

ECONOMIC SANCTIONS, RESOURCE WEALTH, AND INCREASED  
STATE UTILITY

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by  
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ECONOMIC SANCTIONS, RESOURCE WEALTH, AND INCREASED STATE  
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## Introduction

Economic sanctions have become one of the most commonly used forms of coercive foreign policy within the world system, with their use increasing dramatically over that past few decades (Drezner, 1999). This trend is not at all surprising; economic sanctions allow leaders to negatively affect and, in some cases, force their will on other nation states without having to fire a single shot. As sanctions have become more widely used, they have become a major area of study within the international relations literature. As I will show, there is a strong divide within the academic community when it comes to the effectiveness of sanctions. The debate over the effectiveness of economic sanctions has, for the large part, dominated the sanctions literature for years. This debate has simply left IR scholars divided on the issue. But as the literature on economic sanctions has expanded, attention has shifted to trying to determine what factors directly affect sanction success, rather than the basic work or not work approach. I believe this is a logical shift. We need to spend less time debating if sanctions are effective, and more time trying to explain why we see some states able to withstand sanctions, while others cave quickly.

I believe that the literature on the effects of natural resource wealth may explain some of the variation we see in sanction outcomes. Few if any scholars have looked at the effects of natural resources on the ability of sanctioned states to persevere the implementation of economic sanctions. Based on the common theory that black knights (or nations that continue to trade with sanctioned states) help increase the ability of states to withstand economic sanctions, as well as the literature on natural resources, we can assume that resource wealth can increase the ability of targeted states to overcome economic sanctions. The general idea is that outside nations will be willing to defy others

in the international community in order to have access to the resources a target state may have. This in turn should increase the likelihood of target states overcoming the use of economic sanctions against them.

In the following, I will show that the current literature on the use of economic sanctions and natural resource wealth clearly points to the fact that natural resource wealth should have an effect on the ability of targeted states to survive the implementation of economic sanctions. I will break my argument into several sections. First I will explain how economic sanctions work and why it is important that we continue to devote time to studying them. I will show where the literature on economic sanctions and natural resource wealth stands today. I will then lay out a real world example. I will look at the case of Iran to help show the effects of resource wealth on sanction success. From there, I will present a theoretical argument that I will operationalize and test both quantitatively and qualitatively. By doing this, I believe I can further our understanding of how economic sanctions work and add to the current literature on the topic.

### The Importance of Economic Sanctions

In today's world economic sanctions are an important tool at the disposal of world leaders, one that we see them using more and more often. Economic coercion is a very old and tested form of foreign policy. As Simons (1999) explains, the idea behind sanctions dates back to ancient times. Leaders of ancient armies would often cut off supplies to sieged cities; if carried out correctly, this sort of action would starve their enemies into submission and/or surrender. This proved to be a very successful tactic to



the skilled generals of the time. We also see sanctions having prominent roles in disputes throughout history. As Drezner (1999) points out, the Athenian boycott of Megara was a major factor in the lead up to the Peloponnesian war. Though things have changed quite a bit since the siege of Megara, the basic principle still stands today. The general goal of economic sanctions is to cause economic hardship to one's enemies and force them to give into the will of the sender state(s).

Economic sanctions have become a widely used tool by leaders of the powerful economies within the world system. Today, the United States is by far the largest user of economic sanctions. Drezner (1999) explains that between 1992 and 1996 the U.S. implemented economic sanctions a total of sixty times, against thirty-five different countries. He adds that these sanctions ended up affecting around 42 percent of the world's population.

Drezner (1999) also makes sure to point out that sanctions come with costs; during this time frame the U.S. lost about 20 million dollars in possible trade revenue. When sanctions are implemented, the targeted state (or state in which the sanctions are levied against) is not the only one to take on negative costs. The sender nation (or nation that implements the sanction) also loses potential revenue and trade that it could have acquired from trading with the targeted nation. This of course creates a costs vs. gains sort of analysis. Generally speaking the goal of sanction implementation is to force the targeted state(s) to give in first.

Even with their potential costs, sanctions have become an attractive option for world leaders. The loss of revenues and/or possible trade is much more acceptable than

the loss of military personnel. Warfare is arguably not as acceptable to the citizens of the economic powers in Western Europe and North America. The use of economic sanctions allows state leaders to coerce and force their will on other nations without having to resort to more controversial military means (Allen, 2008; Davis and Engerman, 2003).

Drezner (1999) concludes that economic power in today's world is often as powerful as military might. Globalization has made the world a smaller place. The lowering cost of the mass transportation of goods has made trade in many cases cheaper than internal production of certain manufactured goods. This has increased the economic connection between states, leaving many very dependent on each other. More specifically, many in the developing world are very dependent on developed economies to provide them industrial goods. Basically, as economic ties increase so does the ability of states to hurt others by cutting off those avenues of trade. As anyone who studies international relations understands, power is the driving force within international relations. The one with the most power wins; it's just the way the anarchical world system works. So if a nation has economic power, it can easily use that power to force its will on others.

Generally speaking, the goal of the sender state is to cause a change in the domestic or international politics of the targeted state. Hufbauer, Schott, and Elliott (1990) point out that in most cases total destruction is not the primary goal. Rather, they argue that sender states only wish to cause total governmental destabilization in around 20 percent of cases. They contend that it is much more common for sender states to simply want a minor policy change in the targeted state. While most scholars agree with Hufbauer, Schott, and Elliott's (1990) assessment, others take a more negative outlook.

Scholars such as Nossal (1989) and Schwebach (2000) argue that states may use sanctions as a symbolic gesture, such as punishment or sending a clear message of disapproval to the international community.

A major concern associated with the use of sanctions is that their negative effects will ultimately be passed on to the civilian population rather than the targeted state's political actors. If this were to happen, the civilian population would suffer and bear the burden of the economic sanctions. Peksen (2011) argues that this can be the case. Even though sanctions clearly help lead to peaceful outcomes, they often have negative effects on the civilian population. He argues that tough economic sanctions can limit civilians' access to basic needs, negatively affecting their economic well-being and disrupting the operation of basic health services. Given the negative costs and the possible humanitarian issues, it is important for us to truly understand exactly how and when sanctions work. This leads me to the current literature on the success of economic sanctions.

### Where the Literature Stands on the Success of Economic Sanctions

As the use of economic sanctions has become a staple of foreign policy for much of the Developed World, the literature on the topic has grown. Much of the literature on economic sanctions is largely concentrated on the topic of whether economic sanctions actually work (Drury, 1999). As of today, the literature highly favors the conclusion that economic sanctions generally fail to persuade targeted states to give into the demands of sender states. But as I will show, there are those that believe economic sanctions are in fact an effective tool to world leaders.

Those who question the effectiveness of economic sanctions argue that sanctions rarely ever have their desired effect. Many point to Hufbauer, Schott, and Elliott (1990), who argue that sanctions only work around 35 percent of the time. They come to this conclusion through extensive qualitative analyses. Their results have arguably become the foundation of the sanctions literature. Pape (1997) takes this conclusion further; he argues we only ever see sanctions succeed because they are often followed by the threat or actual use of military force. In his mind this clouds the results of other researchers. He is critical of Hufbauer, Schott, and Elliott (1990), arguing they are too generous in their analysis and case selection. He argues sanctions are only successful around 5 percent of the time. He explains that under his model only five of the forty cases that Hufbauer, Schott, and Elliott (1990) designate as successes can in fact be counted as wins for the senders. He further explains that eighteen of those cases actually ended by military force; in eight of the cases the sender nation(s) made no clear demands for concessions, six do not even qualify as cases of economic sanctions and three were indeterminate (Pape, p. 66) This disagreement has led to a published back and forth debate between the researchers.

