

# **Working Paper: Sanctions busting, "safety valves," and norms: the effects of intra-EU trade on sanctions busting**

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## **Abstract**

My paper examines the effect of intra-EU trade on the probability of sanctions busting. Previous studies have shown that many EU states are prolific busters of sanctions, and I seek to test whether the probability of engaging in this behavior declines as intra-EU trade increases. By utilizing a multilevel logistic regression model and examining sanctions events from 1958-2000, I test whether the effects of intra-EU trade have contributed to a lower probability of sanctions busting by EU member states. Findings show that increases in intra-EU trade lead to a reduction in the probability of sanctions busting by EU member states. I argue that the European Single Market serves as a cheaper alternative to the costs of sanctions busting.

keywords: European Union (EU), European Community (EC), economic sanctions, sanctions busting, logistic regression, norms

# Contents

<b>1</b>	<b>Introduction</b>	<b>1</b>
<b>2</b>	<b>Literature Review</b>	<b>3</b>
<b>3</b>	<b>Sanctions and Sanctions Busting in the European Union</b>	<b>5</b>
<b>4</b>	<b>Research Design</b>	<b>7</b>
4.1	Coding Sanctions Busting Dependent Variable . . . . .	8
4.2	Independent and Control Variables . . . . .	9
<b>5</b>	<b>Results</b>	<b>10</b>
5.1	Effects of intra-EU trade share . . . . .	10
5.2	Trade Openness and 3rd Party/Target State Trade Share . . . . .	15
5.3	Third-Party and Target States' GDP . . . . .	17
5.4	Control Variables . . . . .	19
<b>6</b>	<b>Sanctions Busting Profiles</b>	<b>21</b>
6.1	Import Dependence . . . . .	21
6.2	Export Dependence . . . . .	21
6.3	Saturated Internal Market . . . . .	21
6.4	Strategic Goods . . . . .	22
<b>7</b>	<b>Conclusion</b>	<b>22</b>

## List of Figures

Figure 1	Model 1, Coefficients in yellow are "statistically insignificant"; coefficients in blue are significant at $\alpha$ 0.05. . . . .	12
Figure 2	Model 2, Coefficients in yellow are "statistically insignificant"; coefficients in blue are significant at $\alpha$ 0.05. . . . .	13
Figure 3	Predicted Probabilities of Sanctions Busting as a function of Intra-EU Trade Share for all EU members (1958-2000) . . . . .	14
Figure 4	Predicted Probabilities of Sanctions Busting as a function of Intra-EU Trade Share for Founding EU Members (1958-2000) . . . . .	14
Figure 5	Predicted Probability as a function of Trade Share . . . . .	16
Figure 6	Predicted Probabilities of Sanctions Busting as a function of Trade Openness of Founding EU members (1958-2000) . . . . .	17
Figure 7	Predicted Probabilities of Sanctions Busting as a function of Third Party State's GDP (1958-2000) . . . . .	18
Figure 8	Predicted Probabilities of Sanctions Busting as a function of Third Party State's GDP (1958-2000) . . . . .	18
Figure 9	Predicted Probability as a function of Distance and Years since last busting (NoBust) . . . . .	19

## List of Tables

Table 1	Incidences of Sanctions Busting as EU Members (1958-2000) . . . . .	5
Table 2	Multilevel Logistic Regression Results . . . . .	11

# 1 Introduction

Former Secretary of State Henry Kissinger once remarked that he never knew who to phone in Europe (Telò and Ponjaert 2016), referencing the difficulties not only in getting European states to agree on a common course of action but also the difficulties in getting European states to work together on a common course of action.<sup>1</sup> Whether or not Kissinger made the now famous quip, the fact of the matter is that the European experiment known as the European Union has made great strides since Luxembourg, (West) Germany, Italy, France, Belgium, and the Netherlands signed the Treaty of Rome in 1958. Since the signing of the Treaty of Rome, numerous other treaties have been signed by EU member states, and the European Union (EU) has expanded seven times. The EU now has 28 member countries that stretches from Portugal to Poland and Finland to Greece and several others that are seeking membership.

One of the hallmarks of the EU that make it stand out from other regional associations is its common market or what the European Union officially refers to as the European Single Market (ESM), which the EU touts as the largest economy of the world with a Gross Domestic Product (GDP) of 14 trillion euros (or roughly 16 trillion USD). The goal of the ESM has been to improve competitiveness, labor mobility, and common regulatory framework (European Commission 2015). In theory, such a market would provide EU member states with an immense market free of regulation and tariffs that would allow goods and services to be moved and exchanged freely. It is this cooperative framework that leads to the development of norms that has allowed the European Union to become a more cohesive entity.

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<sup>1</sup>Kissinger has since stated that this quote has been misattributed to him. See <http://www.foxnews.com/world/2012/06/27/kissinger-says-calling-europe-quote-not-likely-his.html>.

These norms that have developed from this cooperative framework have helped to develop the ESM, which provides a "safety valve" for EU member states that might bust sanctions and abrogate their international commitments to upholding economic sanctions. With each subsequent treaty and additional member, the ESM has grown to become a major economic powerhouse that can provide EU members with back-up markets for when sanctions busting becomes too costly. Since the European Union's (EU) inception in 1958 with the signing of the Treaty of Rome the year before, the EU experiment has been heralded as a milestone in interstate cooperation. For a region that has been the scene of two world wars and great power rivalries, the EU has transformed itself into a cohesive trade union that has sought greater political and economic integration over the last 60 years. In studying the ESM and the EU's development to the world's largest economy, a puzzle emerged and raised the following question: has the ESM reduced the probability of sanctions busting?

States in Europe and in the European Community/European Union (EC/EU) have been described as prolific sanctions busters (Early and Spice 2015), one of the key factors that contribute to the failure of sanctions to achieve their aims (Hufbauer and Moll 2007). Sanctions busters are defined as those states that "[increase] their economic engagement with target states in ways that ameliorate the sanctions' adverse consequences" (Early and Spice 2015, 21). While EC/EU states have been active in busting sanctions, this study seeks to investigate whether increases in intra-EU trade have led to a decline in sanctions busting. I develop a measure of intra-EU trade using the Correlates of War trade data set (Barbieri and Keshk 2017) to test my hypothesis that increases in intra-EU trade lead to a lower propensity to bust sanctions. I surmise *a priori* that as EU member states join the EU and embed themselves in the ESM that the probability of sanctions busting declines owing to the ESM's ability to serve as a "safety valve" for imports and exports to the third-party country.

Previous studies (Hufbauer and Moll 2007; Early 2009, 2011; Early and Spice 2015) using a worldwide set of sanctioning events has shown that as levels of trade between a third-

party state and target state (that is, a state that is targeted by sanctions) increase, the probability of sanctions busting rises. Trade openness of a state – the ratio of a state’s total trade to its gross domestic product (GDP) – is also seen as a strong factor that motivates states to bust sanctions due to the fact that states more open to trade will seek to preserve those trade links vital to its economy. These studies that look at sanctions busting in the aggregate are often unable to account for regional dynamics in their research designs. This study uses intra-EU trade to show that the ESM serves as secondary market for trade in the face of international economic sanctions.

