Regime type, issues of contention, and economic sanctions: Re-evaluating the economic peace between democracies

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Abstract

Past studies have applied insights from the democratic peace to show that democracies are also less likely to sanction one another compared to other regime types. More recent work challenges this finding by arguing that the economic peace between democracies largely disappears once methodological improvements are included along with the particular behavior of the United States as market hegemon. This article cautions that these critiques may themselves be an artifact of particularities in past data on economic sanctions. Using a larger and more representative sanctions dataset, the analysis shows that democracies do seem less likely on average to sanction each other. Furthermore, the United States does not appear to be unique in its sanctioning behavior compared to other democracies. However, the article proposes a middle ground between proponents and skeptics of an economic peace between democracies. The analysis shows that the pacifying effects of joint democracy only operate for security related sanctions, while in non-security related matters democratic constraints are less evident. The results point to the importance of considering more closely the choice of data on sanctions, but also the need to take into account the issues under contention for episodes of economic coercion.

Keywords

contentious issues, democratic peace, economic sanctions

Introduction

The argument regarding the existence of a democratic peace, that democracies do not fight one another, has been applied to a variety of other questions ranging from alliance behavior to victory in war (Gaubatz, 1996; Reiter & Stam, 2002). Yet studies on the distinctiveness of democracies have also become the subject of numerous theoretical and empirical critiques calling into question the role purportedly played by regime type (Gartzke & Gleditsch, 2004). This trend is particularly evident in recent research examining the impact of regime type on economic sanctions. Lektzian & Souva (2003), followed by Cox & Drury (2006), argue that a corresponding economic peace between democracies has taken hold, whereby democratic states are less likely to sanction one another compared to other regime types.

Their findings suggest that the logic of the democratic peace may extend beyond the realm of militarized conflict to economic coercion as well.

In response, Hafner-Burton & Montgomery (2008) implement several theoretical and methodological improvements to the earlier analysis of Cox & Drury (2006) to show that the effect of democracy on economic sanctions is far from robust. Hafner-Burton & Montgomery (2008) find the economic peace seemingly existing between democracies largely disappears once the distinctive behavior of the United States is taken into account, given the country's dominant market power

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and preferred use of sanctions to promote democracy and human rights abroad.

Hafner-Burton & Montgomery (2008) offer a valuable contribution to the literature on democracy and foreign policy by emphasizing the importance of careful research design, along with the need to more seriously consider the role of material power and national interests. While Hafner-Burton & Montgomery (2008) show the findings from Cox & Drury (2006) to be a consequence of methodological choices, their subsequent results may be driven by the particular sanctions data used for analysis. Almost all previous quantitative work on the causes and consequences of economic sanctions has relied on the well-known Hufbauer, Schott, Elliot, and Oegg (HSEO) dataset (Hufbauer et al., 2009). In the Threat and Imposition of Economic Sanctions (TIES) project, Morgan, Bapat & Krustev (2009) seek to overcome several problems commonly associated with the HSEO data by providing a wider range of sanctions episodes and avoiding an overreliance on high profile cases, which also tend to disproportionately involve the United States.

When re-evaluating the impact of regime type on sanctions using the TIES data, several findings from Hafner-Burton & Montgomery (2008) no longer hold. In line with the initial results of Cox & Drury (2006), the democratic peace does seem to extend to economic sanctions even after taking into account US conduct and other methodological improvements. Furthermore, the United States appears to be far from a unique sanctioning country. Yet upon closer inspection a middle ground emerges between the opposing stances taken in previous studies. In particular, the role of democracy depends on the specific issues under contention for which states employ economic sanctions. The restraining effect among democracies is strongest when sanctions concern disputes involving security related issues, which is the closest corollary to episodes covered by the original HSEO data. On the other hand, for non-security related sanctions, such as disputes over trade or environmental policies, the constraints offered by joint democracy are much weaker as democracies appear no less likely to impose sanctions against each other than other regime types.

In a similar manner to Hafner-Burton & Montgomery's original response to Cox & Drury's findings, my aim is not to specifically criticize their study. Rather, the purpose is to build on their research in a productive manner by highlighting the need for future studies to consider the implications of different sources of data on sanctions episodes, as well as the particular issues under contention. The article proceeds in the following four parts. The first section discusses the arguments for and against an economic peace between democracies. I then offer an alternative approach to both sides that argues the effect of democracy on sanctioning behavior varies depending on the type of issue under contention. The second section outlines the data and discusses the operationalization of the main variables. The third section presents the results from the analysis. The fourth section then closes by discussing the implications of the findings and offers suggestions for future research.

Economic sanctions and the democratic peace

Scholars claiming an economic peace between democracies borrow insights from the democratic peace that domestic institutions and norms lead democracies to act in a distinctive manner in foreign policy matters (Maoz & Russett, 1993). Just as democracies settle disputes more quickly and peacefully between each other than with other regime types (Dixon, 1994), they should also be less willing to employ economic coercion against fellow democracies. Lektzian & Souva (2003: 647) build on Bueno de Mesquita et al.'s (1999) institutional theory for the democratic peace to propose that domestic structural constraints make democracies more able to credibly communicate their resolve to adversaries in a dispute, but also more likely to put up resistance in the face of imposed sanctions. The reduction in information asymmetries, alongside the heightened aversion to the prospective severe costs of sanctions for both sides, means democracies should be more reluctant to engage in economic coercion with each other than when dealing with non-democracies.

Cox & Drury (2006: 711–712) extend Lektzian & Souva's original argument by emphasizing the importance of shared interests between democracies, alongside norms of peaceful conflict resolution, for reducing the incentives to resort to sanctions against one another. While they find democracies are more likely to impose sanctions in general, they also show that democratic states are less likely to employ economic coercion against a fellow democracy. Both studies thus offer evidence confirming that a democratic peace appears to endure not only for militarized conflict but also in economic exchange.