Morgan and Schwebach (1997) look at the overall costs of economic sanctions, rather than simply looking at success rates; as previous scholars had done. They calculate the costs to both the sender and targeted nations. They also find that sanctions are generally ineffective as a foreign policy tool. They conclude that costs do matter. The authors find evidence for the basic assumption that sanctions are more effective when the costs are low to the sender and high for the target. Morgan and Schwebach (1997) conclude sanctions are often ineffective because the ability of the sender to reach this

equilibrium is so difficult. This is supported by Rowe (2001), who argues that one of the biggest problems with the use of economic sanctions is that scholars and policy makers are, in general, not really sure how to best implement sanctions in order to produce their desired effect. Nossal (1989) and Schwebach (2000) argue that states may use sanctions as a symbolic gesture, such as punishment or sending a clear message of disapproval to the international community. So the sender state may not be looking for any clear concessions; rather it just wants to cause harm to its adversaries. This could cause sanctions to seem more ineffective than they really are.

Pensken (2011) argues that sanctions are largely ineffective because the negative costs are often pushed onto the civilian population, rather than the political elites that actually have a hand in governance. Pensken contends the use of “smart sanctions” can help alleviate this problem. Smart sanctions involve measures that are designed to directly affect the leadership of the targeted state rather than the civilian population. These measures can include the freezing of financial assets, imposition of arms embargos, reduction in foreign aid allotments, and the placement of travel bans on key government officials. Drezner (1998) also supports this theory when he concludes sanctions that do not successfully target political elites often are ineffective.

This is further backed up by Major (2005), who argues sanctions need to be designed to cause the greatest effect to the section of the population that holds the most power over policy decisions. He contends that these sorts of policies do not guarantee civilians will be unaffected, but they reduce the probability of such issues arising. He points out that humanitarian issues can actually cause sanctions to fail. In his analysis, he finds that in many cases a public that is hurt by the implementation of sanctions is more

likely to support the targeted regime and become disgruntled with the sender nation(s). This is problematic because it would suggest economic sanctions are having the opposite effect than intended. Rather than destabilizing a targeted regime, economic sanctions may in fact be strengthening them.

Proponents, of course, argue that sanctions are a useful and successful foreign policy tool. Many argue that sanctions are a way to resolve international conflict or discord without either side resorting to violence. These scholars conclude sanctions are a tool that falls somewhere in the grey area between words and wars (Selden, 1999). Drezner (2003) argues that too many scholars hinge their opinion and analyses on the actual implication of sanctions. He contends that the threat of economic sanctions is often enough to persuade the threatened state(s) to cave to the demands of the potential sender(s). So he points out that the current literature on economic sanctions is not accurately measuring their effectiveness because many other scholars' samples are biased.

This theory is supported by other prominent IR scholars, such as Fearon (1997). Fearon (1997) argues state signaling is an important tool at the disposal of world leaders. He contends world leaders have to signal their attentions to other leaders in order to successfully accomplish their foreign policy objectives. He uses game theoretic models to show that if leaders signal their intent correctly, they can "tie the hands" of the leaders of targeted states. Basically, other world leaders will be forced to cave to the sender nation's demands or face reprisal from their own citizenry. He concludes that the way in which leaders present themselves and their intentions has a major impact on the effectiveness of foreign policy endeavors, including economic sanctions. This is supported by Drezner

(1998). In his book the *Sanctions Paradox*, he presents a game theoretical model in which he shows that when it comes to economic sanctions leaders will gauge the willingness of the other side to escalate the confrontation. If the government of one state believes the other will escalate, it may be more willing to cave to the demands of its adversary.

Though the success of the economic sanctions is an important area that needs to be studied, I would argue the literature is too concentrated on whether they work, and less concentrated on the specific factors that lead to their failure. This is, of course, not a completely new idea. As the literature on economic sanctions has grown, more and more scholars have begun to move their research in this direction. Allen (2008) states it well when she writes, “Because two different states with two different sets of decision-makers are involved in a given sanctions episode, scholars must recognize that the decision-making processes behind successful sanctions and failures are different” (p. 135). The research in this area has been successful in shedding light on the reasons why we see some sanctions fail and others succeed.

Ang and Pensken (2007) find that salience perceptions between the sender and target states help determine the outcome of the implementation of economic sanctions. They find that sanctions are generally more successful when the sender state finds the issues to be of very high importance. The logic behind this assumption is that the sender state will be more willing to escalate to more extreme measures if economic sanctions do not work. Also it can be assumed that in many cases the willingness of sender nation(s) to escalate will not escape the eyes of the targeted state. Ang and Pensken (2007) argue that when both nations see the issues as mutually important, sender states are in fact favored.

McGillivray, F. Stam, and A. Stam (2004) argue the institutions of the sender

state(s) have an effect on the outcome and duration of imposed economic sanctions. They contend that if a nation transitions from a democratic government to a more authoritarian structure, already implemented economic sanctions are often dropped during the transition period. They also show that leadership changes seem to have an effect only on already implemented sanctions in authoritarian states. In democratic states new leaders tend not to discard already standing economic sanctions, whereas new authoritarian leaders generally drop already implemented economic sanctions. Escriba-Folch (2012) shows that different forms of governance within targeted states affect the way in which they react to the implementation of economic sanctions.

McLean and Whang (2010) outline the effect of third party actors on the outcome of economic sanctions. They argue that targeted states will look to their trading partners or allies to determine the cost they will endure if sanctions are actually implemented against them. The general idea behind this conclusion is that if a targeted state's primary trading partners and/or allies seem reluctant to support them, then the potential costs to the target should increase. This in turn will affect the way in which states respond to both the threat and implementation of economic sanctions. McLean and Whang (2010) find evidence that this is in fact the case.

Hufbauer, Schott, and Elliott (1990) have identified several factors that affect the likelihood of the success of economic sanctions. They contend that these variables have an effect on the overall strength and effectiveness of economic sanctions because they help determine the costs the various actors will incur throughout their implementation. These variables include prior relationships between the states, economic condition of the targeted state, intensity of sanctions, and whether the nation has a strong ally (or black



knight) that will continue trade with it throughout the course of imposed economic sanctions.

It is clear from the literature that the presence of black knights negatively affects the chances of sanction success (Drury, 1997; Hufbauer, Schott, and Elliott, 1990). The ally, or black knight, variable was originally created to account for Cold War international politics. This variable accounted for whether the targeted nation was receiving assistance from one of the superpowers when sanctions were implemented by its adversary. For example, if the U.S. continued to trade with a nation that the USSR was sanctioning, it would receive a score of one. The logic behind this variable goes along with a realist point of view, in which everyone is trying to get a leg up on one another within the international system. Though the Cold War is over, this variable is still relevant, and still in use. However, I would argue that much of the theoretical framework behind this variable is misrepresentative or limiting in terms of the causal mechanisms associated with these relationships.

While I would contend that this sort of process may occur occasionally, and more so during the Cold War era, this is probably not the reason we see black knights in most cases. This is in line with much of the more recent sanctions literature, which sees black knights as trading with the sanctioned states simply because they want to profit from importing goods to the now less competitive markets of targeted states (Drury, 1999; Early, 2009). As Early (2009) argues, black knights often decide to trade with targeted states due to the possibility of financial gains for themselves. Furthermore, Early (2009) concludes that a sender nation's allies are actually more likely to start or continue to trade with targeted states than the sender's rivals. He contends that these nations see an

opportunity to increase trade revenues and jump at the opportunity. So basically, the black knight sees an opportunity to fill a hole in the targeted nations market, even though they risk upsetting the sender nation(s). But I would take this argument further and argue that this sort of mechanism can go both ways. I would contend that we should see third parties more willing to take the risk of upsetting sender nations in order to have access to a targeted state's natural resources wealth.

Given the information presented above, we can make several conclusions. First, the literature on economic sanctions is deeply divided on whether sanctions work. We can also conclude that it is important to look at both the threat and imposition stages of sanction cases. Furthermore, we see that there are costs to both the sender and target states, and possible humanitarian issues for the latter. So, it is important to understand what causes economic sanctions to fail. In recent years the literature on economic sanctions has begun to move away from the simple effective or not effective argument. Today more and more researchers have begun to explore what factors actually cause sanctions to fail. This is the path I wish to follow. In the following I will show how the literature on resource wealth can add to our understanding of economic sanctions.

### Resource Wealth

The effect of natural resources on political phenomenon is a relatively new and expanding field. Natural resources have been shown to increase the ability of nation states. It is clear from the literature on the topic that resource wealth has a major effect on the political and economic development of a nation. The idea of there being a resource curse in much of the developing world has become a staple of the development literature.

