When It Is Not "Business as Usual": Petro-states and International Conflict*

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Abstract

While there is increasing recognition that petro-states are more aggressive than their counterparts in using military force to resolve interstate disputes, it remains unclear why economic dependence on oil revenue leads to such belligerence. I argue that to unravel this puzzle one must integrate insights from the resource curse and commercial peace literatures. The unique political economy of petro-states is explained by the Dutch disease phenomena: a strong demand for oil results in an overvalued currency and deindustrialization by reducing the competitiveness of domestic manufactured and agricultural goods. These effects are enhanced by nationalization of the petroleum industry, making the state the primary client for the service sector. Consequently, oil dependence results in a smaller and less influential private sector. This corresponds with the causal mechanism of the commercial peace, which asserts that the power of business interests incentivizes governments to avoid militarized conflict with economically interdependent states. Petro-states, however, are less constrained by these commercial elites. Therefore, the pacific effects of economic interdependence are absent in bilateral relationships that include a petro-state. Regression analyses confirm this thesis with respect to both militarized disputes with fatalities and on the overall severity level of interstate conflicts. The relationship between commercial elites and security policymaking is further illustrated through a case study of Venezuela's public-private sector relations and their impact on the Venezuela - Colombia rivalry. By integrating the domestic and international bargaining process, these results explain the link between oil dependence and the threat to interstate peace.

1 Introduction

Russia's hostilities against Georgia in 2008 and the Ukraine in 2014, as well as Venezuela's mobilization for war against Colombia in 2008–2010, highlight the significance of petro-states as a source of global instability. Until recently, natural resource abundance has been thought to increase the state's vulnerability to attacks by its neighbors. When it comes to oil abundance, however, petro-states are more likely to initiate militarized disputes rather than be the target of conflict.[1]

Given the consequences of these interstate conflicts, it is surprising that before 2010, research largely ignored the relationship between oil dependence and military aggression.[2] To the extent that oil was considered a factor of interstate conflict, it was assumed that petro-states were targeted for their oil reserves. Recently, two important studies — Colgan (2010, 2013) and Ross and Voeten (2015) — challenged the claim that oil dependent nations were involved in higher numbers of military conflict because they were being targeted for control over their resources. Instead, both studies seek to identify the aggressive characteristics of petro-states. At the domestic level, Colgan focuses on the personal characteristics of revolutionary government leaders and finds that export dependence on oil enhances the aggressive tendencies of these regimes. Ross and Voeten investigate the extent to which international economic variables explain petro-states lack of participation and cooperation in international organizations. They argue that the variation in the need to attract FDI and gain access to open markets alter petro-states' willingness to participate in international institutions.

Both of these studies base their arguments on the degree to which state aggression is being driven by export dependence on oil. In contrast, I assert that a nation's economic dependence

[1] See for example: Colgan (2010, 2013); Ross and Voeten (2015); de Soysa et al. (2009).

[2] Koubi et al. (2014) echo these sentiments in their review of the natural resource curse literature.

on petroleum revenue, whether it is being exported or not, results in a uniquely weak private sector vis-à-vis the state. This in turn alters the costs and benefits to petro-state leaders when deciding whether to use force to resolve an interstate dispute.

One striking fact of petro-state conflicts is that they often occur between economically interdependent countries. John Muller argued that Russia's seizure of Ukrainian territory in 2014 challenged the notion of the commercial peace as Putin's "foray in an area of deep economic interdependence doesn't seem to have been waylaid by potential economic cost considerations."[3] Like many proponents and critics of economic interdependence, Mueller makes the mistake of assuming that economic interdependence should have a uniform effect on interstate conflict. This perspective disregards the extent to which domestic economic and political institutions affect the degree of business influence on policymaking. I contend that economic dependence on oil weakens domestic commercial power, thereby nullifying the pacific effects of economic interdependence. Thus, one reason petro-states are more aggressive than their counterparts is that they are undeterred by economic interdependence, which is an important constraint on militarized conflict.