To test my hypothesis, I utilize a multilevel model that places yearly observations of each dyadic pair within their respective sanctions events. My initial findings show that as intra-EU trade increases that the probability of sanctions busting modestly declines. It is possible that the EU common market serves as a “safety valve” by providing an alternative market where trade can be diverted when EC/EU states are faced with the choice of busting sanctions and maintaining trade or seeking alternative markets both within the EU and outside the EU. Examples of this trade behavior have already been demonstrated as a response to EU sanctions on Russia after its invasion of Crimea. In an article in the NATO Review Christie (2015), Edward Hunter Christie examined EU trade with Russia and showed that trade destined for Russia had been diverted to other export markets along with markets within the EU after Russia’s invasion of Crimea (Christie 2015). My study seeks to test whether the ESM and intra-EU trade in the presence of sanctions events from 1958-2000 have driven EU states toward the ESM as a means of coping with sanctions imposed on important EU trading partners, such as China, Iran, and the United States.

## **2 Literature Review**

The study of sanctions has shown a strong focus on the efficacy of sanctions through debates between three “schools of thought,” what Taylor has described as the “sanctions don’t work’ school,” “sanctions as symbol’ school,” and the “sanctions can work’ school” (Taylor 2009, 18). As the names of these schools show, sanctions are seen as ineffective, symbolic, or can work (under the right conditions). As Taylor points out, these three schools have left the “sanctions paradox”

unresolved – in other words, why do policymakers routinely employ sanctions if they have only a limited ability to influence the behavior of target states? Drezner (1999) explores the sanctions paradox in his seminal work, arguing that senders "...obtain the most favorable distribution of payoffs when it cares the least about the relative distribution of gains" (1999, 5).

A good deal of the literature on sanctions focuses on its efficacy with many excellent studies on the subject that have sought to test whether sanctions are effective, particularly Hufbauer and Moll (2007) and Pape (1997). Hufbauer et al. have argued that sanctions are effective, whereas Pape has taken a stricter line on what constitutes sanctions success. This is all to say that the literature has focused predominantly on the United States and the effect of U.S. sanctions on target states. Research has, since the late 1990s, sought to move beyond the Hufbauer et al. - Pape debate by exploring other facets of economic sanctions. One area that had been understudied until recently has been the role of sanctions busters or 'black knights' in the literature. Several other works have sought to explore to effect of third-party states on the effects of sanction outcomes (Hufbauer and Moll 2007; Early 2009, 2011; Early and Spice 2015). Research on what drives states to bust sanctions has sought to understand the driving force behind sanctions busting (Drezner 2000; Kaempfer and Lowenberg 1999) and the role of multilateral cooperation in making sure that sanctions succeed (Martin 1992, 1994).

While much of the research has been focused on the United States, a burgeoning research program on EU sanctions has begun to emerge in the last decade. While much of the literature on sanctions and the EU has focused on their efficacy (with many works focused on generating studies that confirm the validity of classical sanctions theory (Portela 2011)), Giumelli (2013), for example, has sought to sharpen qualitative comparative analysis (QCA) of EU sanctions in an effort to provide a more detailed theoretical framework on how EU sanctions are employed. Much research on EU sanctions has focused on the use of "smart sanctions" and the independent nature of EU sanctioning efforts since the end of the Cold War (Biersteker, Eckert and Tourinho 2016; Elsuwege 2011; Eriksson 2011; Giumelli 2010, 2013; Giumelli and Krulis 2012; Portela 2005) or

has focused on case-specific sanction events (Del Biondo 2015; Grebe 2010; van Bergeijk 2015).

Studies have also looked at the role of international institutions in influencing sanctioning regimes (Drezner 2000; Kaempfer and Lowenberg 1999; Bapat and Morgan 2009) or how institutions help with coordination of multilateral sanctions among senders against a particular target (Martin 1992, 1994). The literature has been sparse on the secondary effects of international organizations or how international organizations alter the political context for third-party states. In other words, how does membership in an international organizations and institutions, like the EC/EU, affect the behavior of states with respect to whether or not states within these organizations respect sanctions? Do international organizations (IOs) or multilevel governance (MG) (McCormick 2017) through coordination reduce sanctions busting or do IOs or MG offer material opportunities for states that steer them away from sanctions busting? This paper attempts to provide answers to some of these questions by controlling for the effects of international organizations like the EC/EU by quantifying specific trade behaviors.

### 3 Sanctions and Sanctions Busting in the European Union

The most prolific sanctions busting countries are Spain, France, Germany, and Italy. The Netherlands, United Kingdom (UK), and Belgium are modest sanctions busters as seen in Table 1. From the chart, there is a clear dichotomy between those EU member states that engage in sanctions busting and those that do not.

Table 1: Incidences of Sanctions Busting as EU Members (1958-2000)

European Country (EU Member Since) <sup>1</sup>	Incidences of Sanctions Busting
<i>Germany</i> (1958)	451
<i>Italy</i> (1958)	217
<i>France</i> (1958)	198
<i>United Kingdom</i> (1973)	151
<i>Spain</i> (1986)	44
<i>Netherlands</i> (1958)	55
<i>Belgium</i> (1958)	46
<i>Portugal</i> (1986)	10

<sup>1</sup>Dates indicating time since becoming EU member retrieved from (EUROPA 2016).

<i>Sweden (1995)</i>	9
<i>Finland (1995)</i>	9
<i>Greece (1981)</i>	5
<i>Austria (1995)</i>	4
<i>Denmark (1973)</i>	1
<i>Ireland (1973)</i>	1
<i>Luxembourg (1958)</i>	1
<i>Total no. of sanctions busting events</i>	1202

While most studies examine dyadic relationships between states targeted by sanctions and third-party states, like our sample of EC/EU states in this study, there are qualities that states with high incidences of sanctions busting share. First, these countries tend to have fairly open economies. Finland and Luxembourg have the highest means of trade openness (coded here as the ratio between a state's total trade and its GDP), yet they have the fewest incidences of sanctions busting. GDP, while also a useful indicator, does not, by itself, distinguish between the different aspects of some economies. Trade Share between two states has been shown to increase the probability of sanctions busting. The bilateral trade between these two states is often strategically important or vital for the economy or industries of the EU state. As Squalli and Wilson (2011) point out, the sale of high priced exports can allow countries to purchase more imports. For example, China has been a frequent target of international sanctions, yet Germany has often busted sanctions against China. In 1995, Germany and China had combined trade of almost \$20 billion dollars with textile and footwear imports from China accounting for one-third of the total trade between the two countries. Germany, on the other hand, exported heavy machinery, cars, boats and passenger vessels, and car parts to China (Simoes and Hidalgo 2011).