Hafner-Burton & Montgomery (2008) caution that democratic conduct may not translate so straightforwardly from military force to economic coercion. They note that the United States remains one of the most prolific users of sanctions – a point widely acknowledged by other scholars (Haass, 1997). Given the United States is also a democracy, the distinctiveness in democratic sanctioning behavior may simply be a function of the interests

and practices of a single, albeit prominent, country. Hafner-Burton & Montgomery (2008) also point out a number of methodological concerns with Cox & Drury's analysis that may have biased the latter's results, and offer several useful improvements. They expand the sample size by reducing the number of missing values and include all dyads in the analysis.[1] They also make several changes to the specification and estimation of the regression models, in particular including additional variables to assess the behavior of the United States.[2] Once these changes were incorporated into the analysis, Cox & Drury's initial finding for the constraining effects of democratic dyads on sanctions onset no longer turned out to be statistically significant. While some other results continued to hold, such as the greater overall propensity of democracies to use sanctions, Hafner-Burton & Montgomery (2008) show that the core finding of prior studies for an economic peace was largely driven by the propensity of the United States as market hegemon to use sanctions against non-democracies in the pursuit of democracy and human rights promotion.

Hafner-Burton & Montgomery (2008) thus offer a thorough theoretical and methodological critique, and provide a general cautionary note to scholars seeking to extend the implications of the democratic peace beyond militarized conflict. They show Cox & Drury's prior findings may have simply been a function of their particular set of methodological choices. There are similar reasons to be concerned, however, that results from Hafner-Burton & Montgomery (2008) might be driven by a different set of choices, especially the use of the HSEO data. One of the most common critiques of the HSEO project is its tendency to focus on high-profile sanctions cases, which also tend to involve the United States (Morgan, Bapat & Krustev, 2009: 99). Given the prevalence of US

participation in such episodes, it is perhaps not surprising the United States would be found to be a unique user of economic sanctions. Yet it is not immediately clear if this distinctiveness is due to the actual behavior of the United States, or if the finding would continue to hold when examining a more representative set of sanctions episodes.

Hafner-Burton & Montgomery (2008) should certainly not be faulted for relying on the HSEO data given its prominence in research on economic sanctions, as well as providing a degree of comparability to Cox & Drury's earlier work using the same data. However, the introduction of the Threat and Imposition of Sanctions (TIES) dataset provides an opportunity to assess the debate over the economic peace between democracies in both a new empirical and theoretical light. TIES employs a broader range of sources to identify sanctions episodes and thus includes a much larger and more diverse number of cases compared to HSEO (Morgan, Bapat & Krustev, 2009). Although likely still missing some instances of economic sanctions, the TIES data are more representative of the population of sanctions episodes, illustrated perhaps most directly by the much smaller proportion of cases involving the United States compared to HSEO (Morgan, Bapat & Krustev, 2009: 99).

A further advantage of TIES is the inclusion of a wider range of issues where sanctions were employed compared to HSEO's focus on episodes often involving high stakes to national security. TIES contains similar security related episodes to HSEO, such as sanctions involving territorial disputes or weapons proliferation, but also incorporates economic coercion over many lower politics issues, such as environmental policies. As the literature on military disputes demonstrates, the specific issues under contention can play a crucial role for the risk of conflict, but also for the effects of certain explanatory variables (Diehl, 1992). It follows that a singular logic for the determinants of economic coercion may not exist, but rather the effect of factors like democracy may depend on the particular issues under dispute.

Security related issues involving high politics offer the closest parallel to the stakes under contention in militarized disputes, and thus suggest an area where regime type may be most likely to influence the decision to employ economic sanctions. Sanctions are sometimes viewed as a substitute for military force when disagreements erupt over especially contentious issues (Selden, 1999: 3). From this perspective, democracies could actually be *more* likely to use non violent forms of coercion in place of military force when attempting to resolve high-stakes disputes with fellow democracies.

Recent empirical work, however, suggests economic sanctions are in many ways complementary to military

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[1] Cox & Drury (2006: 714) limited their analysis to 'sanctions-relevant dyads' as a parallel to the common use of politically relevant dyads in quantitative studies of military conflict. A dyad is only considered sanctions-relevant if the pair of states engaged in some level of trade with each other. Hafner-Burton & Montgomery (2008: 114) note there are nonetheless several instances in the HSEO dataset where economic sanctions were imposed between states with no reported trade. They further justify including all dyads to avoid problems of non-random sampling resulting from limiting the analysis to a subset of observations.

[2] Other changes included the following: clustering standard errors by dyad to take into account non-independence within dyads over time; dropping a year variable originally used by Cox & Drury (2006), since it was unnecessary given the temporal dependence variables already included; and adding a variable for the democratic status of the target so that all constituent terms were included alongside the democratic dyad interaction term.

force, where imposing sanctions generally increases the likelihood of a dispute escalating to a military conflict (Lektzian & Sprecher, 2007). Lektzian & Sprecher (2007) further find the risk of escalation is even greater for democracies because audience costs generated by the imposition of sanctions make it relatively more difficult to later back down. In situations of high politics with heightened dangers of escalation, democracies may be more wary of employing sanctions against each other. Similarly, normative constraints rooted in the political culture of democracies may also make democratic regimes more likely to resolve highly salient disputes between each other peacefully, and avoid the use of either military or economic coercion. The democratic peace in militarized conflict may thus offer a corresponding rationale for understanding the economic peace between democracies.

These democratic constraints may not operate to the same extent in lower salience issues where the probability of resorting to military force is correspondingly smaller. Disagreements over trade policies, such as tariffs and quota levels, or complaints over national health and environmental standards, are often acrimonious, but the danger of escalating militarily is usually minimal. Given the more modest stakes involved, norms of dispute resolution and common interests could still play a role between democracies, but may operate in a weaker manner compared to high politics disputes. Past studies further show how imposing economic restrictions can provide rents to certain domestic actors, which may be attractive to the many interest groups competing for government influence in democratic societies (Kaempfer & Lowenberg, 1988). Long-running sanctions between the United States and various European countries across multiple areas suggest democracies may view sanctions as a regular part of doing business in their commercial relations (Bergsten, 2001). Domestic interest groups and firms may thus find it easier to influence government decisionmaking over the use of sanctions in low politics areas, even when the adversary is also a democracy (Drury, 2005: 183).