My argument draws on the causal logic of the commercial peace: when conflict threatens commercial interests, the business community influences foreign policy towards pacific resolution rather than militarizing the dispute. In oil dependent nations, however, the private sector tends to be smaller and less influential vis-à-vis the state. This is the result of the Dutch Disease, so named because it is based on the observed "impact of North Sea gas production on the Dutch economy."[4] Strong resource exports lead to an overvalued currency, which reduce the competitiveness of manufacturing and agricultural products with foreign imports, and results in the deindustrialization of the economy.[5] Consequently, this phenomenon shifts "the country's economic activities from the private sector to the govern-

[3]Mueller (2014)
[4]Karl (1997, p. 5).
[5]Ibid.

ment."[6] What remains of the private sector are largely service companies, which "depend on government contracts— for example, to build state-funded projects like roads, bridges, and hospitals, and provide services to the oil industry."[7] Thus, firm success is often determined by access to state resources. This dependence on the state reduces the ability of economic elites to affect foreign policy decisions. As a result, petro-state leaders lack the constraining influence of business interests from using military force to settle disputes with economically interdependent states.

I test this theory using two statistical models. The first model adapts a common variant of the commercial peace equation by examining the variation in oil dependence on the effectiveness of bilateral trade to reduce the likelihood of militarized disputes with fatalities. The second is a two-part model (2 PM) as described by Vance and Ritter (2014), which assesses these interactive effects on dispute severity. The appeal of this model over the standard logit is that it includes more information by evaluating all MIDs and their severity level. Moreover, it recognizes that the independent variables may have distinct effects on the probability of engagement in a dispute and the resulting level of hostility.

While the available quantitative data assesses the observable effects of theory, it is unable to directly evaluate the argument's causal logic. Therefore, I provide an in-depth case-study of Venezuela's public-private sector relations and their consequences on the Colombia-Venezuela rivalry. This study illustrates how the relative degree influence of commerce within each nation affected the foreign policy measures used to resolve their frequent interstate disputes.

These combined analyses demonstrate that a key reason that petro-states are aggressive international actors is that they are undeterred by economic interdependence from militarizing disputes. They also contribute to a greater understanding of how the domestic level political bargaining process impacts interstate relations.

[6]Ross (2012, Kindle Locations 1173–1174).
[7]Ibid, Kindle Locations 1180–1181.

2 Existing Literature

2.1 Targets or Agressors?

Jeff Colgan initiated a broader interest in the question of whether resource-backed aggression explained why petro-states — those nations whose "gross revenues from net oil exports... constitute at least 10 percent of annual GDP"— are involved in a disproportionate number of militarized disputes.[8] In contrast to previous research arguing that the control for oil resources likely made states which possessed large oil states targets of interstate wars, Colgan demonstrated that petro-states were much more likely to initiate militarized disputes than to be the target state.[9] Emily Meierding furthers Colgan's argument by challenging the assumption that states can benefit from oil wars. She identifies four overlooked "impediments to exploiting foreign oil: invasion costs, occupation costs, international costs, and investment costs."[10] Through a careful examination of four historical conflicts identified as oil wars,[11] Meierding finds that while "conflicts may occur in oil-rich territories... these are not wars for oil."[12]

The strongest rebuttal to the arguments put forth by Colgan and Meierding is from Francesco Caselli et al. who find a high risk of conflict "where only one country of the pair has oil and this oil is close to the border."[13] Kenneth Schultz, however, argues that the result in Caselli et al. is "driven by a number of false positives: dyads in which the disputed territory does not encompass the oil near the border."[14] For example, he finds that within Caselli et al.'s own data "many of the most conflict-prone dyads with oil near the border were not, in fact,

[8] Colgan (2010, p. 676).
[9] Ibid.
[10] Meierding (2016, p. 262)
[11] "Japan's invasion of the Dutch East Indies (1941– 42), Iraq's invasion of Kuwait (1990), the Iran–Iraq War (1980–88), and the Chaco War between Bolivia and Paraguay (1932–35)."
[12] Ibid.
[13] Caselli et al. (2015, p. 304)
[14] Schultz (2015, p. 3).

fighting about oil: for example, India–Pakistan, Israel–Egypt, Israel–Syria, Russia–Japan, and Armenia–Azerbaijan. Indeed, in some of these cases, the disputed territory does not overlap with the oil deposits."[15] Instead, Schultz demonstrates that "disaggregating territory into fifty-kilometer square grid cells reveals that cells that provide access to oil are, if anything, less likely to be part of dispute than cells without oil."[16] Evidence from several multinomial models support Schultz's conclusion "that that the grid cells located on top of onshore deposits are associated with a lower probability of a dispute, while grid cells that give access to offshore oil or that sit on a path to oil are neither more nor less likely to be implicated in a claim than those that do not."[17]