While these brief examples offer plausible explanations explaining away EU behavior in the face of international economic sanctions, a key question remains: to what extent intra-EU trade serves as a "safety value" for EU states when faced with pressures of economic sanctions and to what extent intra-EU trade has on the propensity for EU member states to engage in sanctions busting.

## 4 Research Design

This study employs a multilevel binomial logistic regression to test the effects of intra-EU trade on the probability of sanctions busting from 1958 to 2000. The model developed here has three levels: dyad (I), sanctions event (II), and period (III). The unit of analysis for this paper is a directed dyad consisting of a target state, one that has been targeted by a sender state with sanctions, and a third party state that may/may not have circumvented or "busted" the sanctions. The data set constructed by Early and Spice (2015) is time-series cross-sectional (TSCS) and comprises 164 sanctions busting episodes from 1958 to 2000 (Hufbauer and Moll 2007) with yearly observations between the target state (the state that is being sanctioned) and third-party states. The coding method reflects aggregate conditions created by the various sanctions episodes. Furthermore, the analysis conducted here considers only active trading relationships between target state and third-party states (Early 2015).

I choose a multilevel model for several reasons. First, a pooled logistic regression might not adequately address issues of heterogeneity in the data set and temporal splines or time polynomials (Beck, Katz and Tucker 1998; Carter and Signorino 2010) might not be enough to model the effects of time in the data. Given that our data are TSCS, a multilevel model allows for varying intercepts for the three principle levels: observations for each year (level 1), dyad (level 2), and the sanctions event (level 3). Second, a conditional logit model that groups the data by dyad or sanctions event results in 25-75% of the data being eliminated due to all positive or all negative outcomes. Given the rarity of the event and the data set being unbalanced, a multilevel model makes more theoretical and methodological sense. Lastly, a multilevel model offers a compromise between the the fixed effects and random effects model while allowing for the modeling of temporal and unit heterogeneity.

The data set includes the following Western European countries: Austria, Belgium, Denmark, Finland, France, Germany (before and after reunification), Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, and United Kingdom. I explore 127 cases of sanc-

tions busting between 1958 and 2000 by Western European states starting with the initial founding members of the EU and adding member states as they have joined the European Union. I also ignore instances of sanctions busting when both target and sender state are already EU members. In order to exclude them from the data set, I created a categorical variable *EUEU* coded 1 when both states are EU members during any given sanction busting event and 0 others. There were 240 observations in the data set where both states were EU members, and these observations were dropped from the logistic regression.

#### **4.1 Coding Sanctions Busting Dependent Variable**

I rely on Early and Spice's data set<sup>2</sup>(2015) coding of the sanctions busting dependent variable, *AllBusters* and their data set. This variable in the data set – *AllBusters* – is dichotomous and takes a 1 if the partner state or third-party state has engaged in sanctions busting on behalf of a target state or state subject to a particular sanctions regime. When coded "1", sanctions busting has occurred due to "a significant spike in the amount of bilateral trade" between the target and third-party as well as that the trade taking place between the two states is "in sufficient quantities to substitute for the target's trade losses experienced due to the sanctions" (Early and Spice 2015, 348). Also, import or export flows must have increased by at least 5% of the target's yearly trade, and bilateral trade must also be at least 5% of the total target's yearly trade (Early and Spice 2015). The variable is coded "0" if no sanctions busting activity has taken place. Sanctions busting (when the variable *AllBusters* = 1) took place 1,202 times between 1958 and 2000 and accounts for 12.45% of the 9,654 observations in the data set. The analysis utilizes similar independent variables to previous studies on sanctions busting ((Early and Spice 2015; Early 2015) while adding a new variable, *Intra-EU Trade Share* that captures the yearly Intra-EU trade by a member state as a ratio to its total annual worldwide trade. Furthermore, only EC/EU member states are considered in the analysis, and EC/EU states with an intra-EU trade share of 0 are excluded from the model.

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<sup>2</sup>I made

## 4.2 Independent and Control Variables

The principle independent variable of interest is *Intra-EU Trade Share*, the ratio of intra-EU trade to a countries total trade for each year. This variable has been generated using trade data from the Correlates of War (Barbieri, Keshk and Pollins 2009; Barbieri and Keshk 2017) and ranges from 2.6% to 88%, depending on the EC/EU member state in question. I created this variable by tabulating the amount of data each EU member state had with other EU member states for each given year. One principle issue with the data set is the missing trade flows for West Germany. The lack of trade between West Germany and other EU states during this time period makes calculating a stable intra-EU trade ratio difficult. While the data from Gleditsch (2002) is somewhat more complete, I opted to utilize the Correlates of War data set given that the coding scheme for sanctions busting is based off the same trade flows.

Trade openness, trade share, and the GDP of the target and partner states are also key variables in the literature that have been shown to influence whether a country busts sanctions (Early 2009, 2011, 2015). All of these variables are lagged by one year and were recreated using using Gleditsch (2002). While several measures exist in the economics literature on trade openness (Squalli and Wilson 2011), trade openness is measured here by taking the total amount of trade a state conducts (Imports + Exports) as a proportion of that state's total GDP in any given year.

Trade share is calculated by using the third party state's total trade with the target state as a ratio to the third party's state total worldwide trade. GDP data in current prices (millions USD) has been updated from the data set using Gleditsch (2002, 2014) to fill in missing values from Early and Spice's (2016) data set as well as filling in any missing values on he trade openness variable, too. GDP for both the third-party and target state has also been transformed using the natural log of the real GDP and lagged by one year.

While the original study by Early and Spice (2015) utilized dummy variables to capture the presence or absence of democracy and joint democracy, I have replaced them with Institution-

alized Democracy Scores from the Polity IV data set (Marshall, Gurr and Jagers 2017) for both the third-party EU state and target state as well as creating a joint democracy variable as specified by Lemke (2002).

I also control for the number of years a state has been sanctioned (duration of the sanctions event), which measures the length of time that a given target state has been the subject of sanctions. I also utilize the natural log of distance between the target and sender state; previous studies (Early 2015, 2016) has shown the distance between two states increases that sanctions busting declines. Lastly, I control for whether a defense pact (*Defense Pact<sub>3T</sub>*) exists between the target and sender state, since the literature has shown that a third-party state is more likely to bust sanctions when the target and third-party state have a defense pact (Early 2012). I also utilize time polynomials (Carter and Signorino 2010) to account for temporal dependence, and these time variables have been added and controlled for in the model through the `NoBust` variable and its squared and cubed variants. This variable `No Bust` measures the number of years since a third-party state last busted sanctions against the target state in the dyad; it ranges from 0 to 54 years with a mean of 7.48 years. Squared and cubed version of *No Bust* have also been added to the and have been rescaled to reduce potential issues related to multicollinearity.

Also, all of the continuous independent variables have been grand mean centered to aid in model convergence (dummy variables in the data set have not been transformed).

