

Threat and imposition of economic sanctions 1945–2005: Updating the TIES dataset

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Abstract

Recent research on economic sanctions has produced significant advances in our theoretical and empirical understanding of the causes and effects of these phenomena. Our theoretical understanding, which has been guided by empirical findings, has reached the point where existing datasets are no longer adequate to test important hypotheses. This article presents a recently updated version of the Threat and Imposition of Economic Sanctions dataset. This version of the data extends the temporal domain, corrects errors, updates cases that were ongoing as of the last release, and includes a few additional variables. We describe the dataset, paying special attention to the key differences in the new version, and we present descriptive statistics for some of the key variables, highlighting differences across versions. Since the major change in the dataset was to more than double the time period covered, we also present some simple statistics showing trends in sanctions use over time.

Keywords

Dataset, economic coercion, economic sanctions, threats

Introduction

Research on economic sanctions has progressed significantly over the past two decades. Prior to that time, most studies were of a single case and generally focused on explaining

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why sanctions had not, and could not, “work” in the particular example under investigation (Baer, 1973; Galtung, 1967; Hoffman, 1967; Olson, 1979; Schreiber, 1973; von Amerongen, 1980; Wallensteen, 1983). These studies tended to focus on prominent cases that were “prominent” precisely because they had gone on for a long time without success. This obvious selection bias led to the general conclusion that economic sanctions did not work. However, recent studies have developed far more rigorous theories and have tested hypotheses systematically using datasets containing information on hundreds of cases. This work has produced a more nuanced view of sanctions and has shown that they can, sometimes, bring about a change in target state policies and that we can identify the conditions under which this is more or less likely.

The first wave of large-*N* studies relied quite heavily on data collected by Hufbauer et al. (1990, 2007). While significant advances in our understanding of sanctions processes were made by research using these data,¹ theoretical advances led the field to the point at which new data were required. In particular, a number of scholars argued that, since potential targets can adjust their behavior before sanctions are imposed in anticipation of the potential costs, sanctions might be more effective at the threat stage than at the imposition stage (Drezner 2003; Morgan and Miers 1999; Smith 1996). To test these arguments, a new dataset on the Threat and Imposition of Economic Sanctions (TIES) was released in late 2006.² The original TIES dataset includes data on 888 cases in which sanctions were threatened and/or imposed in the 1971–2000 period. While these data do enable us to test hypotheses on the effectiveness of threats as well as to revisit earlier findings on the effectiveness of sanctions,³ there are limitations regarding their usefulness for testing other important hypotheses. The time period covered is too short to test many hypotheses regarding changes in the use of sanctions over time and our ability to use these data to test hypotheses regarding the duration of sanctions is hindered because they do not capture several of the important, long-term sanctions episodes that were initiated prior to 1970 (e.g. the USA vs Cuba, or those against Rhodesia and South Africa).

To redress some of these issues, we have recently updated the TIES dataset.⁴ The dataset has been extended to cover the 1945–2005 period.⁵ In addition, we have corrected some errors found in the previous version of the dataset, we have updated the information on cases that were ongoing as of the previous release, and we have included a few more variables. Our purpose in this article is to introduce the updated version of TIES. In the next section, we will describe, briefly, the dataset and some of the definitions and coding rules that guided the data collection. We will also provide some general, descriptive statistics characterizing the data and emphasize the differences between the versions of TIES. We will follow this with a series of simple analyses that explore the changes, or lack thereof, in sanctions over time. We believe that some of these patterns are surprising and that future research that explores these patterns more fully will significantly advance our understanding of sanctions processes.

The data⁶

The new version of the TIES dataset includes 1412 cases in which one or more states threatened and/or imposed economic sanctions on a single target during the 1945–2005 period. Economic sanctions are defined as actions that one or more countries take to limit or end their economic relations with a target country in an effort to persuade that country to change

its policies. By definition, a sanction must (a) involve one or more sender states and a target state and (b) be implemented by the sender in order to change the behavior of the target state. Actions taken by states that restrict economic relations with other countries for solely domestic economic policy reasons therefore *do not* qualify as sanctions. Sanctions may take many forms, including actions such as tariffs, export controls, embargoes, import bans, travel bans, freezing assets, cutting aid and blockades. For the purposes of this dataset, all sanctions cases may only include one target state. If a sender state makes threats against multiple targets, a new case is created for each individual target.

The data collection progressed in three stages. First, candidate cases were identified through a keyword search using *Lexis-Nexis*, *Facts on File*, *Keesing's Record of World Events*, the *New York Times* index, and the *London Times* index.⁷ Each of these candidate cases was then researched extensively and written case summaries of each that was believed to meet our requirements for inclusion were prepared. Coders then used these written summaries to determine the values of the variables included in the dataset, but if it was determined that additional investigation was required, it was conducted.⁸ At each stage, care was taken to ensure the reliability of our procedures by having two or more people perform the same tasks for a number of cases and checking the degree to which there was agreement.

A sanctions case begins when the sender makes a threat about the possibility of sanctions or imposes sanctions with no previous threat and makes a demand regarding a desired change in the target state's behavior. Threats and demands may or may not be specific; they need only declare that sanctions are a possibility against the target state and identify the offending behavior. Threats may be initiated in several ways, such as through verbal statements by government officials, drafting of legislation against a target state or the passage of a conditional law against a target state stipulating that sanctions will be imposed if certain target behaviors are not changed.