The resource curse has been coined as an explanation for the inability of export-dominant economies or resource-rich nations to develop economically and politically. The theory argues that countries that are resource rich often fail to experience economic growth and tend to have ineffective and/or authoritarian governmental institutions.

There are different ways this curse can take effect. One example is that natural resource wealth can lead to conflict between rival factions that want control of the wealth. This of course can lead to civil strife or conflict. Another example is that an economy can become completely reliant on a certain valuable resource. This allows other parts of the economy to become weak and neglected. The economy becomes dependent on a single resource, and once that resource runs out the economy comes crashing down (Stiglitz, 2006). Iimi (2007) lays out six ways this can occur: “Various reasons have been put forward for failures to effectively transform natural resources to growth: (1) the Dutch disease, (2) insufficient economic diversification, (3) rent seeking and conflicts, (4) corruption and undermined political institutions, (5) overconfidence and loose economic policies, and (6) debt overhang” (Iimi, p. 2). Ross (1999) states that three-quarters of the nations in Sub-Saharan Africa, two-thirds of those in Latin America, the Caribbean, North Africa, and the Middle East are still export/commodity-based economies. These nations are still failing to develop and industrialize. This is, of course, a major problem, given that development and industrialization can lead to better standards of living for citizens of these nations.

There are many explanations as to why this occurs. As mentioned above, one of the leading explanations put forward by scholars is that governments poorly manage their resources or fail to put forward policy that adequately develops other areas of their

economies. So essentially, poor governance is a leading cause of the lack of development and industrialization we see occurring in these nations. As Ross (1999) points out, governments in these nations often have a strong role in their economies. As such, these governments should theoretically have the power to mitigate the problems we see. They should have the ability to transfer resources to other areas of the economy to spur development. This has been the case in the few nations that have been able to avoid the resource curse. Botswana has long been seen as the success story of Africa. The nation is one of the few examples of a resource-rich nation that has been able to survive the resource curse. In 1980 rich diamond deposits were discovered by a South African company known as De Beers. The government quickly made arrangements with the foreign company to retain the rights to the mines. To this day they still have an equal partnership, with half of the total revenue being given to the government. The Botswana government then used the revenues from the diamond mines to help develop other areas of the economy and invest in education (Iimi, 2007).

Researchers who study the resource curse have also found strong evidence that there is a link between natural resource wealth and authoritarianism. Jenson and Wantchekon (2004) conducted an analysis in which they present evidence of a direct negative correlation between resource wealth and democracy. They show that as resource wealth increases, the likelihood of democracy decreases. This is supported by Ross (2001). He finds that resource wealth hurts the formation of democratic regimes. Most notably he shows that oil wealth has impeded democracy in Indonesia, Malaysia, Mexico, Nigeria, and some oil-rich nations in Central America. He also provides evidence that non-oil resource wealth can also be detrimental to democratization. Wantchekon (2004)

concludes that the presence of natural resource wealth increases the level of inequality in nations. This is a very common theory throughout the literature on natural resource wealth. It is clear that in many of these governments, those that control the resource wealth also wield the most political power. This is all relevant to my argument because it shows that resource wealth has political ramifications and increases the ability of domestic political actors within a nation.

The idea of natural resources increasing the ability of actors is actually an emerging area of research within the study of civil conflict. Buhaug, Gates, and Lujala (2009) show a positive correlation between natural resources and the duration of conflict. They argue that the availability of natural resources in rebel-controlled areas adds to the capability of rebel forces. This allows them to more effectively fight governmental forces and ultimately prolong hostilities. This is achieved through the revenues acquired from their resource wealth. They also find that governments are more likely to quickly crush rebel groups when the government is in control of a valuable natural resource. Collier, Hoefflert, and Soderbom (2008) argue that the presence of natural resource wealth also makes the reemergence of conflict more likely. This is further backed up by Collier and Hoefflert (1998). They show that the ability of rebel forces to capture and/or control natural resources can increase the likelihood of the emergence of hostilities. They conclude that this allows rebel groups to gain the ability and resources to effectively fight governmental forces. They also show that it can go the other way. If the government has control of the nation's resource wealth, it generally possesses the capability to quickly squash any rebellion. Basically, the government has an increased ability to supersede the

cost of economic sanctions, allowing it to quickly dismantle any threat. I would argue that this is likely the case when it comes to economic sanctions as well.

It is also clear from the literature that states that have resource wealth often are able to work around imposed economic sanctions. Emmanuel Kwesi Aning (2003) shows that nations in eastern Africa have been able to successfully maneuver around imposed sanctions to sell their valuable resources on the international market. He shows that Liberian natural resources continued to be traded as a way to fund military efforts after the implementation of economic sanctions by international actors. This is also seen in the case of international sanctions against Iran. As Early (2009) points out, China continues to trade with Iran despite extensive international sanctions. China is in fact the number one importer to Iranian oil. With China's rapidly growing economy, oil has become a major concern for the nation. Askari, Forrer, Teegen, and Yang (2003) also show that for years, Iran has been able to work around sanctions implemented by the U.S. They argue that the Iranian government has actually been able to sell oil by moving it through other nations. He points out that Iran will often sell oil to the United Arab Emirates, which will in turn brand it as its own and sell it to other international actors, including the U.S.

Oil is not the only resource allowing states to work around imposed economic sanctions. The Congolese have long been able to use their vast resource wealth to financially support the many conflicts that have plagued the nation. The Congo is considered to be one of the most resource-rich nations in the world with its vast deposits of diamonds, gold, and cobalt (Eichstaedt, 2010). Iimi (2007) shows that militant groups within the Congo have successfully persuaded nations such as Zimbabwe to provide

military support, including actual troops, for promises of rights to Congolese diamond mines.

So we can make several conclusions based on the literature I have just presented. First, natural resource wealth clearly has a major effect on the inner workings of nations, both economically and politically. We see a high risk of authoritarian or simply repressive governments in nations that possess natural resource wealth. Resource wealth obviously increases the ability of actors to seize governmental control of these nations. Furthermore, we can see from the literature that resource wealth increases the ability of actors within civil conflicts. I will argue that these conclusions can be directly applied to the international and foreign policy arenas.

### The Case of Iran

During this section of my analysis, I wish to discuss a case in which we directly see natural resource wealth affecting the ability of a targeted state to survive the use of economic sanctions. As noted above there has been no direct research on the effects of resource wealth on economic sanctions, or rather its effects on foreign policy in general. My argument has been drawn largely from the conclusions of other areas of study. I would argue that showcasing an example of resource wealth increasing a target state's ability to persevere sanction implementation will help support the conclusion on which I have based my analysis. This study will also allow me to show the complexity of this issue. For this short case study, I will look at the case of imposed economic sanctions against the Islamic Republic of Iran.

Iran is considered by many to be an example of the failure of economic sanctions to coerce other states. Iran has been under various forms of economic sanctions since the revolution that removed the Shah of Iran from power in 1979. The U.S. is often the primary sender in the Iranian case, accounting for the vast majority of the cases against Iran. The two countries have had a very strained relationship for the past four decades, and the U.S. has implemented sanctions against the Middle Eastern nation countless times during this timeframe (Askari et al., 2003).

This was not always the case. Iran had once been one of America's strongest allies. The Shah of Iran had been a close ally of the U.S., owing his rise to power to the CIA. The CIA had helped him depose the then democratic government as part of a power grab during the WWII era. The U.S., United Kingdom and the Soviet Union had been grappling for power throughout much of the conflict, in anticipation of a post-war change in the international power dynamic. The U.S. had also been intent on dismantling any remanence of the British Empire, which Iran had been part of (Herring, 2008). Iran had received particular attention from the U.S. due to its oil wealth and its strategic position as a supply route to the embattled Soviet Union. So to secure a position of influence within the Iranian government, the U.S. assisted in the overthrow of the democratic regime that was governing the nation at the time.