## 5 Results

### 5.1 Effects of intra-EU trade share

Table 3 shows the results of the convergence of the multilevel logistic regression using the `glmer` package in R and fit by maximum likelihood estimation using Laplace approximation. Two models were constructed and tested: one with all EU member states from 1958-2000 and another with just the founding members EU members who remain in the data set through all 43 years. My initial concern was that new arrivals in the data set (such as Greece in 1981 or Austria

in 1995) might provide an inaccurate picture of sanctions busting and might bias the results. The coefficients for Intra-EU trade share differ by only 0.01 units and indicate that intra-EU trade share has a slightly lesser effect on the founding EU members. Figures 1 and 2 display the log odds of each of the coefficients in the two models; the coefficients in blue are statistically significant, while those in orange are statistically insignificant.

Focusing solely on the model that includes all EU states and remembering that our coefficients have been standardized to aid in the convergence of the multilevel model, a 1 standard deviation increase in intra-EU trade share (22%) results in a decrease in the log odds of sanctions busting by -1.087. Log odds are not intuitive and can be quickly converted to probabilities using the "Rule of Four" (Gelman and Hill 2006), thus a 1 standard deviation increased in intra-EU trade share reduces the probability of sanctions busting by roughly 27% or about 0.8% for each 1 unit increase in the percent of intra-EU trade share.<sup>3</sup> As the results in Table 2 indicate, Intra-EU Trade Share is statistically significant in both models. In fact, the effect of Intra-EU trade is slightly weaker for the founding EU member states (Figure 4).

Table 2: Multilevel Logistic Regression Results

	<i>Dependent variable:</i>	
	Sanctions Busting	
	Model 1: All EU States	Model 2: Founding Members
Intra-EU Trade Share	-1.087* (0.129)	-1.077* (0.133)
Trade Openness <sub>3</sub>	-0.260 (0.301)	-1.108* (0.421)
Trade Share <sub>3&amp;T</sub>	0.213* (0.099)	0.043 (0.132)
ln GDP <sub>3</sub>	2.219* (0.183)	1.754* (0.219)
ln GDP <sub>T</sub>	-0.642* (0.150)	-0.379* (0.146)
Duration (yrs.)	0.345* (0.143)	0.363* (0.136)
ln Distance (mi.)	-0.511* (0.101)	-0.648* (0.143)
Defense Pact <sub>3&amp;T</sub>	1.234 (0.648)	0.612 (0.665)
No Busting	-4.574* (0.453)	-5.131* (0.511)
No Busting <sup>2</sup>	9.356* (1.403)	12.771* (1.927)
No Busting <sup>3</sup>	-5.708* (1.186)	-9.914* (2.088)

<sup>3</sup>Again, this is just an *approximation* and a "quick and dirty" method for readers to get a sense of the substantive effects of log odds.

Constant	-5.275* (0.262)	-4.015* (0.266)
Observations	9,654	5,269
Log Likelihood	-1,795.907	-1,358.882
Akaike Inf. Crit.	3,621.813	2,747.765
Bayesian Inf. Crit.	3,729.440	2,846.309

Note: \*p<0.05

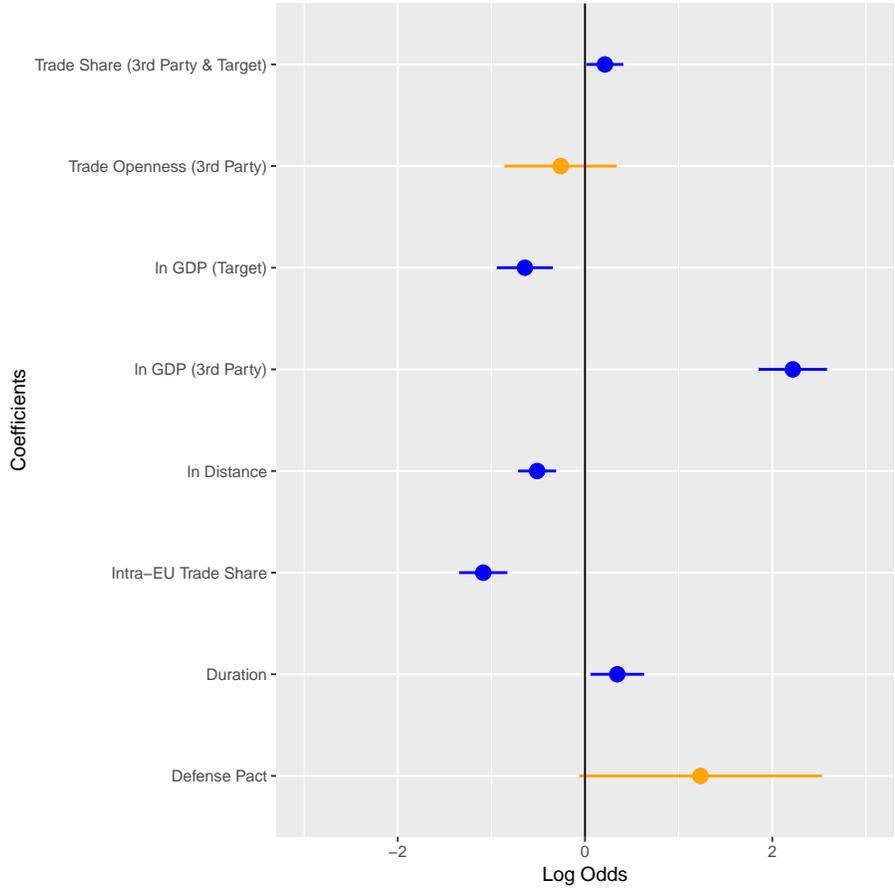


Figure 1: Model 1, Coefficients in yellow are "statistically insignificant"; coefficients in blue are significant at  $\alpha$  0.05.

