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Introduction

Upon his inauguration in January 2021, President Joseph Biden inherited a collection of maximum pressure campaigns from his predecessor. After a year-long international health crisis, activists and members of the press are calling on the new Administration to end the economic warfare that characterized U.S. relations with its adversaries for the last four years. The Administration of President Donald Trump imposed those policies ostensibly to alter the behavior and politics of adversarial states. The case of Venezuela is emblematic; the Trump Administration implemented strict sanctions against the country's oil industry for two years in an unsuccessful effort to oust President Nicolás Maduro. This raises an important question: Under which conditions can sanctions succeed in achieving U.S. objectives?

With respect to that guiding question, the research for this paper reveals several implications for future sanctions policy and scholarship. First, sanctions must exacerbate threats to the status quo political order of the sanctioned state (i.e., the target). However, such threats are not sufficient for a successful outcome. The sender of sanctions (i.e., the sender) must capitalize on the costs that sanctions impose by signaling a viable path toward sanctions relief for relevant power brokers within the target state. Additionally, the sender must be prepared to compromise on the scope of its policy goals. An unwillingness to negotiate over the terms of sanctions relief risks pushing the target to pursue a policy of resistance rather than compliance. Third-party support for the target further raises that risk. To increase the likelihood of sanctions success and encourage the target to pursue compliance, the sender should maintain a demonstrable and proactive plan for sanctions relief which would function as a positive incentive during negotiations between the target and sender. Finally, the sender must be sensitive to the humanitarian concerns of a maximum pressure campaign. Ultimately, the sender must pursue a policy of optimization, rather than hardline approach. Future U.S. Administrations will cause undue harm to civilian populations if they cannot structure sanctions policies that respond to the situation at hand and present a clear path toward sanctions relief.

This paper arrives at those policy implications through a comparison of two case studies: the aforementioned case of failure in Venezuela and the case of sanctions success in Iran in the leadup to the 2015 nuclear deal. This paper turns to these two cases due to key similarities between the sanctions episodes. First, both Venezuela and Iran are heavily dependent on oil exports, and U.S. sanctions targeted the oil sector in both cases. Furthermore, in both cases the U.S. resorted to secondary sanctions against third parties, which intensified the overall effects of sanctions. Finally, U.S.-Venezuelan and U.S.-Iranian relations were both adversarial at the time of sanctions, which limited the prospects of U.S. diplomatic efforts. Ideally, these common features between the case studies would serve to limit confounding variables in explaining sanctions outcomes. The discussion section addresses relevant differences between the cases that the research for this paper discovered. Ultimately, a comparison of the two cases reveals valuable implications for intense sanctions policies or maximum pressure campaigns.

This research is vital as there is reason to believe that the U.S. will continue to lean into economic coercion as opposed to traditional military engagement. Decades in the Middle East have left the American public exhausted and hesitant to send U.S. troops abroad. President Trump's message of retrenchment resonated with voters, and although he is no longer in office, his successor seems just as determined to pull out of costly military endeavors—case in point, Afghanistan. It is tough to tell how long this mood will hold sway over the U.S., but in the meantime, administrations will rely on alternative policy instruments: namely, economic sanctions. Scholars must devote their efforts to finding ways that the U.S. can wield weapons of economic coercion responsibly.

To use sanctions responsibly is to implement policy that mitigates and minimizes the humanitarian and economic costs to the target and sender populations. This is especially relevant today as the director of international economics at the Council on Foreign Relations, Benn Steil, cites intense sanctions use as the largest threat to the U.S. dollar's status as the world's preeminent currency (O'Connor 2021). Furthermore, recent studies suggest that sanctions impose significant costs on U.S. firms that engage with sanctioned entities or within sanctioned states (Allen 2021, 1; Webb 2020, 749). Critics of U.S. sanctions policy also note the humanitarian costs imposed on the target population—this includes hindering access to food and medicine (Beinart 2021). One study revealed a particularly damning pattern: U.S. participation in sanctions efforts leads to more corrosive effects on the public health conditions of the target state (Peksen 2011, 248). Another study found that U.S. sanctions tend to lead to diminished respect for civil liberties by the target government (Antonis and Tsarsitalidou 2019, 208). These concerns demonstrate the necessity of sanctions policy that is informed by conditions within the target state and updated accordingly.

This paper proceeds with a review of the relevant literature on assessing sanctions outcomes. Following that section is a description of three frameworks through which the case studies will analyze sanctions implementation and outcomes. Then there are the two case studies on Venezuela and Iran followed by a comparative assessment of the three frameworks. Finally, there is a discussion section which offers a comparison of the two case studies, five policy implications, and concluding remarks on the different explanations for sanctions outcomes.

Literature Review

Academics and policy makers alike have long debated the merits and drawbacks of economic sanctions. Advocates argue that under sufficient conditions, sanctions are a useful tool in any state's foreign policy wheelhouse—somewhere between the extremes of doing nothing and military intervention. There is a bit more variety among detracting viewpoints. Some contend that the costs to human security within the target state (the state that receives sanctions) are too high to justify the use of sanctions, whereas others point out all the instances when sanctions have not worked to achieve the goals of the sender state (the state that employs sanctions). Whether in favor of or against the use of sanctions, research indicates that they fail more often than not, just as in the Venezuelan case covered later in this paper (Hufbauer et al. 2007, 127). To prepare for that discussion, this section reviews the relevant literature regarding the question, why do sanctions fail?

There are three general approaches to investigating that question: target centric explanations, third party centric explanations, and sender centric explanations. Target centric explanations look at ways the that target *adapt* to sanctions—the primary concern is how target's response to sanctions affects the outcome of the sanctions episode. Third party centric explanations examine how targets are able to *evade* sanctions by pursuing trade or aid from actors outside of the target-sender relationship. Sender centric explanations focus on how senders *implement* and *enforce* sanctions—and where they go wrong. Below is a discussion of each of these three approaches. Additionally, this section includes a review of the relevant debate over targeted sanctions—those aimed at specific individuals, groups, or firms.

Target Centric Explanations: Adaptation

Scholars that turn to adaptation explanations for the failure of sanctions often point to the faulty logic the policy makers use when implementing sanctions. Galtung explains this line of reasoning as the Naïve Theory of Economic Warfare—the idea that economic sanctions result in value-deprivation (e.g., lower quality of life, reduced private benefits, etc.) and eventually reach a maximum point at which *political disintegration* occurs (1967, 388-9). Galtung explains that in reality sanctions do not work that way because the Naïve Theory does not take adaptation into account. Beyond that basic premise there is considerable divergence of opinion on what adaptation actually entails. Whereas Galtung favors a psychological explanation whereby the general population of the target learns to live below a previous standard, others like Sylvan argue that adaptation is the "flexibility" of the target government's political base—their ability to find new ways to maintain their economic interests (389-90; 1983, 236).

Some experts center their theories on the target government itself rather than the general population of the target. Wallensteen, looking at ten prominent cases of sanctions use from the 20th Century, concludes that a weak target government and a strong opposition party or coalition are necessary for the success of sanctions. In the absence of those conditions, the target government will turn to adaptive policies rather than abstaining from whatever behavior triggered the sanctions (1983, 125-6). One critique of Wallensteen's assessment is his understanding of "opposition." While he does not define the term, he equates a *weak* target government to a strong *opposition* and vice versa. This understanding excludes the possibility of a strong target government (i.e., well-entrenched in power) that must answer to influential internal groups and individuals. Under those conditions, it is possible that sanctions could alter the behavior of the incumbent by harming the interests of actors within the ruling coalition who would pressure the incumbent to pursue sanctions relief. Therefore, a strong political opposition in the conventional sense would not be necessary.

In a similar vein, Preeg contends that whether a target government complies with the demands of the sender is dependent on the target government's cost analysis of compliance versus sanctions. This, Preeg claims, explains why it is difficult for senders to achieve democratization within the target state—the cost of abdicating power (or at least allowing for that possibility) is exceptionally high relative to even the most severe forms of sanctions. The decades long U.S. embargo on Cuba supports Preeg's assessment (1999, 201-2). While the calculations of the incumbent are doubtlessly important, the cost analysis of other political actors may be just as significant. Similar to the example in the preceding paragraph, if a faction within the ruling coalition perceives the costs of sanctions as greater than the benefits of the status quo political situation, they may seek a change in leadership. This is to say, scholars must be careful not to consider the target government a unitary actor. Even within autocratic political systems, sanctions might be used to exploit existing divisions and competing interests.

Contemporary research on the question of adaptation synthesizes the target government and target population views. Scholars look at which individuals are affected by sanctions and then analyze how those individuals interact with the target government. Lektzian and Souva study the political institutions of the target as their independent variable on the success of sanctions. The authors stake their explanation on the size of the target government's winning coalition—the individuals or population that a government relies on to maintain power. Within a non-democracy, the winning coalition is generally smaller so broad economic sanctions no matter how intense will not jeopardize the government's power (2007, 849). According to this theory, sanctions fail when they do not generate sufficient costs for the winning coalition. Lektzian and Patterson further develop the political-institutional explanation by examining the mechanism by which sanctions actually generate costs for a winning coalition (2015, 47). The duo found that producing costs within the winning coalition is dependent on harming the relative wealth of those coalition members who own or use prominent factors of production in the target state (57).

One further area of consideration for adaptation to sanctions is counteractive effects of the sanctions themselves that help to foster adaptation. Galtung proposes the idea that sanctions can initially lead to political *integration*, or unified resistance to sanctions within the target population. He notes that this is most likely to occur in cases where the sanctions affect the population broadly, there is little to no identification with the sender, and there is a feeling that no alternatives to living with the sanctions exist (e.g., supporting an opposition party) (1967, 389-90). Jones, in his analysis of the sanctions against South Africa, Myanmar, and Iraq, found that the socio-political dynamics within a country weigh heavily on the outcomes of those sanctions (2015, 182). He is largely in agreement with Wallensteen concerning the importance of a strong opposition but takes the argument one step further by pointing out that sanctions further *weaken* fragmented oppositions (178). That idea ties into one of Preeg's findings that dissidents within target states do not always support sanctions since they jeopardize private sector engagement from the sender state (1999, 202-3). Finally, Lektzian and Souva found that sanctions can increase the relative power of non-democratic target governments by building loyalty and wealth through smuggling and illicit markets (2007, 853-4).

The primary draw of the target centric approach is the fact that it gives a glimpse into the internal mechanisms of the target state. Since sanctions are a tool of foreign policy, it can be tempting to focus on states as unitary institutions, but that approach fails to acknowledge important variables like regime type, winning coalition size, and strength of domestic opposition. Lektzian and Souva's use of Selectorate Theory—the idea that government behavior is primarily determined by the size of the winning coalition—is especially compelling given its parsimonious appeal (2007). To assess a sanctions episode, one need only examine how the sanctions affect the winning coalition in the target state. This approach is also integral in understanding the common finding that democracies are more likely to comply with the sender than are autocracies—smaller winning coalitions are better able to adapt to sanctions.

One drawback of this approach, however, is the fact that it is difficult to translate findings into useful policy recommendations—at least compared with a sender centric approach. This is not to say that such results are useless, but by focusing on variables that are almost entirely out of the sender's control, scholars limit the utility of their results. Additionally, this approach downplays the role of external actors, perhaps to an excessive degree. Preeg cites the costs of democratization as preventing an autocratic target from complying yet does not explore the role of politically motivated third-party actors who undermine sanctions (1999). It could be the case that the political structure of the target is largely irrelevant if there is sufficient trade and aid available to the target. Finally, this approach may be difficult to employ in instances when the sender implements targeted sanctions. With comprehensive sanctions it is much easier to make educated assumptions concerning the economic impact of sanctions, whereas targeted sanctions may require more detailed information on how sanctions affected individuals and firms—data that scholars may not readily be able to access in the sanctions episodes that involve adversarial or autocratic targets.

Third Party Centric Explanations: Evasion

Scholars that write on the role that evasion plays in the failure of sanctions typically do not reject the findings and theories of alternative explanations; however, they are skeptical of the emphasis on internal factors (i.e., target adaptation) rather than external factors. Green notes as much in his critique of Galtung's emphasis on the target state's population (1983, 63-4). He agrees that the political and economic situations within the target are important, but the target government must account for material needs before working on adaptive measures—this necessitates turning to a third-party state to evade sanctions (81-2). Hufbauer et al., in their well-known analysis of over 100 instances of sanctions use, determine that these third parties indeed have a statistically significant effect on the success or failure of sanctions (1990, 97). They even gave a name to third party states that undermine sanctions for political or economic purposes: black knights (97).

A more recent edition of the Hufbauer et al. study found that black knights are not as common in the post-Cold War era given the decline in great power rivalry, the idea being that black knights are primarily politically motivated (2007, 47). McLean and Whang reach a similar conclusion, finding that the failure of sanctions is not correlated with the prevalence of black knights (2010, 439). However, they did determine that the commercial relationship between the target and its primary trade partner post-sanctions implementation has a significant bearing on the success of sanctions—especially so, if the primary trade partner is the sender (439). Building off the apparent role of commercial ties in the outcome of sanctions, Lektzian and Biglaiser found that as US Foreign Direct Investment (FDI) left the target state upon the implementation of sanctions (the US being the sender) FDI from third parties replaced it (2013, 71). This pattern held for authoritarian regimes (75). These studies raise an important debate, how important are third-party states in evading sanctions? Are targets able to accomplish evasion through the private sector alone?

The most prolific writer on the topic of black knights and sanctions-busters, Bryan Early, argues no, third party states still play a fundamental role even if the avenues through which they operate are in the private sector. Early noticed that black knights are often noted in specific case studies, but prior to his 2011 study there was no general study on the effect of black knights (382). (For instance, they are merely one of many variables examined in Hufbauer et al. 2007 and a secondary variable in McLean and Whang 2010). Early found that black knights do in fact increase the likelihood of sanctions failing when aid to the target is accompanied by commercial interaction (396). He further develops his theory to include two types of "sanctions-busting" (his term for evading sanctions): aid-based—motivated by political salience of the issue at hand—and trade-based—motivated by commercial interests (2020, 207). His study confirms that both forms of sanctions-busting jeopardize the success of sanctions. More surprisingly, he found that *allies* of the sender are at extreme risk of becoming trade-based sanctions-busters because senders are less likely to compel allies to respect sanctions (210-1). These findings are important for understanding sanctions outcomes, but Early does not provide any figures or predictions as to how much trade or aid-based support a target must receive to evade sanctions. Due to the variance between sanctions episodes this would be difficult; however, one possibility is to compare the value of aid and trade-based support to targets' GDP. Identifying some sort of critical point would considerably strengthen Early's theory.

Early's finding concerning allies relates to a similar line of research that looks into the effects of back-sliding, or when a sender within a multilateral effort reneges by either revoking its support of the sanctions or ceasing any substantial attempt to enforce sanctions. Debate within the literature focuses on the degree to which international cooperation is necessary for success. Some scholars argue that it is dependent on the situation (O'Sullivan 2003, 290-1; Hufbauer et al. 2007, 172-3), whereas others view it more or less as a requirement (Doxey 1996, 115; Martin 1993, 408). Drezner made the important discovery that backsliding can be quite detrimental to multilateral sanctions and that states are more likely to backout of sanctions agreements in the absence of oversight by an international organization (2000, 97-8). A more detailed discussion of multilateral versus unilateral sanction will follow in the next section; here, the important take-away is that backsliding can function in the same way as black knights or sanctions-busters—allowing a target to evade sanctions.