In several instances, sanctions are imposed as a result of legislation designed to monitor the behavior of potential target states. Examples include yearly determinations of whether a country is engaged in nuclear proliferation, drug trafficking or the sponsorship of terrorism. The sender conducts routine investigations of the behaviors of potential targets on an annual basis. If this is the case, the initial passage of legislation is considered to be the start of a case for countries that are violating the conditions of the law needed to avoid sanctions. Alternatively, in situations in which countries that are in compliance in the period in which the law is passed but later violate the laws, the case is considered to have begun after the potential target chooses to violate the sender's law.⁹ This allows a case to begin with actions taken by the target state.

A case is considered to start on the day when the sender makes a threat or implements sanctions, or when then target engages in behavior that makes it noncompliant with the sender's laws as noted above. A case is considered to end on the day when (a) the target alters its behavior to the satisfaction of the sender, (b) the sender removes sanctions imposed on the target or (c) the sender makes a clear decision to not carry out a threat even in the absence of changes in target behavior. In many of these cases, senders identify an offensive behavior and make a threat to impose sanctions, but choose not to follow through on these threats. We consider these cases to end if we were unable to find any mention of sanctions for one year after the last documented news story pertaining to the threat. For example, if a sender threatens to impose sanctions on a target on 15 April 2001, but never mentions the sanctions again, we code the end of the sanctions case as 15 April 2002. If this sender makes

another threat against the target a month later on, 15 May 2002, we consider this to be a new case.

Each case contains a single target, but there may be several senders. Thus, when the USA and Canada imposed sanctions on Pakistan and India over nuclear proliferation, we consider that to be two cases, one for India and one for Pakistan. The determination regarding whether we have a single case with multiple senders or multiple cases hinges on whether there is evidence that the senders are coordinating their efforts and/or whether the demands are identical. Cases can involve multiple issues, provided that the threats and demands made over the issues are tied together. In other words, if there is a demand to improve human rights *and* stop supporting terrorists, that would comprise a single case. On the other hand, if sanctions are imposed over human rights issues, and some time later additional sanctions are threatened over support for terrorism, those would be separate cases.

For each case, we identify the target, the sender(s), the start and end dates, the type of issue under dispute and whether an international institution was involved. With respect to threats, we specify who made the threats (e.g. a head of state, a high level bureaucrat, a legislator), what demands were made of the target, what actions exactly were threatened, how specific the threats and demands were, what the threatened actions would cost the target and sender if carried out, how committed the sender appeared, and what interests within the target are the focus of the threats. For those cases in which sanctions were imposed, we identify the type of sanctions levied, the estimated costs to both target and sender, and who within the sender state was responsible for implementation. We also identify if any carrots were promised, or provided, during the case and whether diplomatic sanctions (e.g. recall of an ambassador) were used. The outcome of a case is characterized by whether the target partially or completely acquiesced to the sender's demands at the threat stage or after sanctions were imposed, whether a negotiated settlement was reached at the threat stage or after sanctions were imposed, whether the sender capitulated at the threat stage or after sanctions, or whether the case resulted in a stalemate.

There are a few significant differences between this version of the dataset and the previous version. First, in the previous version, we provided a start date for the case, but, if a case began with a threat and sanctions were imposed, we did not provide a date for the imposition of sanctions. We now include a variable identifying the onset of sanctions imposition in the relevant cases. Second, for those cases with missing end dates, we now include a variable that specifies the last date for which we have some record indicating that the case was still ongoing.¹⁰ Third, we have changed the way in which we treat a number of variables that could assume more than one value for the same case. For example, several actors (e.g. the President, the Secretary of State, the Majority leader in the Senate) could make threats, demands could be made on several issues, several different types of sanctions could be imposed, and so forth. In the previous version coders were restricted in the number of values they could include. For example, in the variable *Threat Identity* only the most senior official was coded. In this version of the data, coders were able to list all possible values for these variables. Finally, when international organizations are involved, we now allow coders to specify which organization through the Correlates of War institutional ID codes (Pevehouse et al., 2004).¹¹ Fourth, we now include two dichotomous variables (*Threat* and *Imposition*) to identify if the case includes a threat and whether or not sanctions were imposed.

Other changes in the dataset involve specific aspects of the data. First, in the previous version of the dataset, we included cases involving Hong Kong and Macau, although neither met our criteria for inclusion—that is, being considered a member of the international

system by the Correlates of War project. We have removed those cases in this version of the data. We have retained cases involving the EU as a target or sender, and given it the country code “1000”. In a number of cases, the EU appears very much like a single sender or target, in the sense that it adopts a common policy. We felt it made sense to treat it as a single actor in those cases. There are cases, however, in which a EU member acts on its own as either a sender or as a target; in some of these cases, the EU behaves very much like an international institution. For these cases, we code the institutional involvement of the EU, using the COW institution code as described in the previous paragraph. Second, we have changed the coding procedures for the variables capturing whether senders also used diplomatic sanctions or offered carrots to the target. If we found evidence of diplomatic sanctions or carrots, we coded the variable as “1”. Otherwise, we coded the variable as “missing”. Partly, this was done to ensure consistency across coders. More importantly, we believe that it more accurately reflects the information available. Finding no evidence of diplomatic sanctions or carrots is not the same as finding evidence that they were not used. Finally, since we were not looking for these things in instances where sanctions were not imposed, we want to avoid any suggestion that users could employ these data to test hypotheses relating to the general use of diplomatic sanctions or carrots outside the context of sanctions use.¹²