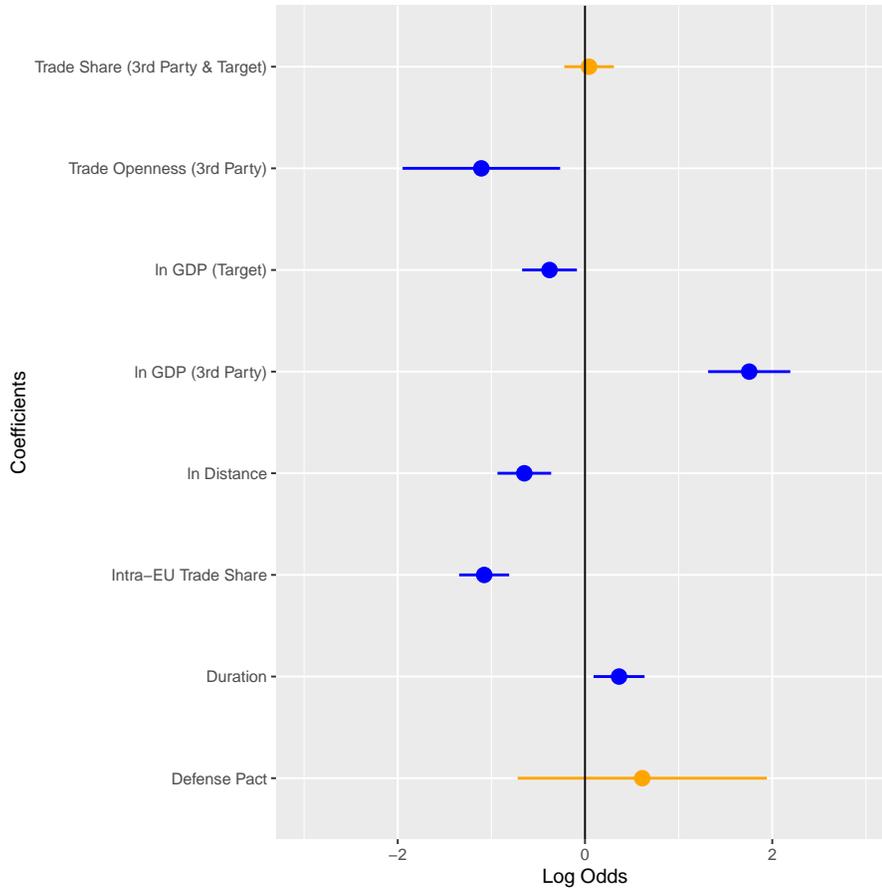


Figure 2: Model 2, Coefficients in yellow are "statistically insignificant"; coefficients in blue are significant at  $\alpha 0.05$ .

The effects of intra-EU trade share can also be better seen visually when graphed over the range of intra-EU trade in our data set. Following Hanmer and Kalkan (2013), I calculate the predicted probabilities the "observed value" approach given the difficulties in knowing what an "average EU member state" might be. In figure 3, the effects of increases on intra-EU trade share with the values of all other variables as observed indicates a modest decrease in the probability of sanctions busting occurring with all other variables at their observed values. Figure 4 shows the predicted probabilities with only the first six founding EU members showing intra-EU trade's lesser effect on these countries.

Figure 3: Predicted Probabilities of Sanctions Busting as a function of Intra-EU Trade Share for all EU members (1958-2000)

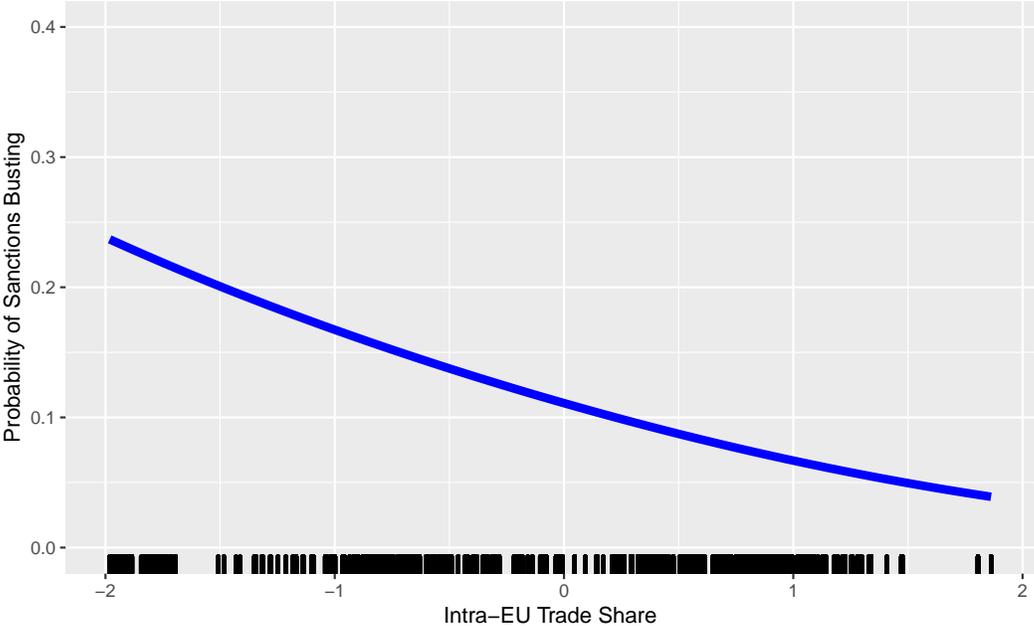
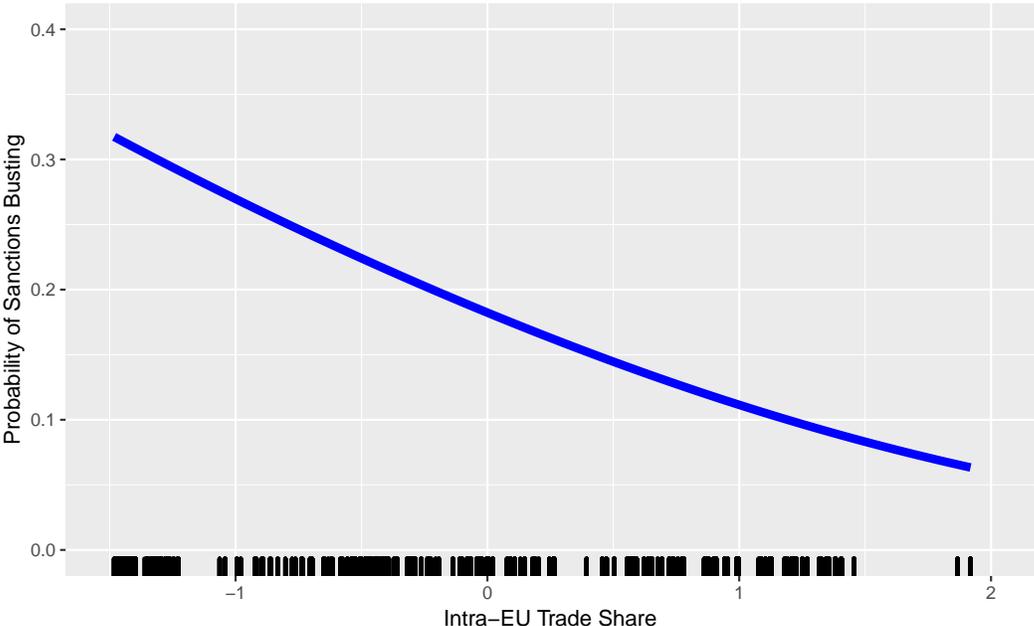


Figure 4: Predicted Probabilities of Sanctions Busting as a function of Intra-EU Trade Share for Founding EU Members (1958-2000)