The third-party centric approach addresses one of the primary concerns of the previous approach by acknowledging what one might call the elephant in the room of sanctions episodes: external actors. This is especially so in the midst of globalization and the blurring of private and public engagement among states. Lektzian and Biglaiser's research into third-party FDI rightfully elevates the importance of private markets in undermining sanctions (2013). Even Early, who focuses his analysis on states, contends that commercial engagement plays a significant part in reducing the economic impact of sanctions (2011). That focus on international trade and aid also allows scholars to collect more uniform and reliable data to assess their theories—again, in contrast to the target centric approach in which access to evidence varies by case.

This approach does suffer from the same lack of utility for policy makers as the target centric explanations. The findings from third-party explanations are certainly useful to senders but focusing on elements outside of the sender's control introduces a barrier to streamlined policy recommendations. Another potential issue with this approach is ambiguity in the direction of causality between the failure of sanctions and sanctions busters. Early attributes failure to the sanctions-busters (2020), but it could be the case that a failure of sanctions—for some other reason—prompts third party actors to engage in trade with the target after observing a seemingly futile sanctions episode. Direction of causality likely varies across cases, but the point stands that sanctions busters may not be the decisive variable in determining the outcome of sanctions.

Finally, third party centric explanations obviously lack value in cases of failure that do not include prominent occurrences of third-party activity, limiting the number of cases when scholars can employ this approach.

Sender Centric Explanations: Implementation and Enforcement

Scholars that turn to sender centric explanations often do so with policy implications in mind. Therefore, their work tends to be more prescriptive in nature to help improve the utility of sanctions. They argue that when sanctions fail, the issue is not the tool (the sanctions), but rather how the tool is used. Debate over sender centric explanations tends to revolve around what should and should not be included in a sanctions regime. There is not a general framework for why sanctions fail within the literature concerning sender centric explanations—the way one might consider adaptation the general framework for target centric explanations. Determining why sanctions fail from the sender perspective requires a review of what contributes to successful sanctions implementation, and then using that information to surmise how sanctions fail in the absence of such conditions. For example, the literature is in agreement that sanctions are most effective when implemented swiftly to prevent the target from adapting to the sanctions (Haass 1998, 208-9; Hufbauer et al. 2007, 168). This means that drawn-out or incremental sanctions episodes are a contributing factor to failure—one that senders have considerable control over. One issue that these scholars neglect is how concurrent sanctions against the same target affect outcomes of sanctions episodes. In both the cases in this paper, sanctions were in place prior to the episode in question, which raises the question whether the earlier sanctions should be included in assessing the timespan of a sanctions episode.

While scholars agree that swift sanctions are preferable, an issue that sparks debate is whether multilateral or unilateral sanctions are optimal. Doxey places significant weight on the role of cooperation, and Haass goes as far to say that multilateral support should be a prerequisite to implementation (1996, 115; 1998, 206-7). What distinguishes the work within the sender centric from third party centric school of thought, is that scholars within the sender centric school look at the effects of states' efforts to garner cooperation. Haass notes that secondary sanctions—imposed on third parties that undermine sanctions—should be avoided due to significant economic and diplomatic costs (207). Hufbauer et al. note that how multilateral sanctions come about is a greater consideration than cooperation itself; a sender must be mindful of which states and how many to include in its coalition (2007, 172-3). O'Sullivan views cooperation as helpful in many cases, but by no means universally necessary. She explains that the necessity of multilateral support is determined by the goals of the sender. If the goal is to contain the target (i.e., limit its external behavior) then the sender ought to seek support from the UN Security Council (2003, 288-91). This all entails that the effect of cooperation or lack thereof is largely dependent on the case—specifically, how the sender built its sanctions coalition. Furthermore, the UN Security Council is an invaluable tool in imposing multilateral measures.

Within the literature there is a general consensus that the success of sanctions is dependent on concurrent policies of the sender state toward the target. Doxey writes that sanctions certainly have their place in a broader strategy, "but [are] not usually decisive" (1996, 124). As O'sullivan puts it, sanctions should be a mere policy instrument within a larger strategy (2003, 287-8). Haass supports this idea, citing the threat or use of military force as the primary example of complimentary policy (1998, 198-9). Hufbauer et al. highlight the utility of incentives when paired with sanctions. These "carrots" work by lowering the costs of compliance on the part of the target (2007, 169). O'Sullivan describes a process of reciprocity that allows for a gradual reduction in sanctions as the target takes steps change its behavior (2003, 288). Other concurrent policies are dependent on the goals of the sanctions—for regime change, support of the opposition is vital (291). Furthermore, senders aiming to alter the domestic political situation of a target must monitor whether economic pressure is translating into political costs (306-7). The literature here indicates that failure of sanctions is in large part a result of the failure of other policies—or even the failure to implement other policies.

Sender centric explanations are the best suited for informing policy makers, given that these explanations directly address the ways in which sanctions fall short of achieving the goals of the sender. If policy makers head the advice of scholars of this approach, not only could sanctions improve, but also recent research into targeted sanctions could help to reduce humanitarian externalities. While this may be quixotic thinking, it is more likely that such improvements in policy would come from this approach than from the previous two that do not provide an analysis of sender behavior. One final advantage for this approach is access to information on the sender state and sanctions policy—at least for U.S. based research in cases when the U.S. is the sender. While there are still limits to evidence gathering (e.g., internal debate among policy elites), scholars benefit gathering data on their own government—no language barriers, higher transparency, personal ties to sender government etc.

For all the benefits of this approach, it runs into the issue of having the narrowest scope of the three approaches: whatever the sender government has control over. The target centric approach is narrow, but still includes elements outside the target government like the strength of political opposition. This creates a cap on the explanatory utility of the sender centric approach because even a flawless policy can fail for reasons outside the sender’s control. Another issue with this approach is that it does not easily lend itself to developing a general theory on sanctions failure. After any instance of failure, it is easy for scholars to fault a particular element of the sanctions policy. This could lead to a dangerous assumption that failure always is due to poor execution or planning and, therefore, requires improvement rather than *abandoning* sanctions for a different tool. O'Sullivan seems to fall in this category, overemphasizing the utility of sanctions. She gives recommendations for using sanctions to achieve lofty goals like regime change (2003, 290-1), whereas a scholar from another approach may argue sanctions are not appropriate for those sorts of goals.

A Note on Targeted Sanctions

Recent research into the use of sanctions often focuses on targeted sanctions, sanctions that are intended to affect individual policy makers and groups within the target state without the same humanitarian impact as comprehensive trade sanctions (Gordon 2011, 315). Similar to research on comprehensive sanctions, scholars use the three approaches detailed above. In fact, many of the more recent articles this review covered were studies involving instances of targeted sanctions. Targeted sanctions have become the status quo sanctions policy for the both the UN and United States. Despite this fact—or maybe because of it—debate over the use of targeted sanctions continues among scholars. The debate is relevant to this paper as it introduces an additional metric to gage success: humanitarian externalities. Gordon points out in her 2011 review of targeted sanctions that they arose out of concern that broader trade sanctions negatively impacted civilians of the target state to an excessive degree—specifically sanctions against Iraq in the early 1990s (316-8). Therefore, if a sender implements targeted sanctions, limiting negative externalities in the target state is at least a secondary goal to compliance from the target government.

The success of targeted sanctions has varied on both the compliance and humanitarian fronts. Gordon points out the difficulty of enforcement for senders and ease of evasion for targets (2011, 326-8). Lopez—one of the original architects of targeted sanctions policy—refutes

Gordon's assessment by demonstrating that smart sanctions have worked in eight of twelve cases that the UN Security Council used them in between 2005 and 2011 (2012, 138-41). Furthermore, they can be especially useful in limiting the movement and behavior of dictators (144-5). Drezner's assessment of research on financial sanctions (targeted sanctions that limit access to an individual's assets) reveals that they may be the most promising variant of targeted sanctions (2015, 758).

As for humanitarian concerns, research indicates that broader sanctions lead to greater human rights violations in the target state, and financial sanctions can limit such issues (Peksen 2009, 74; Shagabutdinova and Berejikian 2007, 68-9). Yet, as Gordon highlights, the humanitarian impact of targeted sanctions is still present—especially when senders target a prominent industry (2011, 326). Another issue that Gordon points out is the fact that senders do not adequately monitor the humanitarian impact of targeted sanctions but merely rest on the assumption that opting for financial sanctions as opposed to broader measures is sufficient to limit negative externalities (2015, 872). While this paper is primarily concerned with issues of compliance, the discussion section incorporates the issue of humanitarian costs of sanctions.

Alternative Explanations

Whether centered on the behavior of the target, a third party, or the sender, literature on sanctions does not typically exclude explanations of a certain type, but rather emphasize the utility that an approach has over others. This paper, which seeks to explain why sanctions failed to oust President Maduro of Venezuela and succeeded in compelling Iran to accept the 2015 nuclear deal, assesses the relative merits of the three general approaches explained in the preceding section. This section describes three alternative explanations for sanctions failure in abstract terms based on the three approaches from the literature. The sections for each alternative include an explanation of relevant indicators that the case studies use to assess and compare the alternative hypotheses later in this paper.

Adaptation

This explanation ascribes the failure of sanctions to the internal reaction of the target state (i.e., adaptation). Adaptation implies the failure of sanctions *in spite* of economic costs to the target. So, adaptation prevents economic costs from translating into political costs—an all but certain outcome according to the Naïve Theory of Economic Warfare (Galtung 1967, 388). The literature confirms the theory's namesake as target states can find ways to push economic costs to individuals outside the government's winning coalition. Therefore, this explanation posits that sanctions fail due to the target government's continued ability to satisfy its winning coalition and maintain the status quo balance of power in relation to domestic opposition groups.

> *Adaptation Hypothesis: if sanctions impose economic costs on the target, but the target government is able to prevent those costs from triggering political costs then the sanctions are unlikely to succeed.*

This study employs three indicators to assess the adaptation explanation. First, for this explanation to have any utility, there must be significant economic costs for the target as a result of sanctions. Without economic costs, there would be no need to adapt and therefore an explanation that focuses on external factors would be more apt. To determine the severity of economic costs to the target the case studies cover changes in conventional metrics used to assess economic performance from before and after the implementation of sanctions. The case studies also cover specific industry indicators depending on the target state in question—for instance, the oil sector in the case of Venezuela. Finally, the case studies include secondary source assessments of the impact of sanctions should any exist for the case at hand.

The second indicator this study uses to assess the adaptation explanation is the presence of institutions and government structures that facilitate adaptation. Pulling from Lektzian and Souva's use of Selectorate Theory, adaptative institutions and structures are those that ensure the winning coalition remains satisfied, which keeps the incumbent in power (2007, 849). This entails assessing the make-up of the target government—what is the regime type, how much power does the head-of-state have, what role does the military play, what sectors of society seem to have undue influence over politics, etc. In addition to the presence of these adaptive factors, the case studies address any evidence that these factors were indeed at play in preventing economic political costs. Evidence may be sparse, but examples include high military expenditures, government complacency despite intense public unrest, or the behavior of prominent private figures (e.g., remaining in the country despite heavy sanctions in their industry).

The third indicator the case studies use in assessing the adaptation explanation is the make-up and relative power of opposition groups within the target state or government. As Jones indicates, without a strong opposition to apply political *pressure* to the target government, it is unlikely that sanctions can produce political *costs* (2015, 182). In the case of adaptation, a weak or fractured opposition would support this explanation. To assess the strength of the opposition, the case studies detail the structure and make-up of any opposition—assuming there is an opposition—to identify any weaknesses. For instance, rival opposition leaders would indicate weakness through a lack of cohesion. Another variable to gauge the strength of the opposition is whether the opposition accomplished anything around the time that the sanctions were imposed like an impressive showing in local elections.

Evasion

In contrast to adaptation, this explanation cites the undermining behavior of third parties as the reason for the failure of sanctions. Third parties allow the target to *evade* sanctions and limit the economic costs they are intended to impose. As Early notes, sanctions-busting can come in two forms: trade-based or aid-based—though they are not mutually exclusive (2020, 207). Whether a black knight, private actor, or criminal organization, economic interaction with the target will limit the impact of sanctions. The degree to which third parties limit the impact determines the outcome of the sanctions episode. Therefore, this explanation argues that sanctions fail because of third party efforts to mitigate the economic costs to the target state, which prevents serious political costs and compliance.

> *Evasion Hypothesis: if third party actors are able to mitigate the economic and political costs of sanctions for the target government then sanctions are likely to fail.*

As with the previous explanation, the study uses three different indicators to assess the relative merit of this explanation. The first, however obvious, is of vital importance: the presence of third-party sanction-busters. While their presence alone is not sufficient to explain failure of sanctions, there must be identifiable actors for the evasion explanation to hold water. Examples include black knights, as described in the literature (Hubauer et al. 1990, 97; Early 2011, 382) drug-trafficking organizations, or private firms. The case studies examine various actors and refer to primary and secondary sources to determine if third parties have undermined sanctions. Undermining sanctions includes behavior that does not technically violate the language of the sanctions—for instance, crude oil for petroleum deals to by-pass a ban on purchasing a target's oil.

If third parties are indeed involved in undermining sanctions, the second indicator necessary in assessing the evasion explanation is the manner and intensity of trade or aid-based sanction-busting. This first requires an assessment of how much trade or aid distribution occurred between the third parties and target. The case studies refer to available evidence such as exports in sanctioned goods, secondary sources documenting sanctions violations, and accounts of illicit economic activity (e.g., drug trafficking, smuggling, etc.). To determine whether the behavior of third parties actually had an effect the case studies also assess the target's economy before and after sanctions, with special attention given to key industries in the target economy (e.g., oil). A weak impact of sanctions on the economy or a quick recovery would indicate that the third parties contributed to limiting economic costs.

The final indicator this study uses to assess the evasion explanation is non-economic behavior of third parties. This primarily applies to situations when the third party is a black knight state with political motivations. Early finds that commercial engagement must be present for black knights to have a bearing on the outcome of a sanctions episode (2011, 396), but to exclude non-economic support of the target would preclude important factors like diplomacy and armed support. Instances of non-economic support are hard to measure, but the case studies discuss any potential impact they have on the target state. Examples include vetoing a sanctions regime in the United Nations (UN) Security Council or sending security detail to protect the target government.

Implementation and Enforcement

The final explanation in this study attributes the failure of sanctions to the manner that the sender *implements* and *enforces* sanctions. The literature indicates that sanctions are an inconsistent tool to say the least; poor planning and execution on the part of the sender can give the target time to adjust to sanctions economically or politically. O'Sullivan argues that sanctions can work, but only if they are structured for the specific case at hand and fall within a larger strategy (2003, 287-8). This explanation argues that weak sanctions policy and insufficient support with other policy measures on the part of the sender reduces the economic impact of sanctions and fails to create the political incentives necessary in achieving compliance from the target government—entailing failure of the sanctions episode.

> *Implementation and Enforcement Hypothesis: if the sender fails to impose economic costs or pursue other mechanisms that incentivize compliance with the sender's demands then sanctions are likely to fail.*

As with the previous alternative explanations, the case studies utilize three indicators to assess the implementation and enforcement explanation. The first indicator is the presence of multilateral support and the manner in which the sender attained support. A lack of organizational support or implementation of secondary sanctions are problematic for sanctions outcomes (Drezner 2000, 97-8; Hufbauer et al. 2007, 172-3). In the case studies, a simple examination of the facts of the sanctions episode should reveal the level and manner of international cooperation. In conjuncture with information on the target economy, the case studies explore how the nature of the multilateral support—or lack thereof—hindered the impact of sanctions.