Describing the data

As noted above, there are 1412 cases in the new version of the dataset, compared with 888 in the former version of TIES, indicating a 59% increase in the number of cases. Further, the new data now cover 61 years’ worth of information as opposed to the original 30. Sanctions were imposed in 845 of these cases (60%) leaving 567 cases that involved only threats (40%). This compares to 527 cases of imposed sanctions in the previous version of the data. As in the previous version, we include cases in which sanctions were used in trade disputes as well as cases involving security and humanitarian issues. Some 740 of our cases involve non-trade issues (52%) and 672 are trade-only disputes (48%). We recognize that many scholars believe that trade sanctions are fundamentally different from sanctions imposed for other issues and that they should not be analyzed together. We have opted for inclusivity with the knowledge that any user can easily exclude trade cases. The mean duration of cases for which we have end dates is 2.43 years, which compares to 2.7 years in the previous version of the data. This, of course, underestimates the average duration because it does not consider ongoing cases, some of which are very long lasting.

As in the early version of the dataset, the USA is the primary sender in a sizeable portion of cases. The USA is the primary sender in a little over 48% of the cases in the current version vs 46% in the previous dataset. The next most frequent primary sender of sanctions is Canada with 112 cases (7.9%), followed by Russia and the UK with 38 each (2.7%), and India with 34 (2.4%). These top five senders account for about 63.7% of the cases in the dataset. Interestingly, the USA is also the most frequent target of sanctions with 103 cases (7.3%),¹³ followed by Japan (5.7%), South Korea (4.1%), China (3.2%) and the European Union (3.1%).

As before, TIES provides multiple ways of identifying whether sanctions were successful at bringing about a change in target state policies. One variable characterizes the final outcome (and whether it occurred at the threat stage or at the imposition of sanctions stage). We have data on this variable for 1024 cases; the remaining 388 cases are either ongoing or

Table 1. Success rate of sanctions

Success definition	Successes	Missing final outcome considered failure (N = 1412)	Missing final outcome removed (N = 1024)
Restrictive	384	27.2%	37.5%
Negotiated settlement	576	40.8%	56.3%
Settlement nature	454	32.2%	44%

we were unable to determine the outcome. In initially examining the success rate of sanctions, we first treat these cases as unsuccessful (since they have yet to produce gains for the sender) and then as missing. We further use three different definitions of sanctions success. First, we employ a restrictive definition that considers only instances where the target partially or fully acquiesces as successful cases. Second, we use a more relaxed definition that also considers negotiated settlements as successful outcomes. The third measure of success examines the settlement nature variables for the sender and the target. This variable provides, on a scale of 1–10, the coder's perception of the proportion of the sender's goals that were met in the case and another variable that provides the coder's perception of the proportion of the target's goals that were met. Cases can be considered as "successful" if the value of the variable for the sender is greater than the value of the variable for the target.¹⁴

From Table 1, we see 384 cases identified as successful if we employ the strict definition of sanctions that requires total or partial acquiescence on the part of the target. Under this definition of "success" sanctions may be considered successful in 27.2% of the cases, if we consider all cases, or in 37.5% of the cases for which we have data for the final outcome. Predictably, the rate of success improves markedly if we consider negotiated settlements to be successful cases. We see a 40.8% success rate in the pool of all cases and a remarkable 56% success rate when cases with missing final outcomes are removed.¹⁵ Again, this occurs if we relax the definition of success to include negotiation, which implies that the sender also makes some degree of concessions to the target. The third definition based on the settlement nature scores identifies 454 successes, which translates to a 32.2% success rate in the full sample and a 44% success rate in the restricted sample.

Other patterns in the new dataset

Numerous scholars have argued that the popularity of sanctions as a foreign policy tool is growing, and that sanctions are being used with greater frequency. While the previous version of TIES supported this proposition in the years 1971–2000, the pattern looks somewhat different if we examine all cases of sanctions from 1945 to 2005. We see from the left side of Figure 1 that the rate of sanctions usage from 1945 to 1980 appears relatively constant. The frequency of sanctions increases slightly during the 1980s, and subsequently increases in the 1990s. However, in the 2000s, we see that the use of sanctions declines slightly. This pattern indicates that sanctions may have reached their peak levels in the 1990s. From these data, we should expect that sanctions will either continue to be used at rates seen in the 1990s or may subsequently decline. This pattern somewhat contradicts the belief that sanctions usage is increasing at an exponential rate, although it is clear that states are using sanctions more frequently in more contemporary periods.