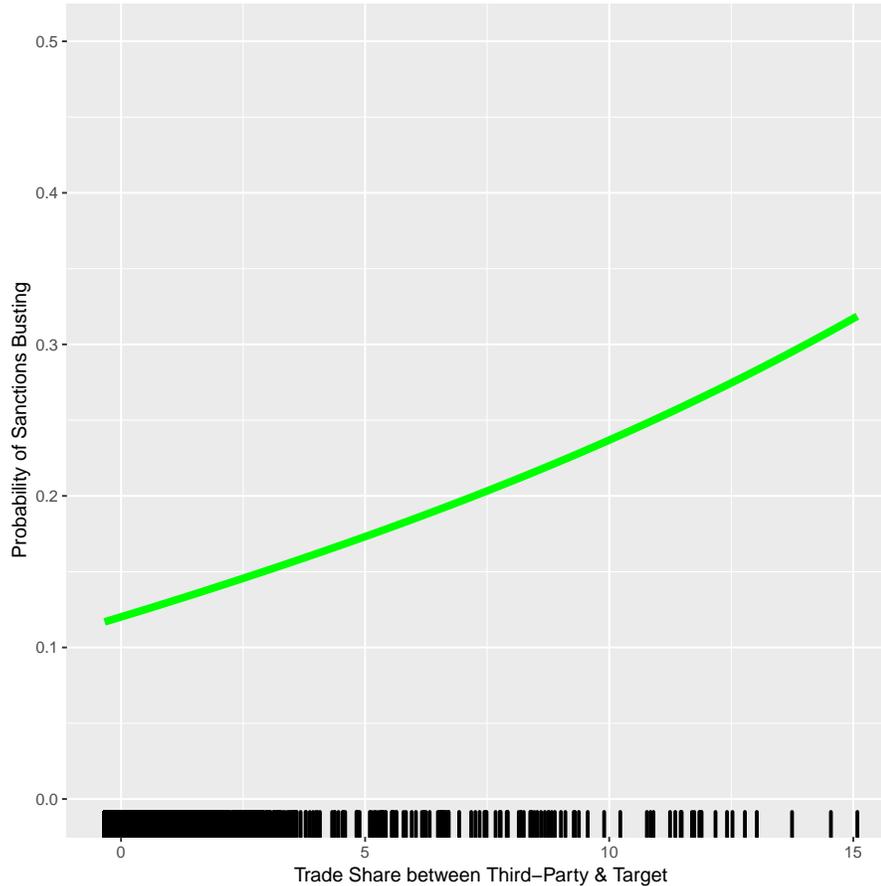


On average, an increase in intra-EU trade share modestly reduces the probability of sanctions busting (in both models). How might this decline in sanctions busting be explained? As stated earlier, EU states faced economic uncertainty when pushed to impose sanctions on Russia in 2014 (Christie 2015). When faced with those sanctions, EU states sought to reduce losses when cut-off from a particular market and divert trade to other states; it is logical to assume that this behavior is not a new behavior but one that has evolved as the EU has grown in size. EC/EU states, as it has been shown in studies of cooperation among EU states (Martin 1992), are luckier than many states given that the EC/EU provides its members with the added benefit of substitute common market that is free from tariffs but also less expensive in terms of transport and logistics. Also, when faced with the prospect of financial losses, firms in states navigating international sanctions would logically seek out new or alternative markets. As the EU has grown in size, the common market has become larger and has offered more trade and business opportunities for constituents. With Brexit looming for the UK, the fear of losing such benefits of free trade are becoming more apparent (Dhingra, Ottaviano and Sampson 2015).

## **5.2 Trade Openness and 3rd Party/Target State Trade Share**

Two other variables that have been critical in the evaluation of sanctions busting are Trade Openness and Trade Share<sub>3&T</sub>. In Model 1 with all EU members, Trade Share<sub>3&T</sub> is statistically significant and increases the probability of sanctions busting (Figure 5).

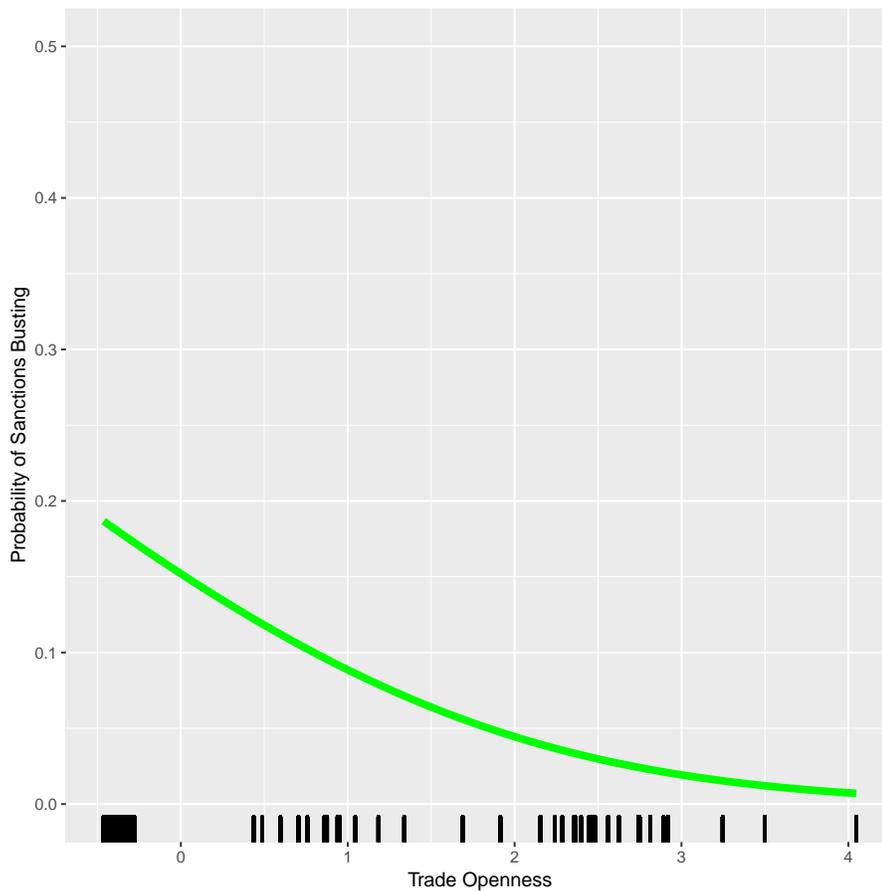
Figure 5: Predicted Probability as a function of Trade Share



In the second model containing only the founding EU members, Trade Share is no longer statistically significant. This finding presumes that the larger EU economies are driven not by dyadic trade flows but by overall trade. Trade openness is now statistically significant in Model 2 and also has a negative effect on sanctions busting. While this finding goes against previous work on the subject of sanctions busting, the founding EU member states might instead simply be shifting the emphasis of their trade not on extra-EU trade but on internal markets whereby the larger EU economies can produce goods for the smaller economies of the EU, which, in turn, allows the larger economies to buy more imports from those markets where the EU is unable to supply such goods (Squalli and Wilson 2011).