The expectation that democratic constraints are less effective in low politics situations mirrors the inconclusive findings characterizing much of the literature on democracy and trade. While some studies show democracies trade more and implement fewer barriers among themselves (Mansfield, Milner & Rosendorff, 2000; Bliss & Russett, 1998), others find no significant effect (Bartilow & Voss, 2009; Dai, 2002), and some even suggest democracies are more likely to target each other economically (Sherman, 2002). The ambiguous relationship between democracy and trade suggests that institutional

and normative constraints may also have a weaker influence on democracies' decisions to employ sanctions for disagreements over other matters of low politics. Although sanctions are sometimes assumed to function similarly across both security and non-security matters (Drezner, 2003: 650–651), the effect of regime type on sanctions may vary depending on the type of issue under dispute.

Data

Cox & Drury (2006) and Hafner-Burton & Montgomery (2008) both look at the sanctioning behavior of states for the years 1978–2000. To provide a fuller accounting of any economic peace between democracies, I extend the analysis to 1971–2000, which represents the complete time period covered by TIES. The unit of analysis is the directed-dyad-year, where the first country represents the sender and the second country the potential target of sanctions, respectively. In line with past studies, the dependent variable is the sanctions onset, which equals 1 for the first year of sanctions usage, and 0 otherwise.[3] The HSEO dataset largely focuses on episodes where sanctions were actually implemented against targeted states (Hufbauer et al., 2009: 106), while TIES also includes a number of cases where sanctions were only threatened but never imposed. To ensure a closer comparison to the types of cases considered by HSEO, I only include episodes from TIES if sanctions were actually imposed.

Many TIES cases also differ from HSEO because the former includes a wider array of issues under contention. Although both datasets view sanctions as a tool of foreign policy aimed at changing the target's behavior, HSEO explicitly excludes 'the normal realm of economic objectives sought in trade, financial, tax, and other commercial negotiations between sovereign states' (Hufbauer et al., 2009: 4). Following Bapat & Morgan (2009: 1083), I distinguish between security related sanctions, which are more akin to the HSEO cases, and non-security related episodes also included by TIES.[4] Security related, or high politics, cases involve those sanctions

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[3] Following past studies, I exclude cases where the sole sender or target was an intergovernmental organization.

[4] The HSEO data have been criticized for including a handful of sanctions that outwardly involved more regular commercial relations, such as expropriations of foreign holdings (Pape, 1997). Hufbauer et al. (2009: 4) defend the inclusion of these cases, which they claim involved deeper political and ideological motivations. Given the primary purpose of this article is to compare the effects of HSEO versus TIES data on the determinants of economic coercion, I maintain the original coding decisions from HSEO.

Table I. Comparison of HSEO and TIES sanctions onsets, 1971–2000

| | HSEO | TIES | | |
		All	Security related	Non-security related
1971–2000	140	585	210	375
US initiator	88	179	54	125
(% of cases)	(63)	(31)	(26)	(33)

where the issue under dispute concerned any of the following: contain political influence, contain military behavior, destabilize the regime, solve a territorial dispute, deny strategic materials, retaliate for an alliance or alignment choice, end weapons proliferation, or terminate support for non-state actors.[5] By contrast, non-security related, or low politics, cases involve those sanctions where the issue under contention only involved one or more of the following: the release of citizens or property, human rights violations, drug trafficking, environmental policies, trade policies, or other economic reforms.[6] This provides an opportunity to examine whether the impact of regime type on economic coercion differs depending on the issue under dispute.

Table I summarizes the number of sanctions onsets for the years 1971–2000 for HSEO compared to TIES and each corresponding issue category. Overall, TIES (585 cases) provides more than four times as many instances of sanctions onset compared to HSEO (140 cases) for the period under study.[7] This disparity is likely due to the wider array of sources consulted by the TIES project, which consequently includes a number of smaller and less prominent cases (Morgan, Bapat & Krustev, 2009: 99).

Disaggregating the TIES data by issue under contention shows non-security related sanctions are almost twice as frequent as security related sanctions. This pattern in sanctions issues is not entirely surprising given the growing prominence of economic tools for pursuing foreign policy objectives in areas ranging from the environment

to human rights (DeSombre, 1995; Hafner-Burton, 2005). Nevertheless, even after differentiating by issue under contention, TIES still provides 50% more instances of security related cases compared to HSEO.

The second and third rows in Table I report the absolute number and proportion of cases involving the United States as initiator of sanctions across each dataset. Consistent with past research, episodes from HSEO show a prevailing US influence, where almost two-thirds of cases involve the United States. Although still the most frequent sanctioning country, the United States makes up less than one-third of TIES episodes, and US sanctions are slightly less frequent in security related matters.

Turning to the main explanatory variables, the measure for democracy is based on the Polity IV scale, which ranges from –10 to +10, with higher values indicating a greater level of democracy (Marshall, Jaggers & Gurr, 2010). *Democratic sender* is a dichotomous variable that equals 1 if the sending country in a directed-dyad-year scores 7 or higher on the Polity scale, and 0 otherwise.[8] *Democratic dyad* is also a dichotomous variable that equals 1 if both countries are democracies, and 0 otherwise. Since *Democratic dyad* is essentially an interaction term between the democratic status of the sending and target countries, I follow Hafner-Burton & Montgomery (2008) and include the corresponding dichotomous variable *Democratic target* so that all constituent terms are included in the model.

In line with earlier studies, a number of other variables are also included that likely affect sanctioning behavior. *Exports (logged)* takes the natural logarithm of the annual

[5] Of course, disputes can be motivated by multiple issues, and TIES codes such cases accordingly. A sanctions episode is thus considered security related if any of the issues involved one of the security categories.
[6] I examined other possible categorizations for issue type, such as including the prevention of drug trafficking with security related sanctions. Results do not substantially change. These and other robustness checks are available from the author upon request.
[7] The 140 cases from HSEO include the 115 instances used in the prior studies of Cox & Drury (2006) and Hafner-Burton & Montgomery (2008) for the 1978–2000 period, as well as 25 episodes for prior years going back to 1971.