This move did not win the U.S. any favor with the Iranian people. The Shah would prove to be a brutal dictator, using harsh repression to keep the nation under his control. This of course led to resentment towards the U.S. among the Iranian people. Many saw the U.S. as supporting the Shah's brutal tactics, which they actually were. The CIA had been very active in training the Shah's secret police force, which he used to



violently repress the Iran people. This resentment toward the U.S. was made evident very early in the revolution when a group of angry students stormed the U.S. embassy, taking its occupants hostage. U.S. public opinion shifted overnight as Americans woke up to pictures of American hostages plastered all over the news (Askari et. al, 2003).

The position of the U.S. toward the Middle Eastern nation has changed drastically since the hostage crises. In the preceding years, the U.S. had imposed economic sanctions against Iran countless times. Currently the U.S. government has multiple sanctions implemented against Iran. These sanctions are so severe that they have basically cut off all political, economic, and diplomatic ties between the two nations (O'Sullivan, 2010). O'Sullivan (2010) even goes as far as to call them the most stringent portfolio of economic sanctions in the current world system.

For the past 30-plus years, the U.S. has had various sanctions implemented against the nation, claiming that the government is directly supporting several terrorist organizations, such as Hamas, Hezbollah, and Palestine Islamic Jihad (Eckert, 2010). Iran has been on the U.S.'s list of State Sponsors of Terrorism since January 19, 1984. Iran is one of four nations on this list (U.S. State Department). The U.S. classifies State Sponsors of terrorism as "countries determined by the Secretary of State to have repeatedly provided support for acts of international terrorism are designated pursuant to three laws: section 6(j) of the Export Administration Act, section 40 of the Arms Export Control Act, and section 620A of the Foreign Assistance Act" (U.S. State Department). The U.S. is not alone in accusing the Iranian government of supporting international terrorist organizations. Many of the U.S.'s European allies have followed suit, implementing sanctions against Iran for sponsoring terrorist organizations. Many of

which did so after the Lockerbie bombing, in which terrorists set off a bomb on a commercial airliner over Ireland. Iran and Libya were accused of supporting the terrorists that carried out the act (Eckert, 2010).

However, the most salient case, in terms of the international community, of economic sanctions levied against Iran are those put in place to halt the nation's nuclear ambitions. Under international law, only the permanent members of the U.N. Security Council are allowed to possess nuclear weapons. This has become an established norm and largely accepted standard. Iran has signed both the 1968 Non-Proliferation Treaty and the 1974 Safe Guards agreement. The 1968 Non-Proliferation Treaty forbids nations other than permanent members of the U.N. Security Council from acquiring nuclear weapons. The 1974 Safe Guards agreement requires signees to report the processing and/or use of nuclear materials (Gold, 2009). However, it should be noted that both of these agreements were signed by the Shah of Iran's government, a fact that the current Iranian regime believes makes them illegitimate.

Not surprisingly, the international community has largely come out against the emergence of a nuclear Iran. Many believe that the presence of a nuclear Iran could cause unforeseen damage to the stability of the region. Many fear an increased threat to Israel, which Iran does not recognize as a sovereign state. Furthermore, many fear that Iran's continued defiance to both the U.N. Security Council and the International Atomic Energy Agency (IAEA) could undermine the effectiveness of nonproliferation agreements. Iran's continued defiance could cause a perception that the U.N. Security Council is either unwilling or unable to enforce nonproliferation agreements (Chubin, 2006). This could, in turn, cause other states to actively pursue nuclear technology. The

U.S., France, Germany, the United Kingdom (E-3) and the IAEA have worked together over the years to try to pressure the Iranian regime to stop its effort to acquire nuclear technology, their principal claim being that the presence of a nuclear Iran threatens the stability of the region and is a matter of national security. As Gold (2009) explains, the involvement of the IAEA is important since it diminishes the claims put forward by others that these efforts are just an extension of the strained relationship between the U.S. and Iran. The involvement of the IAEA brings neutrality to the international effort to stop Iran's current nuclear ambitions.

The Iranian government, however, argues that their intentions are entirely peaceful (Chubin, 2006). Iran's leaders argue that it is their sovereign right to acquire and use nuclear technology (Gold, 2009). The Iranian government claims it is seeking nuclear technology in order to generate electricity, diversify its economy, and possibly become a regional supplier of peaceful nuclear technology in the future. The nation is largely an oil-exporting economy, and claims that the development of nuclear technology will help it become a more scientific and modernized state (Chunbin, 2006).

This is, of course, disputed by many in the international community. The U.S. claims that Iran is trying to become a regional hegemon. They point to the fact that the Iranian government has been trying to purchase various forms of advanced military technology from nations such as China, Russia, and North Korea. The U.S. claims the pursuit of such technology is proof of the underlying malicious intent of the Iranian government. These military technologies include Scud and Rodong ballistic missiles, Silkworm cruise missiles, and Kilo-class submarines (Amuzegar, 1997).

The U.S. also points to Iran's continued claim of sovereignty over the Island of Abu Musa, which is located along oil routes in the Persian Gulf, as a sign of Iran's continued desire to be a regional hegemon (Eckert, 2010). This is a long-standing dispute between Iran and the United Arab Emirates. Iran has been strong-worded in its claim of sovereignty over the island. As many would point out, a nuclear Iran would be in a much better position to defend the island.

Much of the international community agrees with America's claims and as a result have implemented sanctions against Iran. This includes sanctions directly imposed by the U.N. Security Council, after years of negotiations to get Iran to comply with the efforts of the IAEA. In all, the Security Council has passed three resolutions against the Iranian government. Though as O'Sullivan (2010) states, China has been a roadblock in the Security Council's ability to implement and enforce economic sanctions against Iran.

There have been mixed claims when it comes to how successful economic sanctions have been in damaging the Iranian economy. Amuzegar (1997) argues that much of the talk about economic sanctions destabilizing the Iranian economy can be simply boiled down to rhetoric from politicians and policy makers. He contends that sanctions have been relatively ineffective.

Askari et al. (2003), argue that Iran's economic hardships can be explained by other factors that have nothing to do with the economic sanctions that have been levied against the nation. Iran's per capita GNP has steadily decreased throughout the implementation of economic sanctions. But as the authors point out, this can be explained by rapid population increases, which Iran has experienced throughout the implementation of economic sanctions. The nation's population increased by about 3 percent every year

from 1979 through 1998. During this time frame, the nation also saw a steady decrease, about 2 percent, of export revenue. The oil revenues also decreased during this time frame, decreasing around 4 percent annually. But during much of this time frame the majority of oil-producing nations also experienced a drop in oil revenues. Furthermore, Iran's internal oil needs grew drastically during this time frame. With a fast-growing population the need for Iran to use its oil wealth internally increased. Also during the course of the economic sanctions, Iran remained a largely centralized economy, with much of the nation's industries being controlled by the government. This would naturally affect the growth of the nation's economy.

Askari et al. (2003) point out that Iran was forced to fight a devastating war with Iraq during the beginning years of economic sanction implementation. Wars are expensive, and the Iranian government was confronted with a well-equipped adversary who was receiving intelligence support from the U.S. Saddam attacked shortly after the Iranian revolution, when the Iranian hostage crises was still going on. So, naturally the U.S. was not overly eager to come to Iran's aid. The U.S. claimed neutrality but did not discourage Iraqi aggression. The U.S. also looked the other way as Iraq used chemical and biological weapons against the Iranians. This left the Iranian people more upset with the Americans and the nation's infrastructure and economy damaged.

As Amuzegar (1997) points out, there is evidence that the Iranian economy is doing fairly well. He states that the Iranian government has begun to build up the nation's infrastructure. Eckert (2010) states that the government has begun to rebuild much of infrastructure destroyed or damaged during the hostilities of the Iran-Iraq conflict. He

also explains that the Iranians have begun to build and use multiple new sea and air ports. This suggests that the nation is trading regularly.

Amuzegar (1997) contends that visitors to the nation have reported much of the country's infrastructure, oil facilities, farmland, manufacturing plants, and electric power plants were being repaired. Also, the Iranians seemed to be expanding their oil and natural gas pipelines and networks. Urban area telecommunication networks were being expanded. It is now much more common for Iranians to have access to advance telecommunication, such as faxes and mobile phones. Amuzegar (1997) points out that the Iranian government had been actively building new dams and modern irrigation systems for the nation's agricultural sector. The government was also clearly spending a lot of money improving its roads, water, gas, electricity, and telephone systems. The nation also had an expanding metallurgical industry. They are today very active in exporting steel, copper, and aluminum. Eckert (2010) sums things up by pointing out that the International Monetary Fund (IMF), the World Bank (WB), the United Nations Development Program (UNDP), and the European press all indicated that the effects of sanctions were only having a marginal effect on the Iranian economy.

