from the initial transaction to purchase the same number of shares at a lower price - keeping the difference (Hull 1997). Short-selling drives down the value of a stock and increases volatility of returns (Woolridge and Dickinson 1994). Short-selling strategies are often linked to the release of negative market information, but limited to situations where the significance of this information is clear because short selling is risky (Figlewski 1981; Saffi and Sigurdsson 2011).

Second, sanctions generate uncertainty. Investors may be unsure how important a company's access to a target market is for the company's revenue. Even if the target market is important, investors cannot respond to sanctions without knowing what goods will be affected, how the sanctions will be enforced, and when sanctions will end. They also don't know how this information will be processed by other investors. The risk that other investors will behave erratically to new information or process it incorrectly causes many to be cautious about investment in the wake of new information (Daniel et al. 1998; Zhang 2006).

The risk created by this uncertainty reduces investment and increases volatility of returns (Schwert 1989). Naturally, uncertainty makes investors more cautious. This increases the risk premia they require to make investments. They hold back resources until they can get a clear sense of the market. Investors often overreact

to bad news in good times and underreact to good news in bad times. Attempts to profit from this volatility make matters worse. Volatility increases as investors follow the market, trying to profit from short term volatility, fads, and bubbles (Schwert 1989, Veronesi 1999). For these reasons, sanctions increase the volatility of returns of companies engaged in commercial activities with targeted states. This discussion informs the following hypotheses.

$H_B$ : Returns for firms with commercial interests in target states should be more volatile than returns for firms without interests in target states during economic sanction episodes.

$H_W$ : Economic sanction episodes will cause a firm's returns to become more volatile when firms develop commercial interests in targeted states.

The first hypothesis ( $H_B$ ) is the between hypothesis. This hypothesis relates to the first theoretical expectation. Comparing different firms during one sanction episode, we should observe differences between returns for firms with interests in the target state and firms without interests in the target state. Return volatilities for firms with interests in the target state should be higher during sanction episodes. Sanction episodes should not affect volatilities of returns for firms that do not have interests in the target state.

The second hypothesis ( $H_W$ ) is the within hypothesis. We should observe variation in the way firms' return volatilities respond to sanction episodes if their commercial interests in targeted states change over time. If a firm does not have interests in a target state at one point in time, but does have interests in the target state at a later point in time, similar sanctions against the target state should not increase the volatility of the firm's returns at the first point in time and should increase the volatility of the firm's returns at the second point in time. Alternatively, one should

not observe differences between time periods if a firm's interests in the target state do not change between periods.

The theory presented in this subsection explains the microlevel consequences of economic sanctions for individual firms. These consequences can be difficult to observe because of data limitations. These costs, however, have important implications for investor behavior and changes in behavior should produce observable changes in the volatilities of stock market returns.

## 2.2 Research Design

This subsection lays out the modeling and measurement strategies I use to explore the links between economic sanctions and financial markets. The research design has two parts - case selection and the statistical technique I use to test the hypotheses presented in the last subsection. I will discuss the cases before turning to the statistical technique. The cases being analyzed in this study have two components - the sanction episodes and the companies whose returns are being analyzed.

### 2.2.1 Sanction Episodes

I have chosen two sanction episodes where the sender (sanctioning state) is the United States and the target (sanctioned state) is China.<sup>5</sup> The first episode is the U.S. congress's deliberation of imposing harsh sanctions against China in the wake of the communist regime's violent crackdown on dissidents in Tiananmen Square in 1989. The second involves a similar, lengthy congressional debate in 2011 that -

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<sup>5</sup>A sanction episode includes more than the actual restrictions imposed by the sender. Instead, an episode begins when economic sanctions are threatened (Morgan et al. 2009). This is important as both the episodes examined here do not involve the imposition of economic sanctions - at least not significant economic sanctions - against the target state. Instead, both episodes are cases where more severe sanctions were considered by congress, but never passed and never signed into law.

had it passed - would have labeled China a “currency manipulator” and forced the executive to impose a wide array of economic sanctions designed to encourage Beijing to revalue its currency.

These cases were chosen for several reasons. First, China has been home to a large number of important commercial partners for domestic firms since the 1970s. By 1989 U.S. chemical, energy, and pharmaceutical companies had established significant presences throughout China. By 2011, U.S. firms from every major commercial sector were represented in China. Holding the target of the sanctions, China, constant ensures that there is nothing peculiar to the target state affecting the results. Sanctions were imposed for completely different reasons - human rights and economic policy - so one cannot make the argument that there is something unique to the conflict influencing investment behavior. In this vein, the first episode involves sanctions imposed in response to a particular event, the Tiananmen Square crackdown, while the second episode is a case where the U.S. is the belligerent. Both episodes involve lengthy debates where the outcomes were uncertain. I believe I have isolated the key independent variable - the commercial interests of the different firms - by selecting these two episodes.

#### *2.2.1.1 Tiananmen Square Sanctions 1989*

The time frame of the first episode is easy to identify. The sanction episode began on June 5, 1989 following clashes between army units and protestors in Tiananmen square where hundreds were killed (Peterson 2012). Immediately following the massacre, President Bush suspended arms sales to China and tightened a number of export controls on military technology. These initial sanctions only affected a small group of U.S. companies, but illustrated that the President was willing to impose economic pressure in response to Chinese human rights violations (Ang and Peksen

2007).

The episode does not end with the suspension of arms sales. On June 6 the United States House of Representatives and the United States Senate passed a concurrent resolution urging the President to condition Overseas Private Investment Corporation (OPIC) funds and Export-Import Bank (Eximbank) loans to the improvement of human rights conditions in China. The resolution also called for a review of all aspects of the economic relationship with China and urged the president to consider multilateral sanctions (Peterson 2012). Over the next eleven months Congress tried several times to pass legislation that would remove China's MFN status and / or put tighter restrictions on U.S.-China trade. The situation in Congress required the President to constantly re-affirm the U.S.'s commitment to the U.S.-China economic relationship and China's MFN status. Most notably, the President waived sanctions targeting China in the International Development and Finance Act of 1989 immediately after signing the bill into law in December, and the President waived sanctions beyond the loans in February (Rennack 1997). The President's patience and resolve appeared to waiver in March 1990.

Over the course of the year, the Bush administration made several attempts to engage China on human rights, but Beijing made little effort to alter its policies. With the date for the renewal of China's MFN status set in late may, the President admitted that the administration's attempts at engagement had not produced significant changes in Chinese policy. This prompted the introduction of six separate bills in the U.S. congress proposing the removal of Chinese MFN status (Hufbauer et al. 2009). In response to U.S. pressure, China released 211 prisoners arrested during the protests in early may. Later that month, the Bush administration renewed China's MFN status. These events marked the end of serious debate about Tiananmen square sanctions. In the following months China would make additional concessions, and

efforts to pressure China on human rights received only limited support in congress. As a consequence, I chose to code this episode as beginning on June 5, 1989 and ending on May 24, 1990.

### *2.2.1.2 Currency Sanctions 2011*

The beginning of the second episode is slightly harder to identify. The key is to identify on what day the market, “that is, its most interested and well informed segment, could have reasonably anticipated the news” (Henderson 1990: 284). With this in mind, I coded the episode as beginning on July 12, 2011 when the top Democrat of the Ways and Means Committee (Tom Donohue D. MI) began publicly urging the Obama administration to take steps to stop China’s currency manipulation (Schroeder and Needham 2011). After similar public calls - from Republicans and Democrats - to ramp up economic pressure on China, joint hearings were held to consider the need to pressure China (Casey 2011). After hearing testimony, a bill (Senate bill S.1619 titled “The Currency Exchange Rate Oversight Reform Act of 2011”) was introduced on September 22 by Senator Sharrod Brown (D. OH). The bill passed the Senate on October 11, but never made it to the house floor.

John Boehner, the Republican speaker of the house, expressed strong opposition to the bill, calling it “dangerous” because of the possibility that the legislation would force the United States to violate its obligations to the World Trade Organization and start a trade war with China (Strong 2011). At that point, many Washington insiders were already speculating that Boehner would not allow the bill to come to the floor of the house for a vote, but this suspicion was solidified when the Obama administration announced that it agreed with the Speaker’s position (Lock 2011). This effectively killed the Bill. The 112th congress adjourned before the bill was even debated in the house of representatives. Given this sequence of events, I coded this

episode as ending on October 12, 2011.

These two episodes contrast in a number of important ways. The policies they are intended to change / punish are very different. The 2011 episode involved a major revision of an important economic policy that would have significant economic consequences for both China and the United States. The 1989 episode involved the U.S. response to Chinese human rights violations. In the 2011 episode, the conditions that would have been attached to the potential sanctions were explicit - sanctions would be lifted when China reformed its monetary policies. In the 1989 case the required changes were more abstract. They were imposed to punish the regime, and pressure it to move toward better human rights conditions. These differences are significant in that consistent results across the episodes would imply economic pressure, and not the policies for which economic pressure was being applied, played the most important role in determining the economic consequences of the sanctions.

The two episodes are similar in many respects as well. In both cases, Congress debated legislation that would impose comprehensive sanctions on the Chinese government. In 1989, Congress debated removing China's Most Favored Nation (MFN) trading status and conditioning it on the improvement of human rights conditions in China. In 2011, Congress debated legislation that would have applied sanctions to most goods imported from China as a means of forcing China to lift the peg on its currency. In both cases, a large number of U.S. companies trading with China were put at risk, and in both cases a substantial amount of uncertainty was generated over whether sanctions would be imposed. The circumstances surrounding these episodes make them ideal choices to test the argument presented above.

### 2.2.2 U.S. Companies

The argument presented in the last subsection differentiates between companies engaged in commerce with the target state and those that are not. I chose companies from the Standard & Poor's 500 (S&P 500) stock market index. The companies are included in the index based on a number of standards. For my purposes, the most important of these are the liquidity-based size requirements. Companies listed in the S&P 500 must have a market capitalization greater than or equal to \$5.1 billion and the minimum monthly trading volume greater than 250,000 shares (S&P Indices 2012). All the securities on the S&P 500 are publicly listed on either the NYSE (New York Stock Exchange) or the NASDAQ (National Association of Securities Dealers Automated Quotations).

Choosing from the S&P 500 ensures the firms are comparable in two important respects. First, the companies on the S&P are similar in size. Market capitalization, the total value of the shares of a publicly traded company calculated as the share price times the number of shares outstanding, represents a company's net worth. A floor of \$5.1 billion ensures that one is not comparing small companies to extremely large firms. Second, the liquidity requirements guarantee the stocks are similar in terms of risk. Illiquid securities tend to be volatile because of gaps between bid (sell) and ask (buy) prices. Investors could be forced to sell shares at significant losses if there are not enough buyers in a market. With 250,000 transactions occurring per month, one can be confident that they will not run into this problem barring a major financial meltdown. This also helps guard against artificial volatility in the prices.<sup>6</sup> I only chose companies that were listed on the S&P 500 in both years - 1989 and

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<sup>6</sup>Artificial in the sense that volatility related liquidity shortfalls is different from volatility associated with a security's underlying value.

2011.

I also classified firms by sector using Morgan Stanley Capital International's (MSCI) Global Industry Classification Standard (GICS) codes. The GICS are an industry taxonomy developed by MSCI and S&P for use by the global financial community. The GICS break firms into ten sectors - energy, materials, industrials, consumer discretionary, consumer staples, health care, financial, information technology, telecommunication services, and utilities. I use the GICS to make three types of comparisons. I compare firms within-sectors within-years, within a sector over time, and across-sectors over time. I used companies web pages, press releases, wikipedia pages, and other sources to determine when, and if, a company developed business interests in China. My expectations, and the chosen companies, are presented in figure 2.1.

**Figure 2.1: Hypotheses**

		1989	2011
No Commerce		Eli Lilly ∅ Health Care	Bed Bath and Beyond ∅ Consumer Discretionary
<u>Within Sectors &amp; Years</u>			
Commerce		Pfizer + Health Care	GAP + Consumer Discretionary
-----			
Apple	Information Tech	∅	+
Dell	Information Tech	∅	+
Dow Chemical	Materials	+	+
PPG Industries	Materials	+	+
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Walmart	Consumer Staples	∅	+
Duke Energy	Utilities	∅	+
Deere	Industrials	∅	+

The top panel of figure 2.1 shows comparisons within sectors within the same years. First, I compare two pharmaceutical companies (health care) in 1989. Pfizer opened a major international production facility - the Dalian Pharmaceutical plant - four months prior to the Tiananmen Square massacre (Pfizer 2011). Eli Lilly did not make any major commercial investments in China until 2002 (Lilly 2012). Pfizer stood to suffer from economic sanctions while Eli Lilly did not. Therefore, investors holding Pfizer stock had incentives to change their behavior, but investors holding Eli Lilly stock did not. Hence, one would expect to see an increase in the volatility of Pfizer stock (+) because of the sanctions, but sanctions should not have affected the volatility of Eli Lilly stock ( $\emptyset$ ). I make a similar comparison between GAP inc. and Bed Bath and Beyond (Consumer Discretionary) in 2011. Gap was expanding its retail presence in China while sanctions were being considered in 2011 (Wikipedia 2014). Bed Bath and Beyond only operates in Canada, the U.S., and Mexico (ibid.). Gap stocks should have been affected by the sanctions (+), but the sanctions should not have affected the volatility of Bed Bath and Beyond ( $\emptyset$ ).

The second panel of figure one displays comparisons within the same sector over time. Apple and Dell are major multinational information technology manufacturing firms. Both have significant investments in China today, but did not have significant investments in 1989 (Dell 2014; Keck 2013). If the argument presented in the last subsection is correct, the sanctions debated in 1989/1990 should not have had significant impacts on the volatilities of Dell and Apple stock prices ( $\emptyset$ ), but the sanctions debated in 2011 should have (+). Dow Chemical and PPG Industries are two major chemicals and materials manufacturers. Chemicals was one of the first U.S. industries to establish a major presence in China. Dow Chemical opened facilities on mainland China in 1979 and PPG opened a number of production facilities in the early 1980s (Dow Chemical 2015; PPG 2015). Both companies had important

investments in China in 1989 and 2011, so the debates during both periods should affect the companies' stock volatilities (+).

The third and final panel shows similar comparisons for companies in three different sectors. Walmart (consumer staples), Duke Energy (utilities), and John Deere (industrials) did not have significant investments in 1989 ( $\emptyset$ ), but all had developed significant presences in the Chinese market by 2011 (+) (Cohan 2012; Deere 2014; Duke 2012).

### 2.2.3 Statistical Method

The hypothesized relationships between sanctions and stock returns relate to changes in the conditional variance of the returns, not the conditional mean. Autoregressive Moving Average Generalized Autoregressive Conditional Heteroscedasticity (ARMA-GARCH) models are the workhorse models used to analyze these kinds of relationships (Bollerslev 1986). ARMA-GARCH models are used to analyze and forecast the volatilities of time series. They are particularly useful for modeling financial data because they can handle many features of these data that limit the utility of conventional regression techniques.

The ARMA-GARCH methodology allows one to control for the entire history a time series (Box et al. 2008; McCleary and Hay 1980). The current observation of a time series  $y_t$  is modeled as a function of previous values of the series  $y_{t-1}, y_{t-2}, \dots, y_{t-p}$  and previous errors made in the forecasting of  $y_t$ . The variance of the process follows a similar model. The current observation of the variance  $s_t^2$  is a function of previous realizations of the variance  $s_{t-1}^2, s_{t-2}^2, \dots, s_{t-p}^2$  and previous errors in the estimation of the variance. Dummy variables can be included in the models to control for unique events that disturbed the series. One can account for all previous events affecting the series dynamics with a well defined ARMA-GARCH model. The model is specified

as follows:

$$r_t = \log\left(\frac{close_t}{close_{t-1}}\right) \quad (2.1)$$

$$r_t = \alpha + \sum \phi_i r_{t-i} + \sum \theta_j \varepsilon_{t-j} + \varepsilon_t \quad (2.2)$$

$$\varepsilon_t = Z_t s_t \quad (2.3)$$

$$Z_t \sim D(0, 1) \quad (2.4)$$

$$s_t^2 = \omega + \sum \Phi_i \varepsilon_{t-i}^2 + \sum \Theta_j s_{t-j}^2 + \delta_i I_{i,t} \quad (2.5)$$

Equation one shows the dependent variable - the continuously compounded returns of the closing prices for each of the stocks. Equation two shows the model for the conditional mean. The return for a security on trading day  $t$  is a function of returns from previous trading days  $r_{t-1}$  through  $r_{t-i}$  and previous innovations  $\varepsilon_{t-1}$  through  $\varepsilon_{t-j}$  and a white noise error term  $\varepsilon_t$ . This is a standard Autoregressive Moving Average (ARMA) representation of the conditional mean of a time series. The  $\phi_i$  parameters are the autoregressive parameters in the mean equation and the  $\theta_j$  parameters are the moving average parameters.

The innovations of the time series process ( $\varepsilon_t$ ) are defined as an autoregressive conditional heteroscedastic process where  $\varepsilon_t$  are equal to the product of some *iid* process  $z_t$  with zero mean and unit variance.  $D$  is the probability density function of these innovations.<sup>7</sup>  $\varepsilon_t$  is assumed to be serially uncorrelated but the conditional variance  $s_t^2$  is allowed to change over time (Wurtz et al. 2006).

The fifth equation is the model for the conditional variance.  $s_t^2$  is a function of the squared innovations from previous periods  $\varepsilon_{t-1}^2$  through  $\varepsilon_{t-i}^2$  and the conditional

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<sup>7</sup>It is not uncommon for stock returns to have leptokurtic error distributions. This generalization allows other, non-normal, distributions to be applied to the errors.

variances from previous periods  $s_{t-1}^2$  through  $s_{t-j}^2$ .<sup>8</sup> Similar to the ARMA model for the mean, the  $\Phi_i$  parameters are autoregressive parameters in the conditional variance equation (ARCH) and the  $\Theta_j$  parameters are the moving average (GARCH) parameters.

The last term in equation five is  $\delta_i$ . This represents dummy variables included in the conditional variance equation to test the argument outlined above. Indicator variables for the two sanction episodes (*Sanction* in each of the models below) were created. The argument suggests that volatility of returns for companies with commercial interests in the target state should be higher during the sanction episodes. Hence, the coefficients on these variables should be positive and statistically significant for the companies doing business with China during the two time periods.

Dummy variables can also be included to control for unrelated events that had a large impact on return volatility during the sample period. The models presented in the next subsection include three such controls. The first control is an indicator variable that is coded one on October 13, 1989 and zero otherwise. This variable (labeled *minicrash*) captures the sudden drop in returns that occurred throughout the market because of the collapse of the junk bond (below investment grade bond) market on this day (Wikipedia 2014). The second control, *Debt Debate* is coded one from May 16, 2011 to July 29, 2011. It captures any change in volatility that may have occurred as investors speculatively put money in, or pulled money out, of the market when congress was debating whether or not to raise the debt ceiling in 2011. The final control variable *Black Monday* is coded 1 on August 8, 2011

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<sup>8</sup>The conditional variances can be thought of as the mean squared errors. The equation for last periods conditional variance can be written  $s_{t-1}^2 = \frac{\sum (\varepsilon_{t-1-j} - \bar{\varepsilon})^2}{t-1-j}$ . By assumption, the conditional mean of the white noise error process  $\varepsilon$  is zero. Hence, last periods conditional variance can be simplified as  $\frac{\sum \varepsilon_{t-1-j}^2}{t-1-j}$ .

and zero otherwise. It captures the drop in stocks that occurred the Monday after Standard and Poor's downgraded the credit rating of the United States Treasury Bonds from AAA to AA+ (Wikipedia 2014). After a thorough analysis of each of the companies being analyzed, these were the only events that affected any of the series that could not be controlled for with the conventional ARMA-GARCH specification. The results of the models are presented in the next subsection.

### 2.3 Results

Two models are presented for each time series. The first is the baseline ARMA-GARCH model for the returns series. Information criteria were used to select these models from a host of candidate models that included different combinations of ARMA(m,n)-GARCH(P,Q) components. Each of these models is slightly different because each of the models is built to control for the dynamics peculiar to the different returns series. The second model for each time series is the ARMA-GARCH model with the sanctions variables and economic controls included in the equation for the conditional variance.<sup>9</sup> The top panels of the tables present the components of the mean equations and the second panels include the components of the variance equations.

The third panel of each table reports the sample size, the Akaike Information Criteria (AIC), the Bayesian Information Criteria (BIC), and Ljung-Box Portmanteau tests for the first forty lags of the residuals  $\varepsilon_t$  and squared standardized residuals  $\varepsilon_t^2$ . These statistics summarize the adequacy of each model. There are two points worth

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<sup>9</sup>A *GAP Report* variable is included to account for a day (May 20, 2011) when GAP released a report explaining that the company was being restructured. This indicator variable captures the structural change that occurred in the GAP closing price time series that causes a large, one day, spike in returns.

noting. First, the information criteria suggest the economic controls and sanction variables contribute valuable information. The criteria are lower for the final models in cases where the sanctions were predicted to affect the volatility of returns. Second, none of the Ljung-Box statistics are significant for any of the final models. This suggests the models are adequately specified and that the residuals, and squared standardized residuals, are white noise.

Table 2.1 shows the within year comparison models. The pharmaceutical companies Eli Lilly and Pfizer are compared in 1989, and the commercial retailers Bed Bath and Beyond and Gap are compared in 2011. The 1989 models are presented in the first four columns and the 2011 models are presented in the next four columns. Looking at the 1989 models, the baseline models for Eli Lilly and Pfizer are slightly different. The significant lag in the Eli Lilly equation suggests persistence in the levels of the series, the significant ARCH lag in the Pfizer equation suggests persistence in the volatility of the series. The firms are similar but the dynamics of the returns are not. Despite the importance of modeling these dynamics correctly, these coefficients don't contain theoretically interesting information. Neither do the economic controls. These variables were included to ensure other events didn't interfere with the estimated effects of the sanctions, but they have no bearing on the argument being tested. With this in mind, I will focus the remainder of the discussion on the sanction variables.

The sanction variables are shown shown in the second panel. These coefficients should be positive and statistically significant if the companies had commercial interests in China while the sanctions were being debated, and should be insignificant otherwise. Looking at the second and fourth columns of table one, the results from the Eli-Lilly and Pfizer models are consistent with the between hypothesis. The sanction coefficient is not reliably different from zero in the Eli Lilly model, but is

Table 2.1: Within Sectors Within Years

	1989				2011			
	<u>Eli Lilly</u>		<u>Pfizer</u>		<u>Bed Bath &amp; Beyond</u>		<u>Gap</u>	
$\alpha$	.168*** (.063)	.177*** (.060)	.099 (.081)	.099 (.076)	.065 (.116)	.105 (.112)	-.070 (.183)	.063 (.115)
$\phi_4$	-.142*** (.054)	-.141*** (.040)						
$\omega$		.569*** (.118)	1.74*** (.124)	.090 (.129)		1.09*** (.056)	4.88*** (.306)	1.12*** (.084)
$\Phi_1$			.194*** (.058)	.131** (.061)				
Sanction		-.146 (.140)		.673** (.141)		.232 (.175)		.445** (.191)
Mini Crash		3.06*** (1.08)		.832 (1.02)				
Debt Debate						-.441 (.147)		-.221 (.173)
Black Monday						1.52 (.965)		2.06*** (.600)
Gap Report								3.92*** (.834)
N	357	357	357	357	252	252	252	252
AIC	1241	1199	1276	954.6	1024	1005	1159	1054
BIC	1252	1218	1288	972.2	1031	1022	1166	1075
$Q(40)$	29.7	29.7	43.8	47.8	24.6	24.6	37.5	37.5
$Q(40)^2$	19.8	54.6	31.1	41.1	13.7	9.96	4.8	27.6

Standard errors in parentheses, \*\*\* $p < 0.01$ , \*\* $p < 0.05$ . Observations, Information Criteria, and Ljung-Box Q statistics presented in bottom panel.

positive and statistically significant in the Pfizer model. Eli-Lilly did not have a commercial presence in China in 1989, but Pfizer had recently established a new research and production facility. A similar pattern is apparent in the 2011 cases. Gap had an expanding retail presence in China during 2011, but Bed Bath and Beyond only operated in the U.S., Canada, and Mexico. Consistent with the between hypothesis, the coefficient in the Bed Bath and Beyond model is insignificant while the coefficient in the Gap model is positive and significant. Similar patterns arise when one compares companies over time. These models are presented in tables two and three.

Tables 2.2 and 2.3 show comparisons within sectors over time. Apple and Dell did not have interests in China in 1989, but did in 2011. Dow Chemical and PPG Industries, on the other hand, had significant presences in China throughout the 1980s, 1990s, and 2000s. The pattern in the results is consistent with the within and between hypotheses. The sanction coefficients for the 1989 sanctions are not statistically significant for Apple and Dell, but the 2011 coefficients for these companies are positive and statistically significant. All the sanctions coefficients are statistically significant for Dow Chemical and PPG industries. The dynamics for the series are slightly different in some cases, and the types of investments the companies would have been making vary widely across sectors, but the sanctions had similar effects on returns for the four companies.

Finally, table ?? shows comparisons across sectors over time. Walmart, Duke Energy, and Deere represent three separate sectors - Consumer Staples, Utilities, and Industrials. None of the companies had significant commercial interests in China when human rights sanctions were being debated in 1989, but all of these companies had significant commercial presences when currency sanctions were being debated in 2011. Again, the results are consistent with the within hypothesis. None of the 1989

Table 2.2: Within Sectors Over Time - Apple and Dell

	Apple				Dell			
	1989		2011		1989		2011	
$\alpha$	.006 (.125)	.021 (.125)	.090 (.104)	.100 (.101)	-.160 (.158)	-.166 (.167)	.027 (.131)	.050 (.126)
$\phi_1$								
$\phi_3$							-.142** .056	-.137** (.063)
$\phi_8$								
$\omega$		1.54*** (.072)			7.91*** (.550)	2.12*** (.144)	4.88*** (.306)	1.46*** (.068)
$\Phi_1$					.470*** (.090)	.450*** (.096)		
$\Phi_3$								
$\Phi_7$							.102*** (.039)	.058 (.052)
Sanction		.138 (.098)	.392** (.200)			-.062 (.142)		.638*** (.230)
Mini Crash		1.03 (.963)				-.288 (2.18)		
Debt Debate			-.161 (.261)					-.586*** (.199)
Black Monday			1.42 (.830)					.628 (.614)
N	252	252	252	252	357	252	252	252
AIC	1609	1610	971.6	954.6	1890	1894	1146	1131
BIC	1617	1625	978.6	972.2	1901	1913	1160	1155
$Q(40)$	30.6	30.6	47.8	47.8	36.9	36.9	38.6	38.5
$Q(40)^2$	24.9	23.4	45.5	41.1	15.3	15.2	15.6	12.5

Standard errors in parentheses, \*\*\* $p < 0.01$ , \*\* $p < 0.05$ . Observations, Information Criteria, and Ljung-Box Q statistics presented in bottom panel.

Table 2.3: Within Sectors Within Years - Dow Chemical and PPG

	Dow Chemical				PPG			
	1989		2011		1989		2011	
$\alpha$	.029 (.066)	.035 (.062)	-.044 (.126)	-.015 (.114)	.072 (.083)	.103 (.075)	.070 (.113)	.041 (.100)
$\phi_3$			-.057 (.076)	-.083 (.076)				
$\phi_5$			-.105 (.077)	-.083 (.071)				
$\phi_{11}$					.140*** (.052)	.122** (.049)		
$\phi_{16}$					.159*** (.058)	.150*** (.056)		
$\omega$	1.30** (.102)	.002 (.140)	.402** (.204)	-.833 (.613)		-.153 (.127)	2.55*** (.221)	.804*** (.108)
$\Phi_2$			.218*** (.050)	.081 (.100)			.291*** (.094)	.155* (.081)
$\Phi_8$	.177*** (.036)	.012 (.053)						
$\Theta_1$			.736*** (.047)	.799*** (.091)				
Sanction		.440*** (.157)		1.22*** (.344)		.396*** (.159)		.762*** (.230)
Mini Crash		2.70*** (1.05)				2.15** (.922)		
Debt Debate				-.579 (.375)				-.606** (.284)
Black Monday				1.74** (.686)				1.34 (1.00)
N	357	357	252	252	357	357	252	252
AIC	1171	1146	1160	1144	1094	1074	1024	998.5
BIC	1182	1166	1182	1175	1109	1098	1034	1019
$Q(40)$	52.6	52.6	51.1	51.4	22.0	22.2	46.7	46.7
$Q(40)^2$	33.6	38.2	53.6	38.6	44.6	25.6	71.8	31.8

Standard errors in parentheses, \*\*\* $p < 0.01$ , \*\* $p < 0.05$ . Observations, Information Criteria, and Ljung-Box Q statistics presented in bottom panel.

Table 2.4: Across Sectors Over Time

	Walmart		Duke Energy			Deere	
	1989	2011	1989	2011	1989	2011	
$\alpha$	.158** (.080)	.040 (.061)	.046 (.038)	.084 (.064)	.122 (.063)	-.028 (.104)	.013 (.103)
$\phi_1$							
$\phi_2$			.155** (.062)	.236*** (.049)			
$\phi_3$			.167*** (.054)		-.136 (.064)	-.133** (.052)	-.076 (.059)
$\phi_5$			.167*** (.054)			-.139** (.057)	-.079 (.060)
$\theta_1$			.167*** (.054)	-.192*** (.051)			
$\omega$	2.16*** (.113)	.646*** (.139)	.786*** (.074)	-.265** (.129)	.442*** (.036)	-.255 (.115)	1.18*** (.120)
$\Phi_1$	.086** (.041)	.042 (.057)	.258*** (.085)	.078 (.077)	.132*** (.045)		
$\Phi_8$			.100** (.041)	.101** (.041)			
Sanction		.074 (.160)		.434** (.195)		-.215 (.153)	.739*** (.229)
Mini Crash		2.92** (1.48)		.169 (1.51)		1.93** (.825)	
Debt Debate				-.477** (.229)		-.600** (.246)	-.370 (.245)
Black Monday				1.96** (.968)		1.58*** (.700)	1.15*** (.781)
N	357	357	252	252	357	252	252
AIC	1324	1296	719.4	698.3	812.5	704.3	1095
BIC	1335	1316	730.0	719.5	828.0	718.4	1109
$Q(40)$	55.5	55.5	37.6	37.6	32.9	26.8	39.7
$Q(40)^2$	18.7	36.7	32.2	13.3	34.6	33.6	40.8
					69.8***	32.2	45.6
					41.8	92.6***	32.1

Standard errors in parentheses, \* \* \*  $p < 0.01$ , \* \*  $p < 0.05$ , \*  $p < 0.10$ . Observations, Information Criteria, and Ljung-Box Q statistics presented in bottom panel.

sanction coefficients are statistically significant, but all of the 2011 coefficients are positive and statistically significant.

I look at sanctions against one country at two points in time. Eleven companies are compared and seven sectors are represented. The results from these comparisons are consistent with the hypothesized relationships. Sanctions affect the volatility of returns for firms that have commercial interests in the target states, but do not have significant impacts on the returns for other firms. The theoretical significance of these results will be discussed in more detail in the next section.