[8] In their original study Cox & Drury (2006), followed by Hafner-Burton and Montgomery (2008), used a lower Polity cutoff of 3 for differentiating democracies from non-democracies. I instead employ a 7-point cutoff since this follows more conventional practice in other studies on democracy and international relations (Downes, 2007; Valentino, Huth & Balch-Lindsay, 2004). The higher cutoff also avoids some of the problems cited with the reliability of Polity at more intermediate values (Gleditsch & Ward, 1997; Vreeland, 2008). Results remain in the same direction using different cutoffs for democracy, though the level of statistical significance sometimes varies.

amount of exports from the sending to target country measured in current-year US dollars using data from Gleditsch (2002). To measure the economic power within each directed dyad, *Relative power* equals the ratio of GDP per capita in current-year US dollars between the sender and target country, which is also based on data from Gleditsch (2002).[9] Using data on military ties from the Correlates of War project (COW), *Alliance* is a dichotomous variable that equals 1 if both states shared any form of military alliance in the relevant year, and 0 otherwise (Gibler, 2009).[10]

In order to capture possible distinct patterns in the sanctioning behavior of the United States, *US* is a dichotomous variable that equals 1 for any observation where the United States is the sender, and 0 otherwise. Following Hafner-Burton & Montgomery (2008), I also include two interaction terms, *US x Democratic dyad* and *US x Relative power* to assess whether these variables operate differently when the United Sates is involved. Lastly, *Trade dependence* measures the sender's total trade with the potential target state as a percentage of the sender's GDP.[11]

Analysis

The analysis is conducted using the same model specifications and estimation procedures as Hafner-Burton & Montgomery (2008), and incorporating their methodological improvements.[12] Models are estimated using rare events logistic regression with standard errors clustered by directed dyad (King & Zeng, 2001b). All independent variables are lagged by one year to avoid simultaneity bias. In order to take into account possible temporal dependence between observations, I include a variable counting the number of years since the last sanction imposition, along with three cubic splines (Beck, Katz & Tucker, 1998).[13]

I focus on Hafner-Burton & Montgomery's (2008) extension of the earlier Cox & Drury (2006) analysis,

which takes a baseline model of covariates and then includes the US and trade dependence variables. Table II replicates their main set of models using the original HSEO sanctions data to ensure any differences in findings are not simply due to extending the start of the time period from 1978 to 1971.[14]

The results for the 1971–2000 period are largely consistent with the findings from Hafner-Burton & Montgomery (2008).[15] If anything, the evidence is even weaker for any economic peace between democracies. In none of the models is the coefficient for *Democratic dyad* significant, including the first model where the US dichotomous variable is excluded. Furthermore, Models 3 and 4 show that after including the US interactions and trade dependence, joint democracy is actually associated with a modest *increase* in the probability of sanctions onset, though the coefficient still fails to achieve standard levels of statistical significance.

The results for the other coefficients are also generally in line with the original findings from Hafner-Burton & Montgomery (2008). Despite the seeming absence of an economic peace, democracies are still more likely to employ sanctions. Higher levels of exports and greater disparities in relative economic power are also associated with a greater propensity for sanctions onset. Allies similarly appear more likely to sanction one another, though the level of statistical significance varies across models. Trade dependence continues to be negative and significant, meaning senders that are highly dependent on trade with a prospective target tend to shy away from engaging in economic coercion.

Perhaps most importantly, the other central finding from Hafner-Burton & Montgomery (2008) continues

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[9] Results do not change substantially when *Relative power* is instead computed using GDP per capita measured in constant 1996 US dollars.

[10] Results do not change substantially when using instead a similar alliance measure from the Alliance Treaty Obligations and Provisions (ATOP) dataset (Leeds et al., 2002).

[11] Following Hafner-Burton & Montgomery (2008), both *Relative power* and *Trade dependence* have their means set to zero to ease interpretation of lower-order coefficients.

[12] When limiting the analysis to sanctions relevant dyads, meaning only those pairs of countries that have non-zero levels of trade, results do not change substantially.

[13] Results remain largely the same based on an alternate method for temporal dependence from Carter & Signorino (2010), which employs the 'years since last sanction' variable in addition to its corresponding squared and cubed terms.

[14] The models are similar to those reported in Table III from Hafner-Burton & Montgomery (2008), but the baseline model here initially excludes the dichotomous US variable to show in a clearer manner the consequences of incorporating the United States and other variables. All analysis is conducted using Stata 12.

[15] Although the start year for the period under study was extended back to 1971, it should be noted that the total number of observations used in the analysis (620,260) is only slightly more than that from Hafner-Burton & Montgomery (2008). This appears to be largely due to a greater number of missing values for democracy in the current study. The Polity IV project does not include countries with a population less than 500,000 (Marshall, Jaggers & Gurr, 2010). It seems that in the data from Hafner-Burton & Montgomery (2008) non-missing values for regime type in countries with a population under 500,000 were coded as autocracies even though this list includes several longstanding democratic states, such as Iceland and Luxembourg. I thus rely on the currently available data from Polity. Nevertheless, the results using HSEO sanctions cases do not substantially differ from Hafner-Burton & Montgomery (2008) even after using the updated Polity data.

Table II. Democracy and economic sanctions, 1971–2000 (HSEO data)

	(1) Baseline	(2) US	(3) US interactions	(4) Trade dependence
Democratic dyad	−1.07	−0.34	0.56	0.76
	(0.90)	(0.86)	(0.88)	(0.87)
Democratic sender	2.51**	1.61**	1.28**	1.00*
	(0.44)	(0.42)	(0.44)	(0.44)
Democratic target	−0.55	−0.57	−0.39	−0.25
	(0.82)	(0.79)	(0.81)	(0.81)
Exports (logged)	0.56**	0.34**	0.32**	0.48**
	(0.046)	(0.047)	(0.047)	(0.070)
Relative power	0.061**	0.035**	0.062**	0.060**
	(0.0057)	(0.0082)	(0.0066)	(0.0068)
Alliance	1.09**	0.31	0.34	0.46†
	(0.33)	(0.29)	(0.29)	(0.27)
US		3.35**	4.09**	3.58**
		(0.27)	(0.35)	(0.39)
US x Democratic dyad			−1.66**	−2.02**
			(0.56)	(0.54)
US x Relative power			−0.038**	−0.031**
			(0.011)	(0.011)
Trade dependence				−190.09*
				(95.1)
Time since last imposition	−0.13	−0.0054	0.0049	0.015
	(0.093)	(0.089)	(0.090)	(0.089)
Spline1	0.0032	0.0047†	0.0047†	0.0048†
	(0.0026)	(0.0026)	(0.0026)	(0.0026)
Spline2	−0.0056*	−0.0063*	−0.0064**	−0.0064*
	(0.0025)	(0.0025)	(0.0025)	(0.0025)
Spline3	0.0042**	0.0042**	0.0042**	0.0042**
	(0.0013)	(0.0013)	(0.0013)	(0.0013)
Constant	−10.7**	−10.5**	−10.6**	−11.1**
	(0.54)	(0.48)	(0.51)	(0.53)
Observations	620,260	620,260	620,260	620,260