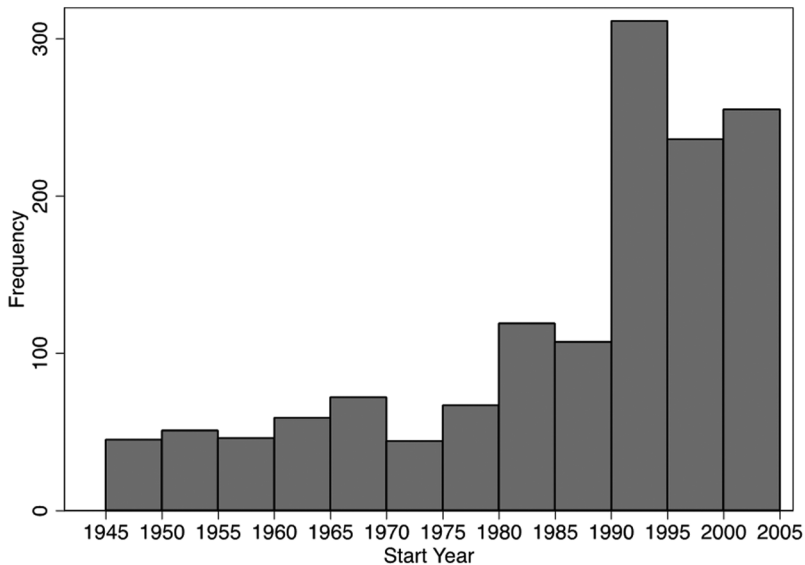


Figure 1. Beginning of sanctions cases 1945–2005.

The new data further allow us to observe several trends in the use of sanctions during the postwar period. The mean duration of a sanctions case in the cases where we can identify end dates is 885.4 days, or 2.43 years (Figure 2). These results are consistent with the first version of TIES in its conclusion that sanctions do not tend to last for very long. In the full sample, 49.4% of the sanctions cases end within one year, whereas 75% of the cases end within 2.7 years. Some 95% of the sanctions cases terminate within 8.92 years, and only 41 cases with identifiable endings last longer. This indicates that sanctions are generally short-lived and with few exceptions are over within three years. From a policy perspective, the data demonstrate that sanctions cases such as the Cuban embargo and South African sanctions are relatively rare.¹⁶

One of the more interesting findings in the data is that trade-related vs non-trade-related disputes largely drive the well-documented increase in sanctions usage.¹⁷ Figure 3 plots the use of sanctions in trade vs non-trade disputes in the postwar period. Interestingly, we see that, while the number of trade disputes increases substantially during the 1980s and 1990s, the number of non-trade-related sanctions remains relatively constant across time. The only exception to this occurs after 2000, when the number of non-trade-related sanctions increases fairly quickly. However, in breaking down these data further, we see that this increase is largely due to American threats to impose sanctions in response to the formation of the International Criminal Court (ICC). Since the USA was not a signatory to the ICC, the USA frequently made threats against other signatory states to sign bilateral treaties exempting Americans from prosecution. These ICC cases account for 71 of the 186 non-trade-related cases from 2000 to 2005 (38%). Removing these cases, we see that the number of non-trade-related sanctions still increases from 69 cases in the period from 1995 to 1999 to 115 cases from 2000 to 2005 (Figure 4). Although this is still a substantial

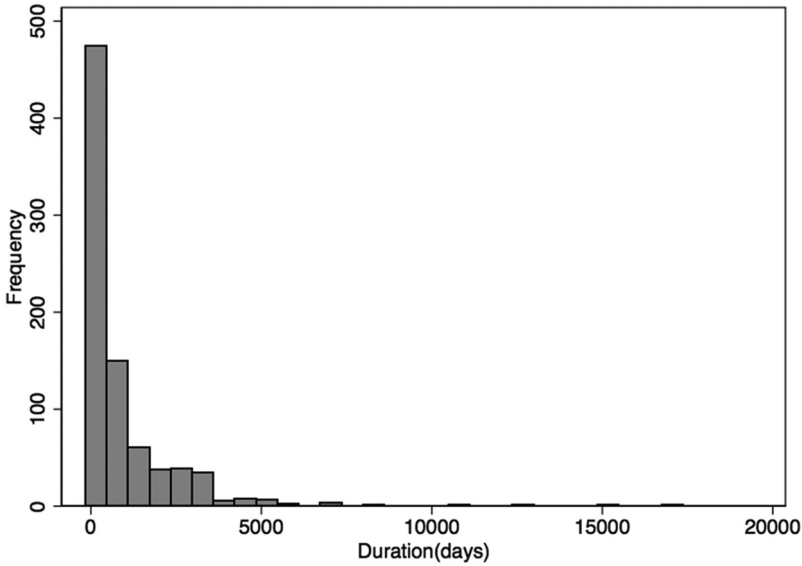


Figure 2. Duration of sanctions cases 1945–2005 in days.