It is also very clear that the Iranian government is still able to trade oil and industrial goods to its close allies, most notably, China. For many years, China has acted as a black knight in the Iranian case. China is a rapidly growing economy and has experienced immense industrialization as the government's economic reforms have pushed the nation into an industrial revolution (Eckert, 2010). China's industrialization has been accompanied by a dramatic rise in the nation's population, which has created a high demand for oil. This has all led the rising power to align itself with Iran.

For Iran, China is an irreplaceable ally. China is one of the five permanent members of the U.N. Security Council, which is responsible for preventing nuclear proliferation. In recent years, the U.N. Security Council has pressured Iran to cooperate with the IAEA. Iran has remained uncooperative, so the U.N. has been forced to implement economic sanctions against the nation on three separate occasions (Eckert, 2010). But as Eckert points out, finding consensus between the Security Council members has proven difficult given the dependency of China on Iranian oil and Russia's history of support for the Iranian government. She points out that there has been a severe lack of follow-up on compliance in the Iranian case compared to other sanction cases. In fact, no special committee has even been set up to monitor compliance, which is commonplace in almost every other case. Eckert (2010) explains it well when she states that "It appears that the enormous effort to achieve consensus to impose sanctions in the first place has left little enthusiasm for aggressive enforcement, and lack of political will has resulted in half-hearted measures" (p. 73).

This is reiterated by Ong-Webb (2009), who points out that both Iran and China have the other in its pocket. He states that the Chinese are desperate for oil, and that currently Iranian oil makes up 12 percent of their annual imports. Furthermore, the Iranians are desperate for Chinese manufactured goods, since no one else will trade with them. Chinese dependence is further shown by the fact that China has generally supported actions against nuclear proliferation in the past, but simply not in the case of Iran.

Taking this all into account, we can come to a couple key conclusions. First and foremost, the sanctions levied against Iran have failed to show any returns for the west;

Iran is still defiant in sticking to its ways. Despite being under economic sanctions for the majority of the time since the Iranian revolution, the Iranian economy has not suffered that severely from the implementation of economic sanctions. Many of Iran's economic issues during this time frame can be explained by other factors. Secondly, I would argue that the sanctions levied against Iran have been severe. The U.S. and its European Allies have heavily restricted trade to the Middle Eastern nation. We also see that there is a black knight in this situation. As China has continued its rise as an economic world power, it has become very dependent on Iranian oil to support its growth. This relationship has led to China continuing to trade with Iran, despite immense international pressure not to.

This is important to my analysis because this case shows exactly how resource wealth can increase the ability of a state to survive. Despite the growth of its industrial sector, the Iranian economy is heavily dependent on oil (Askari et al., 2003). This is clearly the main pillar of the Iranian economy. If the nation was unable to sell oil, it can be assumed that conditions would be much different. Furthermore, China has shown considerable support for nonproliferation actions by the international community. We can assume if Iran did not have oil wealth, China would take a much different stance on the Iranian situation. Though we will probably never know if things would have turned out differently if Iran did not have oil wealth, we can see that its resource wealth has increased the ability of the nation to remain defiant as long as it has.



## Theoretical Argument

This sampling of the literature tells us several things that we can use when coming up with a theory about how natural resources affect economic sanctions. First, the literature is starkly divided on the topic of whether sanctions are an effective tool. As such, researchers have begun to explore the facts that determine sanctions success. Above I explained how natural resources have been shown to have a major effect on a nation's internal governmental structure, as well as a nation's ability to industrialize and progress into a "developed" economy. There is strong evidence that natural resource wealth encourages authoritarian governments to form, often allowing those that control the valuable resource to maintain control of the nation. We also see that natural resources have been shown to increase the ability of the actors in civil conflict. Taking that into account, we can logically assume that natural resource wealth should also give targeted states a distinct advantage in cases of economic sanctions.

It has been shown in the literature that having a strong trading partner that does not give into international pressure helps a targeted nation persevere sanction implementation. This has even become a standard control variable within much of the research (Haufbauer, Schott, and Elliott, 1990; Drury, 1998; Drezner, 1998). I would argue that the presence of natural resource wealth will increase the willingness of other nations to continue to trade with a targeted state, despite the chance of retribution from other international actors. For example, if the U.S. decides to sanction an oil-rich state, it is possible that another economic power, such as China, will be willing to continue to trade with the targeted nation. This can be assumed through a simple cost gain analysis. In the eyes of said nation, the gains from continuing to trade with a sanctioned state may

outweigh the possible negative cost from upsetting the sender nation(s). So natural resource wealth will ultimately increase the ability of targeted states to survive the implementation of sanctions. This theory could help explain why oil-rich states like Iran and Iraq are able to survive economic sanctions for long periods of time. Based on the literature I have presented here, we should see a higher rate of failure of economic sanctions in cases where the targeted nation has resource wealth. This leads me to my hypothesis, which is presented below.

*Hypothesis 1: Given natural resource wealth, targeted regimes will be more equipped to bear the burden of economic sanctions and therefore will be more likely to resist the will of the sender nation(s).*

As I have indicated in my examination of the current literature, the threat stage of economic sanctions matters. It is very logical to assume that natural resource wealth will directly affect the actions of both sender and target nations within the threat stage. I would argue that target states will perceive themselves as having an increased ability when it comes to economic sanctions. We can logically assume that if a nation has a valuable resource it will believe that it will still be able to sell its valuable resource to nations other than the sender nation. Given this perceived advantage, targeted states will be less likely to give into the demands of sender states. Senders should also be unlikely to drop their threat, due to the logical assumption that they have already weighed the costs of implementing economic sanctions. This leads me to my second hypothesis, which is shown below.

*Hypothesis 2: Given natural resource wealth within the target state, cases in which economic sanctions are threatened will be more likely to progress to the actual implementation.*

We can also assume that if a case does not actually progress to the implementation stage, a target state most likely does not see itself as having an increased ability to persevere the implementation of economic sanctions. This could be caused by multiple factors. There may be a lack of nations other than the sender that it can trade with, trade with the sender nation may be worth more than concessions, or the target may see its allies as being supportive of the sender attention. Most notably would be the position of key allies. As McLean and Whang (2010) have shown, this is a factor that affects the actions of targeted states. Taking this into account, we can logically assume that if a case of the threat of economic sanctions is resolved in the threat stage, the sender will have gained more from the compromise than the intended target. This leads me to my third hypothesis, which is shown below.

*Hypothesis 3: Given natural resource wealth in the target state, in cases in which sanctions do not progress to the imposition stage, targeted states will concede more in a compromise than sender nations.*

In the following sections I will test this hypothesis both empirically and qualitatively.

## Empirical Model

As I have mentioned above, I wish to explore the effects of natural resources on the success of economic sanctions. The general idea is that nations will be able to supersede the negative cost of sanctions if they have resource wealth. In the following, I will use an Ordinary Least Squares model (OLS) to operationalize my first and third hypotheses. I have chosen to do this because the dependent variable for these two analyses will be a ten point ordinal measure. For my second model I will run a probit analysis. I have chosen to do this because this analysis will use a dichotomous variable for its dependent variable.

My first model will look at the ability of states with resource wealth to survive the implementation of economic sanctions. The final two models will look at the ways in which states act during the threat stage. Once again the general idea is that states with resource wealth will act differently because they realize that they have an advantage in terms of sanction survival.

As my sample I will use cases in which G8 member states and/or the European Union are considered to be the primary sender from 1980 until 2005. The term “primary sender” simply represents the state that first initiates and/or takes the lead in a push for the use of economic sanctions. I have decided to use cases in which G8 member states and the European Union are primary senders for several reasons. First, these nations make up the vast majority of sanction activity and therefore provide me with an ample sample size. This will allow me to more adequately explain the variation in the effects of economic sanctions. Secondly, scholarly research has shown that sanctions put forward

by the hegemonic power, economically powerful states and powerful international organizations have the largest effect (Drury, 2001).