## 2.4 Discussion

### 2.4.1 *Sanctions and Firms*

Sanctions are costly for firms in sanctioning states that have commercial interests in the target states. One cannot directly estimate these costs without information about all the firms' interests in the target states. This paper uses financial data to proxy these costs. Sanctions threaten firms' revenue streams. Uncertainty surrounding sanctions influences investment behavior, and these changes are reflected in the volatility of the firms' stock prices. This pattern can be identified across sectors, and over time. This pattern is significant not only because it suggests that investors believe sanctions are costly for firms, but because the volatility created by this uncertainty is costly as well.

Volatility reflects concerns investors have about the direct effects of sanctions on revenue streams, but this volatility also generates important indirect costs. Volatility affects companies' abilities to generate cash flows through financing activities. Banks and other financial institutions use the volatility of a company's stock returns as a barometer for the company's creditworthiness. Volatility is a signal that the market doesn't know how to value the future revenue flows of a company. The risk that

a company may fail, or be unable to meet its debt obligations, influences decisions these financial institutions make about whether or not they should offer the company loans, and what interest rates to charge when loans are granted. Such uncertainty also reduces demand for shares of the company, limiting the ability of the firm to generate cash flow through equity financing. If this uncertainty isn't resolved quickly, concerns investors have about a firm's long term solvency can become a self fulfilling prophecy.

Sanctions are a two pronged assault on the profitability of a firm. On one hand, companies are forced to forgo otherwise profitable commercial activities. Unless companies can quickly find suitable substitutes for lost trade the company stands to lose money as long as the sanctions are in place. On the other hand, the effects sanctions have on stock prices influence firms' abilities to offset these costs through alternative revenue streams.

These findings have important implications for the literature examining the strategic use of sanctions. Most models assume sanction threats are relatively costless. Only imposition is costly. Costly sanctions are useful signals of preferences and resolve, but threats signal nothing because talk is cheap. The findings presented here suggests that talk is not cheap. The mere threat of economic sanctions can impose costs on firms in the sanctioning state. This creates a different view of the bargaining environment surrounding sanctions. The ability to impose costs on one's own economy at the outset of the dispute may make the signal being sent to the target state more credible. On the other hand, the fact that the sender is incurring costs by threatening sanctions may increase the target state's resolve. Understanding how these costs influence the behavior of the sender and target states may have important implications for research looking at the timing, targeting, and effectiveness of economic sanctions.

### *2.4.2 Sanctions and Macroeconomic Performance*

The results presented in the last subsection show that sanctions are costly for individual firms. What do these results suggest about the costs of sanctions for senders' economies? There are two obvious answers. If sanctions interrupt revenue streams firms may be forced to layoff workers, and if sanctions interrupt the normal flow of goods and services they could affect domestic prices. Hence, sanctions could affect unemployment and inflation if enough firms were affected. The results presented in the this paper suggest a third possibility.

Sanctions affect return volatility. If a large group of firms have commercial interests in the target state, this volatility could spill over and affect the entire market. Systemic uncertainty would cause investors to choose "lower risk" investments. This, in turn, would cause the pool of private investment to shrink. If this bearish investment climate persisted long enough, there could be long term macroeconomic consequences.

The economic impacts of sanctions have important implications for other areas of political science research. In American politics, the political consequences of economic hardship are well understood (MacKuen et al. 1992, 2003). If the economic costs of sanctions are large enough, they could affect consumer sentiment and support for the president. This is particularly interesting given the cases considered here. In both 1989 and 2011 members of Congress introduced bills to impose sanctions against China. In both cases the debates surrounding the sanctions created a considerable amount of uncertainty in financial markets. If volatility associated with this uncertainty can affect macroeconomic performance, then congress may be able to use sanctions - and other economic policies - to strategically manipulate public support for the president. Even if Presidents and members of the opposition

can block the bill, the debate around these measures can have important political consequences.

These findings are also important for scholars interested in the way financial markets process information about political events. In this case, the events are the economic sanctions. The analyses presented here show that the period running up to the events, the debate surrounding the sanctions, can have important effects on financial markets as well. Significant changes in market volatility occurred prior to the bills being voted on. Scholars interested in using event history analyses and similar methods that require precise coding of events may need to consider this possibility when designing their studies.

## 2.5 Conclusion

Many assume that economic sanctions are costly for the sender because sanctions interrupt commerce and decrease bilateral trade with the target state. The seemingly innocuous nature of this assumption has caused the economic consequences of economic sanctions to go understudied for several years. A new line of scholars has begun questioning this assumption - arguing that sanctions only affect a small amount of bilateral trade and that sanctions are designed to limit the costs to firms in the sanctioning state. This new perspective undermines existing research that uses the negative economic consequences of sanctions to explain, among other things, the initiation, timing, targeting, duration, and effectiveness of economic sanctions. This paper addresses this inconsistency by developing a new, micro-level, theory of the economic costs of economic sanctions.

Are economic sanctions costly? It depends. Existing research fails to effectively conceptualize the economic consequences of sanctions. Individual sanctions do not cause major changes in trade, inflation, and unemployment. This does not mean

sanctions are economically benign. The economic consequences of sanctions are not evenly distributed throughout the economy. Sanctions are only costly for firms that have commercial interests in targeted states.

These costs can have important political consequences. Sanctions affecting the profitability of large firms or industries may generate a significant amount of public opposition. Also, sanctions may influence choices firms make about whether or not to make significant political contributions and which politicians or political parties they should support. The Chamber of Commerce and National association of Manufacturers example involving advertisements in major newspapers demonstrates of willingness of industry groups and the firms they represent to spend money in opposition to sanctions. While existing research on the domestic economic and political consequences of sanctions has tended to focus on the consequences of sanctions for trade and presidential approval, future work need to focus on the domestic consequences of sanctions for firms and interest group behavior. The latter may have far more important political ramifications.

The perceived economic consequences of sanctions makes them costly. Sanctions increase the volatility of returns of companies that have important commercial interests in the target state. At the micro level this volatility can limit a firm's access to financing and negatively affect the companies performance. At a macro level, stock instability caused by economic sanctions can affect the entire market. The results suggest a need to reexamine the way we think about the economic consequences of economic pressure.

### 3. POWER POLITICS OR PUBLIC PANDERING: RETHINKING THE DOMESTIC ECONOMIC AND POLITICAL CONSEQUENCES OF ECONOMIC SANCTIONS

Are economic sanctions costly for the sanctioning state? Economic sanctions are economic pressure applied to achieve political goals. The sanctioning state (the sender) limits trade or financial transactions with the sanctioned state (the target) and outlines a set of demands that must be met before customary economic relations can resume (Hufbauer et al. 2009). Sanctions scholars generally agree that sanctions inflict economic losses on the target state, but there are serious differences of opinion about the effects of sanctions on the sender.

Some assume that sanctions are costly for the sanctioning state. Sanctions interrupt commerce, and this economic burden makes them politically unpopular. Leaders endure these political and economic consequences because the costly nature of economic sanctions is what makes them useful tools of statecraft. Others argue sanctions are costless, and that they are primarily used for to achieve domestic political goals. Rather than being a means of prosecuting foreign policy, leaders use economic sanctions as symbolic tools to increase domestic public support. This creates an important theoretical dilemma. When leaders impose sanctions, are they engaged in power politics or public pandering?

The conversation surrounding recent U.S. sanctions against Russia illustrates the tenor of the debate. Responding to Russian military incursions in Ukraine, the Obama administration announced sanctions targeting Russian officials in March 2014. Shortly after the initial round of sanctions, a public opinion poll showed sixty-one percent of Americans favored stricter sanctions against Russia, with many

saying that sanctions were an important “symbolic gesture to communicate to Russia that” the U.S. doesn’t “condone its actions” (Ekins 2014). Fearing escalation, the U.S. Chamber of Commerce and National Association of Manufacturers took out full page ads in the New York Times, the Wall Street Journal, and the Washington Post warning that more sanctions would harm U.S. workers and businesses (Dorning 2014). How will attitudes evolve over the course of the conflict? One camp will argue that sanctions are popular, the other will argue that sanctions are costly, and both can find confirmatory evidence for their positions.

I argue that this theoretical problem is actually an empirical puzzle. These competing perspectives are symptomatic of an endogeneity problem. Conventional regression techniques impose strict independence and exogeneity assumptions that make it impossible to test these arguments, and how one identifies their empirical model leads them to vastly different substantive conclusions. This line of research has also tended to ignore important economic and political phenomena that weigh on these relationships.

At a theoretical level, this impasse creates serious problems for scholars that use the costly nature of sanctions to explain, among other things, which states are targeted, when and why sanctions work, and how sanctions end. On the other hand, it is also problematic to assert that leaders face diversionary incentives to sanction while many are arguing that sanctions are unpopular. Normatively, sanctions can create significant economic distress in the sender and target states, and the use of sanctions for political ends could conceivably provoke an international crisis. Understanding why sanctions are used is essential to preventing their misuse.

I endeavor to resolve this dilemma by empirically assessing these competing perspectives. At the outset, three things should be stressed. My agenda is not to prove or disprove any arguments about the forces that motivate the use of sanctions, this

study does not attempt to resolve existing debates about the effectiveness of economic sanctions, and I do not attempt to develop a new theory to explain when or why sanctions are imposed. Highlighting an important gap in the sanctions literature, this study critically reviews existing perspectives on the costs/benefits of imposing sanctions and examines the political and economic consequences of economic pressure. I employ a modeling strategy that does not require the identifying restrictions imposed by conventional regression models. The empirical contribution of the paper has important theoretical implications.

The results show that, on average, economic sanctions are both economically and politically costly for the sanctioning state. This is an important buttress for work deploying the costly nature of sanctions as a central theoretical construct. Sanctions affect a wide array of economic variables and these relationships have important implications for the dynamic link between economic pressure and presidential approval. Also, resolving the causal dilemma, I find that economic sanctions have exogenous effects on changes in presidential approval. Finally, though the preponderance of evidence suggests that sanctions are costly, auxiliary analyses highlight that this is not true in all circumstances. Ultimately, the analyses presented in this paper highlight a need for sanctions scholars to be more circumspect in their discussion of the political consequences of sanctions and more nuanced when using the costly nature of sanctions as the basis for other theoretical claims.

In the next subsection I describe the competing arguments in more detail and derive the theoretical expectations implied by each perspective. In the second subsection I outline the measurement strategies used in the analyses and submit these arguments to a variety of statistical tests. Finally, I discuss the significance of the results and conduct a series of auxiliary analyses to establish the robustness of the findings, explore the nature of the dynamic processes, and demonstrate the need for

more nuanced theoretical innovations.

### 3.1 Competing Perspectives

There are two broad perspectives that offer rival hypotheses about the costs of economic sanctions for the sanctioning state. I refer to them as the statecraft and symbolic perspectives. Specifically, these two world-views disagree about the links among economic sanctions, presidential approval, and economic performance. In this subsection I outline the basic theoretical expectations implied by each perspective.

#### 3.1.1 *Power Politics: The Statecraft Perspective*

One group of scholars views economic sanctions as tools of *statecraft*. Leaders impose economic sanctions when they believe the activities of target states militate against national interests. The target is pursuing some policy the sender finds objectionable, and the sender imposes sanctions in hopes of altering the target's behavior (Ang and Peksen 2007; Lektzian and Souva 2007). Leaders choose sanctions over more severe forms of conflict because economic sanctions do not require politically costly troop deployments (Goenner 2007). Of course, the fact that economic sanctions are not as costly as war does not mean that they are costless.

Economic sanctions have concrete economic costs. "Whatever form economic sanctions take, there is an economic cost associated with them. Sanction prevent trade and investment between countries. If without sanctions firms and individuals want to trade, then preventing this trade has economic costs" (Smith 1995: 230). The economic costs associated with economic pressure make sanctions a political liability. Leaders are punished for declining economic performance. Also, the firms and individuals whose commercial activities are affected by economic sanctions oppose their use. Allen (2005) summarizes the link between the economic and political consequences of economic sanctions:

If the burden is great, or support for the contested issue is low, public support for the government's policy may wane over time. As a result there are political costs that accompany both resisting and maintaining sanctions, and both states must be willing to bear those costs for the sanctions to continue. These costs come as a popular judgement on the foreign policy efficacy of the national leadership. Because losing power is the worst possible outcome for leaders (Miller, 1995), neither the sender government or the target government wants to jeopardize its hold on power with unpopular sanctions.(118)

The costly nature of sanctions is part of what makes them valuable tools of economic statecraft. These costs help sender states signal preferences and resolve (Ang and Peksen 2007; Drezner 2001; Goenner 2007; Hart 2000). This has been used to explain when and why sanctions work (Allen 2005; Bolks and Al-Sowayel 2000; Hovi 2005; Kaempfer and Lowenberg 1999; Lacy and Niou 2004; Miers and Morgan 2002). Scholars have argued that costs influence timing and targeting (Dorussen and Mo 2001; Drezner 1998; Tsebelis 1990). Costs determine what types of sanctions are imposed and affect leaders' decisions to employ alternative means - like military intervention - to achieve their foreign policy goals (Jing et al. 2003; Kaempfer and Lowenberg 1999; Lektzian and Souva 2003; Lektzian and Sprecher 2007; Palmer and Morgan 2006). The assumption that sanctions are costly to the sender has also been used to explain the willingness of states to cooperate on sanctions, and explain how sanction episodes end (Drezner 2000; Martin 1992, 1993; McGillivray and Stam 2004). This line of research serves as the basis for the following expectations about the political and economic consequences of sanctions.

**Expectation One:** An increase in economic sanction disputes should be associated with lower levels of economic performance.

**Expectation Two:** An increase in economic sanction disputes should be associated with lower levels of presidential approval.

Why do leaders impose economic sanctions if economic sanctions are costly? Proponents of the statecraft perspective argue sanctions are used for foreign policy, not domestic politics. International factors play the largest role in presidential decisions to sanction, while domestic forces only have influence on the margins (Drury 2005: 6). Leaders impose sanctions when sanctions are necessary. Domestic political consequences force leaders to be cautious about the application of economic pressure, but they do not constrain the use of sanctions (Dorussen and Mo 2001; Goenner 2007; Hart 2000).

**Expectation Three:** Changes in presidential approval should not influence sanction dispute initiation.

One major shortcoming of the statecraft perspective is the failure of proponents to develop a theoretical basis for the link between the economic consequences of sanctions and public support for the president. While proponents of the statecraft perspective highlight the role of public perceptions, they have not endeavored to explicitly incorporate public sentiment into their models. They take the link between economic costs and presidential approval as given. This may not be the case. Research from American politics shows that people have a difficult time linking their economic interests to government policies. This is particularly true in matters involving international trade. For example, the modal response to the American National Elections Studies (ANES) survey question commonly used to measure attitudes to-

ward trade is, “haven’t thought much about it” (Ahlquist et al. 2013). Even if sanctions interrupt commerce, the public may not be aware of the changes caused by the sanctions. Hence, sanctions may not produce a significant public response. This assumption needs to be tested.

As the quotes above illustrate, the economic burden of sanctions is part of the reason that sanctions are politically costly. This suggests the public is aware of the economic burdens of sanctions and that these burdens shape public opinion. In this light, sanctions are like many other policies. Excessive costs generate political opposition. In this vein, proponents of the statecraft perspective argue that sanctions are politically costly because the public views them as economically costly. This intuition suggests that sanctions should have adverse effects on consumer confidence.

**Expectation Four:** An increase in economic sanction disputes should be associated with lower levels of consumer confidence.

### 3.1.2 Public Pandering: The Symbolic Perspective

The second perspective, the *symbolic perspective*, emphasizes the role of domestic audiences over international events. Proponents of the symbolic perspective argue that sanctions are used to increase political support. Sanctions have an expressive faculty that make them useful domestic political tools (Galtung 1967; Wallensteen 1968). Leaders can use sanctions to mollify domestic criticism and appease public demands to “do something” in the wake of international events (Allen 2005; Ang and Peksen 2007; Lindsay 1986; Schreiber 1973).<sup>1</sup> Proponents of this perspective argue that the act of sanctioning matters more than whether the sanctions ultimately

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<sup>1</sup>See Drury (2005) for a review of literature relevant to what he terms the “do something” hypothesis (25).

succeed. Sanctions could take years, even decades, to alter the behavior of the target state. Leaders are more concerned with the short term political consequences of sanctions. If the goal was really important, they argue, leaders would choose more severe forms of pressure to illicit the target's compliance.

The symbolic perspective proposes an alternative type of relationship between economic sanctions and presidential approval. Rather than being costly, the symbolic perspective suggests that sanctions have political benefits. Leaders can use economic sanctions to increase political support (Barber 1979; Schreiber 1973; Lindsay 1986; Smith 1995). Whang (2011) argues that U.S. presidents, "play to the home crowd" because they receive "audience benefits" for initiating disputes (3). Seen in this light, economic sanctions can be thought of as "diversionary war" by other means (see Levy 1989; Tarar 2006). The symbolic perspective predicts that leaders sanction more when their approval ratings are low because the imposition of sanctions generates political payoffs. This suggests the following relationships between presidential approval and economic sanctions.

**Expectation Five:** Negative changes in presidential approval should increase sanction dispute initiation.

**Expectation Six:** An increase in economic sanction disputes should be associated with higher levels of presidential approval.

Proponents of this perspective argue that economic sanctions are relatively *costless*. This is an important part of the symbolic argument. There are two major arguments that supporters of the symbolic perspective cite to make their case. First, economic sanctions rarely have a significant impact on trade. Sanctions only affect a small number of industries in any significant way, they argue, and generally are not imposed against major U.S. trading partners (Farmer 1999). Companies can easily

find new opportunities for trade and investment. Many suggest that most trade is not interrupted, only diverted, because companies affected by economic sanctions work to flout restrictions, and because senders' trading partners "bust" unilateral sanctions (Early 2009; Kaempfer and Lowenberg 1999).

The second argument pertains to design. Proponents of the symbolic perspective often argue that senders design sanctions to limit the effects of economic pressure on domestic firms. Companies whose interests are affected by economic sanctions are often involved in determining how economic sanctions are designed and enforced (Kaempfer and Lowenberg 1988, 1992, 2000). Powerful groups will find ways to limit their costs by making sure loopholes are built into the sanctions and/or lobbying the executive for exemptions and waivers. For example, the United States imposed a moratorium on arms sales to China in the wake of the government's violent crackdown on Chinese dissidents in Tiananmen Square in 1989. Boeing, a major U.S. aerospace company, had negotiated the sale of several jets to China that were restricted under the moratorium. Within a month of the sanctions being imposed, Boeing was given allowances to complete the sale (Ang and Peksen 2007: 136). Proponents of the symbolic perspective cite the willingness of governments to offer these kinds of exemptions as evidence that sanctioning states are rarely interested in imposing economic hardship on targets.

Proponents of the symbolic perspective have also failed to consider public attitudes about the costs of sanctions. This is because proponents of the symbolic perspective assume that sanctions have no costs. The key causal link between domestic politics and economic sanctions runs through presidential approval. Adverse changes in approval motivate the use of economic sanctions, and leaders receive political payoffs when sanctions are imposed. The symbolic perspective discounts the economic consequences of sanctions and, understandably, ignores public perceptions.

**Expectation Seven:** Economic sanctions are not associated with economic performance.

**Expectation Eight:** Economic sanctions are not associated with consumer confidence.

The statecraft and symbolic perspectives offer rival explanations of the *systematic* relationships among presidential approval, economic performance, and economic sanctions. Whether approval and sanctions are positively or negatively related is an empirical question, but the nature of this relationship is harder to tease out than proponents of either perspective would admit. In the next subsection I conduct a set of empirical tests that highlights this point.

### 3.2 Comparing Perspectives: Data and Methods

In the previous subsection I described two lines of research in the sanctions literature. These competing perspectives offer rival hypotheses about the domestic economic and political consequences of economic sanctions for the sanctioning state. In this subsection I describe the measurement strategies I use to capture important theoretical constructs and conduct a series of analyses in an effort to resolve the controversies described above.

#### 3.2.1 Measurement

##### 3.2.1.1 Economic Sanctions

Economic sanction dispute data are taken from the Threat and Imposition of Sanctions (TIES) dataset (Morgan et al. 2009). The TIES dataset is organized by sanction episode. Each sanction has a unique identifier, and information about the episode - target, type, etc. - is provided. The dataset also includes information about the sender, start day, start month, and start year. U.S. sanction episodes were aggregated into a monthly time series. The TIES dataset includes information about

sanction threats and cases where sanctions were imposed. Like previous studies examining the links among economic performance, presidential approval, and economic sanctions, I only include cases where sanctions were imposed. The series begins in January 1978 and ends in December 2000. There were 254 sanctions imposed over the 276 months in the sample.<sup>2</sup>

I limit the sample to sanction episodes initiated by the United States. I concentrate on U.S. cases for three reasons. First, the U.S. is responsible for the largest proportion of sanctions initiated in the last thirty years. This suggests that understanding the conditions that lead to U.S. sanction initiations is important in its own right (Drury 2001). Second, U.S. economic sanctions, political, and economic data are reliable and available. The information about cases in the TIES dataset was collected using online databases and periodicals (Morgan et al. 2009). These data collection methods may miss cases of sanctions between second and third rank powers (Nooruddin 2002). This may introduce bias. Restricting the sample to cases initiated by the United States resolves this problem as most - if not all - sanctions initiated by the United States were likely reported in English language newspapers. Third, there is ample precedent for this type of restriction. While many theories are not country specific, many empirical studies have tended to focus on the U.S. (Cox and Drury 2006; Drury 2000; Drury 2001; Nooruddin 2002; Whang 2011).

### *3.2.1.2 Presidential Approval*

Presidential approval is measured using the Gallup survey of presidential approval. The Gallup measure is used in previous studies, but sanctions scholars have failed to include important variables that govern the underlying data generating process. There is a well established literature in American politics devoted to the

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<sup>2</sup>There are no structural breaks in the series.

study of approval data. Mackuen et al. (2003) endeavor to synthesize this literature. They build a baseline model of presidential approval. They highlight economic performance, consumer sentiment, lagged approval, Vietnam casualties (Johnson only), indicators to represent different administrations, and important political events.<sup>3</sup> The events can have positive (e.g. the “rally” effects associated with conflict) or negative (drops in approval associated with scandals) effects on approval. The omission of these fundamental controls may produce omitted variable problems that could undermine the validity of the results.

### *3.2.1.3 Economic Performance*

To ensure comparability of results, I use the same measures of economic performance employed in previous research - unemployment and inflation. Unemployment is measured using the number of unemployed U.S. citizens as a percentage of the labor force.<sup>4</sup> Inflation is measured using the annualized percent change in consumer prices excluding food and energy.<sup>56</sup> Economic perceptions (consumer confidence) are measured using the University of Michigan Index of Consumer Sentiment. The index captures both prospective and retrospective evaluations of the economy, and

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<sup>3</sup>The events used in the analysis were taken from Mackuen et al. (2003) and Wood (2009).

<sup>4</sup>The data were taken from the Bureau of Labor Statistics. The Bureau of labor statistics limits the definition of unemployed to people 16 years or older, who reside in 1 of the 50 states or the District of Colombia, who do not reside in penal or mental institutions, and who are not active duty in the armed forces.

<sup>5</sup>These data were also taken from the Bureau of Labor Statistics.

<sup>6</sup>The unemployment and inflation series were downloaded from the Federal Reserve Bank of Saint Louis data page (FRED).

is widely used in economic forecasting models.<sup>78</sup>

### 3.2.2 Models

#### 3.2.2.1 Dynamic Models of Sanctions and Approval

Having defined the key theoretical constructs at the heart of the debate, it is possible to go about the task of testing the major arguments described in the last subsection. Table 3.1 outlines the hypotheses implied by these arguments. The first column gives the direction of the relationships, and the second and third columns give the nature of the relationships - (+) positive, (-) negative, or ( $\emptyset$ ) no relationship. Column two shows the expectations implied by the statecraft perspective and column three shows the expectations implied by the symbolic perspective. There are four important links in question. The first two relate to economic sanctions and presidential approval. The statecraft perspective says that sanctions are motivated by international events, and that sanctions are politically costly. This means that changes in approval should not affect sanctions ( $\emptyset$ ), but an increase in sanctions should negatively affect presidential approval (-). The symbolic perspective suggests that unpopular presidents use sanctions to generate public support. This implies that the rate of sanction dispute initiation should be lower when approval ratings are high (-), and approval ratings should be higher after sanctions are imposed (+).

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<sup>7</sup> The index is based on five questions designed to capture prospective and retrospective evaluations of personal economic security and business conditions. Information about the questions, and the construction of the index, are available online. See Curtin (1992).

<sup>8</sup> These data are only available since 1978. These data are required to test the hypotheses outlined in the last subsection. This is why the time series in the analyses begin in January 1978 and end in December 2000.

Table 3.1: Dynamic Hypotheses

	Statecraft	Symbolic
<u>Political Consequences</u>		
Approval → Sanctions	∅	–
Sanctions → Approval	–	+
<u>Economic Consequences</u>		
Sanctions → Economic Performance	–	∅
Sanctions → Consumer Confidence	–	∅

The first column describes the directions of the hypothesized relationships - *Independent Variable* → *Dependent Variable*. The natures of these relationships are described in the second and third columns - Positive (+), Negative (–), or No Relationship (∅).

The next two relationships have to do with the links between economic sanctions, economic performance, and consumer sentiment. The statecraft perspective suggests that sanctions undermine economic performance (-), and that the public perceives these costs (-). The symbolic perspective suggests that sanctions don't affect the economy. Sanctions do not influence economic perceptions because sanctions are not costly ( $\emptyset$ ).

I test these hypotheses using dynamic regression models. The results are presented in table 3.2. The model in column one is a poisson autoregressive model and columns two through five are dynamic linear regression models (Brandt and Williams 2001; De Boef and Keele 2008). The models are specified based on the hypothesized relationships outlined in table 3.1. While one would normally employ a host of interpretational tools when considering these results, the coefficients in table two point to a serious identification problem that needs to be addressed.

Looking first at column one, the sanctions model, the coefficient on approval is negative and significant. This is consistent with the symbolic perspective. The rate of sanctions decreases as presidential approval increases, and increases when approval declines. The results for the approval model are in the second column. The coefficient on the sanctions variable is also negative and significant. This result is consistent with the statecraft perspective. Sanctions are politically costly. The economic models - unemployment, inflation, and consumer confidence - are presented in the last three columns of table two. Economic sanctions do not have a statistically significant effect on either of the economic performance variables or economic perceptions.

These results are problematic for two reasons. First, the results do not help resolve the theoretical impasse. Second, substantively the results do not make any sense. Presidents sanction more when approval is low, but sanctions negatively affect approval ratings. Why would unpopular presidents impose sanctions if sanctions are

Table 3.2: Economic Sanctions, Presidential Approval, and the Economy

	Sanctions	Approval	Unemployment	Inflation	Consumer Confidence
$\rho$	.073 (.075)	.796*** (.032)	.974*** (.008)	.181*** (.058)	.956*** (.023)
Approval	-.025*** (.006)		.003*** (.001)	-.008 (.009)	.027 (.024)
Sanctions		-.294** (.123)	.000 (.004)	.011 (.039)	-.052 (.110)
Unemployment	-.205*** (.082)	-.233 (.286)		-.306*** (.072)	.091 (.119)
Inflation	-.014 (.067)	-.070 (.139)	-.007 (.006)		-.121 (.152)
Consumer Confidence		.117*** (.032)	-.006*** (.000)	-.023*** (.008)	
Constant	2.76*** (.635)	1.67 (3.91)	.540*** (.125)	4.53*** (1.13)	1.84 (3.03)
Observations	275	272	275	264	275
$Q_{\varepsilon}^{LB}$	.207	84.5	99.8	86.4	74.4
AIC	736.03	1499.1	-219.34	907.21	1503.8

Standard errors in parentheses, \*\*\* $p < 0.01$ , \*\* $p < 0.05$ . Data are monthly, from January 1978 to December 2000. Controls, and lags included to account for serial correlation, are excluded for presentation. The approval model includes standard controls for events, conflict, and dummy variables for each administration. The Sanctions model includes controls for election years, conflict, major foreign policy events, and recessions. The detrended annualized percent change in inflation is used.

politically costly? Are presidents unaware of the political consequences of sanctions? Perhaps, but a more coherent explanation of the results relates to the identifying assumptions of the models.

The theoretical controversy presented in the last subsection is actually an empirical puzzle. Conventional regression models impose strict independence and exogeneity assumptions. These restrictions make it impossible to *test* the nature of the relationships. This is problematic because the directions of these relationships are the heart of the controversy. There is an inverse relationship between economic sanctions and presidential approval, but the causal paths implied by the models lead one to different substantive conclusions. The sanctions model supports the symbolic perspective, and the approval model supports the statecraft perspective.

Clearly, a more flexible approach is needed. In the next subsection I apply an alternative modeling strategy that does not impose the strict independence and exogeneity assumptions implied by the models in table two. This more flexible analysis resolves the controversy implied by the two perspectives, but creates a number of other important questions that need to be addressed.

### *3.2.2.2 An Endogenous Model of Sanctions and Approval*

The empirical puzzle presented by the results in the last subsection requires a statistical technique that does not impose exogeneity restrictions on the relationships among the variables. Vector autoregression (VAR) analysis treats each variable in the system symmetrically. Unlike conventional regression techniques, VAR allows for two way relationships among the variables, includes strong controls for history, and affords the analyst the ability to track the temporal dynamics of the relationships through time. The variables of interest are organized as a system of equations where each variable is regressed on multiple lagged values of itself and multiple lagged

values of the other variables in the system. Vector autoregression analysis with deterministic variables (VARX) allows for the control of exogenous forces impinging on the system. A VAR system typically includes the same set of variables in each of the the component regressions. This is not ideally suited for the analysis being conducted here for reasons discussed below. In a near-VAR (NVAR) some of the VAR equations have regressors not included in the others. Seemingly unrelated regressions (SUR) facilitate this type of analysis.<sup>9</sup>

The conceptual systems implied by the two perspectives are depicted in table 3.3. Placing the systems side by side highlights the key differences. The left panel depicts the statecraft perspective and the right panel depicts the symbolic perspective. The variables are abbreviated for the sake of presentation.

Table 3.3: Conceptual Systems for Endogenous Hypotheses

Statecraft Perspective	Symbolic Perspective
SANC	SANC = - APP
APP = + ECONP + ECON - SANC + X	APP = + ECONP + ECON + SANC + X
ECON = + ECONP - SANC	ECON = + ECONP
ECONP = + APP + ECON - SANC	ECONP = + APP + ECON

SANC denotes economic sanctions, APP denotes presidential approval, ECONP denotes economic perceptions, and ECON denotes concrete economic performance. The (+) and (-) signs denote the nature of the relationships implied by the competing perspectives. The VAR model presented in figure one is specified based on these conceptual models.

<sup>9</sup>Vector autoregression models can be sensitive to changes in the number of lags included in the system. The lag lengths (four lags for each endogenous variable) used in the analyses were selected based on a series of statistical tests. The results were robust to changes in lag length.

These systems show the links between economic sanctions, domestic politics, and domestic economic performance. The first equation in each system is the sanctions equation. Sanctions (SANC) are not listed as a function of any of the domestic variables in the statecraft system. One of the key tenets of the statecraft perspective is that sanctions are motivated by issues unrelated to domestic politics. Hence, sanctions are exogenous. In the symbolic system sanctions are a function of presidential approval ( $-APP$ ). The negative sign reflects the expectation that presidents sanction more when their approval ratings are low and less when their approval ratings are high.