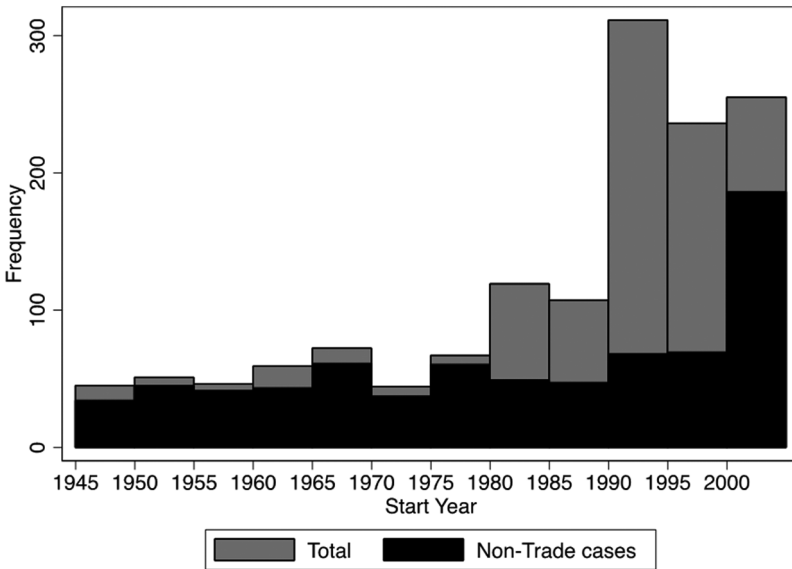


Figure 3. Security-related vs trade-related disputes 1945–2005 (including ICC cases).

increase in cases (66.6%), the increase is nowhere near as dramatic without the substantial number of ICC cases. We therefore see that states appear to use sanctions in non-trade-related disputes on a fairly consistent basis throughout the postwar period, and there does

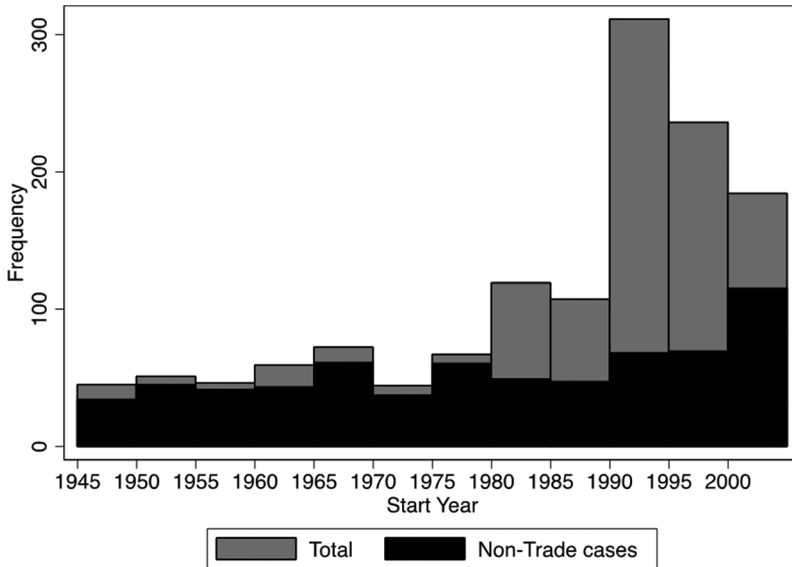


Figure 4. Security-related vs trade-related disputes 1945–2005 (no ICC cases).

not appear to be an increasing turn to economic coercion over non-trade-related issues in this period.

The data further indicate that the use of sanctions in trade disputes increased substantially from the mid 1980s to the early 1990s, but subsequently fell in the second half of the decade and continued this trend into the 2000s. This profound increase of sanctions in trade disputes accounts for the majority of the sanctions disputes in this period. Interestingly, this demonstrates that trade disputes account for the majority of disputes during the “sanctions decade”, and drive the increase in sanctions usage. There are several possible explanations for this pattern. First, the transition from the Generalized Agreement on Tariffs and Trade (GATT) to the World Trade Organization (WTO) was accelerating at this time following the completion of the Uruguay Round of negotiations in 1994. This transition may have led to a temporary increase in trade disputes in the system, given uncertain expectations about the WTO’s effectiveness. However, once the organization came into being in 1995 and began establishing itself, it is likely that more states chose to use the WTO as a mechanism to resolve economic disputes as opposed to resorting to economic sanctions.¹⁸ The increase in economic-oriented disputes may simply reflect the transitioning period between GATT and the WTO. If this is the case, we might therefore expect that the number of trade disputes would continue its trend and fall to approximately the same number of non-trade disputes, which is the pattern for much of the period from 1945 to 1980.

The data reveal several other interesting patterns in the use of sanctions. We see that there is a slow and steady increase in the use of multilateral sanctions and in sanctions imposed through international institutions. The increased use of both multilateral sanctions and sanctions through institutions appears to occur following the end of the Cold War in the early 1990s. Substantively, this suggests that the Cold War competition prevented multilateral

Table 2. Effect of multilateral sanctions on success^a

Success	Multilateral		
	No	Yes	Total
No	475 (69%)	165 (49%)	640
Yes	214 (31%)	170 (51%)	384
Total	689	335	1024

Probability = 0.00.

^aColumn percentages reported, table uses success definition based on settlement nature scores and considers missing final outcomes failures.