The second indicator is the sender's use of concurrent policies in translating the economic burden imposed on the target into compliance on the part of the target government. There is considerable consensus in the literature that complementary policy instruments are integral to the success of sanctions (Haass 1998, 198; O'Sullivan 2003, 287-8; Hufbauer et al. 2007, 1169). This can come in the form of positive economic incentives, the threat of military intervention, or diplomatic engagement. The case studies identify the prevalence of such polices, and further scrutinize the individual policies. Different factors that would indicate insufficient concurrent polices include a lack of non-economic policy, excessively stubborn negotiation tactics, or the absence of diplomatic avenues for the target to communicate with the sender.

The final indicator in assessing this explanation is the timing of sanctions. This is one of the few variables that the sender has nearly entire control over, and therefore could be very indicative of the utility of the sender-oriented explanation. The literature finds that sanctions must "slam the hammer, [not] turn the screw" (Hufbauer et al. 2007, 168). Therefore, the case studies examine the timescale in which the sender implemented sanctions to determine whether implementation was sudden or incremental. In addition, the cases consider any sanctions implemented prior to the episode in question, as those sanctions could have reduced the overall shock that the later sanctions caused. The case studies will also compare the economic impact of the sanctions with the timing of sanctions to confirm whether timing was problematic—sudden implementation with little economic impact would indicate that the sender's timing was not the reason for failure.

Sanctions Against Venezuela: 2019 – 2021

The U.S. and Venezuela have had strained relations for two decades since the dramatic political revolution that brought former President Hugo Chávez to power. The late politician was known for his charisma and ability to mobilize large parts of the electorate—primarily lower-class sectors of society that felt ignored by previous administrations. Beginning with a new constitution in 1999, Chávez ushered in a populist-socialist political system known as *chavismo*. *Chavismo* used oil revenues—the state's primary export—to supply patronage networks. These networks served to build popular support within the majoritarian system that the Constitution of 1999 institutionalized (Kornblith 2013, 48). Chávez used the apparent legitimacy of popular elections to centralize his power until his death in 2013 (53). His successor, then Vice President Nicolás Maduro, won a questionable special election in 2013 and has held the presidency since (53).

Lacking the charismatic legitimacy and personal relationships of Chávez, Maduro has taken Venezuela from hybrid regime status to authoritarian—Freedom House assigned Venezuela as "not free" in 2020 with a score of 14 out of 100 (the organization listed Venezuela as "partly free" in 2012, Chávez's last full year in office) (Freedom House 2021). Since 2013, falling oil prices have inhibited the Maduro government's ability to support the *chavismo* welfare programs; this caused the electoral base of the *chavistas* to abandon Maduro and join protests organized by the opposition coalition between 2014 and 2017 (Pilar García-Guadilla and Mallen 2019, 70). The opposition was able to achieve a supermajority in the Venezuelan legislative body, the National Assembly, in 2015 (65). The body was later stripped of most of its authority by the regime-loyal Supreme Tribunal of Justice (TSJ), while the Maduro Administration created a parallel body of loyalist law makers known as the Constituent Assembly (65-6). Maduro's actions were often met by popular protests, which the government violently repressed (65-6). Maduro's increasingly authoritarian tactics and fraudulent interference in the 2018 Presidential Election led to National Assembly Leader and opposition lawmaker Juan Guaidó's claim to the office of Interim President in January 2019 (Cohen 2019). The U.S. along with many regional and European states quickly recognized Guaidó as the legitimate president of Venezuela (Deutsche Welle 2019).

Shortly thereafter, the U.S. announced economic sanctions against the Maduro government. While financial and travel sanctions against the Venezuelan government and its officials date back to the Chávez Administration due to narcotics trafficking and failure to cooperate with antiterrorism efforts, the sanctions from 2019 onward were much more severe because they targeted the oil sector (Seelke 2021). The Trump Administration used Executive

Order 13850 to target the Venezuelan state-owned oil company PdVSA. This blocked the Maduro government from accessing the company's assets and prohibited U.S. transactions with PdVSA (Seelke 2021). The sanctions allowed for some exemptions, but any payments to PdVSA would be made to blocked accounts. While still targeted sanctions, the implication was that they would have much more comprehensive effects—after all, oil makes up 99% of Venezuelan export earnings (Bull and Rosales 2020; OPEC 2021). In August 2019, President Trump issued E.O. 13884 which placed further financial sanctions on individuals within the Maduro government, but also allowed for financial sanctions against non-U.S. individuals and firms for cooperating with the Maduro government. These secondary sanctions would function by blocking foreign firms from U.S. markets and financial services (Seelke 2021; Eaton and Cohen 2019).

In February 2020, the U.S. imposed secondary sanctions against Rosneft, a Russian-owned oil company that had been the primary exporter of Venezuelan crude since the sanctions against PdVSA went into effect (Astakhova and Tétrault-Farber 2020; Bryza 2019). By March Rosneft had ceased its activities in Venezuela and sold its Venezuelan assets to an unnamed Russian state-owned company (Astakhova and Tétrault-Farber 2020). The Trump Administration continued to threaten and implement secondary sanctions throughout 2020 and in August announced that the U.S. would continue to recognize Guaidó as the legitimate president even after the December National Assembly elections when Guaidó would likely lose his constitutional grounding for his claim to the presidency (Spetalnick and Zengerle 2020). That is precisely what happened, and the Maduro government attained control of the National Assembly. The U.S. and EU rejected the results, yet the EU did rescind its recognition of Guaidó as interim president—opting for the revised title "privileged interlocutor" (Vasquez and Laya 2020; Reuters Staff 2021).

January 2021 marked two years since Guaidó's declaration and more intensive U.S. economic sanctions. While Guaidó remains a relevant figure within the Venezuelan crisis, the Maduro government has demonstrated its ability to survive despite international condemnation and severe economic coercion. President Trump's Venezuela policies were given a level of attention not often afforded to Latin American relations, and the drastic step of cutting off the U.S. oil industry from one of its greatest suppliers indicates just how important this issue was for the administration. Unfortunately, this seems to be an apparent case of failure based on U.S. goals as stated by Secretary of the Treasury Steven Mnuchin:

> The United States is holding accountable those responsible for Venezuela's tragic decline, and will continue to use the full suite of its diplomatic and economic tools to support Interim President Juan Guaidó, the National Assembly, and the Venezuelan people's efforts to restore their democracy. Today's designation of PdVSA will help prevent further diverting of Venezuela's assets by Maduro and preserve these assets for the people of Venezuela. The path to sanctions relief for PdVSA is through the expeditious transfer of control to the Interim President or a subsequent, democratically elected government (US Department of the Treasury 2019).

Maduro retained power despite seemingly costly sectoral sanctions. The purpose of this case study is to determine why the Maduro government was able to resist and in what ways did U.S. policy come up short. Using the three different explanations from the previous section, this case study proceeds by assessing the utility of each explanation in determining why sanctions failed to oust Maduro Venezuela in 2019 and 2020. This section will conclude by comparing the merits of the different explanations for the Venezuelan case.

Adaptation

The adaptation hypothesis posits that if sanctions impose economic costs on the target, but the target government is able to prevent those costs from triggering political costs then the sanctions are unlikely to succeed. A cursory glance of the Venezuelan case seems to support this hypothesis due to the apparent fact that the Maduro government had become increasingly authoritarian in the years leading up to the sanctions episode. Despite the near decade long economic crisis and resultant collapse of the social programs that upheld the *chavismo* system, President Maduro and his party (United Socialist Party of Venezuela—PSUV) have maintained control of the government. Yet, this is not enough to explain how Maduro has been able to withstand the most intense U.S. and international pressure against his government thus far. Here, this paper examines evidence of the three indicators for the adaptation hypothesis and a brief discussion of the strengths and weaknesses of the hypothesis.

A necessary condition for the adaptation hypothesis is economic costs for the target because a lack of economic costs would indicate that adaption did not play a significant role in the failure of sanctions. In the case of Venezuela, simply assessing the economy as a whole could be misleading given that the country has been in an economic crisis for several years. ENCOVI, an annual study by Venezuelan universities, has determined that food insecurity, lack of access to healthcare, and maternal deaths have reached their most severe levels since the PSUV first came to power in 1998 (Caracas Chronicles 2018). A study published by Human Rights Watch points to similar evidence to argue that the humanitarian crisis in Venezuela preceded oil sanctions and that targeted sanctions prior to the oil sanctions did not carry with them serious humanitarian concerns (Doocy 2019). Therefore, to have a better understanding of the economic effects of U.S. sanctions beginning in 2019, this study looks to the oil industry specifically.

Since 2014 Venezuelan crude oil production has consistently declined. In recent years, production has fallen from an average of 1,911 thousand barrels per day (tb/d) in 2017, to 1,354 tb/d in 2018, and finally 793 tb/d in 2019 (OPEC 2020, 28). Even with this information, it is not clear whether the drastic decrease in 2019 was the result of the crisis or global trend in the oil industry. Based on data from OPEC, Venezuelan crude exports made up 5.2% of total OPEC crude exports in 2018 yet accounted for 23.5% of total decline in OPEC crude exports between 2018 and 2019. Venezuela's disproportionate share of the decline of crude exports indicates that the dramatic drop in 2019 production is uniquely Venezuelan. Comparing Venezuela's decline in exports across time reveals that the country experienced a 20.6% decline in 2018, yet a 33.1% decline in 2019. This indicates that the dip in 2019 is even unusual for Venezuela. It is also worth pointing out that the US dollar (USD) value of Venezuelan petroleum exports rose by 10.0% in 2018 and then fell 35.1% in 2019. These calculations—all based on available OPEC data—suggest that the U.S. oil sanctions did in fact impose economic costs on the Venezuelan government. While it is hard to determine the direct costs on the government, Venezuela has suffered from endemic corruption under Maduro and his predecessor—between the two of them the Venezuelan government embezzled up to 400 billion USD (Pring and Vrushi 2019, 15). Any significant hit on ostensibly public funds interrupts the cash flow to Maduro and his winning coalition.

To further assess the adaptation hypothesis, this case study considers any adaptive institutions or structures of the Maduro government that allow it to keep economic costs from creating political costs. For the case of Venezuela, adaptive features include political developments that have further centralized Maduro's power and fostered internal regime loyalty. Buxton argues that these features have been crucial for Maduro's political survival because he lacks the charisma and ideological authority of his predecessor, Chávez (2020). Freedom House reports over the last several years illustrate this point well. The organization notes that Venezuela lacks an independent judiciary; in 2017 the Supreme Tribunal of Justice (TSJ) effectively stripped the opposition controlled National Assembly of its power. That same year, Maduro created the National Constituent Assembly to draft a new constitution, however, in reality the body has functioned as a parallel regime-loyal legislature. Although those developments occurred before the sanctions episode, a weakened National Assembly would later hinder the opposition's ability to pressure the Maduro government. Another relevant factor is Maduro's reliance on the military to maintain power; in 2019, the country's score for freedom from "political forces that employ extrapolitical means" dropped from 1 to 0 out of 4 (Freedom House 2021).

There is evidence that these institutions have allowed Maduro to prevent political costs from developing as a result of sanctions. A recent and obvious example is the outcome of the December 2020 legislative elections. The PSUV won control of the National Assembly amidst fraud, low turnout, and a boycott by Guaidó and his allies (Vasquez and Laya 2020). Maduro is exceedingly unpopular, and elections no longer represent a legitimate mandate as the Maduro government has created a system that all but guarantees victory for the PSUV (Oner 2021, 14-5). In the summer prior to the 2020 elections, the TSJ removed various opposition lawmakers from their legislative leadership positions. This limited any serious chance of the opposition maintaining power in the National Assembly (15). Maduro's control of the nominally democratic National Assembly contributed to his adaptation efforts by stripping Guaidó of his source of legitimacy.

Additional evidence of adaptive institutions at play comes from evidence that the military has considerable control over policy. Their increased role in the Maduro government dates back to a 2014 TSJ ruling that allows military personnel to function in civilian and military positions simultaneously (Bílek and Committee Thompson 2020, 10). This has resulted in substantial overlap between the military, political, and business elite. An emblematic figure in this regard is General Vladimir Padrino Lopéz who serves as Minister of Defense, head of a state-company called Anonymous Military Corporation of Mining, Oil, and Gas Industries, and leader of the Great Sovereign Supply Mission (GMASS), which has given him de facto control over all other executive ministries (10-1). Even if hundreds or perhaps thousands of soldiers are willing to defect—which some sources claim—high level military officials have remained loyal (Rueda 2020). Despite the costs imposed by sanctions, Maduro's efforts to coopt the military elite have left them satisfied with the status quo.

The final indicator for assessing the adaption is the relative power of the political opposition, as they are the responsible actors for imposing political costs on the target government—especially so if there is intense loyalty within the government as is the case in Maduro's administration. In Venezuela, the primary opposition is the Democratic Unity Coalition (MUD) and for the past two years has supported Guaidó as its leader. MUD started as a catch-all group of anti-*chavistas* in the early 2010s and is composed of preexisting parties (Buxton 2017, 5). The current iteration of MUD even contains former Chávez allies that do not support Maduro (4). This raises the concern of political fracture within the opposition, which is further supported by the fact that factions within MUD do not accept the same strategies. Moderates favored a transitional government, while radicals would accept nothing less than Maduro's resignation (Smilde and Ramsey 2020a, 169-70). These divisions considerably weakened the opposition's hand in negotiation, but also obscured MUD's platform—an issue that has plagued the coalition since its creation (Buxton 2017,6).

Another problem that the opposition faced is their leader himself, Juan Guaidó. The young lawmaker has a knack for political survival himself after having not been arrested in the two years that he has been serving as interim president. Additionally, U.S. support has afforded him a significant advantage with access to blocked accounts previously controlled by the Maduro government (Smilde and Ramsey 2020a, 170). Unfortunately, Guaidó was unable to translate that support into domestic political capital in 2019 or 2020. Twice in the months following U.S. oil sanctions, Guaidó's personal calls for military defections went unmet. Guaidó's supporters claim that the lack of defections was the result of fear and surveillance; however, regional scholar Julia Buxton argues it is more likely the case that the opposition simply possess "a weak grasp of the military as an institution" (2019, 130). Furthermore, critics pointed out Guaidó's tendency to limit participation and inclusion in his transition planning and his close ties to the former Trump Administration (133). While it is certainly an asset for MUD to have a leader they can unify behind, Guaidó brings along concerns of his own.

A more in-depth assessment of the economic costs of sanctions to Venezuela, pre-existing adaptive features of the Maduro government, and the relative power of the Venezuelan opposition supports the adaptation hypothesis. Guaidó's inability to seriously threaten the Maduro government's hold on power, regime-loyal institutions, and military support despite severe losses in the country's most important industry offers an adequate explanation of sanctions failure. Still, adaptation leaves one question unanswered. What is the root of military and crony loyalty during intense sanctions? This explanation has demonstrated that Maduro is able to maintain power because he has very few people to keep happy (a small winning coalition) and lacks any serious challengers, but it does not address how he is able to keep individuals like General Lopéz Padrion satisfied. The evasion hypothesis will likely fill in that logical gap. This section ends with a more detailed comparison of the hypothesis.