Robust standard errors clustered by directed-dyad in parentheses. ** $p < 0.01$, * $p < 0.05$, † $p < 0.1$.

to hold – the United States is not only more likely to resort to economic coercion, but the interaction terms indicate the USA is prone to targeting non-democracies, while mitigating the impact of relative power. The findings are thus consistent with the contention by Hafner-Burton & Montgomery (2008: 115–116) that the United States took advantage of its dominant market position to discriminate against autocracies by using sanctions to promote democracy and human rights abroad, or as a precursor to subsequent military intervention. Taken together, the results using HSEO data over a longer time period seem to confirm the absence of an economic peace between democracies in place of the distinct sanctioning behavior of the United States as market hegemon.

In light of the existing evidence, I then extend the analysis using TIES data in place of the original HSEO data to re-evaluate the prospects for the impact of joint democracy on sanctioning behavior. Table III reports results using the same model specifications, but substituting the onset of TIES sanctions across any type of issue under contention as the dependent variable.

First and particularly noteworthy, the central claim of an economic peace between democracies as put forward by Lektzian & Souva (2003) and Cox & Drury (2006) receives some vindication. In contrast to the results from Hafner-Burton & Montgomery (2008) and Table II above using the HSEO data, including the United States and related interaction terms does not undermine the resilience of the distinctive sanctioning behavior between democracies. While the size of the coefficient for *Democratic dyad* is attenuated somewhat after the US and trade dependence variables are included, it remains negative and statistically significant at least at the 10% level across all models. The expanded and more representative collection of sanctions episodes

Table III. Democracy and economic sanctions, 1971–2000 (TIES data; all onsets)

	(1) Baseline	(2) US	(3) US interactions	(4) Trade dependence
Democratic dyad	−0.68**	−0.49[†]	−0.53*	−0.52[†]
	(0.25)	(0.25)	(0.26)	(0.27)
Democratic sender	1.00**	0.72**	0.75**	0.70**
	(0.16)	(0.17)	(0.17)	(0.17)
Democratic target	0.18	0.18	0.16	0.19
	(0.20)	(0.21)	(0.20)	(0.20)
Exports (logged)	0.60**	0.56**	0.56**	0.58**
	(0.019)	(0.021)	(0.021)	(0.021)
Relative power	0.048**	0.040**	0.035**	0.035**
	(0.0047)	(0.0050)	(0.0060)	(0.0060)
Alliance	0.71**	0.49**	0.51**	0.54**
	(0.13)	(0.13)	(0.13)	(0.13)
US		1.37**	1.24**	1.16**
		(0.15)	(0.21)	(0.22)
US x Democratic dyad			0.15	0.086
			(0.26)	(0.27)
US x Relative power			0.013	0.015
			(0.012)	(0.012)
Trade dependence				−3.42
				(2.38)
Time since last imposition	−0.32**	−0.27**	−0.27**	−0.27**
	(0.044)	(0.049)	(0.048)	(0.049)
Spline1	−0.0037**	−0.0031*	−0.0030*	−0.0030*
	(0.0013)	(0.0013)	(0.0013)	(0.0013)
Spline2	0.0014	0.0012	0.0011	0.0011
	(0.0012)	(0.0012)	(0.0012)	(0.0012)
Spline3	0.00039	0.00038	0.00039	0.00039
	(0.00059)	(0.00059)	(0.00059)	(0.00059)
Constant	−8.16**	−8.18**	−8.18**	−8.21**
	(0.18)	(0.18)	(0.18)	(0.18)
Observations	620,260	620,260	620,260	620,260

Robust standard errors clustered by directed dyad in parentheses. ** $p < 0.01$, * $p < 0.05$, [†] $p < 0.1$.

included in TIES thus points much more strongly to the existence of an economic peace between democracies.

Second, the results from Table III also call into question some of the previous findings regarding the unique sanctioning behavior of the United States. Consistent with past studies, the United States is still especially likely to employ sanctions as a coercive tool. On the other hand, the purported distinctiveness in the patterns of US sanctions no longer seems to hold when using the TIES data in place of HSEO. In none of the subsequent models does the United States significantly differ from other countries either in its willingness to sanction non-democracies or based on the relative disparity in economic power. The coefficients for the US interaction terms in Models 3 and 4 are actually in the opposite direction, though far from achieving standard levels of statistical significance. Taking into account US behavior does not appear to invalidate the

overall economic peace between democracies, and including the interaction terms does not substantially improve the models' explanatory power.[16] Similar to the difference in results for joint democracy, the findings from Hafner-Burton & Montgomery (2008) on the distinctiveness of the United States may have largely been a function of the HSEO dataset's greater reliance not only on US cases in general, but especially high profile episodes that may have involved more

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[16] Evaluating goodness of fit is difficult in rare events logistic regression because this estimation technique seeks to minimize bias, but at the expense of being able to calculate standard measures of fit. As an alternative, I re-estimated the models using regular logit. A series of specification tests, including Likelihood-ratio tests, as well as comparing the Akaike and Bayesian information criteria, indicate that including the US interaction terms does not significantly improve goodness of fit.

unusual circumstances. When considering instead the larger set of cases gathered by TIES, US distinctiveness compared to other countries is less apparent.

Third, the results from Table III do reinforce other findings from Hafner-Burton & Montgomery (2008) regarding the determinants of sanctions onset. While differing with respect to their conduct within democratic dyads, democracies are still more likely to employ sanctions than other regime types, which is also similar to findings from Cox & Drury (2006) and Lektzian & Souva (2003). Furthermore, directed dyads with greater levels of trade, or preponderance in relative power, are also more likely to witness sanctions. This confirms earlier findings that these factors seem to have different effects on economic coercion compared to military conflict, and continue to be worthy of further inquiry.