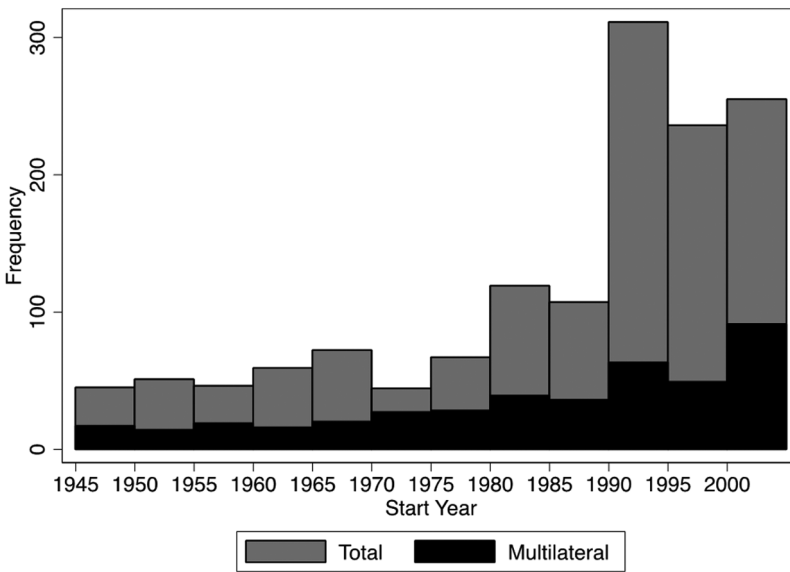


Figure 5. The use of multilateral sanctions 1945–2005.

sanctions efforts, but cooperation and sanctions through institutions are now more readily available. Interestingly, we see from Figures 5 and 6 that, as the possibility for institutional and multilateral sanctions became more available in the 1990s, the number of successful sanctions efforts also increased from 1990 to 2005. This is consistent with previous empirical research suggesting that multilateral sanctions are more likely to be effective than unilateral sanctions (Bapat and Morgan, 2009). We see that this pattern is consistent in the expanded dataset. Table 2 demonstrates that in the postwar period, using the restrictive definition of success, 51% of multilateral sanctions produced success as opposed to only 31% of unilateral sanctions efforts (+65%). We therefore see some suggestive evidence that the use of multilateral and institutional sanctions increased following the end of the Cold War, and that these types of sanctions are more likely to be effective. This might suggest that the effectiveness of sanctions depends on the extent of great power cooperation.

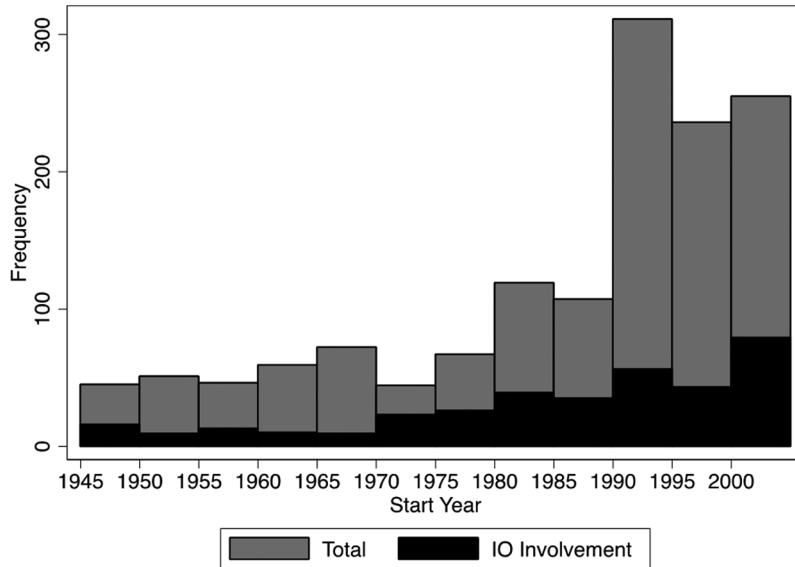


Figure 6. International organization (IO) involvement in sanctions cases 1945–2005.

Figure 7. Targeted sanctions as a proportion of total sanctions 1945–2005.

An additional pattern of note in the new data is the prevalence of targeted or “smart” sanctions.¹⁹ A common argument is that smart sanctions appear to be a relatively new phenomenon that is increasingly used by policy-makers when imposing sanctions. Interestingly

enough, we see with the greater data collection that targeted sanctions were often used immediately following the end of the Second World War. The use of targeted sanctions dropped in 1970 and remained low throughout that decade before subsequently increasing in the 1980s and the 1990s. This indicates that, if we were to only look at the previous version of TIES, we would conclude that targeted sanctions were indeed a newer phenomenon. However, with the updated data, we see that this finding is largely an artifact of the temporal restrictions of the first TIES. The expanded data collection indicates that targeted sanctions accounted for 60% of sanctions between 1945 and 1950. By the 1990s, targeted sanctions accounted for 80% of all sanctions, although this percentage fell in the 2000s down to 51%. Taken together, we see that targeted or smart sanctions are actually not a new tool at all, although the raw number of targeted sanctions is increasing as a function of the increasing use of sanctions in the system (Figure 7).