Care, however, should be taken in interpreting the substantive significance of this finding given that more than 90% of the observations in the data have trade openness values at the mean (at zero on the graph) *or* below and that those observations above the mean can be attributed to the dyadic pairs involving the EU state of Luxembourg, which has only one instance of sanctions busting in the data set.

Figure 6: Predicted Probabilities of Sanctions Busting as a function of Trade Openness of Founding EU members (1958-2000)



### 5.3 Third-Party and Target States' GDP

The effect of Third-Party and Target State GDP on sanctions busting is consistent across both Model 1 and 2. As a third-party state's GDP grows in size, its probability of busting sanctions increases significantly.

Figure 7: Predicted Probabilities of Sanctions Busting as a function of Third Party State's GDP (1958-2000)

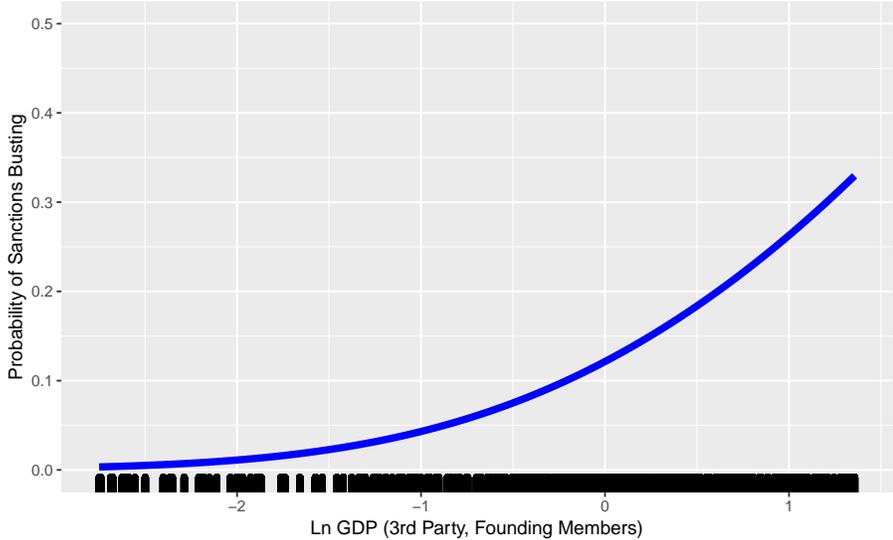


Figure 8: Predicted Probabilities of Sanctions Busting as a function of Third Party State's GDP (1958-2000)

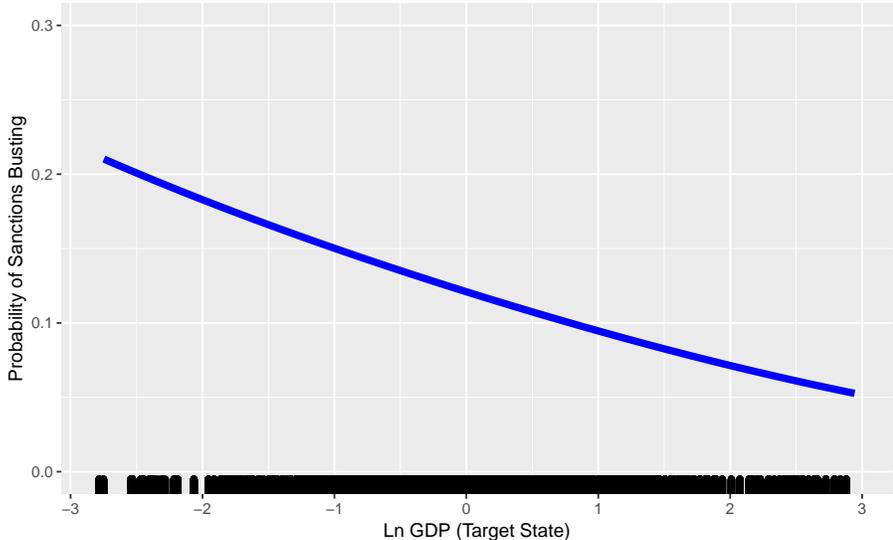


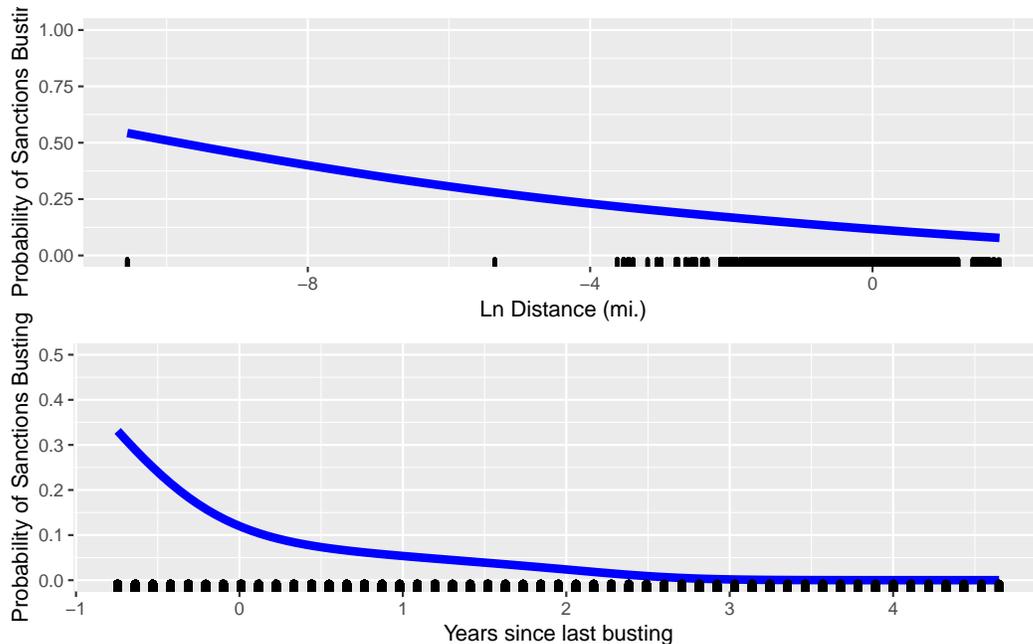
Figure 7 shows the rise in the probability of sanctions bust as the third-party state's GDP increases. This finding in the data is not unsurprising since previous studies have shown that states with higher GDP's are more likely to bust sanctions, possibly in an effort to preserve their economic

dominance. In Figure 8, we see a negative relationship between the probability of sanctions busting and increases in the target state’s GDP. One might surmise that as the target state becomes more wealthy, EU states are unable to dominate the terms of specific trade. Or, one might surmise that as a target state’s GDP increases that it is able to dictate more favorable trade terms.