The approval (APP) equation is next. Economic performance (+ECON), economic perceptions (+ECONP), and the other approval controls (X) are included in both models. The key difference between the two has to do with the nature of the relationship between economic sanctions and presidential approval. A negative sign appears before sanctions in the statecraft system because proponents of this perspective argue that sanctions are politically costly ( $-SANC$ ). If this is true, an increase in economic sanction episodes should reduce presidential approval. There is a positive sign in front of sanctions in the symbolic system because the symbolic perspective suggests that sanctions produce audience benefits (+SANC). Economic pressure increases presidential approval.

The economic performance (ECON) and economic perceptions (ECONP) equations are presented in rows three and four. Both the statecraft and symbolic systems present economic performance as a function of economic perceptions (ECONP), but only the statecraft system includes sanctions. The statecraft perspective suggests that sanctions are costly ( $-SANC$ ) while the symbolic perspective suggests that sanctions have no observable economic impacts.<sup>10</sup> In this vein, economic perceptions

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<sup>10</sup>The links among consumer sentiment, consumer behavior, and economic performance are well

are a function of economic performance (+ECON) and economic sanctions (−SANC) in the statecraft system, but economic sanctions are excluded in the symbolic system. Approval (+APP) is also included in both systems to reflect that evaluations of the president influence economic expectations (De Boef and Kellstedt 2004).

Typically, one does not directly interpret VAR coefficients. Collinearity between the lagged variables makes reliable inference difficult, and the coefficients only contain information about the short run effects of each of the lags. Thankfully, a host of other interpretational tools are available. One can track the relationships through time using moving average response (MAR) simulations. Each endogenous variable in the system can be shocked mathematically to produce a response in the other variables in the system. The responses to these simulated shocks take into account feedback across variables that can either suppress or accentuate the relationships. Plots of the resulting innovations - called impulse response functions (IRFs) - allow one to observe the behavior of the system through time. If two variables are related, a shock in one variable will cause an observable change in the other.<sup>11 12</sup>

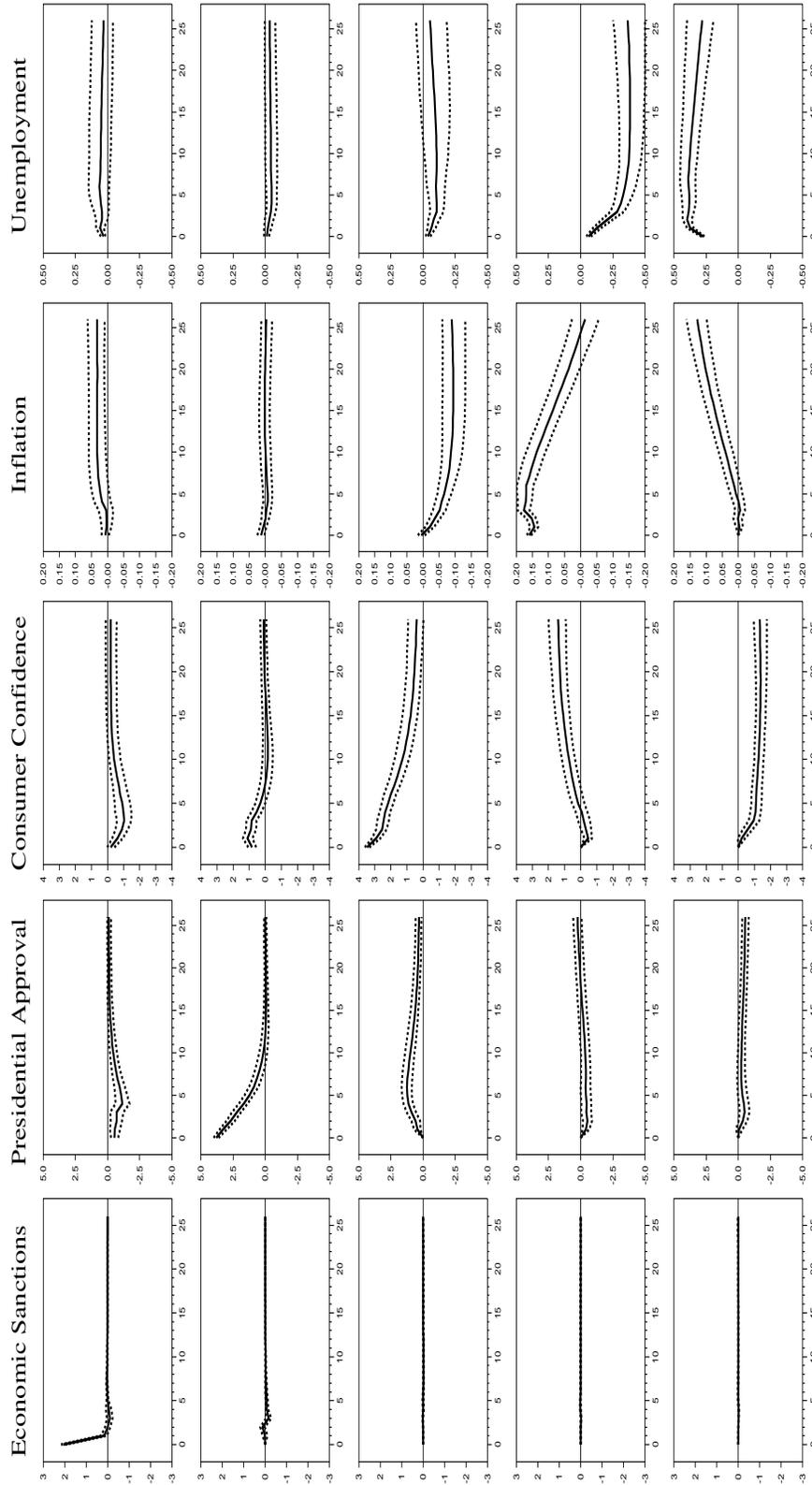
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established (Curtin 2004).

<sup>11</sup>MAR simulations are accomplished by shocking each variable mathematically. The resulting innovations are orthogonalized using Cholesky factorization. With Cholesky factorization the ordering of the variables in the MAR simulations can make a difference. In practice, it is common to estimate the model with a different order. This did not produce any substantively interesting changes in the results.

<sup>12</sup>A feature that distinguishes VAR from other time series methods that warrants special attention concerns the issue of whether the variables in a VAR need to be stationary. Many, econometricians recommend against differencing even if a variable contains a unit root (Enders 1996; Sims 1980; Sims, Sock, and Watson 1990). The goal of a VAR analysis is to determine the interrelationships among the variables, not determine specific parameter estimates (Enders 2004). Differencing produces no gain in asymptotic efficiency in an autoregression, and throws away important information (Doan 2007; Fuller 1996). Enders (2004) notes that the “majority view” is that the form of the

Figure 3.1: Statecraft and Symbolic Perspectives



The variables being shocked are listed along the y-axis. These shocks are shown along the diagonal of the matrix. The remaining plots in each row show the response of the other variables in the system to a one standard error of regression increase in the variable being shocked.

Figure 3.1 displays the array of impulse responses for economic sanctions, presidential approval, consumer confidence, inflation, and unemployment.<sup>13</sup> The matrix offers a visual representation of how the system responds to changes in each of the endogenous variables of interest. The plots show the immediate, and long term effects, of these changes and allow one to track direct and indirect relationships among the variables. The variables being shocked are displayed along the diagonal. The plots in each row show how the other variables respond to a one standard error of regression increase in the variable being shocked.

Zero is represented by the horizontal line in each of the plots. Confidence intervals are calculated for the responses.<sup>14</sup> Responses are “significant” as long as these confidence intervals do not include zero. A response above the zero line denotes a positive effect. A response below the zero line denotes a negative effect.

Before assessing the primary research hypotheses, it is worth considering the relationships among the other endogenous variables in the system - economic performance, economic perceptions, and presidential approval. Leaving the first row and first column of the array aside, one can see that these variables behave as ex-variables in the VAR should mimic the true data generating process as much as possible. The only requirement in VAR is stability. There are no cointegrating relationships among the variables.

<sup>13</sup>I use a Lagrange Multiplier test for residual serial correlation to test model adequacy. The static is asymptotically  $\chi^2$  distributed. I was unable to reject the null of no serial correlation at  $p + 1(19.8), p + 2(26.6), p + 3(18.3)$ , or  $p + 4(13.6)$  lags. This is more conservative than the common approach which only tests at  $p + 1$ . Including much larger lag specifications dramatically increases the risk of type one error. See Edgerton and Shukur (1999) for details. Alternative lag specifications were tested.

<sup>14</sup>In this study, confidence intervals for the MAR simulations are calculated using Monte Carlo integration and the fractile method recommended by Sims and Zha (1999).

pected. The dynamics of the inflation and unemployment series are consistent with economic theory. An increase in inflation reduces short term unemployment. While the shock to unemployment doesn't have an immediate effect on inflation, inflation begins to rise as unemployment falls.<sup>15</sup> Both of these variable are inversely related to consumer confidence and presidential approval, while consumer confidence and presidential approval are positively related to one another.

The links between economic sanctions and presidential approval are shown in the four plots in the upper left hand corner of the array. The results are consistent with the statecraft perspective. Sanctions do not respond to approval, but a one standard error of regression increase in the number of economic sanction disputes (two sanctions per month) produces an immediate negative response in presidential approval. Approval falls by half a percentage point in the first period and continues to decline through the fourth period. Approval drops by a whole percentage point before recovering. Approval returns to the equilibrium level by the thirteenth period following the initial shock. Sanctions negatively affect presidential approval, and this impact lasts a year. The dynamic relationship between economic sanctions and presidential approval is discussed more in the next subsection.

In addition to being politically costly, the results also suggest that sanctions are economically costly. The fifth plot in the first row shows that the shock to sanctions produces a small increase in unemployment that is only significant for one period. The magnitude of the change is five hundredths of one percentage point, but the effect is reliably different from zero. The fourth plot shows that sanctions also produce a small, delayed increase in inflation. The response is not significant until ten months after the initial shock. Intuitively these results make sense. Sanctions

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<sup>15</sup>See Tobin (1972) for a discussion of the relationships between unemployment and inflation.

are costly, but the effect of two individual sanctions on the economy is very small. Reductions in trade associated with sanctions lead to higher rates of unemployment and the interruption of commerce also produces a small increase in prices. The effect of sanctions on economic perceptions is more pronounced.

The third plot in the first row shows the effects of economic sanctions on economic perceptions. The shock to sanctions does not immediately produce a response, but consumer sentiment begins to fall in the following period. Sentiment falls by approximately one percent in the fourth period and does not return to equilibrium levels until the tenth period. The magnitude of the change is interesting. Unemployment and economic sanctions have similar effects in the short run. While the effect of unemployment is more persistent, the effects are similar for the first several periods. This is surprising given the small impact that sanctions have on unemployment. This suggests that the perceived costs of sanctions are more significant than their actual costs. This may explain why sanctions have a negative effect on presidential approval despite their relatively minimal effect on economic performance. Taken together, the results suggest that these perceived costs are what shape public opinion of economic sanctions. The economic consequences of sanctions are discussed in more detail below.

There is no evidence that presidents face diversionary incentives to sanction or that presidents strategically use sanctions to generate public support. The results are consistent with the statecraft perspective, but the effects are not large. It seems unlikely that these costs would weigh heavily on a leader in the event that economic pressure was warranted. In the next subsection I discuss the implications of these findings in more detail, and conduct a series of auxiliary analyses that shed more light on these relationships.

### 3.3 Discussion and Auxiliary Analyses

The results in the last subsection are consistent with the statecraft perspective. This has two important implications. First, economic sanctions are economically and politically costly. Second, changes in presidential approval are exogenous to economic sanctions. In this subsection I discuss these points in more detail, using them as the basis for a number of auxiliary analyses that help shed light on the significance of these findings for the sanctions literature. First, I will consider the economic consequences of sanctions in more detail, then I will spend more time on the dynamics of the political consequences of sanctions. After digging deeper into these two results, I will discuss how these auxiliary analyses point to a more fundamental, theoretical problem in the literature that should be considered in future work.

#### *3.3.1 The Economic Consequences of Sanctions*

The results in the last subsection show that economic sanctions negatively affect economic performance. Sanctions have statistically significant, albeit minor, effects on inflation and unemployment. Considering that sanctions require businesses to cease otherwise profitable commercial activities, these results make sense. Reduced trade should cause layoffs in the short term, reduced production should increase prices in the long term, and the effects of individual sanctions shouldn't be terribly large. However, some may use the modest nature of the effects as licence to discredit them. In this subsection I conduct a series of auxiliary analyses in an effort to obviate this skepticism.

There are three criticisms worth considering. First, the effects are small. Second, some may argue that inflation and unemployment are inappropriate measures of economic performance. Inflation and unemployment are lagging indicators, and inflation has not been a politically salient issue in the U.S. for some time. Finally,

while figure one shows the public reacts to economic sanctions, the idea that sanctions influence economic perceptions is somewhat controversial. Work in American politics suggests that only a few salient issues shape public opinion about foreign policy and trade issues rarely meet this criteria (Edwards et al. 1995; Guisinger 2009). With these criticisms in mind, I re-estimated the model from the last subsection using alternative measures of economic performance.

First, I employ a more sophisticated measure of economic performance to show sanctions negatively affect the economy. The Conference Board's Composite Index of Coincident Economic Indicators (CBCI) is an alternative, and arguably superior, way of capturing changes in economic performance. The series was constructed from four times series - industrial production, employment, personal income, and manufacturing trade sales in 1996 dollars - chosen by the Conference Board because these series are consistently in step with the current state of the economy. They define the business cycle.<sup>16</sup> The index has been subjected to, and has survived, a number of statistical and economic tests. The peaks and troughs in the coincident index line up closely with the official peak and trough dates identified by the National Bureau of Economic Research (NBER). The coincident index is published monthly, reported in major economic publications like the Wall-Street Journal, and is used by investors, business managers, and government officials to understand the current state of the economy.<sup>17</sup>

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<sup>16</sup>Historically, the United States department of Commerce was responsible for maintenance and publication of business cycle indicators. In 1995 the business cycle indicator program was privatized. The Conference Board is the independent business management research organization that took over this responsibility.

<sup>17</sup>Eight of the last thirteen turning points in the economy are matched by the coincident index exactly, and all turning points in the coincident index correspond to either the beginning or end of a recession (Conference Board 2001).

Second, I use a more refined measure of economic perceptions. As part of the survey used to construct the University of Michigan index of consumer sentiment, respondents are asked, “During the last few months, have you heard of any favorable or unfavorable changes in business conditions?” The percentage of respondents reporting that they have heard unfavorable news is a more specific gauge of how the public views the marketplace. A positive response would suggest the public links sanctions to adverse business conditions - processing information about economic sanctions as negative economic news.

Finally, changing business conditions should also be reflected in interest rates. “A lack of confidence about the economic future should make consumers and businesses more reluctant to spend and borrow, resulting in weaker demand for money and downward pressure on interest rates” (Wood 2009: 700). To capture this phenomenon, I use the prime rate. The prime rate is determined by the federal funds rate - manipulated by the federal reserve through open market operations - and business and consumer borrowing. Wood (2009) makes the case that the prime rate is both a determinant and reflection of the economic and political environment affecting the demand for money. If sanctions generate unemployment and inflation, they should produce a counter-cyclical response in interest rates (Bernanke and Gertler 2001).<sup>18</sup>

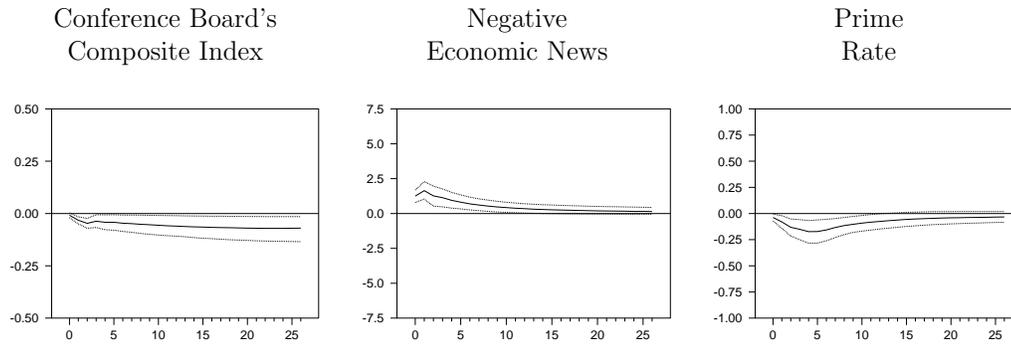
The responses are presented in figure 3.2.<sup>19</sup> The responses are similar to those

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<sup>18</sup>A more cynical view would be that the President would actively pressure the central bank to avoid the political effects that these changes in economic performance might generate. Perhaps the reality is somewhere in between. Bankers might accommodate the executive to avoid future problems (Drazen 2001). This analysis is beyond the scope of this paper. Regardless of the central bank’s motivation, the expectation would be the same.

<sup>19</sup>I only include the responses of the new variables here.

Figure 3.2: Alternative Measures of Economic Performance



The plots show the responses of the variables to a one standard error of regression increase in economic sanctions. Confidence intervals are displayed along with the path of the impulse responses. When the confidence intervals are visibly different from the horizontal line at zero one can conclude that there is a statistically significant relationship between the variable being shocked and the response variable. The direction of the relationship is implied by the direction of the response.

presented in figure 3.1. All of the responses are statistically significant but none of them are particularly large.

The magnitude of the CBCI response is similar to unemployment, but the dynamics are slightly different. The CBCI falls in the first period and continues to fall over the next two periods before it begins to recover. The CBCI response is also more persistent, remaining reliably different from zero over the entire twenty-four periods. Again, while there is evidence that sanctions negatively affect economic performance, there is no reason to believe that one or two sanctions will derail the American economy.

The second plot shows the effects of sanctions on negative business news. Where the response in consumer sentiment was slightly delayed, the response in negative business news is immediate. There is a 1.25 % increase in the number of people reporting negative business news in the month the sanctions are imposed, and this

percentage grows to 1.70 % in the next period. Like the consumer sentiment series, the dynamics suggest that people perceive the costs of sanctions, and that these perceptions spread.

The third plot shows that sanctions produce a counter-cyclical response in interest rates. Interest rates do not immediately respond, but decrease gradually over the next several periods before returning to equilibrium. Sanctions undermine economic performance, and interest rates respond in kind. It is impossible to tell whether these adjustments originate with the federal reserve or in the market place, but it is clear that sanctions have a significant impact.

These results reinforce the findings presented in figure one. Sanctions have concrete economic consequences. Consistent with the statecraft perspective, sanctions produced statistically significant changes in all six measures of economic performance. Given what is known about the link between economic performance and presidential approval, it is not surprising to find that sanctions are also politically costly. The dynamics of this relationship are examined in more detail in the next subsection.

### *3.3.2 The Dynamic Relationship between Sanctions and Approval*

The results in figure 3.1 resolve the causal dilemma. Sanctions affect approval, but approval does not affect sanctions. This means the approval model presented in table two is accurate, and that conventional dynamic regression techniques are sufficient to model the relationship. This subsection explores this result in more detail.

Table 3.4 shows a series of approval models. The final model is built iteratively from left to right. Approval is modeled as a function of lagged approval (model 1), controls for events and specific administrations (model 2), economic controls (models 3 and 4), and sanctions (models 5 and 6). The final model was identified using a

Table 3.4: Dynamic Models of Sanctions and Presidential Approval

Model	1	2	3	4	5	6
Approval <sub>t-1</sub>	.918*** (.000)	.883*** (.000)	.829*** (.031)	.807*** (.031)	.801*** (.031)	.796*** (.032)
Sanctions					-.275** (.123)	-.294** (.123)
Sanctions <sub>t-4</sub>						-.229** (.115)
Unemployment			-.839*** (.248)	-.370 (.288)	-.323 (.286)	-.233 (.286)
Inflation			-.063 (.162)	.055 (.164)	.049 (.163)	-.070 (.164)
Consumer Confidence				.102*** (.033)	.105*** (.032)	.117*** (.032)
FP Drama		.927 (.953)	1.32 (.948)	1.30 (.933)	1.33 (.926)	1.05 (.930)
War		3.60 (1.85)	3.13* (1.83)	4.81*** (1.88)	4.76*** (1.87)	5.14*** (1.86)
Scandal		.134 (.869)	-.589 (.880)	-.724 (.867)	-.749 (.861)	-.883 (.854)
Assassination Attempt		7.59* (3.92)	7.68** (3.86)	9.23** (3.83)	9.52** (3.81)	10.0*** (3.78)
Election Year		-.671 (.593)	-1.11 (.610)	-1.35*** (.605)	-1.13** (.608)	-1.16 (.602)
Inauguration		11.3*** (2.31)	11.1*** (2.29)	9.95 (2.28)	11.5*** (2.37)	11.1 (2.35)
Reagan		1.97** (.901)	3.61*** (1.06)	1.70** (1.21)	1.76*** (1.20)	1.21 (1.27)
Bush		.1.91 (1.09)	2.96** (1.15)	2.02*** (1.17)	2.48*** (1.18)	2.32 (1.25)
Clinton		2.33** (.918)	2.21 (.916)	.278*** (1.09)	.598** (1.09)	.326 (1.17)
Constant	4.39*** (1.31)	4.26*** (1.37)	11.8*** (2.63)	2.60 (3.96)	2.34 (1.93)	1.67 (3.91)
Observations	275	275	275	275	275	272
$Q_{\varepsilon}^{LB}$	62.4	74.7	70.8	74.6	85.1	84.5
AIC	1562.5	1538.8	1531.1	1523.1	1519.9	1499.1

Standard errors in parentheses. Two-tailed tests. \*\*<0.05, \*\*\*<0.01 Observations, Akaike Information Criteria, and Ljung-Box Q statistics presented in bottom panel.

general to specific modeling strategy. Sanctions and the fourth lag of sanctions are significant predictors of approval, and information criteria at the bottom of the table demonstrate that each iteration produces a better fit than the last.

Approval immediately falls by a little more than a quarter of a percentage point each time the president imposes sanctions. The coefficient on the fourth lag shows approval falls again in the fourth period after the sanctions. These results seem odd at first, but make sense in light of the dynamics depicted in figure one. Sanctions had an immediate and direct effect on approval, but also seemed to have an indirect effect on approval through economic performance and economic perceptions. Unemployment increases slightly in the next period, and consumer confidence begins to fall more rapidly after that. The fourth lag is capturing the delayed impacts of these changes in economic performance on approval. The effects presented in table four are relatively small, but they only tell part of the story. Because these are dynamic regression models, the coefficients only give the short run effects. A bevy of alternative interpretational tools can be used to divine the full effects of sanctions. Two of these tools are the impulse and cumulative impulse response functions.

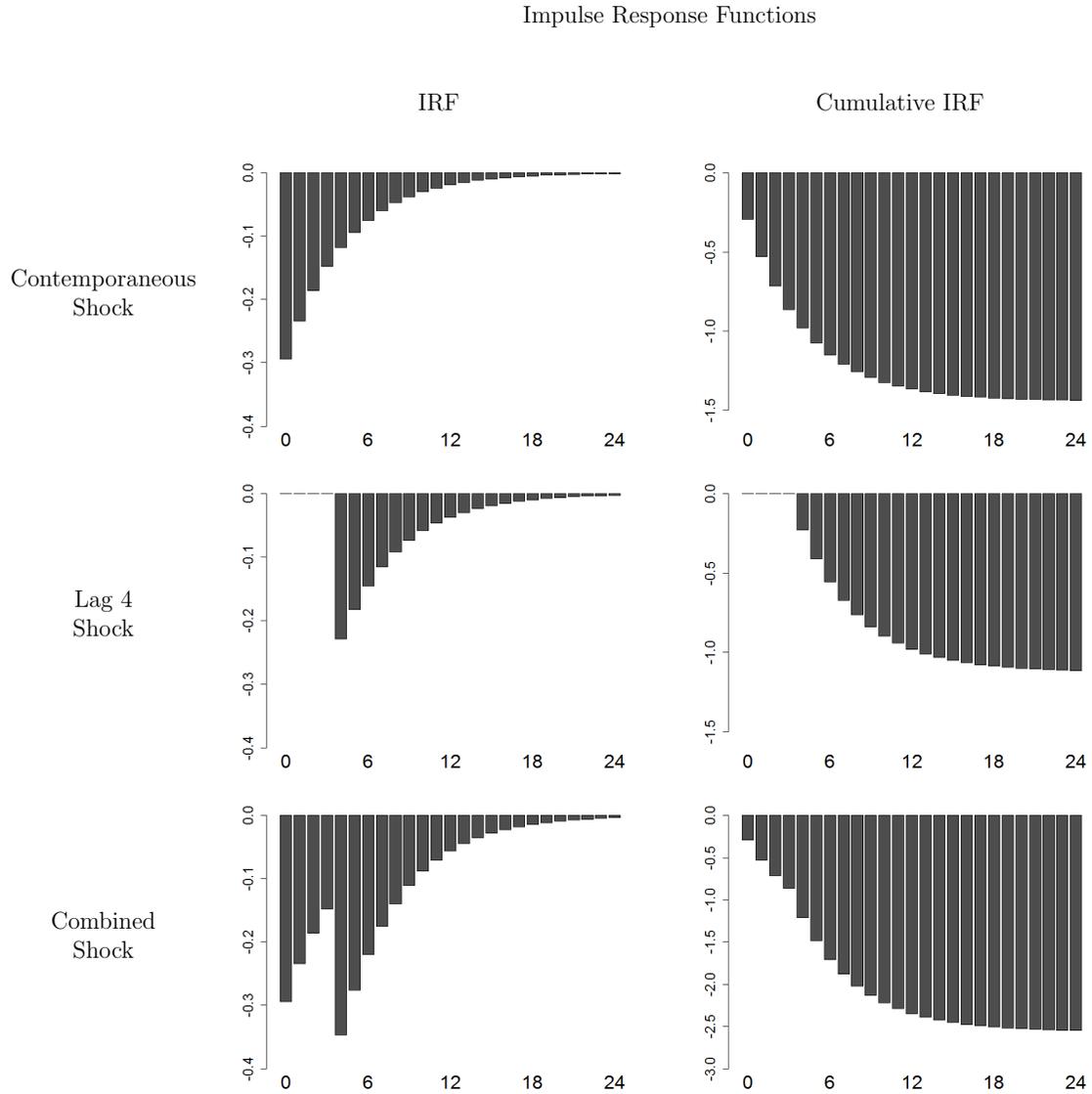
Impulse response functions (IRFs) visually depict how the effects of an exogenous variable (sanctions) propagate through a dependent variable (approval) over time. The cumulative impulse response functions (CIRFs) depict how these dynamics work to change the levels of the series.<sup>20</sup> The IRFs and CIRFs for the contemporaneous effects (row one), lagged effects (row two), and combined effects (row three) are depicted in figure 3.3.

I will discuss the IRFs in reference to the imposition of a single sanction because the plots depict how approval responds to a one unit increase in sanctions over time.

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<sup>20</sup>See DeBouf and Keele (2008) for details.

Figure 3.3: Dynamic Effects of Economic Sanctions



Impulse response functions estimated based on model 6 presented in table 4. See Debouf and Keele (2008) for details.

Looking at the first and second rows simultaneously, the IRFs show how approval responds to the initial shock of the sanction ( $-.29$ ) and the lagged shock ( $-.22$ ) in the first and fourth periods. The impacts of these shocks decay slowly over the next twenty-four periods. Substantively, the sanction continues to affect approval for several months because the public remembers the sanction and it continues to influence evaluations of the president for many periods after it was imposed. The CIRFs show how these effects accumulate over time. The initial shock, all else equal, accounts for a 1.5 % decrease in approval and the lagged effect accounts for a 1 % decrease in approval. The complete impact of the sanction is depicted in the third row. The IRF resembles the IRF depicted in figure 3.1 - an initial response followed by a sudden change in the fourth period before approval returns to equilibrium. The total effect of the sanction is a 2.5 % decrease in presidential approval.<sup>21</sup>

A 2.5 % change in approval may not seem serious at first glance, but this effect is relatively large when considered across the full range of the data. There are a number of instances where presidents have imposed multiple sanctions per month. This means four sanctions, *ceteris paribus*, should produce a ten percent decline in approval! While these political costs may not prevent presidents from imposing sanctions when they believe doing so is in the national interest, they are significant enough to force them to be judicious about the application of economic pressure.

### 3.3.3 *The Systematic Relationship between Sanctions and Approval?*

Sanctions, *on average*, negatively affect economic performance. Public perceptions of these effects make *most* sanctions politically costly. These findings are consistent with work that uses the costly nature of sanctions to explain why sanctions

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<sup>21</sup>This cumulative effect is equal to the long run multiplier.  $\frac{\hat{\beta}_t + \hat{\beta}_{t-4}}{1-\hat{\alpha}} = \frac{-.29 - .22}{1-.796} = -2.56$ . See De Boef and Keele (2008) for details.

are used and when sanctions are effective. Certainly, the preponderance of evidence points to the statecraft perspective, but this doesn't mean the symbolic perspective should be abandoned entirely.

Anecdotal evidence suggests that sanctions are not always unpopular. Sanctions imposed against Iraq before the first Gulf War received widespread support (Byman 2000; Gottemoeller 2007). Similarly, a 2012 public opinion poll showed that 75 % of Americans favored, "tougher international sanctions on Iran to stop it from developing nuclear weapons" (WPO 2012). Sanctions against Cuba and North Korea have also received varying levels of public support over the years (Gallop 2014; Newport 2006). Thus, even though it can be said that sanctions are generally unpopular, there may be a number of important exceptions that warrant further investigation. Figure 3.4 helps illustrate this point.