Conclusion

The goal of this paper is to introduce the updated TIES dataset. One of the significant weaknesses of the previous version of TIES was that its temporal domain was shorter than other sanctions datasets, including the Hufbauer, Schott and Elliott data. This clearly created a problem for scholars seeking to analyze sanctions as a process, particularly those seeking to conduct duration analyses that required much more data. We believe that the recent update addresses this concern by including over half a century of coverage from 1945 to 2005. The recent version allows us to include numerous prominent cases in our analysis, identify the endings of several key cases and develop a better understanding of trends in how sanctions are used as an instrument of foreign policy. Additionally, the larger amount of data will now make it possible for scholars to test complex hypotheses, particularly those that involve interactions among explanatory variables. We believe that TIES now presents sufficient data to test these more complex hypotheses, as well as those hypotheses seeking to analyze trends in sanctions over time. The first TIES dataset enabled scholars to understand the impact of threats prior to imposition. We believe that this version will provide scholars with the tools not only to examine if sanctions succeed, but also to analyze the long-term effects and consequences of sanctions following their imposition.

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Notes

1. For examples, see Lam (1990), Dashti-Gibson et al. (1997), Morgan and Schwebach (1997), Bonetti (1998) and Drezner (1998).
2. Morgan et al. (2009). The data for this first round was collected through NSF grant SES-0137792.

3. Bapat and Kwon (2014), Bapat and Morgan (2009), Cranmer et al. (2014), Escribà-Folch (2012), Krustev and Morgan (2011), Peterson (2012), Wallace (2013) and Whang et al. (2013).
4. The data and user's guide are available at <http://www.unc.edu/~bapat/TIES.htm>
5. Our initial intention was to extend the data to 2010. We discovered that there are a number of problems associated with gathering data on recent cases. In particular, the information on cases is less complete and less agreed upon. Also, many more recent cases have not yet resolved. This led to the decision to end this version of the data in 2005.
6. Much of this section provides definitions of key concepts and discusses coding rules and discussions of variables. Thus, significant passages are taken verbatim from the web-based users' guide and have appeared in grant proposals and the article introducing the initial version of TIES (Morgan et al., 2009).
7. As in the first TIES collection, the keywords used to detect potential cases included sanctions, tariffs, export controls, embargoes, import bans, travel bans, asset freezes, aid cuts and blockades.
8. Many potential cases were eliminated at each stage on the grounds that they were determined not to meet our criteria for inclusion. In addition, there were many instances in which multiple written summaries were merged into a single case as well as instances in which a single summary served as the basis for several cases.
9. The reason for this should be obvious. In one sense, the USA (for example) has standing threats against every state in the world that sanctions will be imposed if they sponsor terrorists, explode nuclear devices, violate human rights, etc. Most such "threats" are irrelevant, and coding all such cases would lead us to vastly overstate the effectiveness of threats. We therefore restrict our data to explicit, identifiable and relevant threats.
10. Previously, we treated the end date for cases with no information as "missing". Typically, these cases tended to be low-profile, economic disputes. Treating these cases as "missing" may lead to the impression that these types of disputes last longer than others. We therefore included the new variable identifying our last known record of the case.
11. We did this only for the 17 institutions that are most frequently involved in sanctions. If another institution was involved in a particular case, coders could code the institution ID as "other" and write in the identity of the institution. The institution IDs can be obtained from the Correlates of War Inter-Governmental Organization codebook, which is available at: http://www.correlatesofwar.org/COW2%20Data/IGOs/IGO_codebook_v2.1.pdf
12. In the previous version of TIES, 4% of diplomatic sanctions were identified as "missing" (42) and 93.6% were coded as "no diplomatic sanctions" (831). In the new version, we simply state that we found no evidence of diplomatic sanctions in 96.4% of the cases (1025). The figures are comparable across the two versions. Similarly, the previous version of TIES coded carrots as "missing" in 28.8% of the cases (256) and "none" in 69% (613). In the new version, carrots are coded as missing in 96.9% of the cases (952), which is again comparable to the previous version.
13. There is no question that the USA has been the most frequent user of economic sanctions in the post-Second World War era. These figures might still represent a potential bias in that our search procedures would be more likely to find evidence of cases involving the USA. It is clear this bias is less in TIES than in, for example, HSE, where about 60% of the cases involve the USA as sender. We did take pains to ensure that the data coverage was as wide as possible. We hired assistants with a wide variety of language abilities in order to make use of non-English sources and we spent a great deal of time seeking out cases that were not widely publicized or well known.
14. We caution against using either of these variables singly. The intercoder reliability on each is actually fairly low; that is, one coder might see a particular case as an "8" for the sender and a "6" for the target while another coder might see the same case as a "4" for the sender and a "3" for the target. Thus, for either variable, the numbers are not comparable across cases. When we take the two variables together and determine which is the higher, however, intercoder reliability is very high. The coders appeared to be generally in agreement regarding which side fared "better" even if they could not quite agree on where to place each on a 1–10 scale.

15. Given this very high success rate, we checked to see if the majority of successes were occurring at the threat stage. Of the 576 cases of success, 262 occurred in the threat stage prior to imposition (45%) and 314 (55%) occurred following imposition.
16. The mean duration of a sanctions episode in HSE is 6.4 years, which is 163% greater than our mean duration of 2.43 years. This difference is probably due to our inclusion of threats and economic disputes, and our decision not to focus on only the high-profile cases.
17. Non-trade-related disputes focus on issues related to security, human rights, environment or terrorism.
18. If, however, a WTO decision rules in favor of a plaintiff and permits this state to impose trade restrictions against the offender, this is coded as a sanction with the intention of altering the offender's policy.
19. We empirically define as sanction as "smart" if the sanction was intended to target the regime leadership, business interests or the military using the *Threatened Target Interest* variable.