Allies are also more likely to sanction one another, though unlike in several prior studies the effect remains statistically significant across all model specifications. The seemingly greater tendency to sanction friends instead of enemies provides indirect support for past work suggesting sanctions are relatively more successful in extracting concessions against allies (Hufbauer et al., 2009: 163–164; Drezner, 1998). By contrast, the finding from Hafner-Burton & Montgomery (2008) regarding the restraining effects of greater levels of trade dependence does not find as much support. Although still in the expected negative direction, the size and statistical significance of the coefficient for *Trade dependence* is greatly reduced. This suggests the overall level of trade continues to have a bigger impact on the likelihood of sanctions, perhaps by creating greater opportunities for friction between trade partners, while the relative commercial reliance of one state on another appears less consequential.

The results from Table III suggest regime type has more influence on economic coercion, but do not distinguish between the issues under contention leading to the onset of sanctions in the first place. Using a similar set of independent variables, Tables IV and V separately analyze the determinants of security and non-security related sanctions, respectively.[17]

The findings suggest that it is important to consider the issue under contention when examining economic sanctions. Table IV deals with security related sanctions and offers the closest corollary to the type of cases covered by HSEO. The pattern for an economic peace between democracies actually appears to be even stronger when focusing only on sanctions involving high-stakes issues. Democracies remain more likely to use sanctions in general, but continue to be significantly less likely to sanction one another. Furthermore, the coefficient for *Democratic target* is positive and statistically significant at the 10% level in all models. This perhaps suggests that even though autocracies may be less likely to use sanctions, when they do so they tend to target democratic countries.

Looking at the other variables, the United States also continues to be especially likely to resort to sanctions when higher stakes are involved. However, the conditional effects of US conduct persist in failing to be statistically significant, which reinforces the view that even as a market hegemon the country is far from unique in its sanctioning behavior. The positive effects for the level of exports and relative power also endure, while trade dependence continues to have little impact. On the other hand, in Models 2 through 4 the coefficient for alliance ties reverses to become negative. The direction of the alliance finding is more consistent with existing scholarship on military conflict, though the coefficient never achieves standard levels of statistical significance.

Taken together, the results suggest that the effect of democracy, and to a lesser extent alliances, operates in a fairly similar manner between security related economic sanctions and military coercion. A democratic peace thus appears to hold not only for military conflict but also for economic sanctions even if other factors, such as trade levels and relative power, operate in different ways for each form of coercion.

Table V turns to examining economic coercion over less salient issues under contention, such as trade or environmental disputes, and reveals some limits concerning regime type. Democracies are still more likely to employ sanctions in general, but the economic peace receives less support for non-security related sanctions. While the coefficient for *Democratic dyad* remains negative, it fails to be statistically significant in any of the models. These results are more similar to those observed in Hafner-Burton & Montgomery (2008) and the analysis in Table II using the HSEO data. However, this pattern only appears to hold for those cases least related to security – in other words, the episodes most distinct

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[17] Unfortunately, there is no equivalent to rare event logistic regression for a nominal dependent variable that combines the onset of sanctions for both categories of issues under contention into a single measure. Nevertheless, as a robustness check I also simultaneously assessed the determinants of security and non-security related sanctions using a multinomial logit model; the results are not substantially different.

Table IV. Democracy and economic sanctions, 1971−2000 (TIES data; security related onsets)

	(1) Baseline	*(2)* US	*(3)* US interactions	*(4)* Trade dependence
Democratic dyad	−1.26**	−1.02**	−1.12**	−1.10**
	(0.35)	(0.34)	(0.37)	(0.37)
Democratic sender	0.82**	0.45*	0.48*	0.43†
	(0.21)	(0.22)	(0.22)	(0.22)
Democratic target	0.41†	0.42†	0.42†	0.46†
	(0.25)	(0.24)	(0.25)	(0.24)
Exports (logged)	0.51**	0.45**	0.46**	0.48**
	(0.026)	(0.029)	(0.030)	(0.032)
Relative power	0.051**	0.043**	0.044**	0.044**
	(0.0052)	(0.0063)	(0.0064)	(0.0064)
Alliance	0.22	−0.15	−0.17	−0.14
	(0.24)	(0.26)	(0.27)	(0.27)
US		2.00**	1.92**	1.84**
		(0.24)	(0.33)	(0.34)
US x Democratic dyad			0.29	0.20
			(0.53)	(0.53)
US x Relative power			−0.0018	−0.00038
			(0.013)	(0.013)
Trade dependence				−6.67
				(4.24)
Time since last imposition	−0.035	0.0082	0.0089	0.0090
	(0.075)	(0.072)	(0.071)	(0.071)
Spline1	0.0025	0.0031	0.0032	0.0032
	(0.0021)	(0.0020)	(0.0020)	(0.0020)
Spline2	−0.0020	−0.0023	−0.0024	−0.0024
	(0.0020)	(0.0019)	(0.0019)	(0.0019)
Spline3	0.00041	0.00040	0.00041	0.00042
	(0.0010)	(0.0010)	(0.0010)	(0.0010)
Constant	−8.92**	−8.86**	−8.87**	−8.89**
	(0.27)	(0.26)	(0.26)	(0.26)
Observations	620,260	620,260	620,260	620,260

Robust standard errors clustered by directed dyad in parentheses. ** $p < 0.01$, * $p < 0.05$, † $p < 0.1$.

from those considered in the original HSEO data.[18] Interest group politics and disagreements over economic or related issues thus seem to diminish the pacifying effects between democracies. Compared to the moderately positive effect for *Democratic target* in security related sanctions, the coefficient is negative

[18] It should be noted that in rare events logistic regression, the sizes of standard errors for coefficients are in part a function of the proportion of events (the number of 1s relative to 0s) in the data (King & Zeng, 2001a). The seemingly stronger results for joint democracy using the TIES data may thus simply be a result of the larger number of positive sanctions cases compared to the smaller number of HSEO episodes. However, the size and even the direction of the coefficients differ substantially between the models using HSEO and TIES, as well as by issue under contention, which suggests the particular calculation of standard errors in rare event models is unlikely to be driving the results. I thank the editor for raising this issue.

though far from statistically significant for lower politics issues. On the other hand, the exports, relative power, US, and trade dependence variables generally operate in the same direction, though the coefficient for trade dependence continues in failing to be statistically significant. Similarly, the interaction terms involving the United States remain weak and in the opposite direction from those reported in Hafner-Burton & Montgomery (2008).