Evasion

The evasion hypothesis argues that if third party actors are able to mitigate the economic and political costs of sanctions for the target government then sanctions are likely to fail. As with the adaptation hypothesis, this explanation seems appropriate for the Venezuelan case given the well know ties between Venezuelan and various U.S.-adversarial states. It is also common knowledge that the Maduro government is involved with drug trafficking organizations—especially along the Colombian border. However, it may very well be the case that these third parties do not play as significant a role as popular press headlines would lead readers to believe. This section takes a closer look at three indicators to determine how effective the evasion hypothesis is in explaining the Venezuelan case.

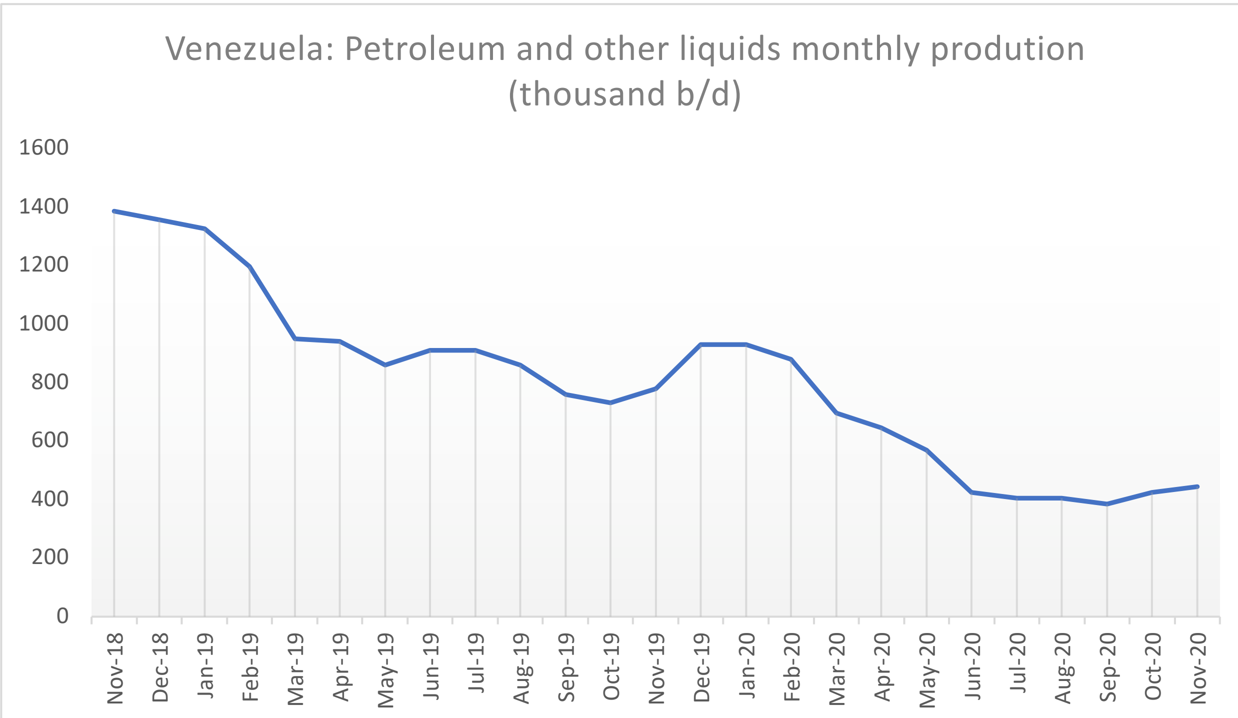
Quickly after Guaidó made his claim to the presidency, many in the international community recognized him as the legitimate leader. However, a handful of states continued to recognize the Maduro government. Among them are China, Russia, Iran, Cuba, and Turkey. While this is not an expansive list these are states that offered more than merely words of encouragement to the Maduro government following the sanctions of 2019 and 2020. These are the sanction-busters and black knights of the Venezuelan sanctions episode. From January 2019 to March 2020, Russian-owned company Rosneft was the primary exporter of Venezuelan crude (Bryza 2019; Astakhova and Tétrault-Farber 2020). As middleman, Rosneft maintained Venezuela's crude exports to both China and India (Myers and Viscidi 2020; PTI 2019). Between the implementation of sanctions and the August announcement of secondary sanctions China imported an average of 350 tb/d of Venezuelan oil (Cohen and Parraga 2020). In that same timespan, Indian imports hovered around 200 tb/d. (Seshasayee 2019). When the U.S. imposed secondary sanctions against Rosneft, Iran began importing Venezuelan crude and exporting refined products back to Venezuela

(Gedan 2020). Venezuela engages in a gold-for-food program with Turkey which does not violate oil sanctions but still helps to maintain the Maduro government's power (Oner 2020, 12-3). Finally, Cuba supports the Maduro government with security detail and intelligence training in exchange for Venezuelan oil (Fonseca and Polga-Hecimovich 2020, 11-2).

It is clear that third parties actively undermined U.S. sanctions in 2019 and 2020. The next indicator is evidence that suggests the extent to which sanction-busters helped the Maduro regime mitigate economic costs of sanctions. Given Special Representative for Venezuela Elliot Abrams remarks that "Rosneft is really central to the regime's survival," Rosneft seems a prudent point to begin this analysis (Bryza 2019). In 2019 Venezuela was in considerable debt to Rosneft, and the firm accepted payments in the form of crude oil (Rouvinski 2020, 6). Rosneft's transactions with the Maduro regime did not end there. Venezuela's refining industry has been in a death spiral in recent years so Rosneft provided Venezuela with gasoline throughout 2019 (ibid.). Additionally, as the preceding paragraph describes, Rosneft maintained Venezuelan oil exports to international buyers. While it is difficult to quantify just how significant of a role Rosneft played, a closer look at the effects of sanctions against Rosneft is helpful.

According to data from the U.S. Energy Information Administration, after the initial drop in Venezuelan Petroleum production after sanctions against PdVSA, monthly production did level-off until August 2019 with the announcement of potential secondary sanctions. However, by the end of 2019 and the first two months of 2020, production had recovered to the same levels as before the announcement of secondary sanctions (but not to pre-PdVSA-sanctions levels). Then in March 2020—coinciding with the announcement of sanctions against Rosneft—production levels took their most dramatic hit since the first months of 2019. This drop in production occurred two months before the total global production dropped as a result of the COVID-19 pandemic in May

2020. (Refer to Fig. 1, for a graph of Venezuelan monthly petroleum production). While causal links are not perfectly apparent, this evidence suggests that Rosneft indeed mitigated the economic costs of U.S. sanctions against the Maduro government.



Following the sanctions against Rosneft, Iran took on a more important role in Venezuelan crude exports. Rendon et al. from the Center for Strategic and International Studies argues that Iran simply could replace Rosneft (2020)—Figure 1 appears to demonstrate that fact, with production remaining stagnant following the drop in early 2020. However, the Iranian lifeline offers a significant advantage to the Maduro government: Iran is much less likely to comply with U.S. demands in the face of secondary sanctions given that the state already faces significant U.S. sanctions (Gedan 2020). Throughout 2020 Iranian tankers devised creative measures to evade U.S. efforts to halt crude oil-for-gasoline trade between Venezuela and Iran—for instance, the use of false call-signs. Venezuela also paid Iran in gold in exchange for assistance in rebuilding

Venezuela's domestic oil industry (Yacoubian and Hanna 2021). While Iran was not been able to live up to Rosneft, this may not have mattered. Relatively constant Venezuelan petroleum production levels through the end of 2020 indicate that the effect of sanctions had reached a ceiling—a ceiling maintained by Iranian support of the Maduro government. Additionally, Iran offered Maduro and those loyal to him consistent support due to Iran's relative imperviousness to secondary sanctions. That level of reliability may have been all that Maduro needed.

The final indicator for the evasion hypothesis is non-economic third-party support of the Maduro government. In this regard the support of Russia and China are crucial as these two countries blocked any multilateral sanctions that may have originate from the UN Security Council. In February 2019, Russia and China voted against and subsequently prevented the passage of a U.S.-proposed resolution to the Venezuelan political impasse—the resolution would have recognized Guaidó as the legitimate president until free and fair election could be held (Brown 2020). Additionally, while China reduced trade and investment in Venezuela following the U.S. oil sanctions, the Maduro government still owed a considerable amount to China having borrowed more money from China than any other Latin American country (Myers and Viscidi 2020; China-Latin America Database). For this reason, Beijing maintained ardent diplomatic support for Maduro and condemned any efforts to unseat the government (Ferchen 2020, 10-1).

Moscow's non-economic support of the Maduro government stretched a bit further. Russian defense industries have strong commercial ties with Venezuela through the sale of military technology (Rouvinski 2020, 8). Throughout 2019, Russian maintenance specialists and technicians continued to operate in Venezuela (Brown 2020). A report from Reuters found that Russian private military contractors (PMCs) arrived in Venezuela prior to the 2018 Presidential Election, and more arrived in January 2019. The same month that Guaidó declared himself to be the legitimate president of Venezuela. The PMCs are reportedly from Wagner Group—a group that observers believe the Russian government secretly controls. The Wagner Group was involved in both Ukraine and Syria (Tsvetkova and Zverev 2019). There is little evidence that indicates the extent of Russian security personnel in Venezuela, but their presence alone demonstrates Moscow's stake in Venezuela—one that it will not easily give up.

The last black knight in the Venezuelan case is Cuba. The island nation is not well-situated to offer much by way of economic support, but Cuba has been more than willing to offer its expertise in the area of coup-proofing. This particular aspect of Venezuela-Cuba relations dates back to 2008 when the two socialist states reached an agreement whereby Cuba would offer training to Venezuelan intelligence agents and review and restructure the Venezuelan military intelligence apparatus. The ultimate goal was to refocus intelligence efforts on soldiers, officers, and officials within the Venezuelan ranks rather than outside targets (Berwick 2019). Ties between the two intelligence communities continued to grow and Cuban intelligence and security personnel were most certainly operating within Venezuela during 2019 and 2020. Estimates vary, some putting it at a couple thousand and others claiming tens of thousands (Fonseca and Polga-Hecimovich 2020). As with Russia, the mere presence of Cuban agents in Venezuela is significant for prevent Maduro's political survival. Especially so considering the Cuban government's apparent aptitude for regime survival.

The commercial activity of Rosneft in 2019, the more recent oil-for-gasoline trade with Iran, and Cuban and Russian security cooperation with Venezuela all support the evasion hypothesis. Furthermore, this explanation fills the gap left by the adaptation explanation—oil exports through Rosneft and Iran has allowed Maduro to keep his winning coalition satisfied. And those that are not are found with the help of Cuban expertise and personnel. This hypothesis is especially compelling due to the quantitative data from Fig. 1 that appears to confirm just how significant of a role Rosneft played in supporting the Maduro regime through 2019. That being said, it is difficult to prove that the black knights in this case were the decisive factor in sanctions failure. Sanctions were very effective in limiting Venezuelan oil production even though they did not outright halt exports to third parties. This begs the question, at what point is third-party support sufficient to undermine sanctions? At best, this hypothesis offers additional information for explaining why the Maduro government would not agree to further negotiations after the summer of 2019. Rosneft and later Iran built the government's confidence in a resistance strategy.

Enforcement and Implementation

The enforcement and implementation hypothesis states that if the sender fails to impose economic costs or pursue other mechanisms that incentivize compliance with the sender's demands then sanctions are likely to fail. Unlike the last two hypotheses, the enforcement and implementation hypothesis is not as apparently relevant in the Venezuelan case. This paper thus far has established that sanctions caused serious problems for the Venezuelan oil industry. This would indicate that the Trump Administration therefore partially successful. However, there are still aspects of the sanctions episode that reveal the Administration's shortcomings—especially in terms of concurrent policy measures. As with the last two hypotheses, this section proceeds with an analysis of three different indicators.

The first indicator is the degree and manner in which the U.S. achieved cooperation with its sanctions efforts against the Maduro government. Fortunately for the Trump Administration, hemispheric and European states maintained a similar outlook regarding both Maduro and Guaidó. As this paper has covered, governments across the region and world quickly recognized Guaidó as the legitimate leader of Venezuela. As far as sanctions go, the international community appears to respect the limits the U.S. has imposed on trade with Venezuela. Many U.S. allies have imposed sanctions of their own against the Maduro government. The EU first imposed individual travel and financial sanctions against Venezuelan officials in 2017 and continued to add people to the list of sanctioned individuals in 2018, 2019, and 2020 (European Council 2021). In September 2019, the Organization of American States (OAS) voted to enact the hemispheric Rio Treaty defense pact to impose targeted sanctions against Maduro—16 of 19 states voting in favor. The OAS does not have the power to impose sanctions, rather the vote signified the will of individual member states to impose sanctions against Maduro (McBride 2019). Finally, Canada added additional Maduro government officials to their pre-existing list of sanctioned individuals in April 2019 (Canada 2021).

Although Russia and China prevented the possibility for multilateral UN Security Council sanctions, the preceding paragraph demonstrates that much of the Latin American and European community agreed that punishing the Maduro government was acceptable. Lack of regional and EU support could have been a non-starter for the maximum pressure campaign that the U.S. went on to impose. The second aspect of sanctions cooperation in the Venezuelan case is the use of secondary sanctions, which the Trump Administration first announced in August 2019. Despite the cautions concerning secondary sanctions within the literature, it seems that they were successful in preventing foreign firms from filling in the gaps left after U.S. firms were barred from operating with PdVSA. Specifically, Chinese firms cut back on Venezuelan crude oil imports in August 2019 (Reuters Staff 2019). Fig. 1 appears to illustrate the effect of the August announcement and, of course, the drop in production following sanctions against Rosneft. While the literature does not consider secondary sanctions to be within best practices, secondary sanctions may have worked in this case due to apparent U.S. willingness to take on significant costs. Foreign firms saw that the Trump Administration was willing to cut the U.S. off from one of its greatest crude oil suppliers, and in turn, the firms took that to mean the Administration would not hesitate to target non-U.S. firms.

The second relevant indicator for the enforcement and implementation hypothesis is concurrent policy. To achieve concessions from a target state, a sender likely needs to do more than just impose sanctions. In the Venezuelan case, U.S. concurrent policy experienced mixed results at best. The most significant of those policies was U.S. support of Guaidó. Inviting him to the 2020 State of the Union Address was likely a morale booster for the opposition after a year of political stalemate, but the real brunt of U.S. support was financial. First, U.S. support allowed Guaidó to access blocked accounts—most importantly the accounts of Citgo Petroleum, a foreign asset of PdVSA (Smilde and Ramsey 2020a, 170; Spetalnick and Ellsworth 2019). Additionally, in September 2019, USAID announced $52 million in assistance to Guaidó and the opposition (USAID 2019). This level of financial support for the Venezuelan opposition is by no means trivial, but when considered along with the relative lack of power that the opposition wields in Maduro's regime, it is clear why money was not enough to give Guaidó the upper hand.

Beyond financial support for the opposition, the U.S. employed limited diplomatic efforts. As this paper has already described, the U.S. attempted and ultimately failed to pass a Security Council resolution for a democratic transition in February 2019. In the summer of 2019, a series of negotiations between the Maduro government and Guaidó team convened in Oslo and later Barbados with Norway mediating. The substance of the negotiations was never confirmed, but the opposition claims that the Maduro government agreed to a transitional government. In exchange, the opposition would urge the U.S. for phased sanctions relief (Smilde and Ramsey 2020a, 167-8). The Trump Administration was not opposed to these negotiations when they began, but later on signaled to the Guaidó team that the U.S. would not support any agreement that lowered sanctions before free and fair elections (170). The negotiations effectively fell through on August 6th, 2019 when the Trump Administration announced secondary sanctions (168). The U.S. took on a more direct diplomatic role in March 2020 with the announcement of the Democratic Transition Framework for Venezuela. This plan called for a transitional government and the expulsion of all foreign security from Venezuela. Maduro's foreign minister quickly dismissed the Framework (Rendon 2020). It appears that secondary sanctions may have squandered the most serious chance at democratization in Venezuela.