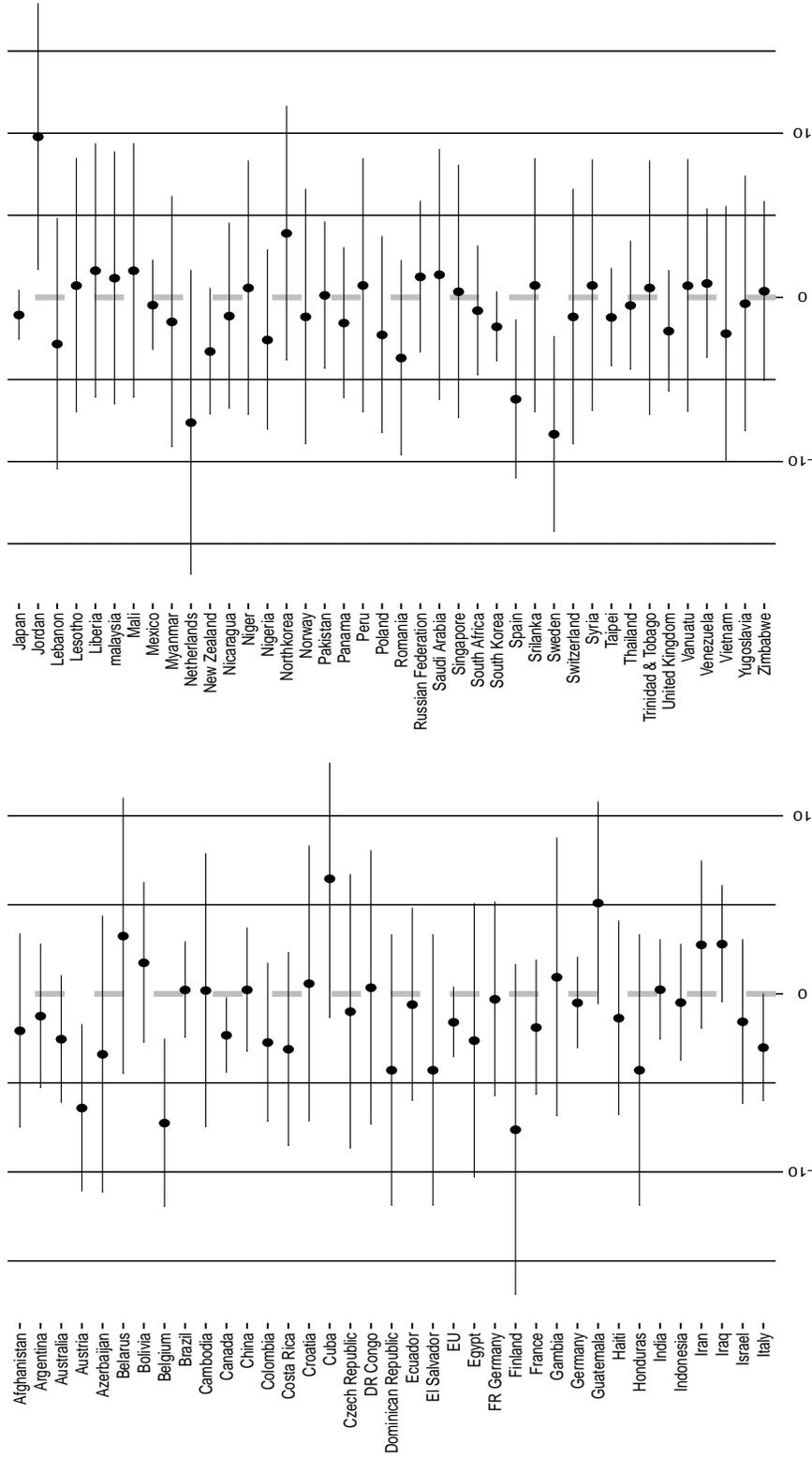
Figure four breaks down the political efficacy of sanctions by target state. The approval model from table four was re-estimated for each of the targets, and the sanctions coefficients from each of these regressions was plotted for comparison.<sup>22</sup> A number of things stand out immediately. First, not all sanctions are politically costly. Forty-nine of the coefficients are negative, but thirty-seven are positive. Second, only a handful of coefficients are statistically significant. The coefficients for Austria, Belgium, Italy, Sweden, and Spain are negative. The coefficients for Jordan ( $\alpha = .05$ ) Iraq, Cuba, and Guatemala ( $\alpha = .10$ ) are positive.<sup>23</sup>

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<sup>22</sup>While these coefficients only illustrate the short run effects of the sanctions, these effects are sufficient to illustrate the point being made here.

<sup>23</sup>The sanctions against Jordan were imposed in a effort to isolate Iraq economically and politically prior to the Gulf War. Foreign aid to Jordan was revoked to encourage Jordanian compliance with UN sanctions against Iraq, and the port of Aqaba was blockaded to prevent the transshipment of Iraqi goods. Thus, it isn't clear if the sanctions were popular because they targeted Jordan or if they were popular because they targeted Iraq.

**Figure 3.4:** Effects of Sanctions on Presidential Approval by Target State



Regressions are based on model 6 presented in table 3.4. The plotted coefficients, and 95 % confidence intervals, are the instantaneous effect of sanctions against the target state (margins) on presidential approval. The coefficients do not represent the complete effect, but are sufficient to assess the direction and significance of the relationships.

The goals of the sanctions may also be important. All of the European sanctions just mentioned were imposed in response to unfair trade practices. The relatively popular sanctions were imposed for a host of other reasons. A similar set of analyses were conducted to compare the importance of the goals, and only trade sanctions had a statistically significant effect on approval ( $-.40^{***}$ ).<sup>24</sup>

What do these findings mean? Figure four suggests that there is no *systematic* relationship between approval and sanctions. Sanctions are not always popular, but they are not always unpopular either. The models estimated to this point show the *average* effects of sanctions on presidential approval. The results demonstrate that sanctions *generally* have negative political consequences, but the average effects implied by the coefficients are somewhat deceiving. Clearly, sanctions are not always politically costly.

Do these results support the symbolic perspective? No. Even if some sanctions are popular, there is still no evidence to support the claim that presidents strategically use sanctions for political gain. Figure one shows that sanctions don't respond to changes in approval. The results in figure four suggest sanctions, at best, are extremely unreliable political tools. Most of the coefficients are negative. The most reasonable interpretation of figure four is that the domestic political consequences of sanctions probably don't govern presidential behavior in this area. However, an argument from the symbolic literature does offer some guidance for interpreting these results.

The scattered positive effects are consistent with the argument that sanctions

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<sup>24</sup>The estimated short run effect of trade sanctions on presidential approval was  $-.40$ , and the estimated long run effect was  $-2.14$ . Coefficient plots similar to Figure Four are produced for the goals of the sanctions.

have an expressive faculty. Perhaps presidents impose some sanctions to signal resolve and preferences to the target without committing to more costly/violent forms of statecraft. Presidents could be rewarded for “doing something” during international crises, and the positive changes in approval may reflect that the public approves of the president taking some action. Testing this argument would require comparing sanctions to different types of intervention - diplomatic, military, etc. - and that enterprise is beyond the scope of this paper. Generally, these results suggest that sanctions scholars need to stop asking if sanctions are popular. When sanctions are popular, and why, are more fruitful avenues for future research.

The symbolic perspective shouldn't necessarily be abandoned entirely, but it does need revision. On average, sanctions have negative effects on economic performance, consumer confidence, and presidential approval. As such, the argument that presidents can count on economic sanctions as tools to improve their standings in the polls seems untenable. There are some situations where sanctions are popular, but proponents of the symbolic perspective will need to develop more refined theories to identify these conditions. It is also important, however, that proponents of the statecraft perspective consider this possibility when deploying the costly nature of sanctions as a major theoretical construct.

### 3.4 Conclusion

Are leaders engaging in power politics or public pandering when they impose economic sanctions? The statecraft perspective argues that sanctions are imposed to achieve foreign policy goals, while the symbolic perspective argues that sanctions are imposed for domestic political reasons. These worldviews rely on different assumptions about the economic and political consequences of sanctions. These differences stem from an empirical problem. Identification choices lead one to vastly

different inferences. I used VAR to test the endogenous relationships implied by the perspectives, and reached a number of important conclusions.

Economic sanctions are, on average, economically and politically costly for the sanctioning state. Sanctions have concrete economic consequences. These effects are reflected in inflation, unemployment, the CBCI, and interest rates. The consumer confidence and negative economic news results show these effects are perceived by the public. How people process information about sanctions colors public sentiment. This explains why sanctions reduce presidential approval in most cases. Substantively, the political and economic consequences of sanctions require that leaders be judicious about the application of economic pressure. While the effects are not large enough to constrain presidential behavior, they are significant enough to deter belligerence.

What do these results mean for U.S. sanctions against Russia? In terms of the president's motivations, the results suggest that the Obama administration is probably genuinely concerned about Russia's role in the Ukrainian conflict. Aside from being extremely dangerous, it seems unlikely that a war fatigued American public would support military intervention. Hence, economic sanctions may be Obama's least worst option. In terms of the public response, it will be interesting to see how attitudes change over time. Sanctions were popular in April, but how much will Americans be willing to sacrifice to express their reservations about Russian foreign policy? The results presented here suggest the tide of public support will start to recede as the costs of sanctions become more apparent in light of the very public objections of the U.S. business community, lost investment opportunities in Russia, and Russian economic retaliation.

The analyses presented in this paper resolve the causal dilemma at the heart of the debate. Sanctions affect presidential approval, but presidential approval doesn't

affect sanctions. The practical consequence of this finding is that conventional regression models can be used to study the relationship. I exploit this finding to examine how the domestic effects of sanctions vary when sanctions are being imposed against different target states. These analyses convey a need rethink our approach to understanding the economic and political consequences of sanctions.

Empirically, economic sanctions are heterogenous events. They are imposed against different states, for different reasons, at different points in time. Averaging over this heterogeneity is useful to the extent that one wants to make generalizations about the consequences of sanctions, but this strategy eliminates many of the nuances that make the cases distinct. It is important to keep this in mind during theory development and analysis.

Theoretically, the results point to two broad avenues of research that need to be considered. Some sanctions are popular and some are not. How does issue salience play into these differences? Based on figure four, the public appears to respond negatively to sanctions imposed against other developed countries and positively to sanctions imposed against less developed states. This result may, or may not, be related to the fact that many of the sanctions imposed against developed states are imposed to pressure the targets to alter trade practices. This is a topic that most Americans know very little about.

Second, the statecraft perspective suggests that sanctions are unpopular because they are costly and the symbolic perspective argues that sanctions are popular. Neither perspective considers the possibility that sanctions could be unpopular because they do not go far enough. Sanctions are often imposed in the wake of international crises. It is not difficult to imagine circumstances where sanctions could be unpopular because the public believes a more severe form of pressure is necessary. This may explain some of the negative cases presented in figure four. Future research is

needed to examine this phenomenon.

In closing, the analyses presented in this paper give proponents of both the statecraft and symbolic perspectives important points to consider. If sanctions are generally costly, proponents of the symbolic perspective need to refine the nature of their arguments to account for this empirical reality. If sanctions can be popular, proponents of the statecraft perspective need to amend their approaches to allow for this possibility. Like most policies, sanctions do not have homogenous effects on presidential approval. And, like most policies, the political reception of economic sanctions appears to be influenced by a number of different factors. Moving forward, international relations scholars should stop debating the *if* of the political and economic consequences of sanctions, and should start focusing on the *when*, *why*, and *how*.

#### 4. ISSUE SALIENCE, ECONOMIC COSTS, AND THE DOMESTIC POLITICAL CONSEQUENCES OF ECONOMIC SANCTIONS: AN EXPERIMENTAL STUDY

How do economic sanctions influence public evaluations of the leaders of the sanctioning state? On March 16, 2014, the Ukrainian citizens of Crimea voted to join the Russian Federation. In response, United States President Barak Obama seized assets of several high ranking Russian officials and barred them from travel to the United States. These sanctions were a culmination of a dramatic series of events that began with a Ukrainian coup deposing Prime Minister Viktor Yanukovich in February and the seizure of Ukrainian military bases and government facilities by Russian troops in the weeks before the referendum. Over the next several months tensions between Ukraine and Russia escalated along with the scope of United States sanctions.

At the time, analysts argued that the Obama Administration knew that sanctions would not deter Russian ambitions. A handful of travel visas is a small price to pay for territory and strategic ports on the Black Sea. They argued the sanctions were symbolic sanctions being used to obviate domestic criticism of the administration's inaction (Battaglia 2014; Espiner 2014; Haacke 2014). A growing contingent of international relations scholars argue that sanctions are often imposed to achieve these symbolic goals, and the Obama administration's sanctions against Russia seemed to fit the profile. Military intervention on Ukraine's behalf was out of the question, but the significance of the events demanded a United States response. Rather than commit troops, the Obama Administration opted to impose economic sanctions. These kinds of sanctions satiate public demand, but do not require the use of force. The

marginal nature of the sanctions was used as evidence that they were only imposed for political reasons. Yet the sanctions generated a considerable amount of political backlash over the course of the episode.

That July, while the Obama administration was considering an extension of the sanctions, the U.S. Chamber of Commerce and the National Association of Manufacturers took out full page advertisements in the New York Times, the Wall Street Journal, and the Washington Post warning that sanctions against Russia would harm U.S. business interests (Dorning 2014). This kind of behavior by interest groups was not unprecedented. Throughout the 1990s and 2000s special trade associations like USA-Engage and the National Foreign Trade Council (NFTC) actively campaigned against the use of economic sanctions, engaging in “public education campaigns” to raise awareness about the costs of sanctions (Chatterjee 1997). Scholars theorize about the political benefits of economic sanctions, but seem to ignore these kinds of political costs. This study endeavors to bridge this gap.

The argument that sanctions are used to achieve domestic political goals has gained considerable traction. This argument is puzzling. Why are symbolic sanctions necessary, and how can sanctions be used to generate support, if the public is uninformed about international events? Also, how can policies that disrupt the free flow of goods and services be popular? Market interventions create winners and losers. Economic theory tells us the distributional consequences of sanctions should have political ramifications.

This research also poses important ethical dilemmas. The prospect of leaders crassly using sanctions for political gain is alarming because sanctions can have serious economic consequences for the sender and targets states, and potentially provoke international conflict. Alternatively, the possibility that interest groups can use the bully pulpit to cow elected officials and control public policies that interfere

with their interests is equally alarming. Understanding the symbolic political utility of sanctions is essential to ensuring they are not misused.

I argue that sanction episodes have multiple, heterogenous features that make the domestic political consequences of sanctions for the leader difficult to predict. Sanctions and the international events that provoke them have independent, competing influences on evaluations of leaders of sanctioning states. International events vary in terms of perceived salience. Sanctions vary in terms of perceived costs. The public is more supportive of sanctioning leaders when they impose sanctions in response to salient events. The public is less supportive of sanctioning leaders when they impose costly sanctions. The political consequences of sanctions are difficult to anticipate because the relative significance of these features vary from episode to episode.

I use two laboratory experiments to test the competing influences of issue salience and economic costs on evaluations of sanctioning leaders. Salience and costs have independent, competing influences on leadership approval. The results suggest leaders can only use sanctions for domestic political gain in special circumstances. The goals must be salient enough to justify economic pressure, and the economic consequences must be controlled to prevent political fallout. If the economic effects of sanctions cannot be controlled, leaders risk squandering political gains and suffering political setbacks.

In the next subsection I offer a critical review of existing research examining the domestic political motivations of sanctions. In subsection three I develop a micro-level theory to explain how economic sanctions affect leadership approval and derive a series of testable hypotheses. The experimental design is outlined in subsection four, and the results are presented in subsection five. The final subsection discusses the theoretical and practical significance of the results for research on economic sanctions, foreign policy, and public opinion.

## 4.1 Literature Review

### 4.1.1 *Symbolic Sanctions*

Economic sanctions are ineffective most of the time. Sanctions are economic pressure applied to achieve political goals. Hufbauer et al. (2009) show that sanctions only achieve these goals about one third of the time. Some argue these estimates are overly optimistic (Pape 1997). Despite this poor record of success, policymakers continue to threaten and impose economic sanctions. This gap between research and behavior is one of the central puzzles in the sanctions literature.

One explanation is that sanctions are primarily used as domestic political tools. Sanctions appear ineffective because analysts have incorrectly, or only partially, identified the real goals of many sanctions. Proponents of the argument that sanctions are used to achieve domestic political goals believe sanctions can have two functions - an instrumental function and a symbolic function. Sanctions have instrumental utility because they can influence target states' behaviors. Sanctions also have symbolic utility because they can signal leaders' preferences and priorities to domestic audiences. Leaders announce that they are imposing sanctions to achieve instrumental goals like the deterrence of weapons proliferation or human rights violations, but sanctions are actually being imposed to quell domestic criticism and generate public support. Whang (2011) summarizes the key components of the argument.

If a president's opposition of extreme human rights abuses in a target state results in a surge in incumbent popularity, the sanctions' actual subsequent effectiveness in changing the target state's behavior is less likely to radically decrease the support for the incumbent...if the leader of the sender state stands firm on this issue, his strong stance may be sufficient

to produce an additional domestic political benefit regardless of the effectiveness of sanctions as a coercive measure. Thus, without much regard to the outcome of sanctions, the sanctioning policymaker can avoid the image of an inattentive leader who passively ignores a public that demands attention to an international scene. (789)

Proponents of the symbolic perspective have offered two nuances to the argument that lead to slightly different conclusions about the symbolic utility of sanctions. The classical version of the argument describes the symbolic utility of sanctions as a means of satisfying public demand for action in the wake of international events (Ang and Peksen 2007; Galtung 1967; Schreiber 1973). Sanctions are a, “tension release from a latent intensity” (Wallensteen 1968: 252). They offer leaders a means of responding to international crises without committing to costly troop deployments.

The second, related version of the argument takes the symbolic utility a step further. Sanctions not only obviate domestic criticism but can be used to generate public support for leaders of sanctioning states (Lindsay 1986). During periods of economic and political turmoil unpopular leaders can use economic sanctions to generate a “domestic popularity boost” (Whang 2011: 791). Rather than passively using sanctions in response to international events, presidents actively employ the symbolic feature of sanctions for domestic political gain. In this view, economic sanctions are diversionary war by other means.

Most research on the symbolic utility of sanctions is theoretical. A number of early works attempted to classify sanctions based on their goals. Sanctions imposed to appease domestic audiences were often described as “symbolic” or “expressive” sanctions (Barber 1979; Lindsay 1986; Schreiber 1973; Wallensteen 1968). These authors used case studies to elucidate the various functions of sanctions. Others have

used the symbolic explanation in the analysis of specific cases (Galtung 1967). Smith (1995) incorporates the symbolic utility of sanctions into his model of states' decisions to impose sanctions, showing that leaders will threaten and impose sanctions that they know will not succeed if they believe there are political benefits to doing so.

There is only one study that tests the symbolic utility of sanctions empirically. Whang (2011) examines 624 sanctions imposed during the eleven U.S. presidential administrations between 1945 and 2000. He finds evidence that sanctions increase public support for the president and that sanctions are more likely to be imposed when approval ratings are low. He concludes that this is evidence that presidents are, "playing to the home crowd," when they impose economic sanctions (Whang 2011: 787). Consistent with the diversionary version of the argument, he also finds that economic sanctions are more likely to occur during periods of economic hardship.

The symbolic perspective is not new. It has received increased attention in recent years as sanctions scholars have struggled to explain the the continued use of economic sanctions in light of their apparent ineffectiveness. The symbolic argument has evolved over time and has received some empirical support. However, a number of theoretical gaps surrounding this perspective need to be addressed.

#### *4.1.2 Criticisms*

First, proponents of the symbolic perspective treat sanctions' goals as politically important but ignore the implementation and enforcement of sanctions. Sanctions are described as "relatively costless" political tools leaders use to respond to international events (Whang 2011: 789). International incidents generate public concern and leaders impose sanctions to obviate the need for more aggressive action (Ang and Peksen 2007; Lindsay 1986; Schrieber 1973; Whang 2011). Sanctions are popular because the leader intervened. The economic consequences of sanctions are not

considered.

This characterization of the political effects of sanctions is problematic. Sanctions' goals are important but they are not the only features of sanctions that have political consequences. The means and ends of foreign policy are analytically distinct and of equal theoretical importance. The contentious issues literature holds that issue salience is important because it influences the choices states make among various policy options (Hensel and Mitchell 2012). The policy objectives are the, "values that have to be allocated" and the policies are the means employed to affect this allocation (Rosenau 1966).<sup>1</sup> Hurwitz and Peffley (1986) argue that both have distinct influences on public evaluations of foreign policy events. Also, any policy that interrupts the the normal flow of goods and services has distributional consequences. If these interventions create winners and losers, they cannot be politically benign.

Second, proponents of the symbolic perspective have yet to explain what features of sanction episodes make sanctions politically useful or how these features vary across episodes. Some discussions of the symbolic utility of sanctions leave one with the impression that all sanctions are created equal. For example, Whang (2011) argues that, "US presidents benefit from sanctions domestically, although sanctions are unlikely to achieve their goals. The initiation of sanctions by itself increases the popularity of presidents" (789). This type of conclusion requires one of two assumptions about the events that motivated the use of sanctions. Either the events are wholly unimportant or the public views all events the same way. Otherwise, presidents would not be able to count on sanctions to generate public support.

International events are not created equal. They differ in terms of political sig-

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<sup>1</sup>Quoted by Hensel and Mitchell (2012).

nificance. Hensel et al. (2008) propose a categorization of international events based on tangibility and salience (121). Tangible issues, like security and wealth, are concrete and can be ascribed definitive value. Intangible issues are tied to more elusive concepts like culture, equality, and justice. Societies may embrace these principals, but they do not have actual physical existence. These tangible and intangible issues also vary in terms of their relative importance. *Most* people recognize that contracting security for a shipyard is qualitatively different from privatizing the entire navy, and the infringement of one's privacy suffered in airport security is not as significant as having one's property arbitrarily seized by the government after being thrown in prison. Scholars have used the concept of issue salience to examine the conditions that produce international conflict and cooperation, interstate rivalries, and diversionary behavior (Hensel et al. 2008; Hensel and Mitchell 2005; Mitchell and Theis 2011; Mitchell and Thyne 2010). This concept can be fruitfully extended to the study of economic sanctions as well.

Third, the symbolic literature seems to ignore the wealth of research on the links between foreign policy and leadership approval. The symbolic perspective argues that sanctions are used to generate domestic political benefits for the president, but do not explain why the public rewards leaders politically. The microfoundations of the sanctions-approval relationship are an important theoretical blind spot.

Research on the links between foreign policy and presidential approval has evolved over time, but scholars agree on a number of important premises. At one time the prevailing view was that the public was uninformed about international affairs and that an uninformed public could only have a limited influence on foreign policy (Holsti 1992: 442). A new consensus emerged after the Vietnam War. The public is uninformed, but the public has coherent foreign policy preferences and uses cognitive shortcuts to process complex information about international events. The public

focuses on salient international events - like crises, conflict, and economic turbulence - and generally arrives at prudent policy preferences (Canes-Wrone and Shotts 2004; Gelpi et al. 2009; Jentleson and Britton 1998).

The gaps between the symbolic perspective and the public opinion literature leave a number of important questions unanswered. If the public is generally uninformed about international affairs, why can presidents use sanctions to generate public support? Scholars agree that the economy plays a more important role in shaping public opinion than international affairs (Holsti 2004). Does the fact that economic sanctions can undermine economic performance not influence public attitudes about sanctions? In the next subsection I endeavor to answer these questions by developing a new theory to explain the links between economic sanctions and public opinion.

## 4.2 Theory

Sanctions have heterogenous impacts on evaluations of sanctioning leaders because economic sanction episodes have multiple, heterogenous features. I focus on the distinction between economic sanctions and the international events that prompted the imposition of the sanctions. International events vary in terms of perceived salience. Sanctions vary in terms of perceived costs. These distinct features of sanction episodes influence evaluations of sanctioning leaders in different ways. Events influence perceptions of sanctions' justifications and costs influence the perceived prudence of the sanctions. I begin this subsection with the definition of important concepts before deriving testable hypotheses about the severity of international events, the costliness of the economic sanctions, and leadership approval.

#### 4.2.1 Definitions

The outcome of interest is the public's evaluation of the sanctioning leader. How do sanctions affect presidential approval? Edwards et al. (1995) point out that most people do not approve or disapprove of their leader's per se, they approve or disapprove of their leader's handling of domestic issues and responses to international events. Hence, when one asks how sanctions affect presidential approval one is actually asking two questions. How do you feel about the event? And how do you feel about the use of sanctions in response to the international event? Events and sanctions are evaluated separately.

Economic sanctions are economic pressure applied to achieve political goals. The sanctioning state (the sender) limits trade or financial transactions with the sanctioned state (the target) and outlines a set of demands that must be met before customary economic relations can resume (Hufbauer et al. 2009). Sanctions can take on many forms including suspensions of trade, limitations on the import and export of goods, financial restrictions, travel bans, and other impediments to commercial exchange. Economic sanctions are defined in terms of episodes. An episode begins when a sender threatens or imposes economic sanctions and concludes when the target state acquiesces to the sender's demands, the sender capitulates by lifting sanctions before the target complies, or the sender and the target reach a negotiated settlement (Morgan et al. 2013).<sup>2</sup>

Economic sanctions are imposed in response to international events. Senders' demands are tied to these events. For example, in 1997 President Clinton issued Executive Order 13047 banning new United States investment in Myanmar in re-

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<sup>2</sup>There are some cases where economic sanction episodes end in a stalemate. See Morgan et al. (2009) for a more detailed discussion of how sanction episodes are coded in practice.

sponse to increased repression by the ruling State Law and Order Restoration Council (SLORC) (Hadar 1998). In March 2006 George Bush issued a similar order seizing the assets of ten Belarussian officials accused of tampering with election results and intimidating opposition leaders including the Belarussian president Alyaksandr Lukashenka (Malloy 2013). In both cases the Presidents cited specific actions taken by the target governments as justifications for the sanctions. These kinds of events play an important role in shaping public evaluations of leaders that choose to impose sanctions.

Economic sanctions are distinct from the international events that provoke them. The difference between the two is analogous to the ends and means distinction proposed in the contentious issues literature (Hensel and Mitchell 2012; Rosenau 1961). Economic sanctions (the means) are imposed in response to international events and these events are tied to the demands established by the sanctioning state (the ends). The public evaluates the ends and means of sanction episodes separately, and they have separate, competing influences on public evaluations of sanctioning leaders.

#### *4.2.1.1 Event Salience*

The political significance of international events is tied to the concept of salience. Salience refers to the prominence or importance of something. Scholars in the contentious issues literature have used salience to explain disputes over territory and water rights (Hensel et al. 2006; Hensel et al. 2008). For leaders, the salience of an issue is determined by the issue's tangibility and relative importance. Threats to one's culture are different than threats to one's water reserves. The relative importance of these threats to the population can vary as well. A single family settling in the high Himalayan valley to subsistence farm on the Indian-controlled side of Kashmir is less likely to generate an international crisis than a major hydroelectric

damn project. These dimensions of salience have been used to explain why countries are more willing to fight and cooperate over territory and water resources.

I will use the concept of salience in a slightly different fashion. My theory focuses on individual members of the public, not leaders. The “relative importance” dimension of salience makes sense for leaders. Issues that affect large portions of a country’s population are important, but issues that only affect a small portion of the population are relatively unimportant (Hensel et al. 2008: 121). Relative importance is more complicated for individuals.

The salience of an issue or event for an individual is determined by how *proximate* an event or issue is to an individual’s interest and how *intense* the event or issue is in relation to this proximity. Domestic affairs tend to matter more than international events because they are more immediate. Holsti (2004) points out that major crises threatening national security - like the Japanese bombing of Pearl Harbor - tend to be highly salient, but that most international issues are viewed as less important than more proximate issues like crime, inflation, and unemployment (30). The relative intensity of the threats and opportunities matter as well. A pay cut is bad. Loosing one’s job is worse.

Intensity is the most important dimension for sanction disputes. By definition, most international events are not proximate. Some international events - weapons proliferation, international terrorism, etc. - can be linked to national security but the risks these events pose to any single individual are relatively remote in most cases. If this was not the case, one would expect leaders to respond with more force than sanctions. Hence, the theoretically interesting dimension of salience for public opinion and economic sanctions is intensity. Specifically, the intensity of the international events that provoked the sanctions.<sup>3</sup>

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<sup>3</sup>Public opinion scholars often say that the economy is a salient issue in domestic politics (DeBoef

The perceived salience of international events affects public evaluations of sanctioning leaders. The public does not treat all events equally. This is evidenced by varying levels of public interest in different types of events. International crises, conflict, and casualties command a significant amount of attention, but mundane topics like foreign aid and trade do not (Baum and Potter 2008; Eichenberg 2005; Knecht and Weatherford 2006). Humanitarian disasters and major political events draw attention from “soft media” (Baum 2002: 91; Jacobs and Page 2005). Leaders are forced to respond to international events when they are being discussed on late night talk shows and day time television (Aldrich et al. 2006). High intensity events draw this kind of attention, but low intensity events do not. This is why people are more likely to support leaders’ responses to salient events. This intuition is the basis for the first theoretical expectation.

**Expectation One:** The public will be more supportive of sanctioning leaders when sanctions are imposed in response to high salience events.

#### *4.2.1.2 Sanction Costs*

Public evaluations of sanctioning leaders are also affected by the perceived costs of sanctions. Leaders’ foreign policy goals matter, but people care about the costs of international intervention as well. This issue has received a considerable amount of attention among scholars interested in humanitarian intervention and war. Casualties reduce support, but there is evidence that the economic and financial costs and Kellstedt 2004; Mackuen et al. 1992). One could also talk about economic sanctions as being salient to the degree that people perceive them as affecting economic performance. While this would be a fair characterization, I refrain from using salience to refer to the economic costs of sanctions to avoid confusion about the political significance of international events and the political significance of the economic costs of sanctions.

of intervention influence public opinion as well (Gartner 2008; Gartner and Segura 1998; Gelpi et al. 2009). Costs become more significant as casualties and debt mount over time, but these costs are considered at the outset of international intervention as well (Eichenberg 2005). Hence, expectations of future costs influence short term shifts in opinion.

The economic costs of sanctions are their defining feature. Sanctions interrupt commercial activity. These reductions, like all barriers to trade, generate dead weight losses. “Whatever form economic sanctions take, there is an economic cost associated with them. Sanctions prevent trade and investment between countries. If without sanctions firms and individuals want to trade, then preventing this trade has economic costs” (Smith 1995: 230).

The potential economic costs of sanctions make sanctions politically important. Economic issues are paramount among factors influencing support for government outside of crises situations - war, natural disasters, terrorist attacks etc. (Singer 2011). Economic issues like inflation and unemployment consistently rate among the most important issues identified by voters, and these numbers tend to spike during periods of economic hardship (Wlezian 2005). At any point in time, the state of the economy influences public attitudes about future economic performance, their perceptions of previous economic conditions, and their evaluations of their political leaders (DeBoef and Kellstedt 2004; MacKuen et al. 1992). Hence, people will be less supportive of sanctions they perceive as potentially threatening to the national economy or their economic interests.

**Expectation Two:** The public will be less supportive of sanctioning leaders when the public perceives sanctions as economically costly.

## 4.3 Research Design

### 4.3.1 Experimental Design

I use two  $2 \times 2$  between-groups factorial experiments to analyze the importance of issue salience and economic costs on evaluations of sanctioning leaders. Participants were asked to read mock news stories associated with one of eight randomly assigned, experimental conditions. The experimental factors are: (a) the salience of the foreign policy event (low and high), (b) the costliness of the economic sanctions imposed in response to the event (not costly and costly), (c) and the target country where the event took place (Bulgaria and Tanzania).<sup>4</sup> All participants in the experiment received the following introductory script before receiving their manipulation:

*The following questions are about U.S. foreign policy. You will read about an international event, and the U.S. president's response to that event. Afterwards, you will be asked to evaluate the president's performance.*

Each of the manipulations is presented as a short news story. The stories involve the target states' actions and the imposition of economic sanctions in response to those actions. The stories vary in a number of important ways.

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<sup>4</sup>This factor is included to ensure that there is nothing specific to the target state that could be driving the results. The two countries are Bulgaria and Tanzania. These countries were chosen because they are relatively low profile in terms of their relationships with the United States. Choosing Iran and the United Kingdom, for example, would be problematic as the use of these states increases the probability that participants have already developed well defined opinions and beliefs about the target states. Bulgaria and Tanzania are chosen in an effort to avoid this kind of bias. The location factor is not theoretically interesting except as a control. The vignettes below will include the names of both countries and information specific to each location.