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Appendix: Coding manual

1. Case Identification Number.
2. Start Date.
3. End Date.
4. Ongoing as of: Identifies the month, day, and year of the last reported incident related to this sanctions case.
5. Senders: Lists the COW country codes for up to five senders.
6. Primary Sender: The COW country code of the primary sender.
7. Target State: The COW country code for the target government.
8. Institution: Indicates if an institution was involved as sender.
9. Institution ID: Identifies the institution involved, if any.
10. Target State Institution: Indicates if the target is part of the institution that issues a threat against it.
11. Issue: A set of variables indicating the issues over which sanctions were threatened and/or imposed. The following categories are available:
 1. Contain political influence
 2. Contain military behavior
 3. Destabilize regime
 4. Release citizens, property, or material
 5. Solve territorial dispute
 6. Deny strategic materials
 7. Retaliate for alliance or alignment choice
 8. Improve human rights
 9. End weapons/materials proliferation

10. Terminate support for non-state actors
11. Deter or punish drug trafficking practices
12. Improve environmental policies
13. Trade practices
14. Implement economic reform
15. Other.
12. Other Issue: Presents an explanation if the issue is coded as “other”.
13. Threat: Identifies if a threat occurs, (0) No (1) Yes.
14. Threat ID:
 1. Bureaucracy
 2. Individual legislator
 3. Legislature
 4. Executive staff member
 5. Executive
 6. Government
 7. Head of international institution
 8. International institution.
15. Sanction Type Threatened:
 1. Unspecific
 2. Total economic embargo
 3. Partial economic embargo
 4. Import restriction
 5. Export restriction
 6. Blockade
 7. Asset freeze
 8. Termination of foreign aid
 9. Travel ban
 10. Suspension of economic agreement/protocol.
16. Other Sanction Type Threatened: Identifies sanction types threatened that do not fit previous categorical definitions.
17. Offending Behavior Specificity:
 1. Ambiguous
 2. Clear.
18. Sender Commitment:
 1. Weak
 2. Moderate
 3. Strong.
19. Threatened Target Interest:
 1. General
 2. Regime leadership
 3. Business interest
 4. Political interest
 5. Military
 6. Other.
20. Diplomatic Sanctions:
 1. Expulsion of ambassador
 2. Recall of ambassador

3. Temporary closing of embassies
4. Ending diplomatic contact.
21. Carrots:
 1. Economic payments or aid
 2. Trade concessions
 3. Removal of previous sanctions
 4. Military aid
 5. Political concessions.
22. Anticipated Target Economic Costs:
 1. Minor
 2. Major
 3. Severe.
23. Anticipated Target Economic Costs Figure: Dollar amount of anticipated costs of sanctions to target.
24. Anticipated Sender Economic Costs:
 1. Minor
 2. Major
 3. Severe.
25. Anticipated Sender Economic Costs Figure: Dollar amount of anticipated costs of sanctions to sender.
26. Imposition: Identifies if sanctions were imposed, (0) No, (1) Yes.
27. Sanction Start Date: Identifies the day, month, and year when sanctions begin.
28. Sanction Identity: Identifies the actor(s) responsible for implementing sanctions:
 1. Bureaucratic
 2. Legislative
 3. Judicial
 4. Executive
 5. Government
 6. International institution.
29. Sanction Type:
 1. Unspecific
 2. Total economic embargo
 3. Partial economic embargo
 4. Import restriction
 5. Export restriction
 6. Blockade
 7. Asset freeze
 8. Termination of foreign aid
 9. Travel ban
 10. Suspension of economic agreement/protocol
 11. Other.
30. Implementation of Diplomatic Sanctions:
 1. Expulsion of ambassador
 2. Recall of ambassador
 3. Temporary closing of embassies
 4. Ending diplomatic contact.
31. Carrot During Sanction: Identifies carrot provided:

1. Economic payments or aid
 2. Trade concessions
 3. Removal of previous sanctions
 4. Military aid
 5. Political concessions.
32. Carrot Value: An estimate of the economic value of carrots in dollars.
33. Target Economic Costs:
1. Minor
 2. Major
 3. Severe.
34. Monetary Cost to Target figure: An estimate in dollars of the economic cost of sanctions to the target.
35. Sender Economic Costs:
1. Minor
 2. Major
 3. Severe.
36. Monetary Cost to Sender Figure: An estimate in dollars of the economic cost of sanctions to the sender.
37. Final Outcome:
1. Partial acquiescence by target to threat
 2. Complete acquiescence by target to threat
 3. Capitulation by sender in the threat stage
 4. Stalemate in the threat stage
 5. Negotiated settlement in the threat stage
 6. Partial acquiescence by target following sanctions
 7. Complete acquiescence by target following sanctions
 8. Capitulation by sender after imposition of sanctions
 9. Stalemate after imposition of sanctions
 10. Negotiated settlement after imposition of sanctions
 11. Unknown.
38. Settlement Nature for Sender: A 0–10 scale representing the nature of the settlement for the sender, with 0 being the worst possible outcome and 10 the best.
39. Settlement Nature for Target: A 0–10 scale representing the nature of the settlement for the target, with 0 being the worst possible outcome and 10 the best.