The final indicator for the enforcement and implementation hypothesis is timing. Sanctions are most effective when the sender implements them suddenly so as to avoid giving the target ample time to adapt. The data represented in Fig. shows that the January 2019 sanctions had a significant impact on the Venezuelan oil industry. However, the January 2019 sanctions were not the first sanctions that the Trump Administration implemented against the Maduro government. In 2017, President Trump issued E.O. 13827 which blocked the Maduro government from accessing U.S. financial markets; in March and May of 2018, President Trump issued two additional executive orders that restricted U.S. financial transactions with the Maduro government (Seelke 2021). Despite these earlier sanctions, it does not appear that timing was an issue for the January 2019 sanctions episode. Since the earlier sanctions were much narrower in scope, they do not appear to have had facilitated sanctions adaptation in the lead up to the sanctions against PdVSA.

This point is difficult to convey without access to data from the individual accounts of Venezuelan officials. While it is possible that members of Maduro's winning coalition built up personal resilience to the effects of sanctions, the shock of the 2019 sanctions surpassed any effects of any previous U.S. measures against the government's greatest source of revenue. According to data from the USEIA, the drop in oil production between February and March 2019 was the greatest monthly decline since that experience between December 2002 and January 2003, which was the result of an opposition-organized general strike against President Chávez (CNN 2002). Had the Trump Administration threatened secondary sanctions at the time of the January 2019 sanctions, the impact likely would have been greater, but this does not imply that timing of sanctions was a problem. The fact that the Maduro government indicated interest in a transitionary government during the negotiations in the summer of 2019, further supports the idea that the sanctions of January 2019 were sufficiently severe and not diluted by previous sanctions.

The manner and extent that the U.S. achieved cooperation with sanctions and the timing do not appear to support the enforcement and implementation hypothesis. The evidence suggests that secondary sanctions worked well and that the Trump Administration imposed sanctions within a sufficiently concentrated timescale. Insufficient concurrent policy does seem to support the enforcement and implementation hypothesis. Specifically, the lack of U.S. support during the summer 2019 negotiations and the delayed and unilateral Transition Framework hindered any realistic hopes of resolution. Available evidence did not support every indicator as with the last hypotheses. This may indicate that the sender centric approach is not the best explanation for sanctions failure in the Venezuelan case. However, this approach did pinpoint the problems in U.S. policy, by revealing that imposing economic costs was not the problem. Instead, a lack of policy designed to incentivize compliance hindered the efficacy of sanctions against the Maduro government.

Comparing Alternative Explanations

The three hypotheses that this case study explored each help to explain a different aspect of the failure of sanctions against the Maduro government in 2019 and 2020. However, there are limits to each explanation. The adaptation hypothesis is especially well-suited for demonstrating why sanctions on the Venezuelan oil industry did not spur internal opposition within the Maduro government. Military, political, and business elite are one in the same—to have turned on Maduro could have jeopardized that arrangement. Still, the actual causal mechanism that keeps elites satisfied with the status quo is difficult to understand using the adaptation explanation. This stems largely from the fact that it is difficult at this time to access evidence of internal sources of wealth. These sources are likely illicit and therefore not available for analysis in the same way that data on oil exports is.

That data is precisely what offers the evasion hypothesis an advantage over the adaptation hypothesis. Rosneft's role in facilitating Venezuelan oil exports and gasoline imports is explicitly clear. The continued flow of oil revenue cannot be overstated in this case because Venezuela has adopted "defensive authoritarian rentierism," whereby the primary purpose of oil revenue is to protect the Maduro government rather than support public programs (Bull and Rosales 2020, 113). This supports Green's contention that—however import adaptation may be—the target must address the material needs of its political base before engaging in adaptation (1983, 82). Nevertheless, this hypothesis also runs into the issue of availability of quantifiable data to assess the effects of Cuban security and intelligence support. Without confirmed figures, U.S. scholars and policy makers may be susceptible to overstating Cuba's role as well as that of Russian defense technology companies and PMCs. Ultimately, third-party support appears to be necessary for the Maduro government's survival, but not decisive in the failure of sanctions. The U.S. was still able to impose significant costs despite mitigation efforts. For this hypothesis to offer greater utility in explaining failure, the data would have to demonstrate that Rosneft facilitated a stronger recovery for the Venezuelan oil industry. The negotiations in the summer of 2019 indicate that third-party support was not enough to dissuade the Maduro government from seeking a resolution to the crisis.

Ironically, despite the apparent success of U.S. sanctions in imposing significant economic costs on the Maduro government, the enforcement and implementation hypothesis offers the best explanation of sanctions failure. The Guaidó team's greatest bargaining chip in the aforementioned negotiations was the lifting of U.S. sanctions, and they lost that advantage when the U.S. announced the potential for secondary sanctions in August 2019. Sources from the negotiation claim that Maduro was open to a transition government. Had the U.S. been a more receptive to the terms of the negotiations, the sanctions may have achieved their ultimate goal *despite* the adaptive features of the Maduro government and third-party support. The Maduro government's participation in the negotiations was its way of signaling its interest pursing a path toward sanctions relief rather than resistance. This path might have included provision such as Maduro stepping away from politics, but the PSUV and military elite remain prominent actors in the new government. It is entirely possible that negotiations still would have fallen through, but the Trump Administration's failure to capitalize on the negotiations offers an insight into the deeper flaws of the Administration's Venezuela policy in 2019 and 2020. It seems that the President's team overestimated how far economic sanctions could serve their ultimate goal of ousting Maduro. The two most prominent scholars on U.S. Venezuela policy, Geoff Ramsey and David Smilde, present a similar analysis of the Administration's failed policy. They cite the significance of U.S. unwillingness to support mediation efforts in the Maduro government's decision to pull out of negotiations (2020b, 16-7). The pair also notes that U.S. sanctions and concurrent policy, while very costly to the Maduro government, were implemented in a manner that "raise[d] exit costs for political and military elites who may have once considered supporting a transition" (9). While their view of sanctions failure is largely in agreement with the conclusion put forth in this paper, they do not include a thorough analysis of how third-party states contributed to sanctions failure.

The ability of the enforcement and implementation explanation to identify the decisive factor for sanctions failure in Venezuela demonstrate the overall merit of that approach as compared to the other two. That being said, the adaptation and evasion hypotheses are crucial for understand the context of the failure of U.S. policy. This case study shows that policy failure is ultimately attributable to the sender itself. However, scholars and policy makers cannot assess sanctions policy in a vacuum. An intricate understanding of the domestic political dynamics within the target state and third-party support of the target government are necessary for planning and improving policy. The next case study looks at an instance of sanctions success to further explore the relationship between the three competing hypotheses.

Sanctions Against Iran: 2010 – 2015

The U.S. and Iran have not had formal relations since the Revolution of 1979 that brought Ayatollah Ruhollah Khomeini to power. Since the end of the Cold War, the U.S. has increasingly viewed the Islamic Republic of Iran as a regional challenger and threat to oil supply chains in the Persian Gulf (Kaussler and Newkirk 2012, 352-3; 356). Economic sanctions have been the preferred method of the U.S. for curbing Iranian support of terrorist groups and limiting Iranian strategic capabilities. From the inception of the Islamic Republic to 1996, sanctions primarily limited the activities of U.S. firms. Since the signing of the Iran-Libya Sanctions Act of 1996, U.S. sanctions have mostly targeted foreign firms for dealing with Iranian entities (Katzman 2014, 1-2). While the goals of U.S. sanctions of Iran have been multifaceted for decades, 2006 marked a shift in both U.S. and international priorities in response to Iran's renewed emphasis on its nuclear program (Katzman 2016, 1).

Iran's peaceful nuclear program date back to the Pahlavi dynasty—the predecessor to the Islamic Republic—and in 1968 Iran signed the Nuclear Non-Proliferation Treaty (NPT). Six years later Iran signed the NPT's Safeguards Agreement with the International Atomic Energy Agency (IAEA). This agreement involves inspections to ensure that signatory states' nuclear programs remain peaceful (i.e., not developing weapons). Throughout the 1980s and 90s Iran developed its nuclear sector with foreign assistance (primarily Russia). Revelations of previously undisclosed nuclear sites and the discovery of highly enriched weapons-grade uranium led to international pressure on Iran to sign the Additional Protocols of the Safeguards Agreement in 2003. That same year, Iran agreed to suspend uranium enrichment. In 2005, the IAEA found Iran to not be in compliance with the Safeguards Agreement and a few months later reported Iran to the UN Security Council. Finally, in December 2006, the Security Council adopted Resolution 1737 implementing the first round of multilateral sanctions against Iran for its nuclear program (Nikou 2020).

In the following years, the Security Council adopted increasingly severe sanctions measures culminating with Resolution 1929 in June 2010. The Resolution banned the sale of major combat systems, imposed stricter financial sanctions, and allowed UN member states to target the Iranian energy sector with unilateral sanctions (Katzman 2014, 3). Between 2010 and 2013, Congress and the Obama Administration imposed increasingly restrictive sanctions against Iran. In July 2010, Congress passed the Comprehensive Iran Sanctions, Accountability, and Divestment Act (CISADA) which targeted foreign firms that trade and invest in Iran's energy sector. In February 2012, President Barack Obama issued E.O. 13599 which implemented financial sanctions against entities linked to the Iranian government or Iranian Central Bank (CBI)—this coincided with the EU's announcement of an embargo on Iranian oil (Katzman 2018, 3; Rezaei

2017, 79-80). In July 2012, President Obama issued E.O. 13622 which sanctioned entities involved in sales of Iranian oil and petrochemical products (Katzman 2018, 14). In June 2013, President Obama implemented additional financial sanctions with E.O. 13645. These sanctions targeted industries outside of the energy sector and most importantly hampered trading of the rial, Iran's currency (14-5).

The sanctions cited above are not a comprehensive list—the U.S. has implemented various sanctions for different reasons and listing out all of them is not necessary for the purpose of this case study. The significance of the sanctions listed above is that they were suspended as part of the Joint Comprehensive Plan of Action (JCPOA—the Iran nuclear deal). The deal included the lifting of EU and UN sanctions as well (40). The five permanent members of the Security Council and Germany (P5+1) reached the nuclear deal with Iran in July 2015. The deal limited Iran's enrichment activities and its stockpile of enriched uranium (Hafezi et al. 2015). Both sides of the negotiations hailed the deal as an historic achievement—though U.S. Republicans were critical—and partial sanctions relief came on January 16, 2016, Implementation Day (Hafezi et al. 2015; Katzman 2018, 40). While the status of the JCPOA in 2021 is not nearly as hopeful following President Trump's decision to back out of the deal and reports of Iranian noncompliance, back on Implementation Day, sanctions had accomplished the Obama Administration's goal of limiting Iran's nuclear program.

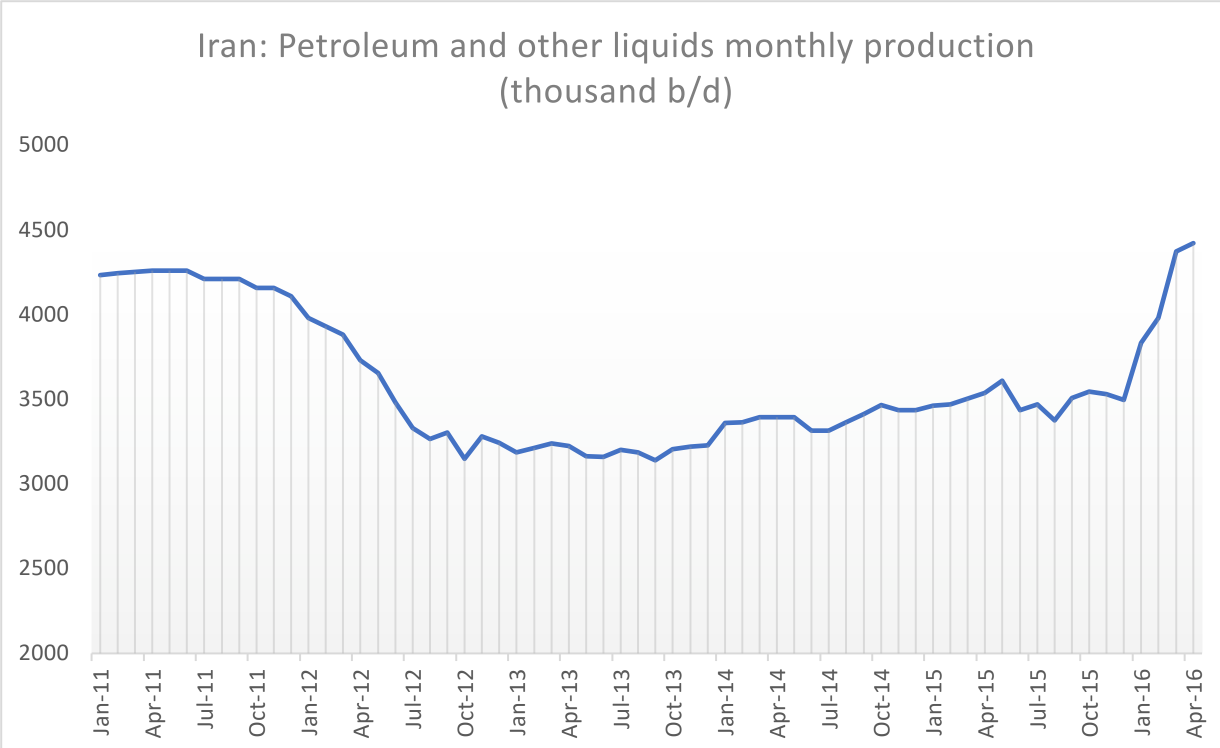
The goal of this case study is to identify why sanctions were successful in compelling Iran to reach the nuclear deal. It is important to note that praise for the JCPOA was not universal, and from that perspective sanctions were not successful. Upon completion of the agreement, Republicans criticized it for lifting sanctions, and a few presidential hopefuls indicated that they would reimpose sanctions if elected (Hafezi et al. 2015). Republicans argued that the eventual lifting of an arms embargo as part of the agreement would serve to strengthen Iran's role in the Middle East (Spetalnick and Zengerle 2015). Other critiques of the JCPOA aside, Republicans seemed to have been intent on limiting Iranian capabilities through sanctions alone—a policy of containment—while the Obama Administration viewed sanctions as a path to a nuclear deal. For that reason, this study will proceed with the understanding that sanctions were a success in the sense that they brought Iran to the negotiation table. Assessing the factors that contributed to the success of sanctions will offer relevant insights for an informed discussion of the Trump Administration's use of sanctions against Venezuela and U.S. sanctions policy in general. As with the Venezuelan case study, this section proceeds with an analysis of three different explanations of sanctions outcomes in the Iran case. Each section examines the same indicators as in the Venezuelan case study. Since this is a case of sanctions success, this section assesses the inverse hypotheses for the competing explanations.

Adaptation

The adaptation inverse hypothesis states that if sanctions impose significant economic costs on the target and the target government fails to mitigate political costs that arise from economic costs, then sanctions are likely to succeed. Initially, this approach does not seem all that relevant for the Iran case. The Islamic Republic is a theocracy with highly centralized authority in a single individual, Ayatollah Ali Khamenei. However, this study reveals that there are important aspects of the Islamic Republic that make it more susceptible to economic coercion than one might expect of an autocracy. This section examines three indicators to discover deficiencies in the Iranian government's ability to mitigate political fallout from sanctions.