One further intriguing finding is that the effect for alliances appears to be entirely driven by non-security related sanctions; the coefficient is positive and significant across all four models in Table V. Given that allies tend to trade more intensively with one another (Gowa, 1994: 37), and that economic coercion can be more successful against targets with lower expectations of future conflict (Drezner, 1998), it perhaps follows that states may be predisposed

Table V. Democracy and economic sanctions, 1971–2000 (TIES data; non-security related onsets)

	(1) Baseline	(2) US	(3) US interactions	(4) Trade dependence
Democratic dyad	−0.34	−0.18	−0.27	−0.27
	(0.42)	(0.45)	(0.47)	(0.48)
Democratic sender	1.20**	0.96**	1.03**	0.97**
	(0.24)	(0.24)	(0.25)	(0.25)
Democratic target	−0.14	−0.12	−0.15	−0.12
	(0.36)	(0.38)	(0.38)	(0.38)
Exports (logged)	0.67**	0.63**	0.64**	0.66**
	(0.027)	(0.030)	(0.031)	(0.030)
Relative power	0.044**	0.034**	0.021†	0.022†
	(0.0067)	(0.0080)	(0.012)	(0.012)
Alliance	0.91**	0.73**	0.74**	0.77**
	(0.15)	(0.16)	(0.16)	(0.16)
US		1.16**	0.93**	0.83**
		(0.18)	(0.25)	(0.26)
US x Democratic dyad			0.29	0.23
			(0.29)	(0.29)
US x Relative power			0.025	0.027
			(0.016)	(0.016)
Trade dependence				−3.60
				(2.63)
Time since last imposition	−0.52**	−0.47**	−0.47**	−0.47**
	(0.058)	(0.066)	(0.066)	(0.066)
Spline1	−0.0071**	−0.0065**	−0.0064**	−0.0064**
	(0.0016)	(0.0017)	(0.0017)	(0.0017)
Spline2	0.0028†	0.0025	0.0025	0.0025
	(0.0015)	(0.0015)	(0.0015)	(0.0015)
Spline3	0.00087	0.00085	0.00086	0.00085
	(0.00073)	(0.00073)	(0.00073)	(0.00073)
Constant	−9.06**	−9.06**	−9.06**	−9.11**
	(0.28)	(0.28)	(0.28)	(0.28)
Observations	620,260	620,260	620,260	620,260

Robust standard errors clustered by directed dyad in parentheses. ** $p < 0.01$, * $p < 0.05$, † $p < 0.1$.

toward sanctioning their allies, especially when matters of national security are not at stake.

To provide a better sense of the substantive effects of democracy, Table VI uses the fully specified model from each source of sanctions data to estimate the probability of sanctions onset for each possible combination of sender and target regime type, where all other dichotomous variables are set to their medians, continuous variables to their means, and all temporal dependence variables to zero (95% confidence intervals in parentheses).[19] Since a sanctions onset represents a relatively rare event for any given pair of states, the absolute sizes for each of the probabilities are all relatively small. Nevertheless, relative

differences in the magnitude of each of the probabilities offer several insights into the conditioning role of regime type on economic coercion. The HSEO and aggregated TIES results both confirm that democratic senders have a greater tendency to engage in economic coercion. This democratic propensity toward sanctions is less stark in the case of security related sanctions. Democracies appear more reserved in initiating sanctions in matters of high politics, especially compared to non-security related sanctions where democratic norms and institutions may offer fewer constraints.

Looking at particular regime type combinations, across all TIES categories the probability of sanctions for democratic dyads is smaller than in mixed dyads involving democratic senders against autocratic targets. Furthermore, the restraining effect of joint democracy is strongest and most significant for security related

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[19] Substantive effects were calculated using *Clarify* (Tomz, Wittenberg & King, 2003).

Table VI. Predicted probability of economic sanction, by regime type combination

Sender	Target	HSEO	TIES		
			All	*Security related*	*Non-security related*
Democracy	Democracy	0.00012	0.00079	0.0002	0.00044
		(0.00005, 0.00032)	(0.00053, 0.0012)	(0.0001, 0.00041)	(0.00027, 0.00075)
Democracy	Autocracy	0.00007	0.0011	0.00038	0.00065
		(0.00003, 0.00015)	(0.0008, 0.0015)	(0.00023, 0.00063)	(0.00043, 0.001)
Autocracy	Democracy	0.00002	0.00066	0.00039	0.00021
		(0.000005, 0.00011)	(0.00043, 0.001)	(0.00021, 0.00072)	(0.00011, 0.00046)
Autocracy	Autocracy	0.00003	0.00055	0.00024	0.00024
		(0.00001, 0.00008)	(0.00039, 0.00078)	(0.00015, 0.00041)	(0.00015, 0.00043)

95% confidence intervals in parentheses below each predicted probability. Predicted probabilities calculated by setting all other dichotomous variables to their medians, continuous variables to their means, and temporal dependence variables to zero.

Table VII. Predicted probabilities of economic sanctions for other explanatory variables

		Percent change in risk of economic sanction						
		HSEO		TIES				
				All		*Security related*		*Non-security related*
Variable	*Value*							
Exports (logged)	Mean + 1 sd	110	(35, 346)	146	(105, 213)	111	(66, 192)	183	(106, 322)
Relative power	Mean + 1 sd	36	(14, 95)	20	(12, 31)	26	(14, 44)	12	(−1, 31)
Alliance	Maximum value	55	(−6, 184)	69	(27, 133)	−13	(−62, 40)	114	(48, 232)
US	Maximum value	9,163	(3,346, 24,541)	526	(313, 863)	853	(370, 1,944)	498	(268, 824)
Trade dependence	Mean + 1 sd	−85	(−244, −1)	−6	(−15, 2)	−11	(−28, 4)	−6	(−17, 2)

95% confidence intervals in parentheses. Baseline probability calculated by setting all dichotomous variables to their medians, continuous variables to their means, and temporal dependence variables to zero. First differences are estimated by changing dichotomous variables from 0 to 1, and continuous variables from their means to one standard deviation above their means.

sanctions, which is consistent with the earlier regression results. By contrast, democratic dyads are slightly more likely to experience economic sanctions based on the HSEO data. This confirms that the particular source of data plays an important role concerning the extent of finding an economic peace between democracies. The results also point to the possibility of a corresponding autocratic peace for economic coercion similar to that posited for military conflict (Peceny, Beer & Sanchez-Terry, 2002). The dampening effect for joint autocracy is most evident for security related sanctions, while the difference with autocratic-led mixed dyads is in the opposite direction for HSEO cases as well as non-security related TIES sanctions. Although only preliminary, the finding nonetheless suggests that more general dynamics of regime type similarity may play a complementary role to the impact of joint democracy that has been the focus of this article.