The first variable of interest is the salience of the foreign policy event that precipitated the imposition of sanctions. Each of the stories takes place in the capital cities (Sophia / Dodoba) of the different countries (Bulgaria / Tanzania). In each of the stories, the state military is taking some action against a textile factory. This detail makes each of the vignettes reasonably newsworthy because military personnel do not normally get involved in the day to day operations of textile factories. In the low (high) cost manipulation, the military closes (bombs) a textile factory in the capital city, and the 200 textile workers employed in the factory lose their jobs (lives). The national government releases a statement after the military closes (bombs) the factory. In the low-salience case, the statement explains that the factory was closed because of repeated health violations. In the high-salience case the government does not offer any rationale for bombing the factory and proclaims that foreign governments should not interfere with domestic affairs. The high-salience case also has an ethnic dimension. The Bulgarian (Tanzanian) government is depicted as openly hostile against the ethnic Albanian (Kisii) minority. The 200 factory workers killed in the bombing belong to this ethnic group. The low salience stories read as follows:

*The Bulgarian (Tanzanian) military closed a factory earlier this week in the Bulgarian (Tanzanian) capital of Sophia (Dodoba).*

*The government's actions have left more than 200 Bulgarian (Tanzanian) textile workers unemployed. The prime minister's office released a statement saying that the factory was closed because of continued violations of national health and safety regulations.*

*The President of the United States imposed economic sanctions against Bulgaria (Tanzania) after hearing news of the*

*closing. The prime minister's office responded to the sanctions by pointing out that there is no evidence of impropriety on the part of the Bulgarian (Tanzanian) government.*

The high salience stories read as follows:

*The Bulgarian (Tanzanian) military bombed a factory in Sophia (Dodoba), the Bulgarian (Tanzanian) capital, earlier this week. The strike left 200 textile workers dead and a number of others severely injured. All of the factory workers were members of Bulgaria's (Tanzania's) ethnic Albanian (Kisii) minority group. The Bulgarian (Tanzanian) government has been criticized by international observers for years for discrimination against the ethnic Albanians (Kisii), but this is the first time that the government has perpetrated public acts of violence against members of the ethnic group. The Bulgarian (Tanzanian) government dismissed international criticism, suggesting that foreigners should not concern themselves with Bulgarian (Tanzanian) affairs.*

*The President of the United States imposed economic sanctions against Bulgaria (Tanzania) after hearing news of the bombing. The President suggests that the bombing represents a serious violation of the ethnic Albanians' (Kisiis') human rights. The Bulgarian (Tanzanian) government responded urging the President not to meddle in Bulgarian (Tanzanian) affairs.*

The second factor is the costs of the economic sanctions. This manipulation is more challenging. In the high cost treatments I included a second part of the story.

Economic experts warn that the sanctions will be costly to the United States in a number of ways. In the low cost treatments I omit this part of the story and make no mention of the cost of economic sanctions. An alternative strategy would be quoting the same experts saying that the economic sanctions would not be costly. While this strategy might have worked, I was concerned that including information suggesting that sanctions were not costly might prime the participants to believe that economic costs were an issue worth considering. If this had not entered their evaluation of the sanctions prior to the experiment, it could be more likely after potential costs were mentioned. Therefore, I chose to not include any mention of sanctions being costly for the United States in the low cost treatments. The high cost parts of the stories read as follows:

*Economic experts are urging the president to lift the sanctions. There is concern that the economic sanctions being imposed will harm American businesses and cause significant layoffs in the United States. These experts are warning that sanctions are dangerous, and could derail an already fragile economic recovery. The financial sanctions imposed by the president could also have the unintended effect of raising domestic interest rates. This could put significant pressure on Americans with large amounts of consumer debt and student loans at a time when many are already having trouble meeting their debt obligations. Analysts are uncertain of what the long term economic consequences of the President's actions will be.*

The experimental conditions, and the associated news stories, were designed to isolate the the hypothesized features of the sanction episodes - the salience of the events and the costs of the sanctions. This required a number of simplifying as-

sumptions. First, I only consider one type of event (human rights violations) and the event only varies along one dimension of salience (event intensity). Also, the target states - Bulgaria and Tanzania - are not major powers. Choosing states like Russia or China would afford one the opportunity to consider other features of the episodes that will be discussed below. Finally, the economic sanctions imposed by the United States are unilateral and nonspecific. Participants were not given a menu of alternative policies to choose from and the effectiveness of the sanctions was not discussed. Participants were told that sanctions were imposed but not whether the sanctions applied to imports, exports, aid, or finances. Participants were asked about sanctions in general, not sanctions vis-a-vis alternative policies. The potential for projects using different conditions will be discussed below.

#### *4.3.2 Evaluation*

Participants were given a questionnaire following the treatment. The questionnaire had three parts. Part one included questions pertaining to participants' evaluations of the sanctioning leader, demographic questions were included in part two, and part three included manipulation checks.

Participants were asked a series of questions to capture differences in evaluations of the sanctioning leader. The question for the dependent variable asked participants to rate the leaders' handling of the international event on an eleven point scale - zero (lowest possible evaluation ) to ten (highest possible evaluation). People do not give leaders general grades - approve or disapprove. Leaders tend to be evaluated based on their handling of domestic issues and international events (Edwards et al. 1995). Participants were asked, "How would you rate the president's handling of this international event?" This question captures both factors influencing evaluations -

the human rights violations (the event) and the sanctions (the response).<sup>5</sup>

Figure 4.1: Hypotheses

		Salience of Event	
		<u>Low Salience</u>	<u>High Salience</u>
<u>Low Cost</u>	Factory Closed	Factory Closed	
	No Costs	No Costs	
	∅ Approval	+ Approval	
<u>High Cost</u>	Factory Bombed	Factory Bombed	
	High Costs	High Costs	
	- Approval	± Approval	

The four cells of figure 4.1 depict the four non-target state conditions of the experiment. Event salience is displayed across the horizontal dimension and sanction costs are displayed along the vertical dimension. The experimental factors associated with each condition are given in black and the expectations associated with each condition are given in gray.

The upper left-hand cell of figure 4.1 depicts the low-salience-low-cost condition. The president imposes sanctions in response to the factory being closed, and no information is given about potential costs. The effects on approval are ambiguous

<sup>5</sup>As a robustness check, participants were also asked to rate the leader's competence on an eleven point scale. This alternative measurement strategy produces similar results.

( $\emptyset$ ). The theory does not predict any significant changes in approval. Costless sanctions do not generate political backlash, but low salience events do not generate demand for intervention.

The low-salience-high-cost condition is depicted in the lower left hand cell. High cost sanctions are imposed in response to the factory being closed. This should cause approval to fall ( $-$ ). The public will not believe the sanctions are justified, nor will the public support the imposition of costly sanctions in response to a low salience events. This represents a worst case scenario for sanctioning leaders. They pay the costs of economic pressure, but there is no political payoff.

The right side of the table shows the high salience conditions. The factory is bombed in these conditions. The public is more likely to believe the sanctions are justified because this event is more intense. If the sanctions are costless, evaluations of the leader will be high ( $+$ ). In this instance, leaders are able to take advantage of the symbolic utility of sanctions. The political benefits of sanctions are moderated when sanctions are perceived as costly. Responding to the high salience event makes the leader look good, but the response is unpopular because the sanctions are costly. As a consequence, sanctions have an ambiguous effect on approval in this instance ( $\pm$ ).

#### 4.3.3 Sample

The experiment was administered to a sample of 490 undergraduate political science students at Texas A&M University in 2014. This pool of participants was chosen for two reasons. First and foremost, this is a sample of convenience. Undergraduates are inexpensive and available. The use of undergraduates in social science experiments has become the norm because, as Henry (2008) explains, “we would be fools to not take advantage of amazingly convenient, cheap, and readily available un-

dergraduate participant pools” (114). Second, the use of inexpensive student pools in social science experiments makes them easier to replicate. While there are some demographic differences among campuses, students tend to be similar in terms of age and personal experience. The fact that these students are readily accessible to most academics all but guarantees that studies can be replicated and results can be reproduced (Morton and Williams 2010: 323).<sup>6</sup>

While the use of undergraduates in social science experiments has become relatively commonplace, some continue to protest that university students may not be representative of the national population in ways that bias inferences.<sup>7</sup> These concerns are misguided. First, this criticism misunderstands the purpose of the experiment. I am not collecting a nationally representative sample because I am not interested in drawing inferences about the current state of sanction policy preferences. The theory being tested in this study does not rely on one’s economic, demographic, or political profile.

Second, most agree that the use of students is only inappropriate when one is testing hypotheses about elite behavior. One runs into problems when students are forced to pretend to be something they are not. This does not apply to situations when one is studying public opinion. “When the real world ‘equivalent’ of a student sample is the ‘public’ rather than the leader or the elite, then, with an appropriate research design, student experiments may actually tell us a great deal about the behavior of the public” (Mintz et al. 2006: 769).

Finally, adherence to this perspective requires one to invoke an absurdly high intellectual standard that is not typically applied to most work. Arguing that exper-

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<sup>6</sup>Participation was voluntary. Participants were recruited but not compensated.

<sup>7</sup>See Morton and Williams (2010) for a discussion of this debate.

imental results *may* be invalid because there *might be* something about the sample biasing the results is akin to protesting the publication of a regression analysis because the author *may* have omitted an important variable. In the absence of a compelling theoretical argument explaining why undergraduates would behave differently than “normal” people when participating in an experiment, there is no reason to believe that an undergraduate sample will bias experimental results. The “canard” that “students are from Mars and non-students are from Venus” should be of little concern in most experimental studies (Henry 2008: 114). Students are randomly assigned into conditions and demographic features of each student sample can be accounted for by including demographic information collected during the experiment.

#### 4.4 Results

The results are presented in phases. The first set of analyses pertain to the first two hypotheses. The second set pertain to hypothesis three. I report the responses for each of the outcome variables and conduct a series of formal tests. Analysis of variance (ANOVA) and tobit regression are used to analyze approval. Logistic regression is used to analyze the dichotomous justification and approval outcomes. The motivations and assumptions for each technique will be discussed along with the results.

##### 4.4.1 Approval

Participants were asked to rate the president’s handling of the events in **Bulgaria** (Tanzania). The average responses are presented in the top panel of table 4.1. The number of participants in each condition is given in parentheses. Saliency is displayed across the horizontal dimension, and costs are displayed along the vertical dimension. The **Bulgaria** results are **black** and the Tanzania results are grey. The margins of

panel one show the average approval rating associated with each factor. There were 105 participants in the Bulgaria conditions and 385 participants in the Tanzania conditions.

Table 4.1: President's Handling of the International Event

		Country	Salience of Event		Total
			Low Salience	High Salience	
Cost of Sanctions	Low Cost	Bulgaria	3.42(26)	5.61(26)	4.51(52)
		Tanzania	4.68(98)	6.10(94)	5.38(192)
	High Cost	Bulgaria	3.30(26)	4.18(27)	3.75(53)
		Tanzania	3.89(100)	5.17(93)	4.50(193)
	Total	Bulgaria	3.36(52)	4.48(53)	
		Tanzania	4.28(198)	5.64(187)	
Source	Partial SS	df	MS	F	Prob > F
Model	391.6	7	55.95	12.87	0.000
Country	56.83	1	56.83	13.0	0.000
Crisis	171.8	1	171.8	39.5	0.000
Cost	55.23	1	55.23	12.7	0.000
Crisis×Country	.6868	1	.6868	0.16	0.691
Cost×Country	.1715	1	.1715	0.04	0.842
Crisis×Cost	10.91	1	10.91	2.51	0.113
Crisis×Cost×Country	7.105	1	7.105	1.63	0.201
Residual	2095.2	482	4.347		
Total	2486.9	489	5.085		

Responses range from 0 to 10. Means and (Observations) given for each condition. Bulgaria results given in Black. Tanzania results given in Gray.

The results mirror figure 4.1. High salience events are associated with higher approval ratings, and costs are associated with lower approval ratings. Approval is highest in the low-cost-high-salience condition and lowest in the high-cost-low-salience condition. These results are consistent across countries. Though the averages support theoretical expectations, more formal tests are necessary.

First, I conduct an analysis of variance. ANOVA not only formally tests for differences among the experimental conditions, it facilitates model specification by allowing the analyst to identify interactions among the variables. ANOVA assumes observations are independent and continuous. Approval is censored below zero and above ten by design, but ANOVA tends to be robust to these kinds of minor violations.

The ANOVA results are presented in the bottom panel of table one. The sources of variation - model, variables, and interactions - are listed in column one. The partial sum of squares, degrees of freedom, and partial mean squares are given in the next three columns. Columns five and six show the F-statistics and associated p-values. The model F-statistic tests for meaningful variation among the groups. The other F-statistics test the nulls that individual factors and interactions do not explain significant portions of the overall variance.

The F-statistics for the model and the three experimental factors - salience, cost, and country - are statistically significant. This is consistent with theoretical expectations. Because there are no significant interactions, I am free to focus on the main effects. This informs the specification of the tobit models presented below.

I used tobit regression to formally test the first two hypotheses. The dependent variable - approval - is continuous, but censored below zero and above ten. Ordinary least squares can produce inconsistent estimates if the number of censored observations is large (Long 2006). Assuming homoskedastic and normally distributed errors,

tobit regression produces unbiased and consistent estimates of changes in the predicted values of the response caused by changes in the regressors.<sup>8</sup> The models are estimated via maximum likelihood.

The tobit results are presented in table 4.2. The first model shows the primary factors from the experiments - issue salience, sanction cost, and targets state. The second model includes controls for sex and political party affiliation, and the third model includes controls for political knowledge. The bottom panel of table two shows the number of observations in each model, the log-likelihoods, and the number of left and right censored observations. The log-likelihoods do not change appreciably across any of the models, and there are only a handful of censored observations.<sup>9</sup>

The results are consistent with the first two hypotheses and robust across specifications. The coefficients for issue salience and cost are significant in each of the models. Issue salience increases approval, and sanction costs reduce approval. The country variable is significant as well. People are more likely to support sanctions when the same events are perpetrated in Tanzania. These results are surprising, but are consistent with the ANOVA results presented above. It is important to note, however, that the significance of the country factor has no bearing on the other results. This finding may warrant additional consideration, but further analyses are beyond the scope of this project.

Looking at the controls, there are noticeable differences among men and women and among people with varying political party affiliations. Approval was systematically lower among men and systematically higher among Democrats and Independents compared to Republicans. There are precedents for these results in the public

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<sup>8</sup>Diagnostics showed no evidence of skewness or heteroskedasticity.

<sup>9</sup>A similar set of analyses using the competence variable produced similar results.

Table 4.2: Issue Salience, Sanction Cost, and Leadership Approval

	1	2	3
Salience	1.43*** (.197)	1.47*** (.193)	1.48*** (.194)
Cost	-.875*** (.197)	-.948*** (.193)	-.942*** (.194)
Country	.869*** (.241)	.804*** (.235)	.805*** (.253)
Sex		-.514*** (.197)	-.517*** (.201)
Democrat		1.00*** (.264)	1.03*** (.270)
Independent		.440* (.231)	.426** (.232)
Other Party		-.039 (.417)	-.012 (.417)
News			-.013 (.029)
International News			.040 (.038)
Target Knowledge			-.085 (.062)
Constant	3.80*** (.256)	3.83*** (.293)	3.89*** (.331)
N	490	490	487
Log-Likelihood	-1056	-1044	-1036
Censored(Left Right)	(18 9)	(18 9)	(18 9)

Standard errors in parentheses. Two-tailed tests. \*\*<0.05, \*\*\*<0.01. Observations, log-likelihoods, and censored observations given in the bottom panel.

opinion literature. Kaufmann and Petrocik (1999) find evidence of a “gender gap” in the way people evaluate government policy, and Bartels (2002) shows that partisan bias can influence the way people process political events. Again, it is important to note that the inclusion of these controls did not alter the main results. Event salience and sanction costs have independent and opposing influences on leadership evaluation. The next set of analyses demonstrate why.

#### 4.5 Discussion

Economic sanctions affect public evaluations of sanctioning leaders. These effects are predictable, but not uniform. The domestic political consequences of sanctions will vary from episode to episode based on how the public processes information on the various elements of sanction disputes - particularly issue salience and economic costs. The public rewards leaders for responding to salient international events, but punishes leaders when sanctions are perceived as economically costly.

In this subsection I discuss the practical and theoretical implications of these findings. The results help clarify the symbolic utility of sanctions and have significant implications for foreign policy decision making and public opinion research.

Why do leaders continue to threaten and impose sanctions if sanctions rarely succeed? Proponents of the symbolic perspective argue that leaders use sanctions to pacify domestic criticism and generate political support. There are two versions of the symbolic argument. The first treats the symbolic motive as a catch all to describe all sanction episodes where a clear international objective cannot be identified. The various goals of sanctions are listed, and the symbolic motive is used to explain any episode that does not neatly fit into the other categories (Lindsay 1986; Wallenstein 1968). The second treats the symbolic function of sanctions as the chief motive behind most episodes. Sanctions are rarely effective because they are primarily

imposed for domestic political purposes (Whang 2011). This begs the question, if sanctions can be used to boost public support, why don't leaders sanction all the time?

Not all sanctions have symbolic benefits. The results presented in this study suggest people are more sophisticated than existing versions of the argument assume. The public evaluates the goals and costs of sanctions. Public demand for intervention increases with the scale of the events, but the public is prudent about the application of economic pressure. The symbolic perspective needs revision.

Sanctions are often discussed as being imposed for either instrumental or symbolic purposes. Rather than thinking of episodes as falling into instrumental or symbolic categories, it is more productive to think of episodes as falling on a continuum. Sanctions have varying levels of symbolic and instrumental utility. These levels are determined by the specific features of the episodes. Here I focus on the perceived costs of the sanctions and the sanctions goals. Not all events offer opportunities to reap political benefits and these benefits can be offset, eliminated, or overwhelmed by sanctions' costs. These two factors are important, but there are additional features of sanction episodes that warrant consideration.

There are other features of sanction episodes that may influence sanctions' symbolic utility. First, the other dimensions of issue salience - tangibility and proximity - can be explored. Salience can be manipulated in experimental settings, but it can also be used to classify episodes the same way tangible and intangible salience have been used to explore disputes over territory (Hensel et al. 2008). Some of the groundwork has already been laid in existing data sources (Morgan et al. 2013).

Features of the target state should also be considered in future research. I included an experimental factor for the target state to control for the this element of the episodes, but I had no expectation that there would be an observable difference

between the countries. To my surprise, there was more support for sanctions against Tanzania. There may be some European / non-European dynamic influencing attitudes about the sanctions. Beyond this puzzle, states like Russia and China could be used to evaluate the significance of strategic and historic rivalries. The relative strengths of target states may influence attitudes about pressure and intervention. Understanding the broader international context shaping evaluations of sanctioning leaders is an important next step.

Third, additional features of the sanctions could be considered as well. The sanctions in the experiment were generic. A public sophisticated enough to discern the differences between ends and means may be able to discern the relative economic importance of embargoes, import restrictions, and travel bans. Does the willingness of a leader to impose domestic costs influence the utility of the political signal as the audience cost literature suggests (Fearon 1994)? Or, can leaders profit from the imposition of relatively minor restrictions on travel and assets if the sanctions are effectively marketed to the public?

In this vein, the symbolic utility of sanctions should be compared against plausible policy alternatives. If the public evaluates the goals of the sanctions and the costs of the sanctions separately, it follows that leaders may have incentives to choose less costly measures to achieve - or appear to achieve - the same goals. Diplomatic pressure may be sufficient to garner some symbolic benefit. On the other hand, if diplomatic or economic pressure seem too weak a response to international events, the use of diplomatic and economic sanctions may misfire, making the leader appear weak. Perhaps there is a window of international events - salient enough to warrant a response, but not so salient that more resolute action is expected - where sanctions can be used for political gain. This set of questions underlies the fundamental puzzle these findings present for policymakers.

Sanctions can be used to generate political support in certain circumstances, but this strategy can backfire. The results suggest symbolic political benefits can be accrued if the salience of the event is high and the costs of the sanctions are low. This requires an event, which means leaders have to wait for opportunities to use sanctions for symbolic purposes. The sanctions cannot be too costly or the leader risks provoking domestic political backlash. The problem is further complicated if leaders need to worry about sanctions seeming weak. A leader hoping to use sanctions for symbolic purposes must make these judgements without complete information about how the events and sanctions are being received, or how the target state or domestic interest groups will respond to sanctions. The use of sanctions for symbolic purposes may be a dangerous political strategy. This means leaders have to pick their spots, only using sanctions when necessary and when costs can be managed. This may explain why we do not observe sanctions being systematically used for diversionary purposes.

The findings also have important implications for the domestic sources of foreign policy. The prevailing view is that the public is not well informed about international affairs and lacks the sophistication to process complex information about international events. Part of this perspective is born out in the experiment. Sixty seven percent of participants said they spend two hours or less a week reading, listening, and watching news about international events. These numbers may be high relative to the general population because the participants were undergraduate political science students. This general lack of interest, however, did not seem to influence their ability to evaluate the events when they were given information.

Participants were able to separate the sanctions from the international events that provoked the sanctions and make independent assessments of each. This shows a reasonable level of sophistication. The ends and means of foreign policy are evalu-

ated separately. The public may be able to understand international affairs, even in the absence of detailed information. Additional research is necessary to determine what conditions facilitate or inhibit these kinds of judgements. The controlled environment of the laboratory does not account for a variety of factors that can influence information acquisition and evaluation. The real world information environment is noisy. People do not spend a lot of time acquiring information about international affairs because there are a wide variety of other media that demand their attention - entertainment, sports, domestic politics, etc. Will people demonstrate such sophisticated reasoning when faced with these “distractions?” Also, the results do not account for partisan or institutional information biases. The stock people put in information is often related to the source of the information (Entman 2007). Will information about the source affect people’s judgements? Finally, people may not be able to make judgements about the quality of information. Business interests like the Chamber of Commerce and the National Association of Manufacturers may be able to manipulate public perceptions of sanctions. If this is true, the symbolic costs and benefits of sanctions may be subject to the influence of third parties even if the public is capable of processing complex information. Leaders cannot predict the political consequences of policies if they cannot control the narrative.

The results also have implications for the broader scholarship investigating the sources of public opinion. Economic issues have a special status in the public opinion literature. Economic perceptions and economic performance play key roles in determining public support for elected officials (MacKuen et al. 2003). Survey data show that the economy is more important than international events in particular (Holsti 2004). While this research shows that the economy plays a more important role in determining overall levels of public support, the experiment suggests that people do not actively prioritize the economy over other policy goals. Variation in issue salience

had a larger effect on approval than did sanction costs. This result was surprising given the wealth of evidence supporting the perspective that the state of the economy is paramount. This does not mean that international affairs matter more than the economy, but it is evidence that people do not evaluate leaders like crass corporate executives. Economic performance is not the only thing that matters.

Future research should examine how these apparent priorities might change when the nature of the costs are different. The costs described in the experiment are relatively abstract. Sanctions are costly for the national economy. What happens when the costs hit closer to home? Do sanctions' goals matter when sanctions are hurting your company and your community? Are there any international goals that meet this higher standard? How the costs and benefits of sanctions are framed could play an important role.

#### 4.6 Conclusion

The symbolic argument ties sanction decisions to domestic politics. This is an important theoretical innovation over alternative theories that ignore the role of domestic politics entirely. Proponents describe sanctions as politically useful tools for leaders looking to avoid conflict. They treat sanctions as low cost alternatives to war. This line of reasoning offers an explanation for leaders decisions to use sanctions in light of their apparent ineffectiveness, but the emphasis these scholars place on sanctions' goals over other features of sanction episodes causes them to overestimate the symbolic utility of sanctions. This study extends this work by examining other features of sanctions that shape sanctions' political costs and benefits.

The salience of the international events that provoke sanctions and the domestic economic consequences of sanctions play important roles in shaping public evaluations of sanctioning leaders. I show that costs and salience have independent and

competing influences on leadership approval. Salience relates to sanctions' justifications. Costs relate to implementation. Leaders gain greater political payoffs from sanctions if demand for intervention is high, but sanctions can produce substantial political fallout if they are perceived as excessively costly. Salience deals with the ends, and costs deal with the means. These features of sanction episodes are analytically distinct and the differences are politically important.

Why do leaders threaten and impose economic sanctions? While the symbolic benefits can explain some sanction episodes, the results presented in this study suggest that the explanatory power of the symbolic perspective is limited to specific circumstances. The conditions were outlined in figure one. Leaders can only expect to accrue symbolic benefits if they are able to limit the costs of sanctions imposed in response to sufficiently salient events. If sanctions disrupt domestic markets, the political benefits of sanctions can be attenuated, eliminated, or even reversed. This does not mean that sanctions are never imposed to achieve symbolic goals, only that these cases are more limited than existing research on the symbolic use of sanctions seems to admit.

This study demonstrates the importance of considering the different features of sanction episodes. I focus on event salience and sanction costs. While this is a good start, it is only a beginning. There are a wide range of additional factors that need to be considered. Additional features of the target states, the sanctions, and the events that prompt sanctions need to be examined to further understand the political utility of economic pressure. Indeed, only a few conclusive statements about the domestic consequences of sanctions can be made. Sanctions' goals matter, sanctions' costs matter, and sanction episodes are complicated. Theorists pose the question about the continued use of sanctions as if there is a single best answer. The reality, like the sanction episodes themselves, may prove to be more complex.

## 5. CONCLUSION

I began the dissertation with a discussion of the Megarian decree. In 432 B.C., Athens excluded Megarian citizens from trade with Athens. The Megarian decree has received a considerable amount of attention because it is one of the first recorded instances of economic sanctions, and because the sanctions played a key part in the escalation of tensions between Sparta and Athens prior to the Peloponnesian war. The decree continues to be a source of vigorous debate among historians.

In their seminal work, “Economic Sanctions Reconsidered,” Hufbauer et al. (1990) argue that the decree was enacted in response to the kidnapping of “three Aspasian women” (4). That is, the kidnapping of three women close to Aspasia, the consort of Pericles. Naturally, one wonders how Hufbauer et al. (1990) arrived at this motive. The idea that a kidnapping served as the catalyst for a war that lasted 27 years seems insensible. This particular historical interpretation is drawn from an ancient Greek comedy, *The Archanians*, written by the playwright Aristophanes. While some formal histories from the era have been recovered, like the writings of Herodotus and Thucydides, much of what historians know about the time period is drawn from Greek drama. The Megarian decree appears in the following seen from the *Archanians*:

Still these were trifles, and our country’s way. But some young tipsy cottabus-players went and stole from Megara the fair Simaetha. Then the Megarians, garlicked with the smart, stole, in return two of Aspasia’s hussies. From these three wantons o’er the Hellenic race burst forth the first beginnings of the War. For then, in wrath, the Olympian Peri-

cles thundered and lightened, and confounded Hellas, enacting laws which ran like drinking-songs, *that the Megarians presently depart from earth and sea, the mainland, and the mart*. Then the Megarians, slowly famishing, besought their Spartan friends to get the law of the three wantons canceled and withdrawn. And oft they asked us, but we yielded not. Then followed instantly the clash of shields. (Brickley 1930: 53)

Taken literally, the passage suggests Pericles imposed the Megarian decree because he was upset about the kidnapping of two prostitutes, and that the decree was fashioned as a drinking song. This seems unlikely. Not only is the motive irrational, but Pericles would not have had the authority to unilaterally impose sanctions. The *Archonians* was written several years after the start of the war. Aristophanes was a satirist, and was critical of the war. The colorful nature of the monologue suggests that the account is more of a sardonic jibe at the pro war factions of the Athenian senate than a historical account (Kagan 2003). As a consequence, the arguments that Athenians were acting strategically or using the decree as a means to avoid war are much more compelling. So why do Hufbauer et al. (1990,2009) accept the kidnapping as the motive for the sanctions? Perhaps they just think its a funny explanation. Alternatively, it may reflect a broader problem with their study and much of the academic work on sanctions that followed.

Sanction scholars often attempt to explain features of sanction episodes without considering the domestic consequences of the sanctions for the sender. A considerable amount of scholarship has considered states' decisions to impose economic sanctions, the factors that influence sanctions' success, and the consequences of sanctions - economic and otherwise - for the sanctioned state. The duration of sanctions, in-

ternational cooperation on sanctions, and the factors influencing states' decisions to lift sanctions have also received a considerable amount of attention. Very little work has looked at the economic and political consequences of sanctions for the sender.

What did the Athenians think about the Megarian decree? Athens was a democracy. Was the Megarian decree popular? Was the decree controversial? After all, the decree not only imposed hardship on the Megarians and their allies, but also affected the livelihoods of the Athenian farmers, merchants, and artisans that traded with the Megarians. If Pericles was the statesman that many historians suggest he was, it seems unlikely that he would subject the Athenian public to the economic and political fallout of the decree to settle a personal vendetta. Considering the domestic economic and political consequences of sanctions for the sanctioning state is essential to understanding why sanctions are used, how they work, and when they will be effective. My goal in this dissertation was to start addressing this gap in the literature.

The Megarian decree illustrates the importance of economic sanctions. First, sanctions can be dangerous. The Megarian decree led to an escalation of tensions between Sparta and Athens. This escalation resulted in a war that affected all of Greece. The decree was not unique in this respect. Lektzian and Sprecher (2007) show that the imposition of sanctions increases the probability of militarized conflict. Sanctions are less aggressive than military intervention, but the long term consequences of sanctions can be just as serious.

Second, sanctions can have important humanitarian and political consequences for targeted states. If the Megarian decree was not the primary cause of the Megarian famine, it certainly would have contributed (Legon 1973). The decree was not unique in this respect either. The economic costs of sanctions trickle downward, affecting the most vulnerable elements of target societies, not ruling elites. Target regimes

often adapt to economic sanctions by increasing repression and imposing cost saving austerity measures that hurt average people (Wood 2008.) Imposing broad sanctions can create humanitarian crises if the effects are not monitored (Reinsch 2007). This is why leaders have begun designing sanctions that target individuals rather than economies (Tostensen and Bull 2002).

Understanding the forces that motivate the use, or misuse, of sanctions is important. Given the potential political and humanitarian consequences of sanctions, it is alarming to think that leaders may be using sanctions solely to achieve domestic political goals. The application of economic pressure for political purposes suggests a callous attitude about the potential consequences of sanctions. Even when sanctions do not result in conflict or humanitarian disaster, the costs can be politically important.

Sanctions have distributional consequences. Like all barriers to trade, sanctions create winners and losers. Losers often seek political relief. In July 2014, the U.S. Chamber of Commerce and the National Association of Manufacturers took out full page advertisements in the New York Times, the Wall Street Journal, and the Washington Post warning that sanctions against Russia would harm U.S. businesses and hurt the U.S. economy (Dorning 2014). This kind of behavior was not unprecedented. U.S. companies have publicly opposed the imposition of U.S. sanctions all around the world, and special trade associations have been created for the specific task of containing the use of economic sanctions (Cummings 2010; Foer 1997; Lane 1998; Reinsch 2007). Firms can appeal to the public to put pressure on elected officials, lobby governments, and make campaign donations. Policy makers should be concerned to the extent that these activities affect their ability to stay in power. The public should be concerned to the extent that these concerns motivate policy makers' foreign policy decisions.

Understanding the domestic political consequences of sanctions is also important for future research. There is a major theoretical divide in the sanctions literature that needs to be addressed. Arguments that sanctions can be used to pacify public criticism and generate domestic support contradict arguments that sanctions are politically costly. The costly nature of economic sanctions has been used to explain when and why sanctions work, the willingness of states to cooperate on sanctions, and how sanctions end (Allen 2005; Bolks and Al-Sowayel 2000; Drezner 2000; Hovi 2005; Kaempfer and Lowenberg 1999; Lacy and Niou 2004; Miers and Morgan 2002; Martin 1992, 1993; McGillivay and Stam 2004). A number of studies describe sanctions as costly signals used to communicate preferences and resolve (Ang and Peksen 2007; Drezner 2001; Goenner 2007; Hart 2000). If sanctions are not costly, all of this work that assumes sanctions are costly needs revision.