First, it is necessary to demonstrate that the target had to endure significant economic costs. If this was not the case, then it would be difficult to assess the causal mechanism by which sanctions compelled the Iranian government to enter negotiations and eventually accept the nuclear deal. (Compliance without imposing economic costs is possible, but sanctions success would be the result of a credible *threat* of sanctions or fear of *future* costs. In such a case, deficiencies in the target's adaptation would not be helpful in determining why sanctions were successful). According to data from the International Monetary Fund (IMF), between 2011 and 2012 Iran's GDP (at current prices) experienced its sharpest decline in a decade—a loss of over 30%. Additionally, 2012 marked Iran's lowest Real GDP growth (-7.7%) since the 1980s (IMF 2021). These aggregate indicators demonstrate at the very least that the Iranian economy was suffering to a significant degree within the timeframe of the most severe U.S. and EU sanctions on the Iranian oil industry.

A closer look at the Iranian oil industry helps to establish stronger causal links between sanctions and the deterioration of the Iranian economy between 2010 and 2013. Like Venezuela, Iran is an OPEC member, and is heavily dependent on oil exports. At the time of the sanctions episode in question, oil accounted for 80% of Iran's export revenue and 50-60% of total government revenue (EIA 2013). The U.S. and EU saw this vulnerability and many of the sanctions imposed between 2010 and 2013 reflect that reality. Financial sanctions in that period limited the Iranian government's ability to receive payments even if it was able to continue to export oil (Rezaei 2017, 81). Using data from the U.S. EIA, Figure 2 illustrates the decline in Iranian petroleum production. The decline in production coincides with increased sanctions in 2012 (2021). In addition to the drop in production, between 2011 and 2013 Iran's oil export revenue fell from $100 billion to $35 billion (Rezaei 2017, 82). This information presents a compelling case that sanctions were indeed economically costly for Tehran. The following indicators explore whether the Islamic Republic was able to mitigate any political fallout from these costs.



There are two primary adaptive features within the Islamic Republic: the concentration of power in the hands of a religious head-of-state and the regime loyal Islamic Revolutionary Guard Corps (IRGC). Since the death of Ayatollah Khomeini in 1989, his successor Ayatollah Khamenei, has been the senior cleric and Supreme Leader of Iran. While there does exist a parliamentary body (the Majlis) and a president with nominal control of economic policy, ministerial appointments, and the Supreme National Security Council, Ayatollah Khamenei has the final say on any policy (Nader 2013, 1-2). The president does have legitimate authority in his own right "shap[ing] the tone and tenor of the regime's foreign policy" (6). However, it is the Supreme Leader who has de facto control over who becomes president. The Guardian Council—an Islamic body headed by the Supreme Leader—is responsible for selecting and disqualifying presidential candidates. By manipulating the ballot, Khamenei is able to exercise considerable control over elections without resorting to traditional means of fraud (Sherrill 2014, 72). The presidency even provides a bit of buffer for Khamenei as he can blame the president for unpopular policies. It would make sense that this level of institutional authority would protect Khamenei from political costs derived from sanctions.

The second adaptive feature of the Iranian government, the IRGC, is a security force that is loyal to the Supreme Leader. Since its inception the organization wielded considerable power, but 2009 ushered in a new era of IRGC influence in Iranian politics. First, the domestic paramilitary wing of the IRGC played an integral role in repressing massive protests following Iran's 2009 presidential election (Banerjea 2015, 95). Second, Khamenei responded to those events by reorganizing the Iranian intelligence community (94). The Ministry of Intelligence and Security (MOIS), which reports to the president, lost much of its power; the IRGC took on most of the domestic intelligence responsibilities previously held by MOIS (97). The IRGC Intelligence Organization consists of seven divisions, one of which reports directly to the Supreme Leader (97). With the loyalty and protection of the IRGC and a significant level of institutional authority, it seems that Ayatollah Khamenei would be able to weather political costs from severe sanctions. However, a look at the 2009 and 2013 elections suggests that there are barriers that hamper the adaptive features of the Iranian government.

In 2009, President Mahmoud Ahmadinejad was up for reelection. He was a divisive figure even among conservatives, and polling indicated that Ahmadinejad's moderate challenger, Mir Hussein Mousavi would win (Sherill 2014, 65; 68). However, the final tally indicated that Ahmadinejad had won triggering accusations of fraud and widespread protests (68). As described above, the IRGC repressed those protests and Ahmadinejad remained president. The events of 2009 influenced Khamenei's choices in the 2013 election. The Guardian Council approved six conservative candidates, one moderate, and one reformist. The reformist was relatively unknown, and the six conservatives would prevent a single conservative from earning enough votes to win.

Sherrill notes that "had Khamenei intended for a conservative to win, he would never have permitted such a ballot" (71). This led to the victory of moderate Hassan Rouhani—the chief nuclear negotiator for the Khatami Administration (1997-2005) and outspoken critic of President Ahmadinejad's foreign and economic policies (71; Nader 2013, 14). Rouhani was a candidate that could mend fractures among conservatives—Rouhani being a cleric himself—without triggering popular backlash like in 2009 (72). The 2009 and 2013 elections demonstrate that despite his immense authority, the Supreme Leader perceived serious threats to his political and religious legitimacy when sanctions were at their worst. While it is difficult to ascertain exactly why Khamenei selected Rouhani, the election of a moderate suggests that Khamenei was indeed facing political costs—or at the very least attempting to stave off potential costs.

The Supreme Leader's woes did not end there; even the loyalty of the IRGC was not a given. Khamenei's decision to use the organization to repress protests in 2009 led to an increase in the organization's relative power within the Iranian political landscape (Sherrill 2014, 68-9). Though dated prior to the intense sanctions of the 2010s, a publication from RAND Corporation predicted three potential paths for the future role of the IRGC: the organization may have considerable influence in selecting Khamenei's successor, Khamenei's successor may originate from the IRGC, or the IRGC will launch a military coup and seize power from Khamenei (Wehrey et al. 2009, 98-91). As of 2021, none of those predications have panned out, but they do provide a glimpse of the IRGC's rising influence around the start of the sanctions episode—a popular theory at the time argued that the IRGC was slowly transforming Iran into a military dictatorship (Alfoneh 2013, 77-8). It is also important to note that President Ahmadinejad was an IRGC veteran and filled government positions with IRGC personnel (Sherrill 2014, 65; 67). Finally, the rise of the IRGC coincided with it becoming increasingly engrained in the Iranian private sector—especially high-ranking officials. This made the IRGC susceptible to economic pressure (Banerjea 2015, 104-105). All of this suggests that the IRGC was itself a threat to Khamenei, rather than a protective force in the face of rising economic costs.

The final indicator for the adaptation hypothesis is the relative strength of the political opposition. As previous paragraphs have indicated, the political structure of the Islamic Republic is highly centralized. The Supreme Leader has final say, especially on issues involving Iran's nuclear program (Nader 2013, 2). That being said, Khamenei did allow a moderate candidate to win the 2013 presidential election. Going into the election there were three factions. First were the Pro-Khamenei conservatives who generally supported a policy of resistance to the U.S (11-2). Then there were the Pro-Rafsanjani technocrats who favored a more pragmatic approach to foreign policy (Ali Akbar Hashemi Rafsanjani served as president from 1989 to 1997, the Guardian Council barred him from running in 2013). This faction ultimately supported Rouhani (12). Finally, there were the reformists who were the furthest left of the factions and highly critical of conservative clerics. Without a serious presidential contender of their own, they too supported Rouhani (12). Considering the Rouhani campaign's focus on economic recovery, it seems that oppositional forces desired sanctions relief and supporting Rouhani was their way of pressuring the Iranian government to abandon the resistance strategy of Ahmadinejad (14). Electoral success in the Islamic Republic of Iran is not an ideal indicator of the opposition's political strength, but Rouhani's victory does suggest that moderate and reformist voting blocs wielded decisive power in 2013 which paved the way for more fruitful negotiations.

Despite the apparent authoritarian structure of the Iranian government, the indicators appear to support the adaptation hypothesis. Even with limited information concerning Ayatollah Khamenei's decision-making process, the adaptation approach presents a plausible narrative as to why the Supreme Leader chose not to resist sanctions. The 2009 and 2013 elections reveal that Ayatollah Khamenei was concerned for his legitimacy from the fear of further popular protests and the rising influence of the IRGC. Still, this explanation falls short of fully explaining why the regime perceived negotiations as the optimal path forward. While the oil industry did take quite the hit, it was not as bad as the Venezuelan case would turn out in 2019—when sanctions failed. Furthermore, Iran is one of the top oil producers in the world, which begs the question why Tehran felt that it could not outlast sanctions efforts. The next explanation may offer some ideas concerning Iran's threat calculations.

Evasion

The evasion inverse hypothesis states that if third party actors are not able to mitigate economic and political costs of sanctions for the target government then sanctions are likely to succeed. This hypothesis seems promising for the Iran case due to the apparent support of China and Russia within the Security Council. However, voting in favor of a Security Council resolution is not sufficient evidence for full sanctions cooperation. An analysis of how the third parties behaved following the adoption of the resolution offers a more accurate picture of sanctions cooperation. This section looks at three indicators to determine whether a lack of third-party support contributed to the success of sanctions.

Central to any third-party support of Iran is the country's energy sector. The most severe sanctions in the years just prior to the JCPOA targeted the oil industry, so any black knight would have had to mitigate costs within that industry to have a significant effect. Based on that criterion there were three potential sources of third-party sanctions busting. The first was India, which had built economic ties with Iran through the 2000s (Soltaninejad 2017, 22). However, even with India's growing oil demand, the country felt obligated to support the U.S. on nuclear issues and decreased its imports from Iran (30-1). In 2013, Indian imports of Iranian oil dropped by 37.81% (Thirarath 2016). Another potential black knight was Russia, a country with which Iran had important strategic overlap concerning competition with the U.S., peace in the Caspian Sea, and energy exports (Kasting and Fite 2012, 33; 36). Although Russia voted in favor of Resolution 1929 in 2010, it opposed unilateral energy sector sanctions (37-8). Yet the stance of the Russian government did not abate private firms' fears of secondary sanctions from the U.S. and EU (Parker 2016, 4). Lukoil—the second largest Russian oil company—began the process of reducing investments in Iran in 2010, and in 2012 the Vice-CEO announced that Lukoil had no plans to renew contracts in Iran due to international sanctions (Kasting and Fite 2012, 36-7). Between 2010 and 2013, total Russian exports to Iran fell from $3.4 billion to $1.2 billion (Katz 2015).

The final potential black knight for Iran was China. China was Iran's largest trade partner in 2012, when sanctions were at their worst (Aizhu 2012). As Asian and European firms pulled out of Iran from fear of secondary sanctions, China stepped in to help develop Iran's domestic energy sector (Harold and Nader 2012, 10-1). Similar to Russia, China spoke out against unilateral sanctions that went beyond the requirements of Resolution 1929 (Kasting and Fite 2012, 22). China-Iran ties within the energy sector are integral to the two countries bilateral relations. Around the time that the Security Council adopted Resolution 1929 China was the largest importer of Iranian oil, and as sanctions increased, Iran viewed China as its economic lifeline (Harold and Nader 2012, 10; 5). This information suggests that China was Iran's greatest hope for evading sanctions.

The next indicator for the evasion hypothesis is the degree to which third parties actually supported the target government. With Russia and India ruled out above, this section will focus on China. Like Russia, China opposed any unilateral sanctions targeting the Iranian energy sector. In

2012, the state-run Chinese oil company Zhuhai Zhenrong Corp announced that it would continue to import Iranian oil despite secondary sanctions (Aizhu 2012). Unfortunately for the Iranian government, Zhuhai Zhenrong Corp was a bit of an outlier. Like for many Russian firms, secondary sanctions were enough to slow down Chinese engagement in the Iranian oil industry (Harold and Nader 2012, 12). Following the U.S. Congress's passage of CISADA, the Chinese government reportedly instructed oil companies to "slow down" their projects in Iran (Downs 2012, 2). Between 2010 and 2011, China National Petroleum Corporation had only invested $18 million in a project with a contract that stipulated $400 million of Chinese investment annually. (Downs 2012, 2; Aizhu and Buckley 2011). Iran went as far to suspend a contract with China National Offshore Oil Corporation due to the project's lack of progress (Downs 2012, 2).

The reduction in Chinese investment was followed by a decline in Chinese imports of Iranian oil. From 2011 to 2013, China had decreased imports of Iranian oil by 115 thousand barrels/day (tb/d). The U.S. State Department deemed these reductions sufficient to offer Chinese firms sanctions exemptions, and China continued to maintain imports a little over 400 tb/d for the duration of the sanctions episode (Almond 2016). This is not to say that China's loss of its Iranian supply was insignificant, China had to pivot to Iraq and Angola to fulfill its energy needs (EIA 2015). It is much more difficult to determine how significant the loss was for Iran. Compared to losses from the EU oil embargo—587 tb/d—the drop in Chinese imports is far less. At the very least the reductions in Chinese imports demonstrates that China was either unwilling or unable to mount a serious challenge to U.S. and EU secondary sanctions.

The final indicator for the evasion hypothesis is non-economic support from third parties. For the purpose of this indicator, it is relevant to discuss Iran-Russian relations leading up to and during the sanctions episode. Although Russia maintained a strong commercial interest in Iran's peaceful nuclear sector, Russia did not want Iran to develop a nuclear weapon (Kasting and Fite 2012, 44-5). Throughout President Ahmadinejad's first term (2005-2009), Russia offered to enrich uranium for Iran's peaceful nuclear program, but Iran maintained that it was entitled to enriching uranium on its own. This frustrated Moscow, and Russia voted in favor of the four sanctions resolutions in the Security Council between 2006 and 2010 (Katz 2015). Russian support of Resolution 1929 in 2010 was especially angering for Iran because it prevented Iran from purchasing the S-300 air defense system from Russia (Kasting and Fite 2012, 42). The greatest non-economic support that Russia could have offered was a veto of any of the four resolutions. Moscow's decision further supports the idea that Iran had to face the international community on its own.

The story is not all that different with China. While Beijing did work to delay Resolution 1929 and advocated for watered-down sanctions that would not affect normal commercial relations with Iran, China voted in favor of the Resolution (Kasting and Fite 2012, 21-2). China's motives for supporting the various resolutions are much more complicated than Russia's. Graver argues that Chinese support of Security Council sanctions were not indicative of a commitment to non-proliferation as was the case with Russia (2011, 80-1). China's primary goal in the lead-up to the sanctions episode was balancing its commercial interests in Iran (i.e., oil) without angering Washington (77). Therefore, China developed a strategy of supporting Iran within the limits of multilateral sanctions (83). Another factor at play is China and Russia's mutual support for each other within the Security Council (Stent 2020, 7). Vetoing any of the resolutions may have jeopardized that arrangement. Even if China's support of NPT is unclear, its decision not to veto Resolution 1929 suggest that China was willing to prioritize its bilateral relations with the U.S. and Russia over Iranian nuclear aspirations.