As the last true superpower, the U.S. is clearly the hegemonic power in the current international community and has a very powerful economic reach throughout the world. The rest of the G8 nations are also very powerful economic powers as well. So we should see them wield this form of coercion more than weaker states, and do so more effectively. The European Union (EU) is arguably one of the most powerful International Governmental Organizations (IGOs) in the world. Europe contains some of the most powerful economies in the international community. As integration has occurred among the nations of Europe, the EU has become a powerful economic actor within the international community. So, together the U.S., G8 member states, and the EU should theoretically implement the most powerful and effective economic sanctions.

For the purposes of this study, I will eliminate all cases in which the European Union is the target. I have chosen to do this simply for the fact that there is no set measure of natural resource wealth for the entirety of the union. Furthermore, given the complexity of the European Union and the previous European Economic Community, it would be difficult to calculate this measure myself while ensuring the integrity of my model.

I will use the data from the University of North Carolina TIES database to account for cases of sanction threat and implementation during the time period given above. This is a prominent data source on economic sanctions and covers the time period I have chosen. This dataset is currently coded to include all cases of economic sanctions

implemented in or before 2005. There is continued data on many of these cases that were not concluded before the end of 2005.

I have excluded several types of sanctions from my model. As I have already mentioned, sanctions have become a major staple of foreign diplomacy for the economic powers of the world. The large economies often implement minor sanctions against each other for various perceived trade violations and other minor issues. The U.S. in particular is very fond of this method of coercion. For example the U.S. has implemented minor sanctions against Canada many times over the years as a way to send a message of disapproval for minor trade disputes. These sorts of sanctions more or less act as a simple signal of disapproval toward other large economies. In most cases the infraction is minor and does not really lead to any further confrontation. For this reason I have excluded these cases from my sample. This is the norm for research within the study of economic sanctions (Drury, 2001). As such, I have excluded cases which the TIES dataset classifies as being implemented for the improvement of environmental policies, trade practices, implementation of economic reform, and other.

I have also removed cases in which direct economic pressure was not used against the target state. These include cases such as asset freezes (of regime officials), travel bans (of regime officials), and withdrawals from previous trade agreements. These cases simply do not fit into my model, in the sense that they do not relate to the ability of a nation to withstand economic sanctions. Including these cases would simply bias my results, and negatively affect the accuracy of my analysis.

Given the format of my data, I have been forced to cut multiple observations from my analysis. This is due to the fact that in order to combine the World Bank and TIES dataset you can only have one observation for every country, during each year. As anyone who studies sanctions knows, it is very common for a sender state to make multiple threats at a given time. Furthermore, the TIES dataset codes changes to a given set of sanctions as a brand new case. This method of coding can leave one with multiple cases for one disagreement. In order to facilitate the merging of the TIES and World Bank datasets, I went through the data and kept the most severe case for each country in each year. In order not to bias my sample, I created a variable that accounts for how many cases were levied against each state each year. For example, if there were six cases put forward against Iran in 1996, the case variable would receive a value of six. By doing this I avoid biasing my sample and avoid any possibility of error from self-coding.

For all three of my models I will use resource wealth as my independent variable. For my measure of resource wealth, I will use a measure of income from natural resource rents. I will use the World Bank Development indicators dataset to calculate this variable. I will calculate this measure by multiplying a nation's total GDP for the given year by the percent of GDP from natural resource wealth. I will then log this measure, as is common practice within the literature. I have decided to use this measure for multiple reasons. This measure will give me one uniform measure of resource wealth, which should help limit any bias in my sample that could arise from accounting for many forms of resource wealth separately. Secondly, for the purposes of this model, I wish to look at all natural resource wealth, not just simply the resources typically associated with the resource curse, such as oil and natural gas. But rather, I would like to account for all resource

wealth; this will include everything from oil reserves to cocoa crops. I will use the percent of GDP from natural resources for a given nation the year before the threat of sanctions. I will take this measure and use it to calculate the numeric value of a nation's GDP from the year before economic sanctions were implemented. I will use this numeric measure as my indicator of resource wealth.

### First Analysis

My first analysis will test my first hypothesis, which argues that states with resource wealth will have an increased ability to survive the imposition of economic sanctions. For this model my dependent variable will represent the ability of a regime to withstand economic coercion. Much of the literature on economic sanctions uses a dichotomous variable that accounts for the success of economic sanctions in a given case. This measure is generally calculated by researchers looking at a case and deciding whether the use of economic sanctions was successful in persuading the targeted states to give into the demands of the sender nation(s). I would argue that the use of this sort of measure is problematic. The fact of the matter is that negotiations between states are complex; they are not by any means simple. I would argue that using a simple pass/fail sort of measure causes a study to miss out on the variation one sees in negotiations. For example it is perfectly possible to have two nations both cave to the demands of a sender, but have one state give up less than the other. By using a simple dichotomous variable one misses out on this variation. I would argue that this variation is important to measure, especially when looking at a state's ability to survive the implementation of economic sanctions. Just because a sender state is seen as "winning" does not mean that the target state did not come out better through negotiations. Taking my argument into account, we



can assume that a state with resource wealth will have a better position at the negotiating table. I would argue that it is very important to use a measure that accounts for the variation in settlements.

Taking this all into account, I have chosen to use the TIES dataset's target settlement variable as a proxy for state ability. This variable measures the settlement outcome in terms of the goals of the target on a ten point scale. "The scale ranges from 0 to 10, with 10 representing the best possible outcome for the settlement. As best as possible, coders should assign a number between 0 and 10 to approximate the nature of the settlement. For example, in a case where the U.S. threatens China with trade sanctions, the coder may believe that the U.S. and China had a roughly equally favorable outcome, but slightly favoring the U.S." (TIES Codebook). This will allow me to accurately assess the capability of a nation to withstand coercion through economic sanctions. Targeted states that concede to all or most of their goals can be assumed to have little perceived ability to survive the implementation of economic sanctions, while targeted states with an increased ability should fall on the higher end of this scale.

I will also use multiple control variables in my model, the first of which will be an allies variable. This variable will account for the number of G8 members that acted as secondary senders in each case of economic sanctions. It is logical to assume that the severity of a case will increase as more powerful economies participate. It can also be assumed that other nations will be less likely to act as black knights and continue to trade with the sanctioned state out of fear of greater reprisal. I have simply calculated this value by counting the number of G8 nations listed as secondary senders within the TIES dataset. Furthermore, the participation of more large economies may weaken the

negotiating position of the targeted nation, which would directly affect my dependent variable.

My second control variable will be a dummy variable for cases that occurred during the Cold War. When doing a study of this sort it is important to look at sanctions implemented during and after the Cold War differently (Drury, 1998). During the Cold War the U.S. and its European allies implemented sanctions largely to dissuade the spread of communism. Since the breakup of the Soviet Union the foreign policy goals of both the U.S. and the European community have changed. The black knight concept originated from the Cold War era. During this time frame the East and the West were in constant competition for influence all around the globe. So if one of the two superpowers sanctioned a nation, it was very likely that the other would begin to economically support the nation in an attempt to undermine its adversary's position. Considering this, I would argue that it is important to take this dynamic into account. Given that it is commonly thought that the Cold War officially ended in 1993, I have coded all cases that took place before 1993 as a one and all case afterwards as a zero.

I will also use a variable to account for the severity of the economic sanctions implemented. This is an important component to any analysis of economic sanctions. Economic sanctions are very complex and often designed specifically to attempt to cause as much harm as possible to the target. Also, each set of sanctions will be tailored for a specific effect, which may be severe or mild. Due to this vast variation between cases, it is essential to account for the severity of a series of economic sanctions. There have been multiple factors and variables put forward by the literature. These include such measures as prior relationship between the target and sender, state of the target's economy, state of

the target's political system and intensity of international pressure. In much of the literature, these various control variables are accounted for individually. But for my analysis I have chosen to use a single variable to account for the severity of sanctions for several important reasons. First and foremost, it is difficult to find a trustworthy dataset that accounts for all of these factors. I would argue that pulling measures from various sources can possibly damage the accuracy of one's model. Many of these variables are coded by individual researchers, so using multiple sources brings about the possibility of data inconsistency. Also I would argue that having a long list of control variables can cloud a model. There is a fine line between accounting for every possible alternative factor and preserving the integrity and simplicity of a model.