I argue that these conflicts exist because of problems in the ways international relations scholars have approached the study of economic sanctions. First, existing research fails to effectively conceptualize the economic consequences of sanctions. Sanctions do not cause major changes in trade, gross domestic product, and unemployment because the costs of sanctions are not evenly distributed throughout senders' economies. Second, scholars have tended to ignore the distinction between the ends and means of foreign policy decisions. Sanctions are a means policymakers can employ to achieve different goals. Finally, conflicting arguments in the sanctions literature are related to disagreements about the causal connections between economic sanctions, economic performance, and leadership approval. I developed a theoretical approach that addresses all of these problems.

Sanctions are heterogenous, and have heterogeneous consequences. The term "economic sanctions" applies to a variety of forms of economic intervention used to achieve a number of different goals. Section two shows sanctions are only econom-

ically costly for firms with commercial interests in targeted states. Section three examines competing causal theories linking economic sanctions, economic performance, and presidential approval. The results show, on average, economic sanctions are costly. The fourth section examines the microfoundations of these relationships. Sanctions don't have uniform effects on economic performance and leadership approval because not all sanction episodes are alike. Like most public policies, the political consequences of sanctions can be difficult to predict.

The remainder of this section proceeds as follows. The next three sections summarize section two, three, and four. I discuss the results from the individual section, the theoretical and practical importance of these results, and how I plan to build upon each section moving forward. I end the section with a couple concluding remarks.

### 5.1 Are Sanctions Economically Costly?

Section two asks if sanctions are economically costly for the sanctioning state. Most sanctions research assumes sanctions are costly for senders, but no one has produced evidence that sanctions affect economic performance. Scholars arguing that sanctions can be used for domestic political gain assume sanctions are costless. The absence of any empirical evidence that sanctions impose costs on senders seems to buoy their position.

I argue that these divergent perspectives stem from a failure to effectively conceptualize the economic consequences of sanctions. Sanctions are costly because they are costly for domestic firms. The economic effects of sanctions are not accurately reflected in macroeconomic indicators because the economic costs of sanctions are not evenly distributed throughout senders' economies. Sanctions affect firms with commercial interests in targeted states, but do not affect firms that do not have interests in targeted states. These effects can be seen in financial markets. I used

autoregressive moving average generalized autoregressive conditional heteroskedastic (ARMA-GARCH) time series models to analyze the volatilities of stock market returns of U.S. firms. Comparing companies across and within sectors, within years and over time, I found that share prices of firms with commercial interests in targeted states are more volatile when sanctions against these states are being threatened and imposed.

### *5.1.1 Implications*

The practical implication of these findings is that sanctions are not costless. Sanctions interrupt profitable commercial activities. These interventions have distributional consequences. Like barriers to trade, sanctions create winners and losers. Losses for firms can be more or less significant depending on how sanctions are designed. There may also be some unobserved costs to sanctions.

Sanctions are a two pronged assault on the profitability of a firm. On one hand, companies are forced to forgo otherwise profitable commercial activities. On the other hand, the effects sanctions have on stock prices influence firms' abilities to offset these costs through alternative revenue streams. Stock price volatilities are used by investors to proxy investment risk. Many portfolio investment strategies seek to minimize volatility and risk. The results in section two show that drawn out sanction disputes can increase return volatilities over extended periods of time. Hence, sanctions may limit firms' abilities to generate revenue through equity financing. This also affects assessments of firms' creditworthiness, so sanctions could also limit companies' abilities to get access to loans.

This volatility could spill over to the market as a whole. If many firms have commercial interests in a target state, volatility could affect the entire market. Systemic uncertainty would cause investors to choose "lower risk" investments. This,

in turn, would cause the pool of private investment to shrink. If this bearish investment climate persisted long enough, there could be long term macroeconomic consequences.

The results presented in section two have a number of important theoretical implications as well. They suggest a need to rethink how we evaluate the economic consequences of sanctions. Sanctions' costs seem small when calculated with macroeconomic variables like GDP, trade, unemployment, and inflation. Sanctions only affect firms with commercial interests in targeted states. This does not mean sanctions are costless, only that alternative measurement strategies may need to be used to assess the consequences of sanctions. Instead of broad macroeconomic indicators, measures that examine the effects of sanctions on individual companies or industries should be used.

These results also have important implications for scholars studying the strategic use of sanctions. Many assume imposing sanctions is costly, but sanction threats are costless. Talk is cheap. But if sanction threats impose costs on firms, then talk is not cheap. This creates a different view of the bargaining environment surrounding sanctions. The ability to impose costs on one's own economy at the outset of the dispute may make the signal being sent to the target state more credible. On the other hand, the fact that the sender is incurring costs by threatening sanctions may increase the target state's resolve. Understanding how these costs influence the behavior of the sender and target states may have important implications for research looking at the timing, targeting, and effectiveness of economic sanctions.

Finally, international relations scholars need to rethink the political consequences of sanctions' costs. To date, most research conceives of the political costs of sanctions in terms of public support for sanctioning leaders. This is only one way that the economic consequences of sanctions translate into political outcomes. An alternative

avenue, and one that may ultimately prove to be more significant, is the effects that sanctions have on the political behavior of individual firms and interest groups. The costs associated with trade policies make it easier for interest groups to coalesce and pressure leaders for policy changes (Rogowski 1987). This could be true of sanctions as well.

### 5.1.2 *Future Work*

I plan to extend the work from the second section in a number of ways. First, I plan to extend the analysis to a larger number of firms and a larger number of cases. As part of the analysis in section two, I constructed a dataset with firm level information for all the constituent companies from the Standard and Poor's (S&P) 500 stock index between January 1965 and September 2014. The dataset includes - among other things - market capitalization, sector, and sub-sector information for each of the firms. The companies compared in section two were chosen from this dataset. The challenging part of data collection is obtaining information about where firms have commercial interests. Many firms do not disclose this information for fear that it could be used by their competitors. As a consequence, the analysis in the dissertation is limited to firms that have publicly disclosed where they have production facilities and where they plan to expand. This selection criteria is not ideal. I believe I have devised an alternative strategy that will allow for more systematic firm selection.

The Bureau of Economic Analysis (BEA) conducts mandatory surveys of U.S. businesses each year. The BEA collects information on all U.S. parent companies and foreign affiliates. The published data catalogue the overall activities of U.S. multinational enterprises. Data outlining the specific activities, and financial structures, of individual firms are not publicly available online. However, these data can be

accessed at the Bureau's offices in Washington D.C. provided one has the necessary clearances. Information on the location of investments, and transactions related to these investments, will allow one to construct a number of time series cataloging how these investments have changed over time.

With these data I can extend the analysis to all the constituent companies of the S&P 500 during the sanction episodes analyzed in section two. Armed with this information, I can also extend the analysis to different sanction episodes. Features of the sanction episodes may influence investors' beliefs about the potential consequences of sanctions. Future work can extend beyond whether sanctions influence volatilities of firms' returns. I can analyze which features of firms and sanction episodes have the largest effects on volatility. These data would also allow one to estimate the effects that different sanctions had on the entire market. I can analyze which states are most important to the market, and which sanctions had the largest effects.

Second, I plan to examine the economic costs of sanctions in terms of revenues lost through trade, and investments of affected firms. In section two I proxy the costs of sanctions with stock market data because macroeconomic indicators like inflation and unemployment don't accurately capture sanction' costs. I can use the BEA data mentioned above along with a second confidential data source to directly estimate the effects of sanctions on individual firms.

The U.S. Census Center for Economic Studies warehouses the Longitudinal Firm Trade Transactions Database (LFTTD). The LFTTD links individual trade transactions data collected through the U.S. Customs Bureau to the firms that make the transactions. The LFTTD includes information about specific import and export transactions, the dates of these transactions, their values, and their origins and destinations. These data can be used to estimate the effects of sanctions on imports and exports of individual firms.

Finally, I plan to collect data on sanctions and interest groups. The Chamber of Commerce and National Association of Manufacturers example I referred to throughout the dissertation is anecdotal evidence that business groups respond to economic sanctions. Also, as I mentioned throughout the dissertation, this kind of behavior is not unprecedented. I found a number of news articles while finding information on specific episodes where statements released by individual companies were referenced. Lexis Nexis searches also produced a number of press releases and open letters published in news papers where companies and industry groups would weigh in on both sides of specific disputes. Quarterly earnings reports also referenced the effects that sanctions could have on future revenues. If these statements are being released, they can be collected.

I have begun compiling lists of major trade associations. Press releases from these trade associations could be compiled and searched for references to international events and economic sanctions. Major news sources could be searched for references to groups like USA-Engage and the National Foreign Trade Council. I can also look for instances where trade associations and firms are discussing sanctions. Ultimately, I hope to construct a dataset cataloging the activities of major industry groups and U.S. companies surrounding sanctions.

Section two examines the economic consequences of sanctions through the effects sanctions have on individual firms. Information on press releases and public statements could be used to examine the political consequences of sanctions through interest group behavior. Certainly, statements where firms publicly criticize and support sanctions are not the only means interest groups can use to fight or promote sanctions. It probably isn't the most important. It is, however, a reasonably easy way to observe interest group activities. Analyzing these data would offer insight into what types of sanctions are most important for domestic firms and which sanc-

tions are most likely to provoke political backlash from industry groups. One cannot accurately capture the political consequences of sanctions without considering these kinds of activities.

## 5.2 How are Sanctions Related to Approval?

The third section empirically examines competing perspectives about the directions of the causal relationships among economic sanctions, economic performance, and presidential approval. Conventional perspectives suggest sanctions are costly tools used to achieve foreign policy goals. Another perspective argues sanctions are costless tools leaders used to generate public support when approval ratings are low. The first perspective treats sanctions as a tool of power politics, the second treats sanctions as a means of public pandering.

I argue that this theoretical problem is actually an empirical puzzle. These competing perspectives are symptomatic of an endogeneity problem. Conventional regression techniques impose strict independence and exogeneity assumptions that make it impossible to test these arguments, and how one identifies their empirical model leads them to vastly different substantive conclusions.

I use vector autoregression to test competing hypotheses about the direct and indirect relationships among the variables. The results show that, on average, economic sanctions are both economically and politically costly for the sanctioning state. Sanctions have exogenous effects on changes in presidential approval, economic perceptions, and economic performance. Though the preponderance of evidence suggests that sanctions are costly, auxiliary analyses highlight that this is not true in all circumstances. Ultimately, the analyses presented in this section highlight a need for sanctions scholars to be more circumspect in their discussion of the political consequences of sanctions and more nuanced when using the costly nature of sanctions as

the basis for other theoretical claims.

### 5.2.1 *Implications*

The practical implication of these findings is that we can be optimistic about leaders' motivations for threatening and imposing economic sanctions. The results presented in section three do not suggest that leaders are systematically using sanctions to generate domestic political support, or that they would receive any political payoffs if they tried. On average, sanctions appear to be unpopular. There is also no evidence that changes in approval cause changes in the rate of sanction initiation. This does not mean that the concerns outlined above about the misuse of sanctions are unwarranted, only that claims that sanctions are systematically being used to crassly generate political support are unfounded. At worst, the phenomenon is self correcting. Democratic leaders betting they can rely on sanctions to win political favor will not be in office long. If sanctions are generally unpopular, this is a bad gamble.

Section three is an empirical analysis of U.S. sanction episodes. The theoretical dimensions of the links between sanctions and approval are examined more thoroughly in section four. The theoretical implication of the findings presented in section three seems obvious. Leaders cant use sanctions to generate domestic political support. Sanctions, on average, negatively affect economic performance. Public perceptions of these effects make most sanctions politically costly. These findings are consistent with work that uses the costly nature of sanctions to explain why sanctions are used and when sanctions are effective, but this doesn't mean the symbolic perspective should be abandoned entirely. The auxiliary analyses in chapter three show that there are some situations where sanctions are popular. There is also anecdotal evidence suggesting that this is the case. The symbolic argument doesn't need to be

abandoned, only altered. This is the task of chapter four. The analyses presented here only suggest that scholars deploying the costly nature of sanctions as a major theoretical construct are, generally speaking, on solid ground, but some allowances need to be made for exceptions.

### 5.2.2 *Future Research*

The empirical analyses presented in chapter three offer another opportunity for future research. Chapters three and four examine the links among presidential approval, economic performance, and economic sanctions. The theoretical links among these variables are discussed in chapter four, and the discussion of the theoretical extensions of the project will be discussed below. Chapter three is primarily an empirical investigation of the relationships, and the analyses presented in chapter three highlight a need for new empirical tools.

I use vector autoregression to test the multiple, potential, endogenous relationships among presidential approval, economic performance, and economic sanctions. Conventional regression techniques are inappropriate for this kind of analyses because the independence and exogeneity restrictions associated with these models impose specific causal structures on the relationships among the variables. VAR removes these restrictions, but imposes an alternative, problematic set of assumptions on the data.

The VAR in chapter three uses ordinary least squares regression to estimate the coefficients for the system. These coefficients are used to derive the impulse response functions. This method is appropriate when all the variables in the system are continuous, but one of the variables in chapter three violates this assumption. The sanctions variable is not continuous. The number of sanctions imposed per month is a count. Using OLS to estimate even counts can produce biased and inconsistent

estimates (King 1988: 846). This is not a problem if the count is sufficiently high because a poisson processes approximates a normal variable as the mean increases. This is not the case in chapter three because the monthly initiation rate of sanctions is less than one. How the estimates will be affected is impossible to predict because the estimates are a function of the covariances among the different variables and their lags. The model presented in chapter three was chosen because it represents the least poor option for testing the causal relationships among the variables. The normality assumption implied by the VAR model makes it less than ideal, but there are no preferable alternatives. Brandt and Sandler (2011) develop a Bayesian Poisson Vector Autoregression model, but this model is only appropriate for systems that only include count variables. This model would require the analyst to make incorrect distributional assumptions about four of the variables in the system instead of one. Neither the model presented in chapter three, nor the model proposed by Brandt and Sandler (2011) allow the analyst to make heterogeneous distributional assumptions. It may be possible to develop this kind of model in the future.

To my knowledge, no one has developed a vector autoregression model that allows one to incorporate continuous variables and count variables. There is a set of statistical tools that could be used in this endeavor. Copulas are multivariate probability distributions that allow one to describe dependence among random variables (Patton 2008). Copula models have been used to study trading patterns and operational risk (Bocker Kluppelberg 2008; Heinen and Rengifo 2007). The challenge is estimating the covariances among the variables. Suitable copulas may exist for linking count processes like sanctions and continuous processes like presidential approval and economic perceptions.

### 5.3 How do Sanctions Affect Approval?

Chapter four examines the microfoundations of the links between economic sanctions and leadership approval. Instead of asking if sanctions affect leadership approval, chapter four asks how. Scholars tend to treat sanctions as having similar political consequences. Either all sanctions are costly or all sanctions are costless. These perspectives ignore the features of sanction episodes that make each episode unique.

Sanctions have heterogeneous effects on presidential approval because sanctions have heterogeneous features. These features have independent, competing influences on public evaluations of sanctioning leaders. I use two  $2 \times 2$  between-groups factorial experiments to analyze the importance of issue salience and economic costs on evaluations of sanctioning leaders. The results show that people support leaders that impose sanctions in response to salient events, but do not support leaders that impose costly economic sanctions.

Public attitudes about leaders' choices to use sanctions are determined by features of the different episodes. There are some circumstances where leaders can use sanctions to generate public support. There are also circumstances where leaders' approval ratings will unambiguously suffer if they impose sanctions. Sanctions imposed in response to salient international events will produce boosts in leadership support if leaders are able to manage the costs of sanctions, costly sanctions imposed in response to unimportant events will always be unpopular. The effects of sanctions are ambiguous in all other circumstances.

#### 5.3.1 Implications

The theoretical framework presented in chapter four identifies the specific conditions where leaders can expect sanctions to have positive and negative effects on

approval. Assuming costs are low, sanctions only increase approval when they are imposed in response to salient events. This explains some of the results presented in chapter three. In the auxiliary analyses, there is a discussion of a sanction episode involving the United States and Jordan that produced a positive change in leadership approval. The sanctions against Jordan were actually imposed in an effort to isolate Iraq economically and politically prior to the Gulf War. Foreign aid to Jordan was revoked to encourage Jordanian compliance with UN sanctions against Iraq, and the port of Aqaba was blockaded to prevent the transshipment of Iraqi goods. The sanctions were imposed in response to a salient international crisis - the Iraqi invasion of Kuwait - and the costs were relatively minor. The U.S. revokes foreign aid to Jordan - a cost saving measure - and blocks Iraqi goods from leaving Jordanian ports. Sanctions imposed in response to less salient events do not produce positive political payoffs, and can produce political backlash if the sanctions are perceived as costly. Holsti (2004) argues that international crises like the Iraqi invasion of Kuwait are salient, but that issues related to international trade are not. This would explain why sanctions imposed in response to unfair trade practices tend to be unpopular.

The results presented in chapter four provide more evidence that leaders cannot reliably misuse economic sanctions for political gain. Not all sanctions have symbolic benefits. Many sanctions have serious political costs. Leaders can only use sanctions if they can be sure how the public will perceive the importance of the international events used to justify the sanctions and how the public will perceive the costs of sanctions. If leaders cannot control the narrative surrounding sanctions, they cannot be sure the sanctions will have the desired effects. This makes sanctions politically dangerous.

The results presented in chapter four are theoretically relevant for a number of reasons. First, the theoretical framework presented in chapter four provides a frame-

work analysts can use to forecast the domestic political consequences of economic sanctions. Features of sanction episodes can be incorporated into formal models using the costly nature of sanctions to explain why sanctions are used, if sanctions will be successful, and how sanctions end.

Second, the results presented in chapter four suggest people are more sophisticated than existing theories give them credit for. The ends and means of economic sanctions - and foreign policies in general - are evaluated independently. People render judgements on leaders' uses of sanctions based on the features of the episodes. Public demand for intervention increases with the scale of the events, but the public is prudent about the application of economic pressure.

Finally, the results suggest scholars need to rethink existing classification schemes that identify sanctions as being useful for either instrumental or symbolic goals. Rather than thinking of episodes as falling into one of two categories, it may be more productive to think of episodes as falling on a continuum. Sanctions have varying levels of symbolic and instrumental utility. These levels are determined by the specific features of the episodes. I focused on the perceived costs of the sanctions and the sanctions goals, but there are additional features of sanction episodes that warrant consideration.

### 5.3.2 *Future Research*

The research design used to analyze the relative importance of issue salience and economic costs can be extended in multiple ways. First, the theoretical framework that served as the basis for the experimental design can be expanded. Additional experiments could be run, or additional experimental factors could be added, to test the other dimensions of salience discussed in the chapter. The experiment manipulates the relative intensity of the international events. The tangibility and proximity of

the events could be manipulated as well. Factors could also be included for the types of economic sanctions, whether sanctions were successful, or whether other countries cooperated on the sanctions. There are many potential changes one could make. One could also include more powerful states in the experiment and alter whether the target state was doing something that affected the interests of a third party or the sanctioning state. Some of these extensions can be used as robustness checks, but improvements to the theoretical framework will be more valuable.

The second relevant type of extension is the expansion of the research design beyond experimental manipulations to the analysis of actual sanction episodes. Some of the groundwork for this kind of extension has already been done. The TIES dataset includes information about the sender and target states, the type of sanctions imposed, the goals the sanctions were meant to achieve, and the final outcomes of the disputes. This information could be used to sort the cases into the theoretical conditions - high or low cost sanctions imposed in response to high or low salience events. If existing cases can be accurately sorted into these categories, one may be able to observe differences in the effects of sanctions on leadership approval.

Sanctions, on average, have negative affects on presidential approval, but most of the episodes in the TIES dataset were imposed in response to unfair trade practices. These issues aren't salient to most people. Hence, sanctions tend to reduce approval because many of those sanctions appear costly. The results may change once I find more, theoretically informed, ways to split the cases. The classification scheme used for this task can be refined in every way the theoretical framework used for the experiment can be expanded.

#### 5.4 Concluding Remarks

Are economic sanctions costly for the sanctioning state? The answer has two parts. There are economic costs associated with sanctions, and there are political costs as well. The dissertation shows that these costs are related, but that each is important.

Economic sanctions are costly because they are costly for firms in the sanctioning state. Sanctions interrupt otherwise profitable commercial activity. Like most interventions in international trade, these interventions can create dead weight losses. Sanctions create winners and losers. Sanctions cannot be as politically benign as some scholars have suggested because of these distributional consequences.

The Megarian decree likely imposed some costs on the Athenians. At least some of the Athenian farmers, sailors, merchants, and artisans that profited from trade with Megara would have been hurt by the Megarian decree. The historical analyses of the events leading up to the decree do not offer much insight into how significant the costs of the sanctions were for the Athenians. If the sanctions imposed significant hardship on the Megarians, it follows that the decree produced some economic fallout in Athens as well.

What did the Athenians think of the decree? The answer depends, in part, on which events motivated the sanctions, and how salient those events were to the Athenians. If the sanctions were imposed to punish the Megarians for kidnapping a handful of women, then there may not have been much public support for the sanctions. This kind of hostage taking was common in ancient Greece (Kagan 2003). If the sanctions were imposed as a means of depriving a major strategic rival - the Peloponnesian League - of materials necessary to create an Armada capable of shifting the balance of power in the region, then perhaps the leaders responsible for

the decree received more support.

The answer also depends on which Athenian interests were involved, and how they were affected. Athens was a democracy. Popular support for the Megarian decree should have been important. A number of the businessmen who stood to lose from the sanctions were Athenian senators. The analyses in this dissertation suggests that the Athenian senators wouldn't have imposed significant costs on Athens, or themselves, in response to minor slights. For an account of the events that motivated the sanctions to be compelling, one must be able to explain why the Athenian senate, representing all of Athens, would be willing to incur these costs.

According to the historical accounts, the conflict between Athens and Sparta escalated quickly following the Megarian decree. Hence, it is difficult to discern how the average Athenian felt about the sanctions because support for the government likely would have increased as Athens was being threatened and attacked. This, in fact, may be the best explanation for why Pericles was able to persuade the senate to use Athens economic power in a way that it had never been used before. Pericles was a skilled speaker and a popular member of the Athenian elite, but he was also a shrewd strategist and Athen's most trusted military leader. The Athenian alliance had been attacked by Corinth and Megara, and faced a more serious threat from Sparta. In the midst of this crisis, the Athenians would have turned to Pericles for leadership on how to maintain the integrity of the alliance and avoid war with Sparta and its allies. The Megarian decree offered an alternative to military invasion that would still impose significant costs on Megara for its participation in the Corinthian attack on Corcyra (Kagan 2003). The innovation of the Megarain decree was born out of strategic necessity and a desire to maintain peace.

The events leading to the Megarian decree illustrate the practical significance of the findings presented in this study. There are some instances where leaders can use

sanctions as symbolic political tools. This only works to increase support if the costs of sanctions are low. If the costs are high, leaders don't have domestic political incentives to impose sanctions because the costs of sanctions generate domestic political blowback. Hence, if one is going to impose costs on the domestic economy, the sanctions' goals must be worth the costs. Avoiding a costly war with Sparta would have been worth enduring the costs of the decree. When one analyzes the motivations for economic sanctions - or any foreign policy - one needs to ask what interests were involved in the formation of the policy, and how those interests were affected. This is true for scholars interested in understanding the origins of the Megarian decree, and it is true of scholars interested in studying the economic sanctions used today.

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## APPENDIX A

### A.1 Variables

#### A.1.1 Descriptive Statistics

Table A.1: Descriptive Statistics: January 1978 - December 2000

Variable	Obs	Mean	Std. Dev.	Min	Max
Endogenous Variables					
Sanctions	276	.9202899	2.032684	0	20
Approval	276	53.70985	10.33411	29.73	84.417
Consumer Sentiment	276	87.69601	13.40191	51.7	112
Inflation	276	4.689906	3.147342	1.187215	14.59227
Unemployment	276	6.358333	1.486804	3.8	10.8
Alternative Economic Measures					
CBCI	276	73.43043	12.04333	55.8	98.7
Negative News	276	51.88406	17.88573	20	101
Prime Rate	276	9.96436	3.146892	6	20.5
Indicators					
Assassination Attempt	276	.0036232	.0601929	0	1
War	276	.0253623	.1575086	0	1
Foreign Policy Drama	276	.1086957	.3118224	0	1
Scandal	276	.0869565	.2822832	0	1
Inauguration	276	.0108696	.1038774	0	1
Carter	276	.134058	.3413335	0	1
Reagan	276	.3478261	.4771457	0	1
Bush	276	.173913	.3797232	0	1
Clinton	276	.3442029	.4759707	0	1
Recession	276	.1050725	.3072038	0	1

Various transformations were necessary for the different analyses presented in the paper. Two of the variables presented in the table were nonstationary - CBCI and Inflation. The dynamic regression models presented in tables 3.2 and 3.4 require stationary variables. I report results using the detrended annualized percent change in inflation in tables 3.2 and 3.4. The VAR model can be estimated with data that are not strictly stationary as long as the models are stable.<sup>1</sup> The detrended series for the inflation and the CBCI are used in the VAR analyses. Stability tests for these models are presented below. None of the VARs include more than one potentially non-stationary variable, so there cannot be cointegration. Testing, not reported here, confirms this intuition.

#### *A.1.2 Events*

Iran hostage crisis (1979.1-1981.1)

Reagan wounded (1981.4)

Grenada (1983.11)

Libyan bombing crisis (1986.3-1986.4)

Iran-Contra (1986.11-1987.8)

Panama invasion \ Bush-Gorbachev summit (1989.12)

Budget Summit and congressional fight (1990.10)

Persian Gulf War (1990.7-1991.2)

Somalia (1992.12-1994.3)

Haiti (1994.9)

Lewinsky (1998.1-1999.2)

Kosovo (1999.3-1999.6)

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<sup>1</sup>This issue is discussed in a footnote where VAR is introduced. See (Enders 1996; Sims 1980).

## A.2 Single Equation Models

Table A.2: Economic Sanctions and Presidential Approval

Model	Sanctions	Approval	Unemployment	Inflation	Consumer Confidence
$\rho$	.073 (.075)	.796*** (.032)	.974*** (.008)	.181*** (.058)	.956*** (.023)
Approval	-.025*** (.006)		.003*** (.001)	-.008 (.009)	.027 (.024)
Sanctions		-.294** (.123)	.000 (.004)	.011 (.039)	-.052 (.110)
Sanctions <sub>t-4</sub>		-.229** (.115)			
Unemployment	-.205*** (.082)	-.233 (.286)		-.306*** (.072)	.091 (.119)
Inflation	-.014 (.067)	-.070 (.164)	-.007 (.006)		-.121 (.152)
Inflation <sub>t-6</sub>			.261 (.060)		
Inflation <sub>t-12</sub>			.139 (.059)		
Consumer Confidence		.117*** (.032)	-.006*** (.000)	-.023*** (.0089)	
FP Drama		1.05 (.930)			
War	.608 (.698)	5.14*** (1.86)			
Scandal		-.883 (.854)			
Assassination Attempt		10.0*** (3.78)			
Recession	-.066 (.545)				
Election Year	.384 (.629)	-1.16 (.602)			
Inauguration		11.1*** (2.35)			
Reagan		1.21 (1.27)			
Bush		2.32 (1.25)			
Clinton		.326 (1.17)			
Constant		1.67 (3.91)	.540*** (.125)	4.53*** (.113)	1.84 (3.03)
Observations	275	272	275	264	275
$Q_{\varepsilon}^{LB}$	.207	84.5	99.8	86.4	74.4
$LM_1^{BG}$		2.59	3.04	0.44	0.20
$LM_{12}^{BG}$		19.3	16.9	19.5	14.9
AIC	736.03	1499.1	-219.34	907.21	1503.8
BIC		1556.8	-197.63	935.82	1525.5

\*\*<0.05, \*\*\*<0.01 for all tests.

## A.3 VAR Model

### A.3.1 Lag Length

#### A.3.1.1 Lag Length Diagnostics

A VARs lag order ( $p$ ) is the number of lags included for each of the endogenous variables in the system. Lag selection is critical. Unnecessarily high lag orders quickly waste degrees of freedom because each unnecessary lag requires an additional  $K \times K$  coefficients be estimated in the system for each of the  $K$  endogenous variables. Specifying a VAR with too few lags is worse because the remaining serial correlation in the errors biases the estimates of the coefficients in the VAR. In general, analysts agree that one should err on the side of higher lag orders (Enders 2004; Giles and Mirza 1999). If  $T$  is reasonably large the loss of efficiency caused by the inclusion of additional lags is not as serious a problem as the bias induced by serial correlation. Sims (1980) suggests a likelihood ratio test statistic comparing VARs of different orders as nested models. This test is given:

$$L = (T - C)(\log|\sum p_r| - \log|\sum p_u|)$$

( $p_r$ ) is the restricted lag length. ( $p_u$ ) is the unrestricted lag length. The statistic is asymptotically distributed  $\chi^2$  with degrees of freedom equal to the number of restrictions in the system. The null hypothesis is that the log-likelihoods of the restricted and unrestricted models are the same. The inclusion of the additional lags does not improve the model, and the restricted model should be selected. The practical implication of the test is that an analyst should choose the order ( $p$ ) where the inclusion of an additional lag did not substantially improve the fit of the model. The tests for various comparisons are presented in the table below. The tests suggest

$p = 4$ . Impulse response arrays for VARs of different orders (3,5, and 6) are included to demonstrate that the results are robust to lag selection. Residual analyses, discussed in the paper, confirmed the residuals from each of the VARs were white noise.