The indicators support the evasion hypothesis, and this approach builds upon the adaptation explanation. Resolution 1929 signaled Russia's and China's unwillingness to stand up for Iran against the U.S. The behavior of oil companies from those countries further solidified that message. This suggests that back-sliding on sanctions was not likely to happen any time soon—at least it is reasonable to assume that that is how the Iranian government perceived the Russian and Chinese stance. This helps to put Khamenei's domestic situation in greater context; he knew the economic situation would only grow worse. One issue with this approach is the absence of evidence that suggests what level of economic support is sufficient to evade sanctions. Would the sanctions outcome have been any different had China not reduced oil imports at all? It seems that this decisive figure when evasion becomes plausible would vary by case—especially when comparing the Iran and Venezuela cases. This suggests that the evasion explanation is best suited for supplementing alternative explanations.

Enforcement and Implementation

The enforcement and implementation inverse hypothesis states that if the sender is able to impose economic costs within a sufficiently constricted timespan, achieve effective cooperation, and successfully pursue concurrent mechanisms to incentivize compliance then sanctions are likely to succeed. At least initially, this approach seems relevant for the Iran case given the degree of international cooperation with sanctions and apparent diplomatic efforts that went into the creation of the JCPOA. In other words, there is quite a bit of non-sanctions policy to consider. It is also important to note that the multilateral nature of the sanctions episode in question leaves the notion of *sender* open to various interpretations. This analysis interprets sender to mean the U.S., while acknowledging the fact that cooperation of other states played an integral role. In fact, the first indicator explores that very question of cooperation.

With regards to cooperation, there are three primary aspects integral to the Iran case: Resolution 1929, secondary sanctions, and EU unilateral sanctions. Resolution 1929 was the most expansive arms embargo and strictest set of multilateral sanctions that the Security Council imposed against Iran for its nuclear program (Aljazeera Staff 2012). As detailed earlier both Russia and Chine supported the resolution, though both advocated for limits on any sanctions that could affect existing commercial ties with Iran, especially within the energy sector. This begs the question whether U.S. support of Resolution 1929 offered more than a symbolic gesture of cooperation? Russia-Iran trade following the JCPOA implementation suggests that the Resolution did in fact contribute to U.S. goals. Iran and Russia renegotiated the contract for the sale of the S-300 air defense system in April 2015 and between January and August 2016 bilateral trade increased by 70.9%, most of which was in military contracts (Parker 2016; BNE IntelliNews Staff 2016). This rapid resumption in trade after sanctions relief indicates that Resolution 1929 had indeed limited Iran's trade, and anticipation of that post-sanctions windfall may have served as an incentive for Iran to participate in negotiations with P5+1.

Outside of the UN Security Council, Washington's primary instrument for securing sanctions cooperation was secondary sanctions against foreign firms. Secondary sanctions made up the bulk of U.S. efforts in this case because direct commercial ties with Iran were negligible from decades of unilateral sanctions (Katzman 2016, 5-7). Additionally, the JCPOA would go on to require the U.S. to lift only secondary sanctions that were implemented in response to Iran's nuclear program (60). These secondary sanctions appear to have worked. The primary consumers of Iranian oil across Asia—China, India, Japan, and South Korea—all decreased their imports (Aizhu 2012). Although both the Chinese and Russian governments objected to such sanctions, firms in both countries were wary of facing penalties and reduced their business with Iran (Kasting and Fite 2012, 22; 37-8). Between 2011 and 2014, the reduction in Asian imports of Iranian crude made up roughly half of Iran's losses in exports—537 tb/d out of 1,203 tb/d (EIA 2015). These figures demonstrate that U.S. secondary sanctions were successful in achieving sanctions cooperation.

The final component of sanctions cooperation, and perhaps the most significant, was EU unilateral sanctions. The two primary contributions of the EU were its 2012 embargo on Iranian oil and its banning of Iran from SWIFT, an online financial institution that facilitates international payments. The oil embargo was responsible for almost half of the decline in Iranian crude exports between 2011 and 2014, an estimated 587 tb/d (EIA 2015). And the SWIFT ban—in conjuncture with E.O. 13599—prevented Iran from receiving oil payments (Rezaei 2017, 81). The lack of EU opposition to U.S. secondary sanctions in this case compared to past instances of the U.S. imposing secondary sanctions provides further indications of EU cooperation (Patterson 2013, 137-8). While the EU oil embargo ultimately reflected the security concerns of the EU, the Obama Administration did lobby the EU to increase sanctions against Iran including pressure to implement the SWIFT ban (Jaseb and Pawlak 2012; Patterson 2013, 139; Blenkinsop and Younglai 2012). It is difficult to determine how pivotal the U.S. was in attaining EU cooperation, but at the very least, Resolution 1929 created an image of unity that the allowed the EU to introduce unilateral sanctions.

The next indicator is concurrent policy to incentivize compliance with the demands of the sender. An important angle in the Iran case is the threat of military intervention. Throughout the sanctions episode, the Obama Administration maintained that all options were on the table, but a diplomatic solution would be preferable (Kajouee 2014, 131). The Administration also spoke out against the Israeli threat of a preemptive airstrike. The U.S. did not give any indication whether military action against Iran should occur if Iran became capable of developing a nuclear weapon or once it had already created one—Israel maintained the former position (Landler 2012). All of this is to say that the U.S. maintained a vague and ambiguous stance with regard to military action. Combined with the fact that Israel can have considerable sway over U.S. regional policy (Kajouee 2014, 131-2), President Obama's insistence that military action was a last resort was likely not all that reassuring for Tehran. Therefore, sanctions policy in the Iran case may have benefited from Iran's perceived risk of a U.S. or Israeli attack.

Much more pivotal in sanctions success were the diplomatic efforts that the U.S. implemented in attaining Iranian compliance. In the early years of Obama's first term, the Administration attempted to engage the Iranian government, but by 2012, U.S. policy was primarily predicated on pressure (Kaussler and Newkirk 2012, 369). This began to change following P5+1 talks in February 2013. Following the international negotiations, Deputy Secretary of State William Burns and national security advisor to the Vice President Jake Sullivan flew to Oman for a secret meeting with Iranian officials. Although this meeting did not lead to significant developments in negotiations, it did create a bilateral channel between the two countries. This channel became all the more important after President Rouhani's electoral victory in the summer of 2013. Between August 2013 and January 2014, there were five more meetings—meetings in September led to the monumental Obama-Rouhani phone call and a meeting between Secretary of State John Kerry and Iranian Foreign Minister Mohammad Javad Zarif (Rozen 2014). According to senior U.S. officials at the time, these secret talks were "instrumental" in reaching the interim-nuclear deal or Joint Plan of Action (JPA) (Mohammed and Hafezi 2013). The JPA allowed the P5+1 negotiations to carry on for two more years until the parties agreed on the JCPOA. The JPA itself provided limited sanctions relief—a carrot that prompted continued cooperation from Iran

(Katzman 2014, 1). While the U.S. was only one of seven parties in the negotiations that resulted in the nuclear deal, the story of the secret bilateral channel demonstrates the pivotal role of the Obama Administrations diplomatic efforts in achieving sanctions success.

The final indicator for the enforcement and implementation hypothesis is the timing of sanctions. The incremental approach of the Security Council sanctions—increasingly severe with each resolution between 2006 and 2010—may have hindered their effects (Rezaei 2017, 77-8). China even delayed the passage of each resolution, further dragging out the process (Graver 2011, 76). The fact that the U.S. had been imposing unilateral sanctions for decades further threatened the prospects of a quick and intense strike on the Iranian government's economic interests. However, U.S. and EU sanctions on the Iranian oil industry through 2012 seem to have been implemented within a sufficiently concentrated timeframe. In January, the EU announced its oil embargo (though it did not go into effect until July to allow time to fulfil outstanding contracts); in February, Obama issued E.O. 13599 (targeted oil transactions through the Iran Central Bank); in March, SWIFT banned Iran; in July, Obama issued E.O. 13622 (targeted Iranian petrochemical sales) (Rezaei 2017, 80-1; Katzman 2018, 14). The SWIFT ban was especially surprising to the Ahmadinejad Administration, as it only found out about move three days prior to its implementation (Rezaei 2017, 82). Returning to Figure 2, Iranian petroleum production suggests that the rapid implementation of oil sanctions in the first half of 2012 was successful in issuing a swift blow to Iran's energy sector.

The indicators all support the enforcement and implementation hypothesis. The U.S. effectively garnered international support for sanctions through the UN Security Council and reduced sanctions-busting through secondary sanctions. The Obama Administration's strategic ambiguity concerning the military option and creation of the secret bilateral channel complimented the sanctions effort. Finally, U.S. and EU oil sanctions were sufficiently concentrated to deal serious damage to the Iranian energy sector before it had time to adapt. The enforcement and implementation approach also highlights an important point: the success of sanctions in this case was heavily dependent on multilateral support. The EU embargo was responsible for half of the decline in Iranian oil exports, and Russian and Chinese support of Resolution 1929 granted the U.S. a level of legitimacy that it does not often enjoy when employing sanctions.

Comparing Alternative Explanations

Similar to the case of failure in Venezuela, each of the three explanations offers relevant details for understanding sanctions success in Iran, but each explanation is still incomplete on its own. The adaptation approach reveals Supreme Leader Khamenei's struggle to maintain legitimacy through the presidential election of 2013 but does not fully explain why the regime felt compliance was the optimal path forward. The evasion approach offers a possible explanation: insufficient Russian and Chinese support eliminated Iranian hopes of outlasting sanctions efforts. The primary issue with the evasion hypothesis is the difficulty in determining how decisive third-party support is in the outcome of sanctions episodes. China cut back on Iranian oil imports, but why wouldn't the remaining revenue be enough to support Khamenei and his winning coalition?

The adaptation hypothesis once again shines through. As mentioned earlier, the IRGC was engrained within the Iranian economy and therefore felt the effects of sanctions. Since the goal of the sanctions was to limit Iran's nuclear program, it would have been reasonable for the IRGC to assume that sanctions relief was not contingent upon who was leading the government. Given that and the IRGC's rising power at the time, it is possible the IRGC influenced Khamenei's decision to participate in the P5+1 talk—even if indirectly. However, this explanation risks oversimplifying Khamenei's calculations, otherwise he simply would have capitulated to demands much sooner.

There must have been internal factors that motivated the decision to continue with the nuclear program—pride, legitimate desire for peaceful nuclear power, or perhaps more nefarious purposes. Therefore, the adaptation hypothesis still is not able to explain why Iran participated in negotiations.

The enforcement and implementation hypothesis offers the final and decisive piece of the puzzle. Specifically, the secret diplomatic efforts of the Obama Administration. The bilateral channel offered Khamenei a way out of his predicament. It is important to acknowledge the importance of Rouhani's victory here, as his Administration really allowed the bilateral talks to make headway—compared with Ahmadinejad's uncompromising stance. Following the effective targeting of the Iranian oil industry, the Obama Administration capitalized on that damage diplomatically, rather than simply demanding that Iran halt its activities. Limited sanctions relief further incentivized compliance as it demonstrated that negotiations were a viable path for Iran toward economic recovery. The underlying threat of U.S. and/or Israeli military action further encouraged Iranian participation in negotiations. The most succinct explanation for sanctions success in this case is a synthesis of the adaptation and enforcement and implementation approaches. Sanctions were successful because they exacerbated domestic threats to Supreme Leader Khamenei's legitimacy, and were accompanied by threats of U.S. military action and diplomatic efforts that signaled that negotiations offered a legitimate chance of sanctions relief. This explanation is similar to that of Iran expert Farhad Rezaei who argues that sanctions were successful because they imposed severe economic costs on the Iranian population which eroded the Islamist regime's popular legitimacy (2017, 84-6). That being said, the analysis of this paper is more skeptical than Rezaei in attributing compliance to a decrease in *popular* legitimacy. This paper understands threats to the Supreme Leader's legitimacy as originating in the political elite.

Assessment of Alternative Explanations

The preceding case studies used three indicators to assess each of the alternative explanations for sanctions outcomes. This section seeks to explore how effective this approach is by reflecting on the availability and quality of evidence that the research uncovered.

The first indicator for the adaptation explanation was the economic impact of sanctions on the target state. Evidence for this indicator was easy to find, and both cases presented a very clear picture: sanctions had a profound effect on the target economy. Evidence for the second indicator, the existence and function of adaptive institutions, was also readily available. This is likely due to the fact that both Iran and Venezuela are adversarial authoritarian states which attracts scholars and security experts. Much of the evidence was the expert opinions of other scholars as primary sources were difficult to find. Between the Iran and Venezuelan sanctions episode, Freedom House began publishing detailed reports on each country—as opposed to simply assigning a score. This more detailed data was helpful in identifying adaptive features in the Maduro government without having to turn to a secondary source. Evidence for the final indicator, strength of political opposition, was primarily composed of expert opinion, specifically the work of Julia Buxton and Alireza Nader (for the Venezuela and Iran cases respectively). However, election results also served as evidence of the oppositions' relative strength. Overall, there was sufficient evidence for each indicator, but there was still not much data to indicate how much sanctions affected targeted *individuals*.

The first indicator for the evasion explanation was the presence of black knights, or third-party actors involved in undermining sanctions. It was not difficult to establish that black knights were involved in both cases; however, each case study relied on different sources of information. Given the recency of the Venezuelan sanctions episode, that case used wire services articles (i.e., Reuters), whereas the Iran case utilized secondary publications. Gathering evidence for the second indicator, the degree to which third-party states actually provided support, was much more difficult to come by. Both cases required consulting a combination of news websites, USEIA data, and secondary publications. By synthesizing information from various sources, the case studies were able to draw general conclusions concerning third-party support, but absolute figures were not readily available. Evidence for the final indicator, non-economic third-party support, originated mostly from secondary sources. The Venezuela case relied on a series of reports on Venezuelan bilateral relations. The Iran case turned to secondary scholarly sources—Kasting and Fite 2012 was particularly helpful. Ultimately, evidence for the evasion approach was not as straightforward as that of the adaptation explanation. While this does not necessarily reflect poorly on the explanation itself, it made the research process more difficult.

The first indicator of the implementation and enforcement was the manner and degree of cooperation with the sender. The Venezuela case study turned to official government websites to determine how other states cooperated with the U.S. whereas the Iran case looked at secondary sources. While the sources differed between the case studies, both cases used the same basic types of evidence—UN Security Council activity, U.S. secondary sanctions policy, and third-party response to U.S. policy. Paired with USEIA data, this evidence demonstrated how effective cooperation was in both cases. Evidence for the second indicator, concurrent policy by the sender, was a bit more difficult to collect for the two cases. Given the complexity of U.S. foreign policy, judgement calls were necessary to determine which policy elements qualified as relevant concurrent policy. This led to a high degree of diversity in sources in both cases including popular press articles, secondary scholarly publications, and statements from U.S. officials. The final indicator, timespan of the sanctions episode, was simple to establish in both case by comparing

USEIA data on oil production to the dates of sanction implementation. Overall, evidence for the implementation and enforcement explanation was the most widely available. This explanation also required less speculation than the other two because U.S. interests and motivations were much easier to surmise than that of the target or third-party states.

Based on the results depicted in the table below, the enforcement and implementation performed best of the three alternative explanations due to clear evidence for two of the three indicators. While assessing concurrent policy was a bit subjective, there was still a large pool of secondary sources to refer to. Despite the availability of evidence for each of the three indicators for the adaptation explanation, it ranks second among the alternative because a lack of data on internal revenue flow hinders the explanation's ultimate utility. This critique might be less significant for cases assessing historic sanctions episodes for which records of internal revenue flow might be more widely available. Finally, the evasion explanation ranks last due to the fact that it did not offer a clear indication of how important third-party support was in either case. It is important to acknowledge that this approach might have been more effective in assessing sanctions outcomes with more robust data analysis. An interesting avenue for future research might be whether there is a critical point when third-party support has a pivotal impact on sanctions outcome (e.g., support that meets a certain percentage of the target's GDP).