Turning to the other determinants of economic coercion, Table VII estimates the substantive impact of

the remaining explanatory variables on the probability of sanctions onset. Using the fully specified regression model for each of the different sources of sanctions data, the baseline probability of sanctions onset was similarly estimated by setting dichotomous variables to their medians, continuous variables to their means, and all temporal dependence variables to zero. First differences estimating the effect of each variable on the percentage change in the probability of sanctions onset were calculated by changing dichotomous variable from 0 to 1, and continuous variables from their means to one standard deviation above their means (95% confidence intervals in parentheses).[20]

The main economic indicators generally operate as expected with both exports and relative power increasing

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[20] This mirrors Table IV from Hafner-Burton and Montgomery (2008), while excluding results for regime type since these were already presented in a different form in Table VI.

the probability of sanctions onset, though relative economic power has a slightly weaker effect for non-security related sanctions. Trade dependence has a strong constraining effect based on the HSEO model, but weakens substantially when shifting to the TIES data. While significant across all types of sanctions data, a similar pattern is evident with the United States, where the propensity for US-initiated sanctions from HSEO is between ten and almost 20 times higher in order of magnitude depending on the category of TIES data considered. Alliances have a positive effect for both HSEO and overall TIES episodes, but the strongest effect is reserved for non-security related sanctions where the risk of sanctions onset is more than doubled between allies. By comparison, the negative though relatively minor impact of alliances for security related sanctions further confirms the divergent effects of certain variables based on the source of data and the particular type of issue under contention.

Discussion

As research drawing on the democratic peace has spread, so too have critiques of the purported distinctiveness of democracies in foreign affairs (Rosato, 2003). This debate has continued to play out on both sides regarding the merits of a possible economic peace whereby democracies are less likely to sanction one another. At least with respect to sanctions, the insights originally developed in the context of militarized conflict appear to apply to economic coercion as well. Alongside incorporating previous methodological improvements, the analysis shows democratic states are generally less likely to sanction other democracies compared to autocratic targets even after the behavior of the United States is taken into account. Furthermore, the purportedly distinctive sanctioning conduct of the United States no longer seems to hold when using the more comprehensive sanctions data from the TIES project. Earlier US-specific findings may thus have been a function of a reliance on the HSEO dataset, which contains a disproportionate number of high-profile cases involving the United States, rather than any inherent disposition in the country's use of economic coercion. The results thus provide a cautionary note for future studies examining the causes or consequences of economic sanctions to assess the robustness of any findings across the multiple sources of sanctions episodes available.

Although the economic peace between democracies finds general support, the results suggest that the impact of regime type on sanctioning behavior depends on the particular issue under dispute. Democracies remain significantly less likely to resort to economic coercion against one another when sanctions would be used to further security related objectives. In these higher politics areas, democratic norms and institutions thus appear to operate in a similar manner for economic and military conflict. While other factors, such as trade flows or relative power, may act differently in the economic and military realms, the democratic peace seems to offer a common account for both types of coercion.

On the other hand, when facing disputes over non-security related matters domestic institutions and norms no longer seem to serve as sufficient constraints on sanctions between democracies. The non-finding for joint democracy in non-security related disputes is particularly interesting in light of recent international tensions across a wide range of economic issues among states possessing significant market power. A great deal of attention has deservedly focused on growing frictions in numerous areas including trade, monetary policy, and intellectual property rights between the slow, and sometimes halting, liberalizing Communist China on the one hand, and the more established industrial economies of the United States and Western democracies on the other (Economy & Segal, 2009). Yet it should not be overlooked that some of the longest standing and most acrimonious commercial disputes have taken place within the transatlantic community, or with other firmly democratic countries such as Japan (Bayard & Elliott, 1994: 58). In such commercial disputes democracies thus appear less restrained in resorting to economic coercion irrespective of whether they are facing an autocracy or a fellow democratic government.

These differing patterns stand in contrast to several past studies, which argue that economic coercion in the pursuit of either economic or political goals follows analogous causal logics and should be approached in similar terms (Knorr, 1977: 108–109; Drezner, 2001, 2003). While coercive attempts to alter another state's economic policies often entail political consequences, the analysis here provides broader support for other research suggesting important differences in the factors shaping the resort to economic sanctions depending on the issue under dispute (Drury, 2005: 116). Future work could investigate in a more systematic manner whether similar differences based on the issue under contention apply not only to the initial decision to resort to economic coercion, but also for the functioning and success of sanctions after they are imposed. The findings reinforce pleas in the conflict resolution literature to take seriously the salience of the stakes and the nature of the issues

under contention when assessing either the risks of coercive policies or the prospects for different conflict management techniques (Hensel et al., 2008).

Ultimately, these results should be viewed as preliminary and call for further analysis of the causes and consequences of sanctions, as well as the possibility for other similarities or differences between military conflict and economic coercion. Even though the findings suggest the United States is not a unique actor with regard to economic sanctions, there may be other areas where US market power exerts itself in distinctive ways, such as foreign aid or international investment (Alesina & Dollar, 2000; Elkins, Guzman & Simmons, 2006: 814–816). Furthermore, the TIES dataset also took the further innovative step of collecting information on the threat stage of economic sanctions. Although this article was limited to only including sanctions that were actually implemented in order to offer a closer comparison to existing research on the economic peace between democracies, selection bias is a problem endemic to many sanctions studies (Nooruddin, 2002; Smith, 1996). By incorporating the prior threat stage directly into both theorizing and empirical analyses, future studies can investigate the factors (either those involving regime type or others) affecting the threat, imposition, and effectiveness of economic sanctions in a more integrated and comprehensive manner.[21]

Replication data

The dataset and do-files for the empirical analysis in this article can be found at http://www.prio.no/jpr/datasets.

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[21] I thank an anonymous reviewer for this suggestion.

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