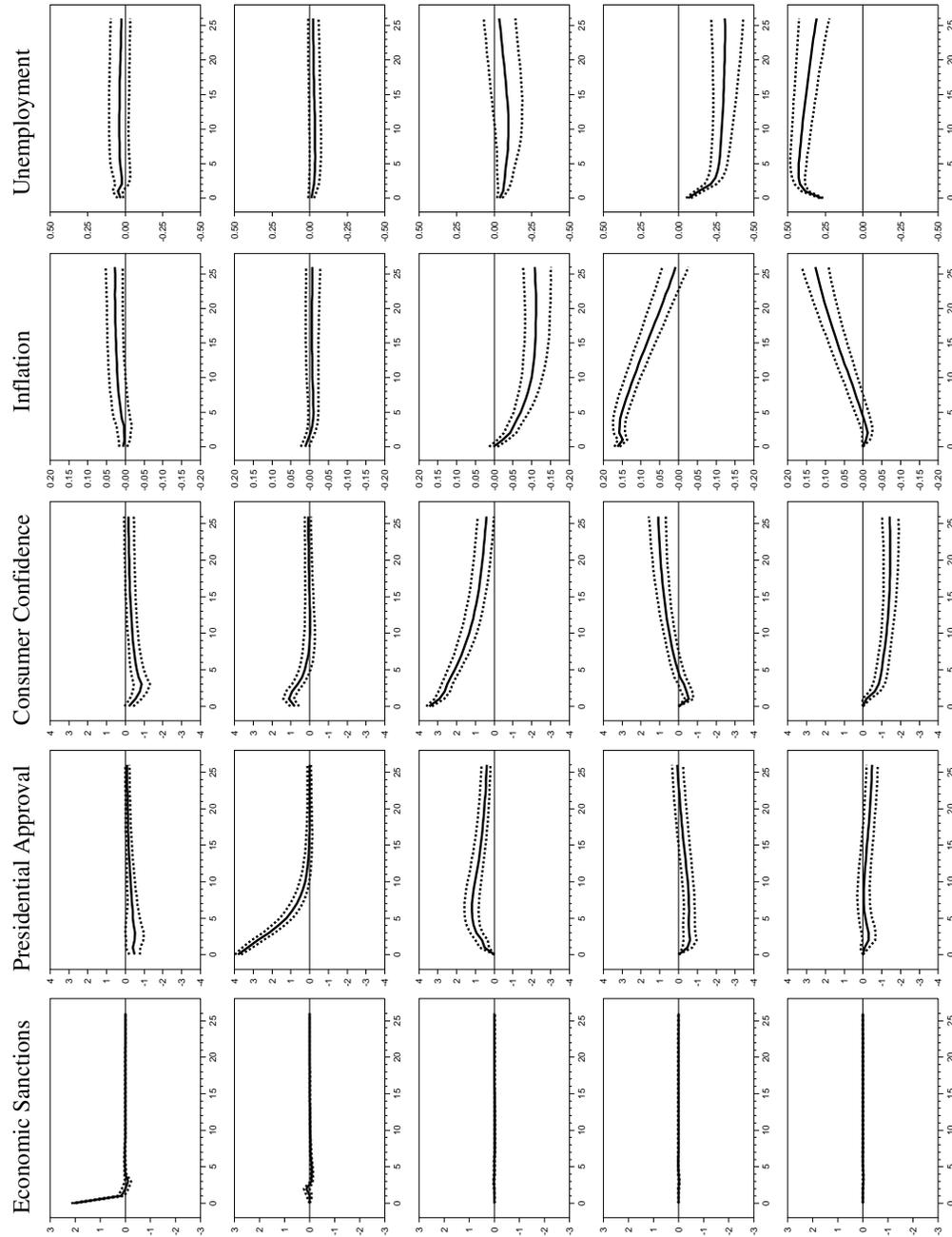
Table A.3: Lag Length Diagnostics

Lag Comparison	LR	p-value
5 Lags vs. 4 Lags	25.25	0.448
4 Lags vs. 3 Lags	38.15	0.045
3 Lags vs. 2 Lags	42.18	0.017
2 Lags vs. 1 Lags	80.12	0.000

$H_0$ : The restricted model is correct.

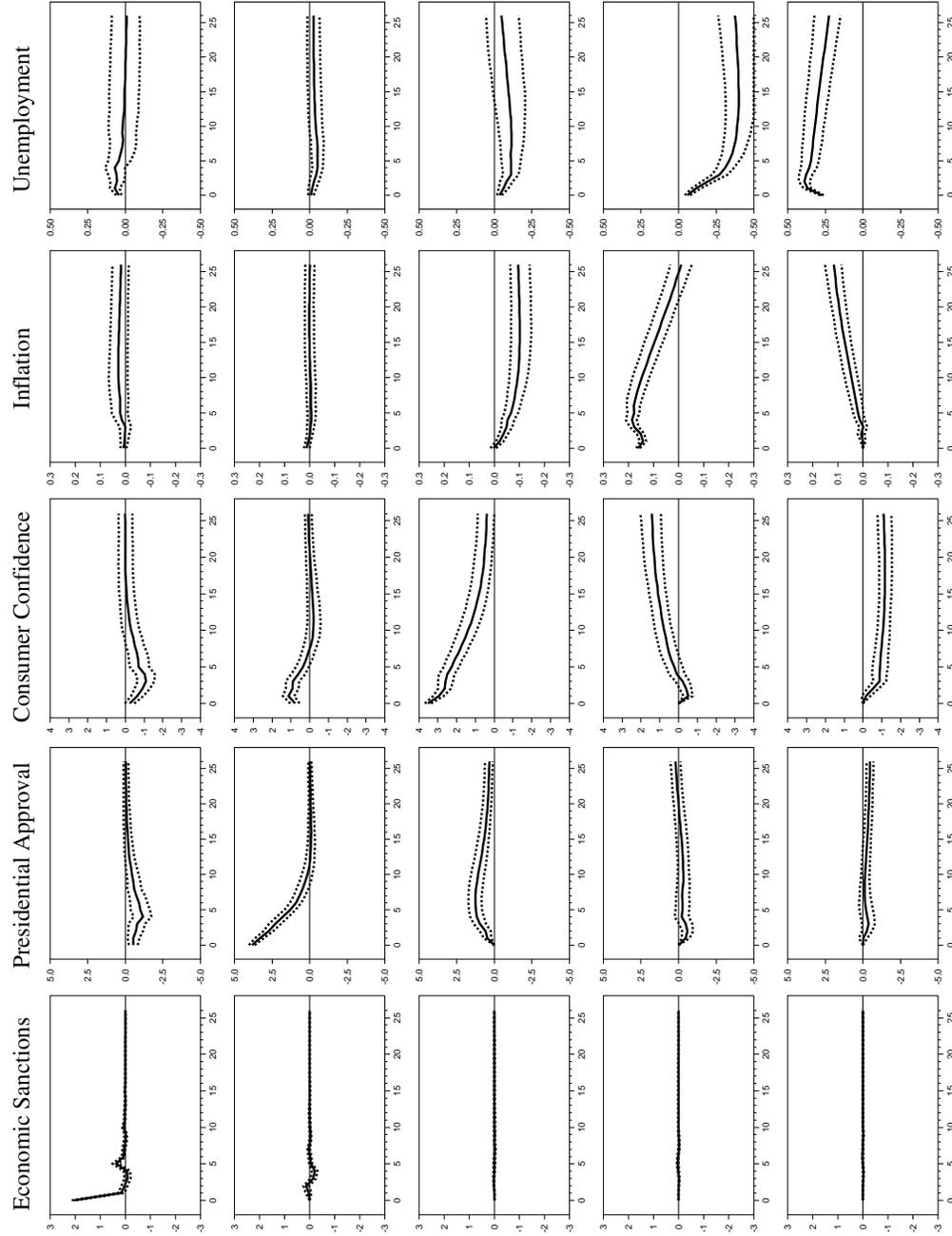
A.3.1.2 VAR 3 Lags

Figure A.1: 3 Lags



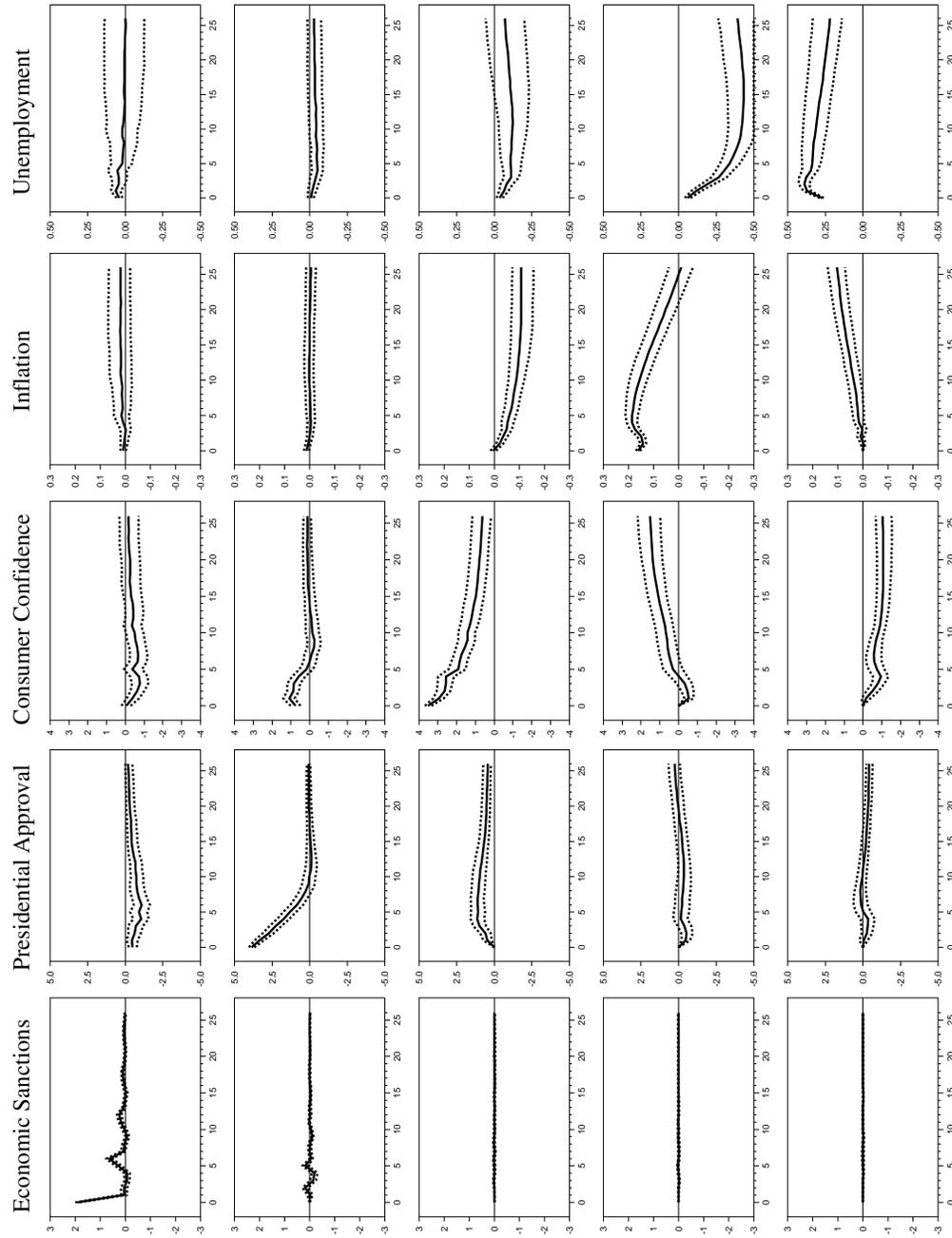
A.3.1.3 VAR 5 Lags

Figure A.2: 5 Lags



A.3.1.4 VAR 6 Lags

Figure A.3: 6 Lags



### A.3.2 Order

#### A.3.2.1 Choleski Factorization

Vector autoregression treats all the variables in the model symmetrically, allowing the time paths of each endogenous variable  $y_t$  to be affected by current and past realizations of every other endogenous variable  $y_t$ . This basic representation of the system is referred to as the *structural VAR*. This model cannot be estimated directly. Estimation requires that the regressors be uncorrelated with the error terms. In a structural VAR the contemporaneous effects are correlated with their error terms in each equation because they are specified as being a function of the other contemporaneous effects. Said differently, the structural VAR is not identifiable.

Estimation requires that we place restrictions on the structural VAR. Sims (1980) suggests a recursive system of restrictions to identify the model. *Choleski decomposition* places restrictions the contemporaneous relationships among the endogenous variables. In the model presented in figure 3.1, economic sanctions can affect all of the variables in the system but none of them can effect economic sanctions contemporaneously. Similarly, approval can affect consumer sentiment, inflation, and unemployment contemporaneously, but the contemporaneous effects of these variables on approval are restricted to zero. Sentiment can effect inflation and unemployment contemporaneously, but inflation and unemployment cannot effect consumer sentiment. This pattern of restrictions continues through to unemployment, which is not allowed to affect any of the other variables contemporaneously. Looking at figure one - or any of the other arrays - the impulse responses with zero order restrictions are below the diagonal, and the unconstrained contemporaneous effects are above the diagonal.

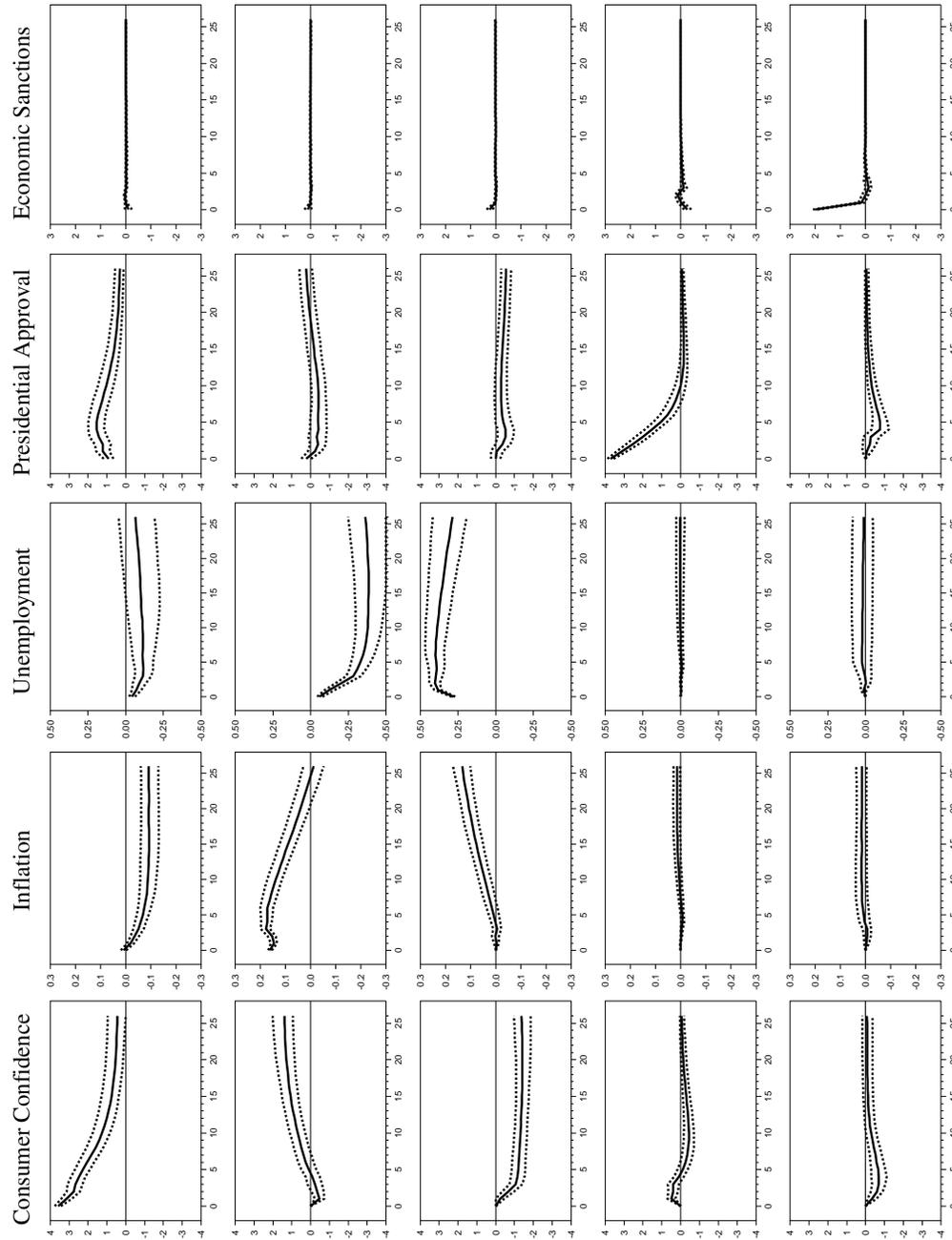
The Choleski restrictions are minimal compared to the independence and exo-

generality restrictions implied by conventional regression techniques. All variables are still allowed to affect one another, just not in the first period. Despite this flexibility, the practical consequence of this identification scheme is that causal ordering of the variables matters. For example, the impulse responses show sanctions have no effect on presidential approval. The identification scheme would may have missed the effects if they occur contemporaneously. With this in mind, I change the causal ordering and re-estimate the VAR. The impulse responses are presented on the next page.

The results are non sensitive to changes in causal ordering. Approval doesn't produce a response in sanctions, even when approval is allowed to affect sanctions contemporaneously. Sanctions do not appear to affect any of the other variables contemporaneously because sanctions are placed last in the system - requiring that the effects be *restricted* to zero. Despite these minor differences, sanctions still have negative impacts on consumer confidence and presidential approval. The results are consistent with the results in figure one.

A.3.2.2 Reverse Order

Figure A.4: Reverse Order



### *A.3.3 Unconstrained System*

#### *A.3.3.1 Restrictions*

The system presented in figure 3.1 is identified based on the conceptual models presented in table three. In these systems, none of the economic variables affect economic sanctions and approval does not affect economic performance. The seemingly unrelated regressions (SUR) framework, in addition to allowing one to include exogenous variables in some of the equations but not others, allows one to easily place restrictions on the relationships among the variables. I re-estimate the model without these restrictions to demonstrate the results are robust to identifying restrictions.

The key inferences from the model do not change. The shock to sanctions produces an immediate and negative response in presidential approval, a negative response in consumer confidence, and positive changes in inflation, and unemployment. Approval doesn't affect sanctions, and the relationships among the other endogenous variables in the system have not changed.

Relaxing the restrictions between the economic variables and economic sanctions produces an interesting result. The shock to inflation produces a positive change in economic sanctions. There is precedent for this finding. Whang (2011) finds a positive and significant relationship between inflation and sanction dispute initiation. Consistent with his "audience benefit" theory, he infers that economic hardship increases the likelihood that economic sanctions will be imposed (13). Taking the symbolic argument on face, one could conclude that this positive response reflects leaders' diversionary incentives.

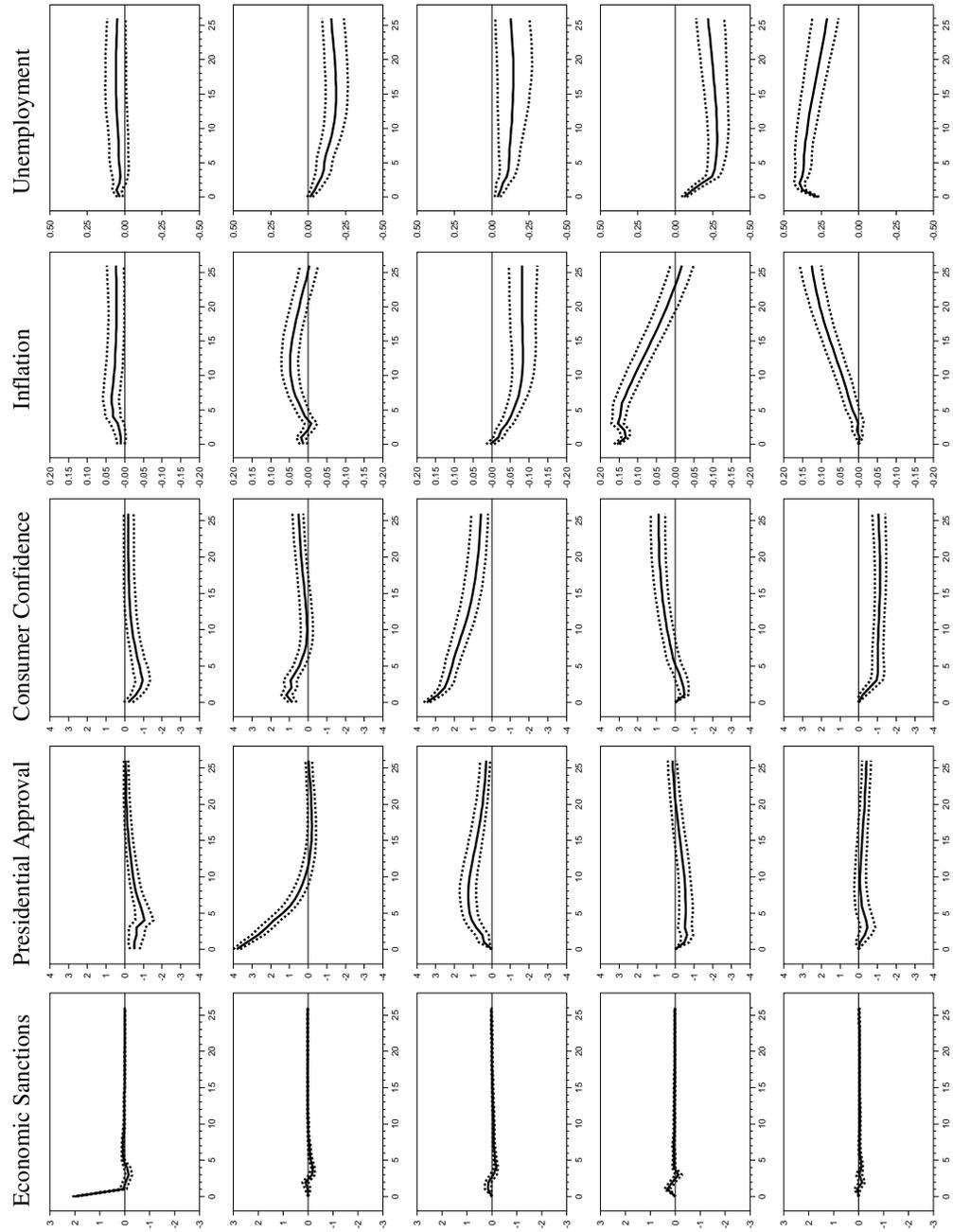
This result is not robust to alternative specifications. Inflation is the only measure of economic hardship that produces a positive response in sanctions. None of the other economic variables - consumer sentiment, unemployment, the CBCI, neg-

ative economic news, or the prime rate - produce a significant response in sanctions. Also, as mentioned in the paper, there is some debate about whether inflation is a reasonable measure of economic performance. Inflation is a lagging indicator, and has not been a major problem in the United States since the early 1980s.

An alternative explanation may be linked to a variable that has not been considered in this literature - sanctions targeting the United States. Restrictions placed on trade with the United States could produce small changes in consumer prices. U.S. retaliation against sanctions would be reflected in the sanctions series. While this result does not have important implications for the problem being addressed here, this result is certainly worth considering in more detail in the future.

### A.3.3.2 Model With No Restrictions

Figure A.5: Model with No Restrictions



### A.3.4 Structural Break

#### A.3.4.1 Structural Break Tests

There are no clear structural breaks in the data. The first plot in the next section is the sanctions time series. Other than three large spikes in the early 1990s - January 1992 (8), July 1992 (15), and January 1993 (20) - the data generating process appears relatively consistent. The cumulative sum of the monthly counts are plotted next. There are no major jumps in the series that would be indicative of a structural break. I estimate a series of Bayesian changepoint models to verify this observation.<sup>2</sup>

I identify changepoints in the series using the method developed by Fruhwirth-Schanatter and Wagner (2006). The model allows the parameters of the data generating process to change over time in  $m$  regimes. The changepoints separate the regimes, and are estimated as part of the model. This method is superior to several frequentist alternatives because it does not require one to specify the number of structural breaks or specify when the breaks occur. To identify the changepoints, one estimates a series of models specifying different numbers of regimes and chooses the model - and changepoints - that produce the largest marginal log likelihood (MLL). I estimate five models. The first specifies one changepoint (two regimes), and the fifth specifies five changepoints (six regimes). The statistics, and the estimated changepoints, are given in the table below.

The fourth model produces the highest MLL. This suggests that there are five regimes and four changepoints. The regimes and changepoints are presented in the third plot in the next section. An inspection of changepoints highlights an important flaw in the model. The outliers in the series are producing spurious regime changes. The model is predicting that regimes begin before outliers and end after

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<sup>2</sup>Models estimated using MCMC pack.

Table A.4: Bayesian Change Point Models

Model	MLL	CP 1	CP2	CP3	CP4	CP5
1 Change Points	-447.46	Jun 1990				
2 Change Points	-430.13	Dec 1991	Feb 1993			
3 Change Points	-427.90	Dec 1991	Dec 1992	Jan 1993		
4 Change Points	-420.70*	Dec 1991	Aug 1992	Dec 1992	Jan 1993	
5 Change Points	-422.39	Dec 1991	Aug 1992	Dec 1992	Jan 1993	May 1994

All models run 1000 burn in and 10000 draws.

these outliers. In the case of the last regime change estimated by the fourth model, there is one regime change in December 1992 and another regime change in January 1993. This means there are three regimes in two months! This pattern is reflective of outliers in the series more than it is reflective of structural changes in the data generating process.

I estimate three models to account for the presence of the outliers. Dummy variables for the months are included in the sanctions equations for these models. Theoretically, this may not be the best way to deal with the presence of these “outliers.” If sanctions were imposed and the public reacted to the imposition of sanctions, one would expect presidents to avoid making similar costly mistakes in the future. Hence, dummifying out these months could be wiping out theoretically important effects. Despite this potential problem, I dummy the months to ensure that none of the individual months are driving the results.

The results are consistent with those presented in 3.1. Approval never produces a positive change in sanctions, the shock to sanctions produces a negative response in approval and consumer confidence, and sanctions produce positive changes in

inflation and unemployment. The results, understandably, are attenuated, but the inferences are the same. Given these findings, one can reasonably conclude that there is no systematic change in the underlying data generating process. Hence, there is no need to filter the series to remove any breaks.

A.3.4.2 January 1992

Figure A.6: Model Excluding January 1992

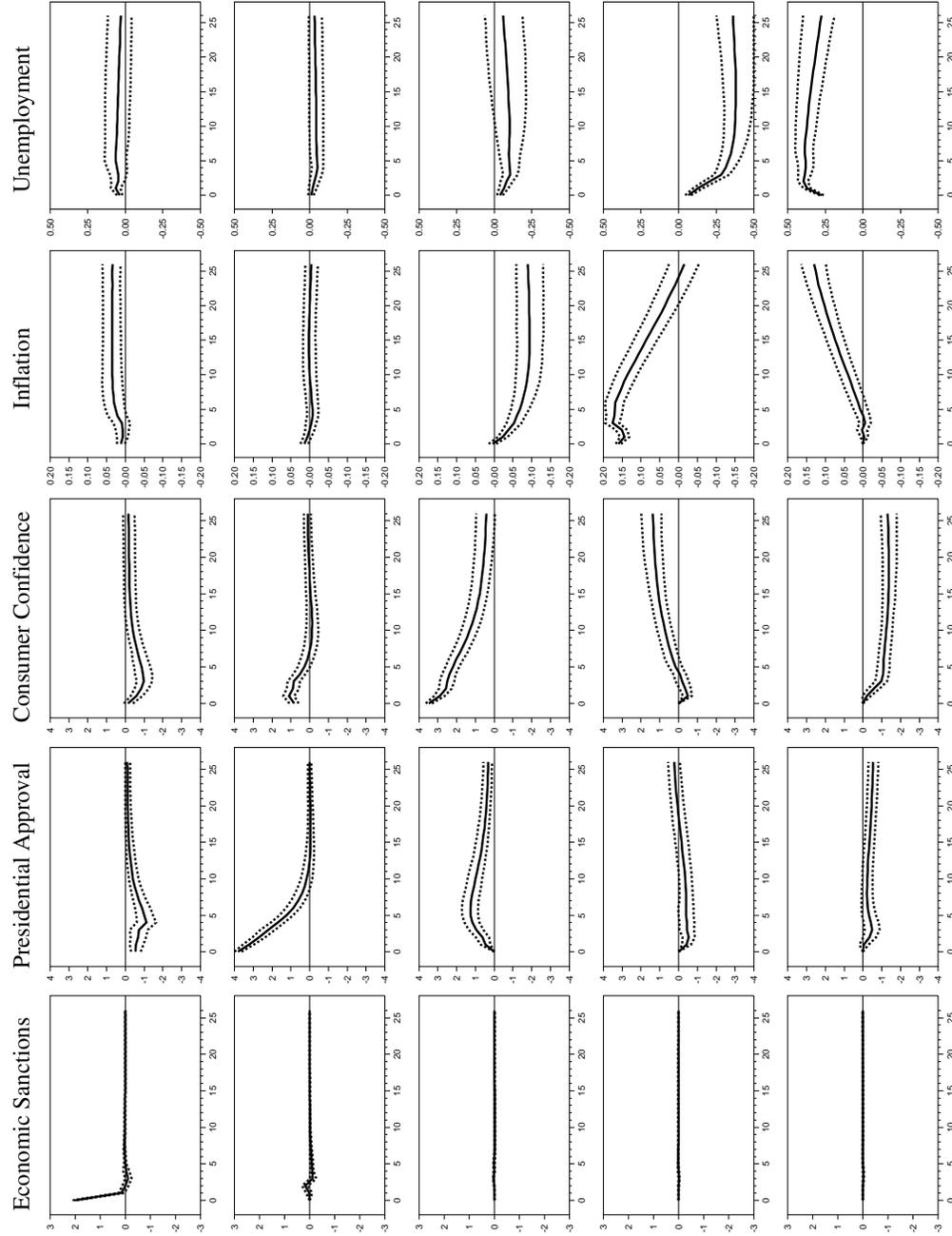


Figure A.7: Model Excluding July 1992

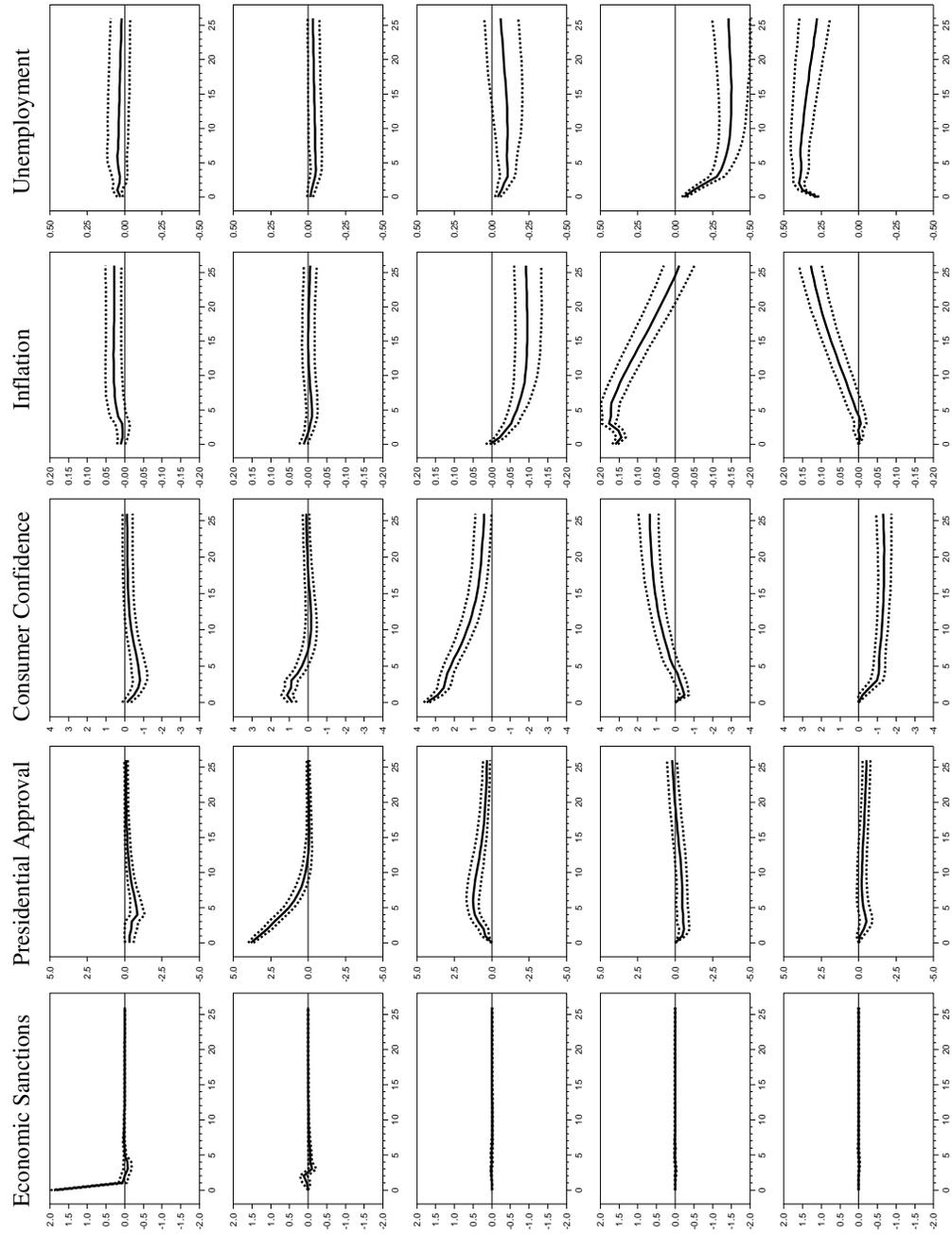
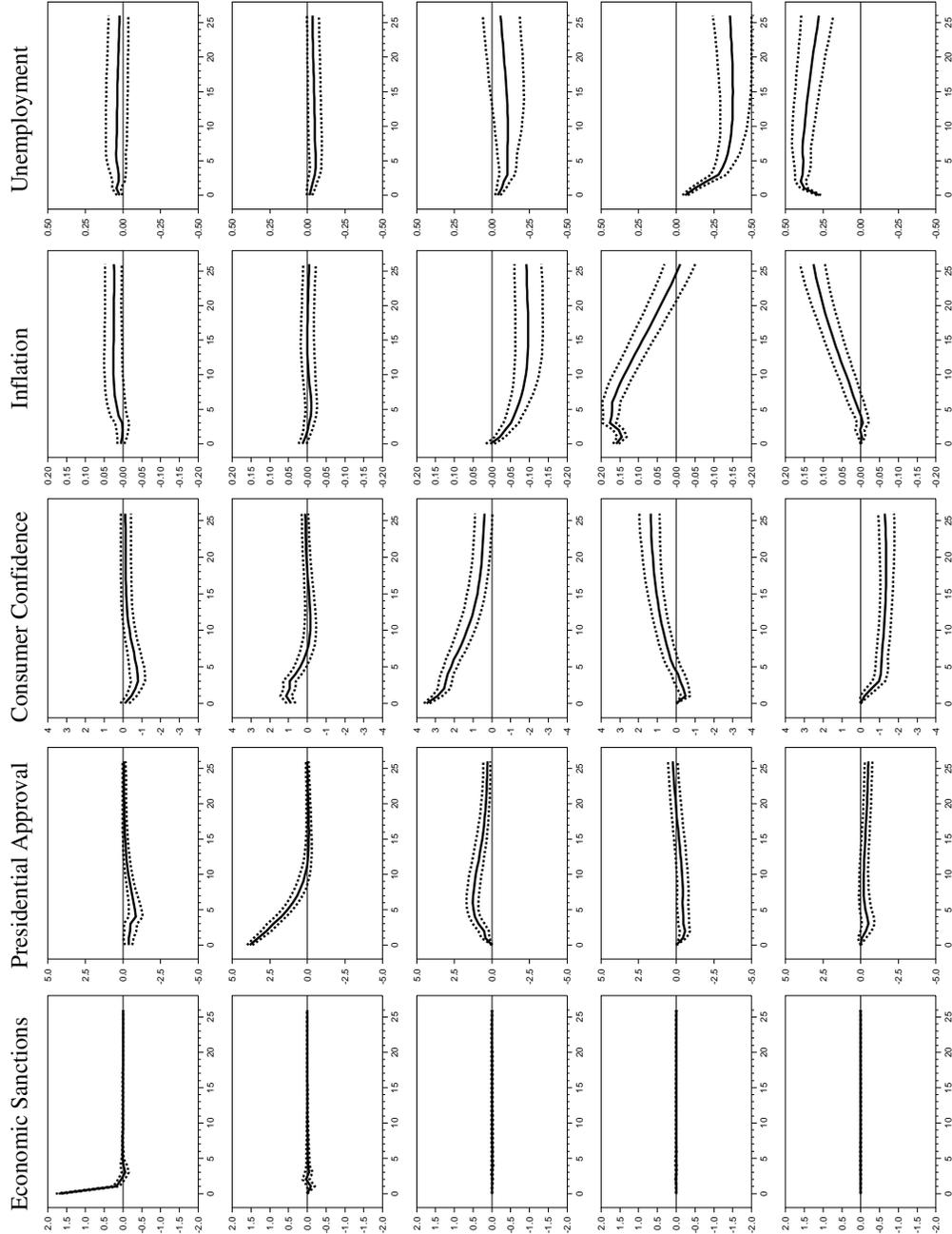