## 5.4 Control Variables

The remaining control variables have signs and effects that confirm the remaining hypotheses presented earlier. Consistent with findings in Early (2015), the duration of sanctions is positive. For each 1 standard deviation increase in the duration of a sanctions episode (approximately 10 years with an average sanctions event duration being 8 years), the probability of sanctions busting increases 8.6% or roughly 0.8% for each year that a sanctions event lasts. Distance has a strongly negative effect on sanctions busters. For EU member states, the farther away a state is the lower the log odds of sanctions busting occurring with a 12.7% decrease in sanctions busting for each 1 standard deviation increase in the distance between two states. Most of the target states in the data set lie at or around the mean (3100 miles) as indicated by the rug plot in figure 3.

Figure 9: Predicted Probability as a function of Distance and Years since last busting (NoBust)



The duration of sanctions also determines whether or not a third-party state's constituents bust sanctions. As a sanctions regime persists (such as the one between the United States and Cuba), third-party states become more adept at finding ways to circumvent sanctions and grow weary of being blocked from important markets from which a state's constituents might benefit.

A defense pact between the third-party state and target state is, not surprising, statistically insignificant only 7 target states having a defense pact with any single EU member state out of 91 states in the data set and principally include geographically proximate countries to EU, such as Portugal and the UK (before they became an EU member) and Turkey as well as NATO members Canada and the United States. Lastly, the `NoBust` variable has the strongest impact (and is also used in its squared and cubed form to account for temporal dependence) on sanctions busting, reducing sanctions busting by approximately 12% for each 1 year a state goes without sanctions busting. The quick decent of the line in Figure 3 (bottom) suggests that as states go longer without sanctions busting that the probability of them doing so becomes almost zero.

The expansion of the EU market has made trade policy of central importance and one of the EU's most notable successes (Peterson and Young 2007). Despite increases in intra-EU trade, sanctions busting *does* continues, especially when vital interests are at stake and no alternative markets can be found. For example, France, Germany, Italy, and the UK busted sanctions against Turkey 78 times. Despite sanctions against Turkey due to its invasion of Northern Cyprus in 1974, those four EU states busted sanctions owing to their economic ties and proximity to Turkey as well as the defense pact shared by all five states as members of NATO. Even in the late 1990's when intra-EU trade share was at its highest, all four states continued to bust sanctions. Busting sanctions on Iraq by the same four EU states could possibly be related to oil trade and arms transfers. In the early 1980's during the Iran-Iraq War, France and Italy sold arms and traded oil with both countries despite sanctions in place at the time (Kamel 2015). Given the statistical and substantive significance to `Trade Share3T`, it is no surprise that constituents of EU member states would bust sanctions in order to maintain lucrative trade ties to vital imports and exports.

## **6 Sanctions Busting Profiles**

If EU states benefit from intra-EU trade and are able to weather the pain of being cut off from the markets of states targeted by economic sanctions, why then do EU states still continue to bust sanctions? As Table 1 showed, the constituents of EU states Germany, France, Italy, and the Netherlands rank highly on the list of states that engage regularly in this behavior. I develop these profiles to help understand why an EU state turns inward to the EU or why it might ignore the ESM and bust sanctions. Future goals of this research seeks to develop a profile of sanctions busters based on four categories:

### **6.1 Import Dependence**

These are EU member states that bust sanctions due to a dependence on a particular import. For example, EU constituents regularly busted sanctions against China, who supplied and continues to supply the EU with high levels of textiles and clothing. EU states might be able to look toward newer members from Eastern Europe to replace to supplement textile trade from China.

### **6.2 Export Dependence**

Constituents in EU states depend on these external markets for trade and bust sanctions in order to maintain outflows of trade to these sanctioned countries. German exports of cars and machinery fall into this category, and, depending on the level of growth, EU member states and their constituents provides an alternative market.

### **6.3 Saturated Internal Market**

Many EU states produce the same goods so a sanctions event make it difficult for EU states to sell their goods to other internal EU markets. For example, sanctions against the Gambia in the 1990's constrained Belgium's sugar trade. With several other producers of beet sugar in Europe (France, Netherlands, and the UK), constituents in Belgium had no choice but to export their sugar to their African trade partner.

## 6.4 Strategic Goods

Some imports and exports are of a strategic nature, such as energy exports from the Middle East (Iran and Iraq, in particular) or Russia. The European Union is relatively dependent on energy exports to meet its energy demand, and the data set contains dozens of instances where EU states have busted sanctions with major oil/energy producers. Energy imports from Norway have fallen steadily in the last five years, and energy imports from other EU members might be difficult since they are all principally energy importers Eurostat (2018).

## 7 Conclusion

Further studies will need to examine specific EC/EU trade to find similar evidence of trade diversion shown in the Crimea case (Christie 2015) or case studies on specific sanctions events to understand those industries that continue to engage in sanctions busting trade. It is possible that greater EU cohesion provides a secondary market or "safety valve" for EU states, especially when sanctions are targeted at important EU trading partners, such as Russia and Iran. Smaller economies could potentially find substitute markets in the larger EU economies of Germany, France, and Italy. Further study should test whether substantial trade diversion takes place among EU states.

Sanctions make it difficult for the EU to participate in substantial sanctions regimes when such regimes are directed at critical trade (such as energy imports, for example), thus making cooperation with such sanctions regimes difficult (Early and Preble 2017). It is possible that greater integration pushes individual EU states to bust sanctions, especially when towing the line and accommodating sanctions becomes economically difficult or unpopular in member states.

Accounting for why sanctions busting still occurs by EU states requires more extensive case study work. For example, why did Belgium continue to trade with the Gambia during its coup in 1994? An examination of Belgian trade with the Gambia from 1994-1998 indicates that Belgian firms busted sanctions each of those years, with raw sugar and tobacco accounting for

almost 40% of trade with The Gambia (Simoes 2018). More interestingly, however, is that France, Germany, United Kingdom, and the Netherlands were also top EU exporters of raw sugar. Belgium also imported raw sugar from France, Germany, and the Netherlands, indicating that diverting trade from the Gambia to an EU partner would be unfeasible given the other exporters of raw sugar. What this brief case indicates is that EU sanction busting is driven not by, in this example, Belgium-Luxembourg's trade *from* the Gambia but instead on Belgium-Luxembourg's trade openness or possibly domestic pressure from agricultural interest groups as EC/EU policies have become more cohesive and integrated (Patterson 1997).

As intra-EU trade share has increased, the probability of sanctions busting by EU states has declined. These findings show intra-EU trade has a modest effect on the probability of sanctions busting. As the common market has become more accessible and rules more predictable, intra-EU trade share for EC/EU member states has increased, potentially making sanctions busting less attractive and more costly to member states. As Lisa Martin (1992, 1994) has shown in her study of EU sanctions during the Falklands War, the benefits of EU membership often outweighed trade and economic linkages with target states. Defection in the form of sanctions busting proved to be costly, and the benefits of engaging in such behavior provided little benefit, especially when making use of such benefits required unilateral action on the part of a member state. Such action could lead to consequences that could be more potentially damaging than the burden placed on EU states by the sanctions in the first place.

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