As such I have decided to use the TIES dataset's cost to the target nation variable. This is a measure that accounts for the overall cost of a case on economic sanctions on a targeted state. This variable takes into account the many variables that account for the severity of economic sanctions. This variable is coded as an ordinal measure. A value of one represents minor economic hardship, while a value of three represents severe economic hardships. The criteria in which this variable was coded follows.

(1) "Minor : An episode should be coded as minor if no evidence exists that the health of the target's economy was impacted by the actions of the sender.

(2) Major : An episode should be coded as major if evidence exists that the sender's sanctions resulted in significant macroeconomic difficulties on the health of the target economy. Evidence of major effects may include abnormal changes

(increases of over 5%) in the inflation or unemployment rate of the target economy or drastic reductions in trade relationships.

(3) Severe : An episode should be coded as severe if evidence exists that the sender's sanctions halted the ability of the target's economy to function. Evidence of a severe threats include reports that a country may lose the ability to obtain critical supplies (such as food, water, electricity, oil), increases the mortality rate, or completely loses the ability to trade with foreign governments.” (TIES Codebook)

I will use the length of the sanctions as another control variable. It is important to account for the length in which sanctions were implemented for two main reasons. First is that nations are often able to hide or compensate for the negative effects of sanctions in the early stages of their implementation. But as time passes it becomes harder for them to do so. Secondly, as sanctions continue, more and more damage is theoretically done to a targeted nation (Nossal, 1989). So it is only logical to assume that each nation will have a breaking point, so to speak. At this point the nation will give into outside pressure. As time goes on it is more probable that this point will be reached. I will account for the length of sanctions by giving a simple numeric value to each case. For example, a nation that endured the use of sanctions for ten years will receive a value of ten. I will use standard rounding rules to simplify my values for this variable. I will measure from the time that sanctions were first threatened by the sender state and stop at the point in time that either the sanctions were removed or policy changes were made by the targeted nation. This is the norm when it comes to measuring sanction length. I will also start and stop at the parameters of my time frame.

For my final control variable I will use a dummy variable for the presence of an International Organization (IO) within the sanctioning process. It has been shown by the literature that the presence of an IO can help increase the likelihood of success in cases of economic sanctions (Drury, 1997). I will use the IO variable provided in the TIES dataset. This is a simple dichotomous variable. A value of one indicates that an IO was directly involved in the sanctioning process, while a value of zero represents no direct involvement by an IO.

### Second Analysis

My second analysis will test my second hypothesis, which argues that cases in which the target state has resource wealth will be more likely to progress from the threat stage to the actual implementation of economic sanctions. For this model I will only include cases in which a clear threat was given by the sender state. If a clear threat was not given by the sender to the target state, the target state would not have had a chance to negotiate with the sender state before economic sanctions were actually implemented. So therefore, these cases do not fit with my model. I will account for this by using the threat variable included within the TIES dataset. This is a simple dichotomous variable that accounts for whether a clear threat was given by the sender nation(s). I have simply dropped all cases in which a clear threat was not given.

I will also use a simple dichotomous variable to account for whether economic sanctions were actually implemented against the target state. A value of zero will indicate that sanctions were not implemented, while a value of one will indicate that sanctions were implemented. For this model, I will once again use my natural resource wealth

variable as my independent variable. I will also include my Cold War, Allies, IO and number of cases control variables used in my first model.

I will use two other measures in this model in order to account for the perceived severity and costs associated with each case of a threat of economic sanctions. Given the fact that in many of these cases sanctions were not actually implemented, I cannot use the cost of economic sanctions variable used to account for severity in my first model. The first control variable I will use is a measure of the commitment of the sender state. This accounts for the overall salience of the issue to the sender nation. It can be logically assumed that the commitment of the sender will directly affect its willingness to move from the threat stage to the implementation stage of economic sanctions. For this reason it is important to account for sender commitment within my model. I will use a variable provided in the TIES dataset to account for sender commitment. This is an ordinal measure. A value of one represents weak commitment by the sender, while a value of three represents strong commitment by the sender nation. The TIES dataset codes this variable as follows.

- (1) “Weak: A statement qualifies as weak if the sender’s threat indicates that if the target state fails to alter a certain behavior, the sender will consider numerous possible options, including sanctions. An example of a very weak commitment is as follows, French trade policy is unacceptable. Germany will consider several various political and economic courses of actions to address this problem.
- (2) Moderate: A statement qualifies as moderate if the sender’s threat indicates that if the target state fails to alter a certain behavior, the sender will consider sanctions

as a possibility. For a commitment to be considered moderate, some form of sanctions must be specially mentioned as a possible response. An example of a moderate commitment is as follows, French trade policy is unacceptable. Germany will consider increasing tariffs to address this problem

- (3) Strong: A statement qualifies as strong if an “if ...then” statement can be identified. An “if...then” statement means that the sender is explicit that if a certain behavior is not altered, then a form of economic sanctions will be imposed. An example of a strong commitment is as follows, French trade policy is unacceptable. If such policies continue, Germany will increase tariffs to address this problem.” (TIES Codebook)

The second new measure I will use is the anticipated cost to the sender. We can logically assume that as the perceived costs of economic sanctions increase, so will the likelihood that sender states will concede during the threat stage. Taking this into account, it is important to account for the perceived costs of sanction implementation. This measure will be a one to three ordinal variable. The TIES coding description is listed below.

- (1) “Minor: An episode should be coded as minor if no evidence exists that the health of the target’s economy will be impacted by the actions of the sender.
- (2) Major: An episode should be coded as major if evidence exists that the sender’s sanctions will impose significant macroeconomic difficulties on the health of the

target economy. Evidence of major effects may include abnormal changes (increases of over 5%) in the inflation or unemployment rate of the target economy or drastic reductions in trade relationships.

- (3) Severe: An episode should be coded as severe if evidence exists that the sender's sanctions have the potential to halt the ability of the target's economy to function. Evidence of a severe threat include reports that a country may lose the ability to obtain critical supplies (such as food, water, electricity, oil), increases the mortality rate, or completely loses the ability to trade with foreign governments.”  
(TIES Codebook)

### Third Analysis

My third analysis will test my final hypothesis, which argues that states with resource wealth will be more likely to concede more in negotiations if the threat of the use of economic sanctions never progresses to the imposition stage. I will once again only use cases in which a clear threat was given by the sender nation(s). For my dependent variable I will once again use the target settlement variable used in my first model. My dependent variable will be my measure of natural resource wealth. I will also use my anticipated costs to target, sender commitment, Allies, number of cases, and Cold War control variables used in the previous analyses. I have excluded my IO measure from this model due to missing data issues.



Before I move on to actual analysis, I feel it is important to address an issue that some may have with my model. One of the common control variables often used in the economic sanction literature is a targeted nations GDP. Generally speaking, as the wealth of nation increases so does its ability to survive the implementation of economic sanctions. Due to the fact that I am using a measure of GDP as my independent variable, some may argue that I need to account for overall GDP in my model. I have decided not to do this for multiple reasons. First and foremost my analysis concentrates largely on resource-dependent economies. In many of the resource-dependent economies in my study, GDP from natural resource rents directly account for a nation's wealth. If I were to account for GDP by itself I would be measuring wealth twice in many cases. This, I would argue, would damage my model, in the sense that I would not be accurately measuring the effect of resource wealth. Finally, the overall wealth and strength of an economy is accounted for in my standard severity measure. The literature has clearly shown that the costs of economic sanctions are generally less for wealthier nations. So the overall cost of economic sanctions will be lower for these states, while they will be higher for poorer nations. Economic factors are directly accounted for within the cost of economic sanctions variable that I am using as my severity measure. So GDP is accounted for in my analysis, I have simply chosen to account for it in a way that does not negatively affect the accuracy of my study.