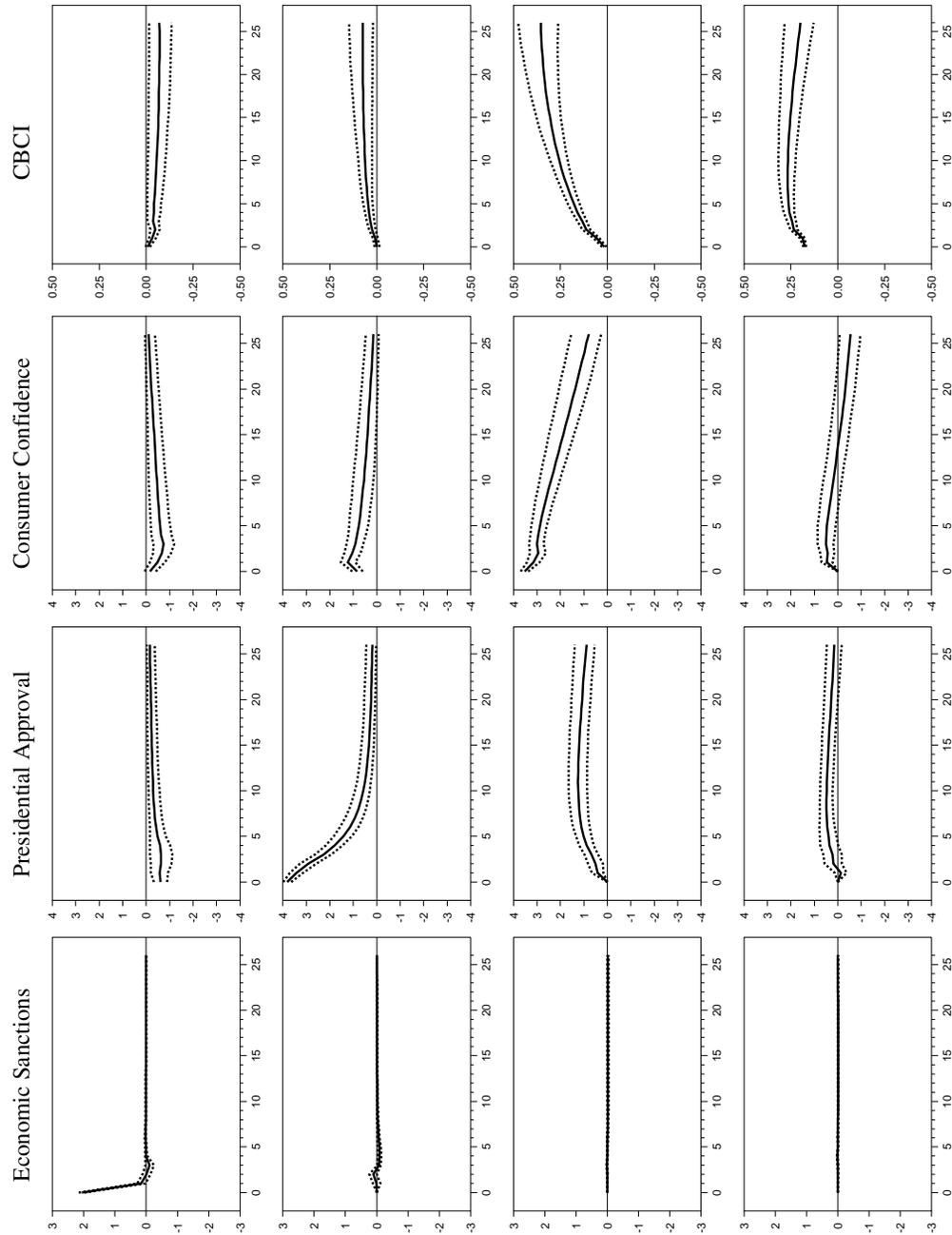
Figure A.8: Model Excluding January 1993



### A.3.5 Alternative Economic Variables

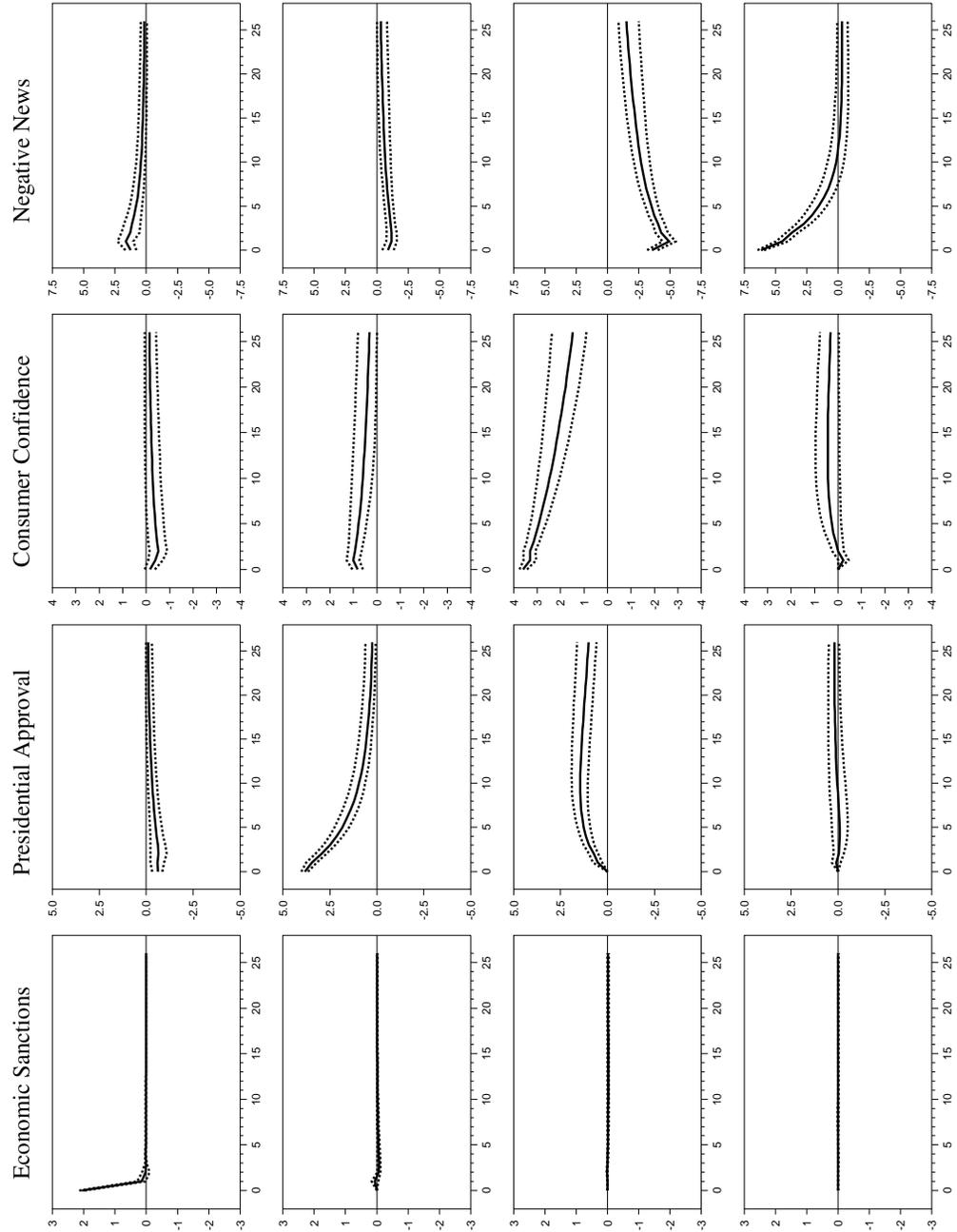
#### A.3.5.1 Conference Board Composite Index

Figure A.9: Full VAR Conference Board Composite Index



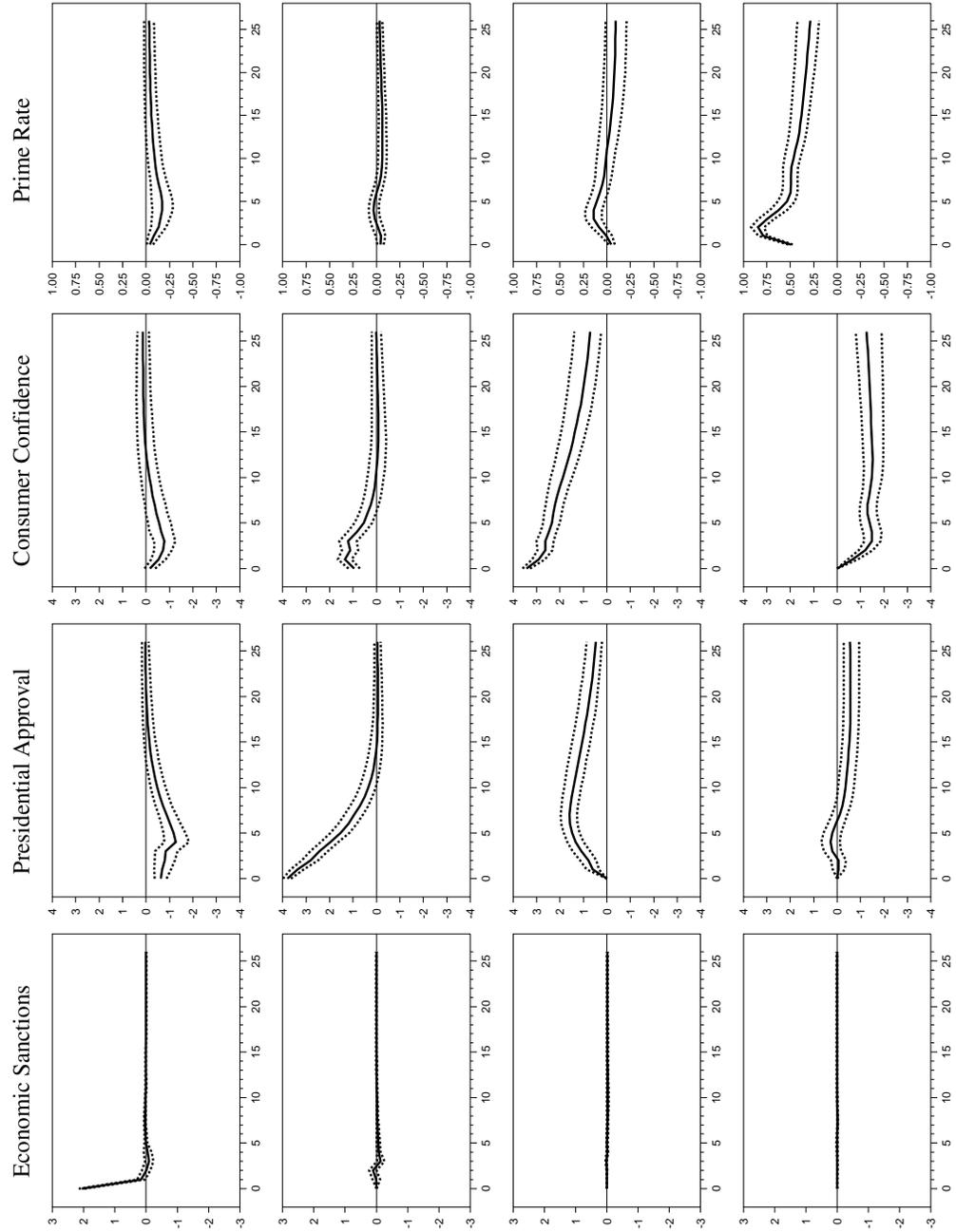
A.3.5.2 Negative Economic News

Figure A.10: Full VAR Negative Economic News



A.3.5.3 Prime Rate

Figure A.11: Full VAR Prime Rate

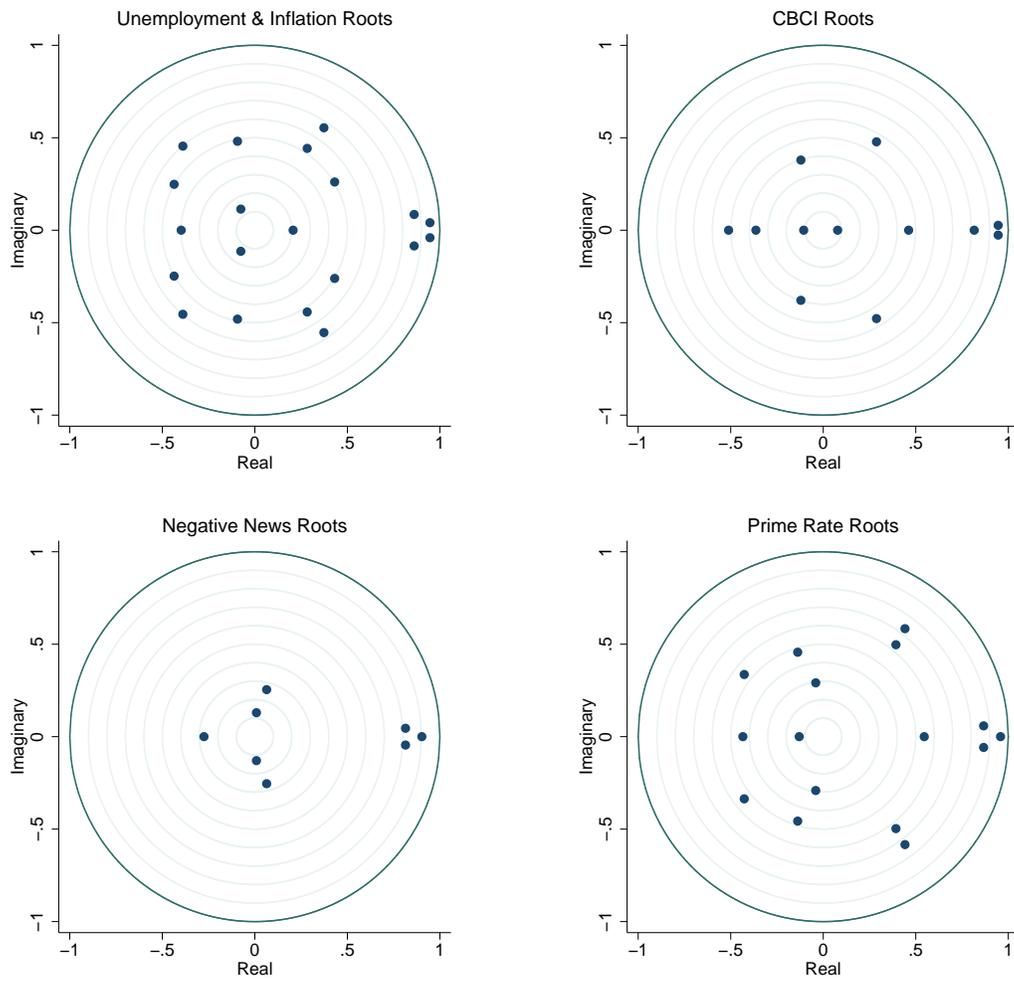


### *A.3.6 Stability*

Impulse response functions are calculated based on the the Vector Moving Average (VMA) representation of the VAR. The correct VMA representation can only be recovered if the VAR is stable. Impulse response analyses can produce misleading inferences if the stability condition is not met. One can easily assess stability by examining the VARs eigenvalues. A VAR is stable if its eigenvalues fall within the unit circle, and Eigenvalues lie within the unit circle if each of the moduli is less than one. One can easily determine this by plotting these moduli against the unit circle.

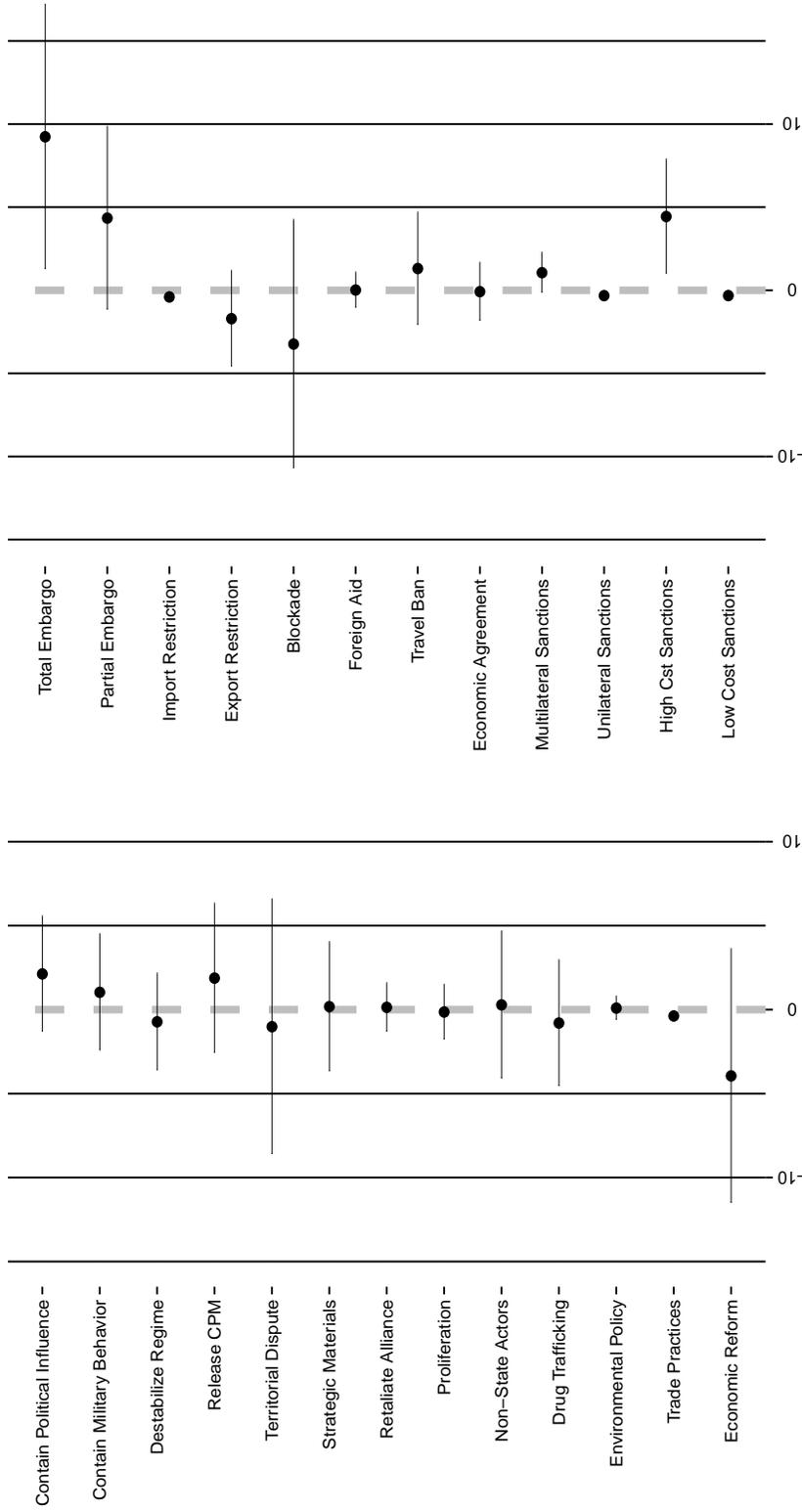
The characteristic roots for the four VARs are plotted below. The upper left hand plot shows the roots for the VAR presented in figure one. The other three plots show the roots for the VARs calculated for the other three economic models - the CBCI, negative economic news, and the Prime rate. All of roots fall inside the unit circles. This suggests all the VARs are stable and that all the impulse response arrays are interpretable.

Figure A.12: Stability



#### A.4 Sanction Goals and Sanction Types

**Figure A.13: Effects of Sanctions on Presidential Approval by Target State**



Regressions are based on model 6 presented in table 3.4. The plotted coefficients, and 95 % confidence intervals, are the instantaneous effect of sanctions against the target state (margins) on presidential approval. The coefficients do not represent the complete effect, but are sufficient to assess the direction and significance of the relationships.

## APPENDIX B

### B.1 Descriptive Statistics

Table B.1: Descriptive Statistics

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	Obs	Mean	Std. Dev.	Min	Max
Variables					
Handling of Event	490	4.769388	2.255165	0	10
President's Competence	490	5.167347	2.143272	0	10
Event Salienc	490	.4897959	.5004067	0	1
Sanction Costs	490	.5020408	.5005068	0	1
Target Country	490	.7857143	.4107452	0	1
Participant Sex	490	.5204082	.5000939	0	1
Participant Party	490	1.926531	.9962661	1	4
Hours Spent Reading News	490	4.387959	4.753313	0	45
Hours Spent Reading IR News	490	2.732347	3.75315	0	40
Knowledge of Target Country	487	1.464066	1.657457	0	10

---

## B.2 Competence

The dependent variable in chapter three is leadership approval. Participants were asked to assess the president's handling of the international event. The language of the question was modeled after the standard approval question asked by Gallup and other survey organizations. One might argue, however, that this questions doesn't accurately gauge the participants opinion of the sanctioning leader. Certainly, one can disapprove of a leader's actions without disapproving of the leader. I collected a second measure. Instead of rating the presidents handling of the international event, participants were asked to rate the president's competence. The competence measure also has an eleven point scale. The results presented in tables B.2 and B.3 mirror the results presented in chapter three.

Table B.2: How would you rate the president's competence?

		Country	Salience of Event		Total
			Low Salience	High Salience	
Cost of Sanctions	Low Cost	Bulgaria	4.03(26)	5.96(26)	5.00(52)
		Tanzania	4.93(98)	6.08(94)	5.50(192)
	High Cost	Bulgaria	3.84(26)	4.62(27)	4.24(53)
		Tanzania	4.73(100)	5.56(93)	5.13(193)
	Total	Bulgaria	3.94(52)	5.28(53)	
		Tanzania	4.83(198)	5.82(187)	
Source	Partial SS	df	MS	F	Prob > F
Model	221.216061	7	31.6022945	7.52	0.0000
Country	41.8059439	1	41.8059439	9.95	0.0017
Crisis	113.506439	1	113.506439	27.02	0.0000
Cost	26.0515174	1	26.0515174	6.20	0.0131
Crisis×Country	2.67437975	1	2.67437975	0.64	0.4254
Cost×Country	3.3005579	1	3.3005579	0.79	0.3759
Crisis×Cost	10.7775781	1	10.7775781	2.57	0.1099
Crisis×Cost×Country	3.57783675	1	3.57783675	0.85	0.3566
Residual	2025.06149	482	4.20137238		
Total	2246.27755	489	4.59361462		
All t-tests significant at .05 level.					

Table B.3: Issue Saliency, Sanction Costs, and Presidential Competence

	Competence		
	1	2	3
Saliency	1.08*** (.191)	1.14*** (.187)	1.16*** (.188)
Cost	-.462** (.191)	-.524*** (.187)	-.529*** (.188)
Country	.735*** (.233)	.690*** (.228)	.586** (.245)
Sex		-.393** (.191)	-.357* (.194)
Democrat		1.10*** (.256)	1.100*** (.262)
Independent		.533** (.224)	.521** (.225)
Other Party		.688* (.404)	.653 (.404)
News			.010 (.028)
International News			-.033 (.037)
Target Knowledge			-.060 (.060)
Constant	4.28*** (.248)	4.12*** (.284)	4.33*** (.321)
N	490	490	487
Log-Likelihood	-1049	-1037	-1029
Censored(Left Right)	(13 7)	(13 7)	(13 7)

### B.3 Manipulation Checks

Participants were asked as series of questions to gauge whether the manipulations were having the intended consequences. Specifically:

1. How concerned are you about the costs of the economic sanctions?
2. How would you rate the seriousness of this international event?
3. To what extent do you think that this event is a threat to U.S. national security?
4. To what extent do you think this event represents a threat to the U.S. economy?
5. How would you rate the severity of the event as a humanitarian crisis?

The participants were asked to rate each on an eleven point scale. The average responses are given in table B.4.

The most important manipulation checks are items one, two, and five. Item one assess participants sensitivity to the sanction costs manipulation. The average responses are higher in the two high cost conditions. This is consistent with expectations. The manipulation worked. Items two and five have to do with the severity of the event - generally, and in terms of being a humanitarian crisis. This manipulation worked as well. The average responses are higher in the high salience conditions. The manipulation checks show that based experimental manipulations had their intended effects. Hence, the results presented in chapter four are valid.

Table B.4: Manipulation Checks

Manipulation Checks				
	Low Salience Low Cost	Low Salience High Cost	High Salience Low Cost	High Salience High Cost
Costs of Sanctions	5.01	6.24	4.71	6.77
Seriousness of Event	4.14	5.24	6.39	6.50
Threat to National Security	2.88	3.50	3.34	3.66
Threat to U.S. Economy	3.36	5.24	3.66	6.09
Humanitarian Crisis	4.58	4.88	7.38	7.17
Participants	124	126	120	120

#### B.4 Model Robustness Checks

A tobit model is included in chapter four to demonstrate that the relationships presented in table 4.1 are robust to the inclusion of demographic control variables. One wants to conduct this kind of analysis to demonstrate that the results are product of the experimental manipulations and not demographic features of the participants. I chose tobit because the participants underlying support for the sanctioning leader is theoretically censored at zero and ten because participants could not give leaders scores lower than ten or higher than zero. Some might object to this specification. One might argue that an ordered probit or ordered logistic model should be used because there are eleven ordered responses. I estimated this model. The results are presented in table B.5 along with the OLS estimates. They demonstrate that the results presented in chapter four are robust to these distributional assumptions.

Table B.5: Issue Saliency, Sanction Cost, and Leadership Approval - Alternative Specifications

	Tobit		OLS		Ordered Logistic	
Saliency	1.43*** (.197)	1.48*** (.194)	1.39*** (.188)	1.44*** (.185)	1.19*** (.165)	1.27*** (.168)
Cost	-.875*** (.197)	-.942*** (.194)	-.843*** (.188)	-.909*** (.186)	-.695*** (.160)	-.758*** (.163)
Country	.869*** (.241)	.805*** (.253)	.833*** (.229)	.787*** (.243)	.682*** (.191)	.662*** (.212)
Sex		-.517*** (.201)		-.482*** (.292)		-.378** (.167)
Democrat		1.03*** (.270)		.980*** (.259)		.829*** (.225)
Independent		.426** (.232)		.416* (.222)		.404** (.193)
Other Party		-.012 (.417)		-.023 (.400)		-.014 (.339)
News		-.013 (.029)		-.900 (.027)		-.007 (.023)
International News		.040 (.038)		.037 (.036)		.033 (.033)
Target Knowledge		-.085 (.062)		-.075 (.059)		-.073 (.053)
Constant	3.80*** -1056	3.89*** -1036	3.85*** (.243)	3.90*** (.317)		
N	490	487	490	487	490	487
Log-Likelihood	-310.7	-308.1	-1052	-1032	-1027	-1008
Censored(Left Right)	(18 9)	(18 9)				