Assessment of Alternative Explanations			
Case/ Explanation	Venezuela Case	Iran Case	General Conclusions
Adaptation	+ OPEC and USEIA data + Freedom House reports +Secondary scholarly sources + Election results -Limited scholarly sources on more recent developments	+ OPEC and USEIA data + Secondary scholarly sources + Blog (Iran Primer) + Election results	+ High availability of quantitative data + Significant scholarly attention - No data on internal revenue flow
Evasion	+ Wire services (Reuters) + Research organization reports + USEIA data - No country-by-country breakdown of oil exports	+ Secondary scholarly sources + USEIA data + New websites - No country-by-country breakdown of oil exports	+ Sufficient evidence to determine that third-party states were undermining sanctions - Conflicting and imprecise figures made it difficult to determine the actual degree of third-party support
Enforcement and Implementation	+ Government websites (Third-Party sanctions policy) + USEIA data + Secondary scholarly sources (Smilde and Ramsey 2020a)	+ Secondary scholarly sources + USEIA data + Popular press article + Statements from U.S. officials	+ Evidence presented clear picture of the effects of cooperation and timespan of the episode - Required assumptions concerning the relative importance of different concurrent policies

Discussion: Comparing Case Studies and Policy Implications

This discussion section seeks to compare the findings of the two case studies. The hope here is that a comparison of sanctions failure and success will reveal relevant details that might contribute to more informed sanctions policy. First, it is necessary to acknowledge the limits of this comparison. There were certain factors at play in the Iran case that favored sanctions success, factors that simply were not present in the Venezuelan case. The first of these factors was the credible threat of U.S.

military action. Despite President Obama's insistence that the military was an option of last resort, it was a possibility that Tehran could not take lightly. Even with U.S. reassurance, the Israeli threat was present as well. For Iran to have rejected negotiations or to have pulled out before a settlement was reached would have lent tacit legitimacy to the military option. This offered U.S. sanctions policy an advantage that was not present in the Venezuela case. Considering that the developments in Venezuela did not pose a security risk to the U.S. and the fact that Russia was backing Maduro, military intervention in Venezuela was likely never a serious option even if President Trump maintained an all-options-on-the-table outlook. In fact, Frank Mora, a former deputy assistant secretary of defense from the Obama Administration criticized the Trump Administration's posturing; Mora claimed any potential for a naval blockade or military intervention was doubtful based on U.S. military presence in the region at the time (Torres 2020). While the U.S. and several other regional states in did invoke the Rio Treaty in September 2019, a majority of the member states that voted in favor of the measure denounced the use of military force (Meyer 2019, 2-3).

The second factor that favored sanctions success in the Iran case was the goal of sanctions itself. While seeking a nuclear deal with Iran was no small task, the U.S. was not bent on regime change or any level of democratization. This led to two significant advantages for sanctions policy. First, this helped to maintain Russian and Chinese support. Without overstating the importance of their cooperation, Resolution 1929 was at least a symbol of unity that altered Iran's risk calculations. Not seeking regime change also makes it easier for the sender to negotiate with the target government—the target is obviously more likely to comply with demands in cases when compliance is not contingent upon the target government losing power. The goals of the Trump Administration were simply loftier. By maintaining the strict goal of regime change, the Trump

Administration brought on the ire of international rivals. Furthermore, seeking to oust a regime makes it much more difficult to negotiate with that regime.

Despite those factors that favored success in Iran, the cases are remarkably similar in key aspects. In both cases, the U.S. resorted to targeted sanctions on the target's oil industry—targeted sanctions that had comprehensive effects because both Iran and Venezuela are oil-dependent rentier states. In both cases the U.S. was successful in imposing significant economic costs, and in both cases, sanctions prompted the target government to join negotiations to resolve the sanctions episode. Another relevant similarity between the two cases is the legitimacy of the end goals of the sanctions episode. The various Security Council resolutions in the Iran case reveal the general international consensus that Iran should not attain a nuclear weapon. The international community's rapid recognition of Juan Guaidó as the president of Venezuela in January 2019 suggests the general acceptance of regime change as the end goal. While there were notable dissenters in the Venezuela case (still, China and Russia favored a peaceful resolution and supported the summer 2019 negotiations), the important point is that the U.S. enjoyed significant international agreement with its goals in both cases. With an understanding of the above similarities and differences, this section proceeds with a discussion of five policy implications from the two cases.

Implication 1: Exacerbate Threats to the Status Quo

The first implication from the two case studies is that sanctions should exacerbate threats to the status quo political order. This does not necessitate the threat of total political disintegration, but economic sanctions must harm some fundamental aspect of the target's hold on power. Sanctions efforts were successful in achieving this outcome in both cases. The centralized political structure in both Iran and Venezuela were dependent on oil revenue, and sanctions significantly limited both countries' abilities to export oil and receive payments for oil sales.

Threatening the status quo is integral to sanctions success because it forces the target government to make a difficult decision: Whether to risk further damage to the existing political-economic system or pursue a path that would result in sanctions relief. In the Venezuela case, President Maduro had to decide between either risking the loss of support from the military and other members of his winning coalition by non-compliance or agreeing to a path toward sanctions relief that would likely lead to him losing a substantial amount of power at least for a time. In the Iran case, Supreme Leader Khamenei had to decide between either risking the loss of IRGC support and his popular legitimacy or sacrificing elements of Iran's nuclear program. In both instances, the target government signaled its interest in the path toward sanctions relief. Maduro agreed to the summer 2019 negotiations and Khamenei allowed Rouhani, an avowed pragmatist, to win the presidential election. In both cases, the costs of sanctions were so great that the target government was not willing to risk resistance—at least initially.

Implication 2: Capitalize on Costs of Sanctions, Offer Viable Path for Power Brokers

The second implication is that the sender must follow up effective sanctions with a viable path toward sanctions relief. The sender can communicate this path explicitly or through subtle means, but regime power brokers have to understand that compliance is a favorable option. This offer should come after the target signals its interest in sanctions relief. Comparing the Venezuela and Iran case highlights just how pivotal this aspect of sanctions policy is. The Trump Administration failed to offer serious hope of sanctions relief, whereas the Obama Administration instigated the secret bilateral channel.

It is important to offer a viable path to keep the terms of compliance favorable for the target government. In the Venezuela case, the refusal of the U.S. to consider sanctions relief for the 2019 negotiations led Maduro to reconsider his options: either continue with negotiations without any guarantee of sanctions relief or risk threats to the status quo from continued sanctions. The Trump Administration's stance also served as a signal to the military that even if they ousted Maduro, sanctions relief would not be a given—further reducing the threats that sanctions imposed on the status quo political order. In the Iran case, Khamenei had to choose between either continued talks with the U.S. and P5+1 or risking his legitimacy through a strategy of resistance. Furthermore, the IRGC remained a serious threat to Khamenei, since the goals of the sanctions episode were not incompatible with an IRGC controlled government. The comparison of the two cases demonstrates the importance of capitalizing on the difficult situation that intense sanctions can force the target government into before it recalculates its risk assessment.

Implication 3: Take What You Can—Before Someone Else Does

The third policy implication is that the sender must be prepared to accept concessions that do not meet the original goals of the sanctions episode. Furthermore, this is a time sensitive issue because the target will continue to reevaluate its options and third-party support may tip the target's evaluation of options in favor of noncompliance. Expecting too much from the target significantly reduces the chances of fruitful negotiations. This is exactly how the Venezuelan situation panned out, whereas in the Iran case, the U.S. was content with interim agreement (JPA) that the P5+1 talks produced.

This implication should not be taken to suggest that the U.S. should indiscriminately accept the terms of the target, rather policy makers should be aware of what sanctions can realistically achieve. In the Venezuela case, the Trump Administration did not see the 2019 negotiations as the opportunity that they were and indicated as much with the August announcement of secondary sanctions. Several months later in March 2020, the Trump Administration announced the Transition Framework—an arrangement not all that dissimilar to reports of the transition government from the 2019 negotiations. The Maduro government quickly rejected the Transition Framework, perhaps because a year of support from Rosneft and later Iran gave the government a bit more confidence in its ability to withstand sanctions. Turning toward the Iran case, the Obama Administration accepted the JPA and began the process of limited sanctions relief. Republican opposition to the JPA and later JCPOA suggests that the U.S. was not accepting all that it *wanted* but the Obama Administration was willing to take what it *could* get. Had the U.S. rejected either agreement, this would have risked the P5+1 negotiations falling through. In such a scenario, it is not hard to imagine Russia or China backsliding on sanctions. This development could have altered Iran's appraisal of its policy options in favor of a strategy of resistance, similar to the Venezuela case. This comparison illustrates how important it is for the sender to seriously consider terms that do not necessarily meet its original hopes for the sanctions episode, and when third-party support runs the greatest risk of harming sanctions outcomes.

Implication 4: Maintain a Demonstrable Plan for Sanctions Relief

The fourth policy implication is that the sender should have a clear plan for sanctions relief from the outset of the episode and should communicate that plan—and a willingness the implement it—to the target government. Rather than a simple statement entailing sanctions relief upon compliance with demands, the sender should develop an organized plan for sanctions relief complete with criteria for achieving sanctions relief, a possible time schedule, estimates on total funds that the target would be able to access (from frozen/blocked accounts), and economic recovery aid. This is precisely the sort of incentive that O'Sullivan advocates for in explaining optimal sanctions policy (2003, 291). This obviously raises the costs of sanctions episodes for the sender, but evidence from the case studies suggest that this could further encourage the compliance of the target government.

In the Venezuela case, the Maduro government lost any interest in negotiations with the Guaidó team once he realized that sanctions relief was not a realistic outcome—at least while he or any member of his winning coalition was in power. The announcement and implementation of secondary sanctions paired with the Trump Administration's hardline on sanctions relief left Maduro and the Venezuelan military with little reason to work out a deal with the U.S. Perhaps a clear plan for sanctions relief may have changed the evaluations of the regime power brokers. Such a plan would have also benefitted the Guaidó team in the 2019 negotiations. In the Iran case, the JPA was not exactly what this paper is recommending, but it is similar enough in spirit to demonstrate the promise of having a plan for sanctions relief. The JPA signaled that greater sanctions relief was a legitimate possibility—maintaining international talks would be worth it in the end. That is the primary function of the recommended sanctions relief plan, to signal that sanctions relief is possible and the sender is willing to help facilitate in the target's economic recovery. This policy recommendation is primarily suited for sanctions episodes like the two in question where the targeted sanctions had comprehensive effects.

Implication 5: Humanitarian Concerns, Comprehensive Effects of Targeted Sanctions

This study has assessed sanctions outcomes through the narrow metric of target behavior (compliance or non-compliance). This ignores a crucial element of targeted sanctions literature: the humanitarian impact of sanctions. While the sanctions against both Iran and Venezuela were targeted, the two OPEC countries' reliance on oil ensured that intense sanctions on the energy sector would have comprehensive effects. In both countries this led to serious humanitarian costs.

During the Iran sanctions episode unemployment rose dramatically, families struggled to pay tuition and school fees, and access to food became more difficult (Gordon 2013). In Venezuela, sanctions exacerbated a preexisting economic crisis and limited the public food distribution program, CLAP (Oliveros 2020, 47). Sanctions also made it difficult for humanitarian groups in the country to access bank accounts (47). This raises serious ethical concerns with how senders use targeted sanctions with widespread effects on the target's population. When—if ever—is it appropriate to resort to such measures? How long should these sanctions last? What should the sender do when sanctions have clearly failed to accomplish their goal?

Those questions are all too relevant for the new Biden Administration that inherited a host of strict sanctions regimes from the previous administration. While such policies are lambasted in the popular press (Beinart 2021), the unfortunate reality is that targeting an adversarial state where it is economically most vulnerable will be tempting for any administration. Therefore, the fifth policy implication is that the U.S. should consider the use of sanctions with comprehensive effects with the same gravity and hesitancy as it does military engagement. This view goes hand-in-hand with the policy implications above, which focus primarily on the path to sanctions relief rather than compliance. Placing the same importance on sanctions relief as compliance would encourage future administrations to implement more responsible sanctions policy. For instance, this understanding of sanctions might lead to more sincere negotiation efforts with targets or make the U.S. more sensitive to the timespan of sanctions. Of course, there is a limit to how responsible a maximum pressure campaign can be with regard to minimizing humanitarian costs. Given that private benefits and public goods derived from oil revenue in the Iran and Venezuela cases, it is no surprise that oil sanctions had severe effects on the target populations. Should future administrations choose to employ similar measures, the most responsible approach might be to limit how long such sanctions are in effect and engage in diplomacy that can help to meet that end—including compromising on the scope of policy goals.

Implications for Studying Sanctions

Beyond the aforementioned policy implications, the two case studies offer some insight into how best to study sanctions moving forward. This paper employed three alternative explanations: the adaptation hypothesis which focuses on target response, the evasion hypothesis which focuses on third-party support of the target, and the enforcement and implementation hypothesis which focuses on the sender's policies. If anything, the two case studies reveal that these competing hypotheses might be better described as complimentary hypotheses. To narrowly focus on one explanation sacrifices detail for simplicity—this seems like an irresponsible tradeoff especially when the costs of economic sanctions are so high. That being said, each of the approaches had strengths and weaknesses that can inform how scholars study sanctions episodes.

The adaptation hypothesis seems especially useful in comparing two different sanctions episodes. Both Iran and Venezuela are authoritarian rentier states, but sanctions led to different outcomes. By focusing on the internal political dynamics of the target, this approach offers a degree of nuance that allows scholars to compare cases that fall within the same regime type. While current literature generally agrees that sanctions are more likely to succeed when the target is a democratic state, it would be useful to look into what factors within autocratic states facilitate sanctions success. However, this approach comes with a frustrating limitation: it is difficult to analyze the flow of revenue and benefits within the winning coalition. For both cases in this paper, there was not precise information on how oil wealth is allocated between public and private goods.

Perhaps the best proxy for assessing revenue flow is the degree to which third-party actors continue to trade in sectors that face intense sanctions. The evasion hypothesis seems insufficient on its own due to the fact that different regimes clearly require different needs (the Venezuelan oil industry was hurt worse than Iran's, yet sanctions were not successful in the Venezuela case). However, when paired with the adaptation approach, third-party support can help to explain how target governments arrive at their decision to resist or comply with the sender's demands. The utility of the evasion hypothesis may also be greater in instances when sanctions fail to impose economic costs. In both the Iran and Venezuela case, the sender was successful in harming the target's economy, but in cases when the sender targets less vulnerable industries as energy, third-party support may play a greater role in reducing economic costs to the target.

The implementation and enforcement hypothesis was extremely useful for its ability to narrow down specific pivotal actions by the sender government. The fact that the sender was the U.S. in both instances also made researching for this approach a bit easier. There was not at much speculation involved in ascertaining U.S. motives compared to the other approaches. For instance, research for the Iran case revealed conflicting argument as to why China supported Resolution 1929. The relative access to information concerning U.S. policy made it easier to analyze the Obama and Trump Administrations use of sanctions. It seems that this approach was especially well suited for the Venezuela case simply because the U.S. was clearly successful in imposing economic costs, yet nothing came of it. This implies a policy failure outside of the sanctions themselves, which the implementation and enforcement explanation can answer by analyzing concurrent policy.

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