### Empirical Results and Discussion

In this part of my analyses, I will run the empirical models I described in the last section. I will work through all three of my models in subsequent order, describing the results for each individual model. Then I will broadly discuss the results and what they

tells us about the effects of resource wealth on the implementation of economic sanctions. Furthermore, I will explain why we may be seeing these results.

Table.1 Empirical Test Hypothesis 1

Target Settlement Outcome	Coef.	Std. Err.	t	p value	95% confidence
Natural Resource Rents (GDP)	.3038852	.1710235	0.89	0.043**	.0464405, .654211
Allies	.4779546	.4331865	0.55	0.139	-.4093878, 1.365297
Cold War	2.21484	.7290052	1.52	0.002***	.7215407, 3.70814
IO	.7991316	1.09	0.54	0.142	-6984965, 2.29676
Length	-.1622434	.0857845	-0.94	0.0345**	-.337965, .0134781
Target Costs	-.7076591	3.623585	-0.56	0.1365	-2.003142, .5878236
Cases	-3.581542	1.249694	-0.14	0.004***	-6.141425, -1.02166
cons	.4390489	.6767605	0.65	0.519	-.9142174, 1.792315

p < .1 \*      p < .05 \*\*      p < .01 \*\*\*      n = 37

The results of my first empirical analysis are given above. As we can see, my variable accounting for natural resource wealth is shown to have a significant effect on sanctions outcomes. The coefficient for this variable is also positive, which indicates that as resource wealth increases so does the settlement outcomes for targeted states. This provides evidence for my first hypothesis, which argues that states with resource wealth should have increased capacity to survive the implementation of economic sanctions. We also see the Cold War, length, and cases variables being statistically significant.

Table.2 Empirical Test for Hypothesis 2

Imposition	Coef.	Std. Err.	z	p value	95% confidence
Natural Resource Rents (GDP)	-.0305964	.0265939	-0.57	0.127	-.0837742, .0225815
Allies	.167403	.0932418	0.90	0.039**	-.0190454, .3538515
Cold War	-.0130128	.1300496	-0.05	0.460	-.273063, .2470374
IO	-.047801	.1340115	-0.18	0.361	-.3157735, .2201716
Anticipated Sender Costs	.2548974	.3610367	0.35	0.241	-.4670401, .9768349
Anticipated Target Costs	.0057734	.1239282	-0.02	0.481	-.253583, .2420363
Sender Commitment	.0472749	.0913287	0.26	0.303	-.135348, .2298979
Cases	.1520111	.1827249	0.41	0.204	-.21337, .5173922
cons	.4390489	.6767605	0.32	0.259	-.9142174, 1.792315

p < .1 \*      p < .05 \*\*      p < .01 \*\*\*      n = 70

The results of my second analyses are listed above. As we can see the variable accounting for natural resource wealth is not significant. It appears that resource wealth does not have an effect on the progression of cases from the threat stage to the imposition stage. Based on these results I am unable to accept my second hypothesis, which argues that nation states with resource wealth are more likely to progress from the threat stage to the imposition stage. The only variable we see showing significance is the Allies variable.

Table.3 Empirical Test of Hypothesis 3

Target Settlement Outcome	Coef.	Std. Err.	t	p value	95% confidence
Natural Resource Rents (GDP)	-.0533308	.2020693	-0.13	0.397	-.4654539, .3587922
Allies	-5.173023	2.784186	-0.93	0.036**	-10.85141, .5053609
Cold War	1.225728	1.277515	0.48	0.172	-1.379781, 3.831237
Anticipated Target Costs	-1.988435	.9438088	-1.05	0.021**	-3.913346, .0635244
Sender Commitment	-.4136114	.5774825	-0.36	0.239	-1.591395, .764172
Cases	-3.057675	1.455107	-1.05	0.022**	-6.025385, .0899644
cons	14.4333	4.67719	1.54	0.002	4.894109, 23.97249

p < .1 \*

p < .05 \*\*

p < .01 \*\*\*

n = 38

The results from my third analysis are shown above. As we can see the variable accounting for natural resource wealth is once again not significant. This tells us that resource-rich states do not seem to act any differently than non-resource-rich states in threat stage compromises. There is not sufficient evidence to support my third hypothesis, which argues that states with natural resource wealth will concede more than non-resource-rich states in threat stage compromises. We do, however, see statistical significance in my anticipated cost variable as well as dummy variable for the number of cases.

We can draw several conclusions from these results. First and foremost, my analysis provided evidence in support of my first hypothesis. We see that as resource

wealth increases, so does the likelihood that a target state will have a better outcome at the end of the episode. This supports my overarching theory that natural resource wealth increases the capacity of targeted states to persevere sanction implementation.

Given the evidence provided, I am unable to affirm my other two hypotheses, which dealt with the way in which resource-rich states act during the threat stage of economic sanctions. The evidence suggests that states with natural resource wealth are no more likely to progress from the threat stage to the implementation stage than states without resource wealth. My analysis also provided no evidence that resource-rich states act any differently in settlements during the threat stage. A possible explanation for these results could be that resource-rich states are unsure if there will be a black knight available once sanctions are implemented. This may be a risk leaders are not willing to take. Well-placed economic sanctions can be crippling to an economy. The willingness of an ally to continue to trade with a targeted state can have a major effect on the severity of imposed sanctions. Iran and Iraq may provide a perfect example of this occurring.

China and Russia have both continued to trade with Iran throughout the currently imposed economic sanctions (Eckert, 2010; Ong-Webb, 2009). But Iraq was not so lucky. Iraq was cut off by everyone, even OPEC. The Iraqi economy suffered a lot more than the Iranian economy (Cordesman, 1999). Given the self-serving nature of the international community, states may not be willing to rely on allies to support them through the imposition of economic sanctions. So resource-rich nations may not respond differently to the threat of economic sanctions than non-resource-rich states. If this is true, nations with natural resource wealth may not act any differently than other states when they are threatened with the use of economic sanctions.

## Conclusion and Future Research

As I have shown, the literature is somewhat divided on the success of economic sanctions. Those that oppose their use argue that they are historically ineffective, that implementing states are forced to bare economic costs with little chance of any returns. Proponents, however, argue that sanctions are very complex and often the threat of their use is enough to persuade targeted states to cave to the sender's demands. But as the literature has developed, many have begun to look at the individual characteristics and factors that cause economic sanctions to work in some cases, yet fail in others. This is the area that I set out to explore further.

My empirical analysis has provided evidence in support of my first hypothesis, that natural resource wealth increases the ability of nations to persevere the implementation of economic sanctions. My analysis showed a positive correlation between a target state's resource wealth and the settlement outcomes it received at the end of a sanctions episode. But my analysis provided no evidence that natural resource wealth has an effect on the way in which targeted states act during the threat stage of sanction episodes. This in itself is curious; why do we not see states taking advantage of this increased capacity?

I believe that this piece opens up many different avenues of research that the academic community should explore further. In my theoretical argument I suggested that the increased capacity of target states that we end up seeing in my empirical model is caused by the presence of sanction busters. Basically, states will be more likely to trade with targeted states if they have natural resource wealth. I would argue that scholars

should look further into the way in which sanction busters interact with sanctioned states. This would help determine if my proposed causal mechanism is in fact correct. This could also shed some light on why we don't see states with natural resource wealth acting any differently during the threat stage of economic sanctions.

I would argue that this is an area of study that needs to be further explored by scholars. I would contend that future research needs to explore the effects of different types of resource wealth on sanction success. The measure I have used here is a broad measure, encompassing many different types of natural resources. It can be assumed that it may be easier to covertly sell certain resources on their international market than others or that certain natural resources will be more lootable than others.

Finally, I would argue that this analysis should be the first of many studies that look into the effects of natural resource wealth on foreign policy in general. This has been a largely neglected area of study within the International Relations literature. It is clear from other areas of the political science literature that natural resource wealth matters. It is clear that the presence of natural resource wealth affects both development and domestic politics. So it is only logical to assume that natural resource wealth will also have an effect on international politics. I would argue that this is an area that needs to be further explored by IR scholars. By doing so I believe we can add to the current literature and to our overall understanding of political phenomenon.

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