With the exception of the study by Caselli et al., the above work calls into question the logic that it would be cost effective for challengers to attack their territorial rivals in order to gain control over oil resources. Colgan finds that the petro-states initiate interstate conflicts at "a rate 94 percent higher than that of nonpetro-states."[18] Meierding provides in depth qualitative evidence that the four wars most commonly thought to be over petroleum resources were instead about security needs and national survival. Finally Schultz, points out that conflict over disputed territories usually only encompass a small portion of that area of land. He finds that territories that contain oil are less likely to the target of an interstate dispute.

This section supports the theory that the phenomena under investigation — the propensity of petro-states to be involved in a militarized dispute — is not an artifact of being targeted for their natural resources, but is instead driven by their higher likelihood to use military force to resolve interstate conflicts.

[15]Ibid, p. 17.
[16]Ibid, p. 3.
[17]Ibid, p. 19.
[18]Colgan (2010, p. 664).

2.2 Revolutionary Leaders and Personalist Dictatorships

Colgan theorizes that petroleum revenue does not inherently cause petro-states to be aggressive, asserting "the net impact of oil on a country... depends critically on its domestic politics, especially the preferences of its leaders."[19] Accordingly, his central inquiry is to determine why some petro-states are more aggressive than others.

One way in which oil income may encourage aggressive foreign policy is by reducing the risk of domestic punishment for state leaders. Colgan explains that this revenue is often used to lower tax rates while allowing for high public spending. It also reduces the opportunities for public opposition by creating relationships "based on political subordination in exchange for material rewards."[20] In addition to decreasing domestic accountability, oil income may be used to upgrade the state's military capabilities, as "petrostate spending on military expenditure, as a percentage of GDP, is considerably higher than it is in non-petrostates."[21]

States with revolutionary governments tend to be substantially more aggressive than their counterparts. Colgan argues that this is due to the type of leadership that emerges from these governments. These leaders are "likely to have greater risk acceptance for achieving their desired political outcomes."[22] Revolutionary governments also result in "the removal of domestic political and institutional constraints."[23] Oil income increases the revolutionary leader's autonomy and reduces the possibility of being removed from office for foreign policy decisions.[24] Therefore, Colgan's thesis is that the militaristic orientation of revolutionary governments interacts with oil income to increase the likelihood that a revolutionary petro-state will initiate a militarized dispute.

[19]Colgan (2014a, p. 198).
[20]Colgan (2013, Kindle Locations 723–728).
[21]Colgan (2010, p. 669).
[22]Ibid, p. 666.
[23]Ibid, p. 676.
[24]Ibid, p. 670.

Colgan admits that his classification of revolutionary governments does not entirely encapsulate the aggressive leadership he theorizes about. In particular, Russia is a significant outlier. Colgan notes "Russia's democratizing revolution under President Boris Yeltsin in 1990–91 did not generate an overly aggressive government."[25] Later in a blog post on Russia's current military conflicts, he explains that while "Putin is not a revolutionary leader... that is not a necessary condition for having aggressive preferences."[26]

With respect to the methodological design of his study, Colgan argues that in order to be consistent with his theoretical elements, he bases his definition of oil income on oil exports. His argument, however, actually relies on the revenue accrued by oil more generally. The aggressiveness of revolutionary governments is enhanced by petroleum revenue's effect on increasing state autonomy and regime stability.

Colgan's reasoning for using a dichotomous measure is more problematic. He asserts that the assumption "that a state that has a higher measured value is 'more of a petrostate' than a state that has a lower value" is unwarranted.[27] If oil revenue reduces domestic accountability and boosts military spending, however, higher proportions of oil income to GDP should increase the likelihood of petro-aggression. Although he does not provide the results, Colgan claims that alternative operationalizations of this variable does not substantively alter his findings.[28]

Overall, Colgan makes a significant contribution to the literature on petro-states by demonstrating that the interaction of oil income with domestic variables affects the international behavior of petro-states.

[25]Ibid, p. 683.
[26]Colgan (2014b).
[27]Colgan (2013, Kindle Locations 1292–1293).
[28]Ibid, Kindle Locations 1297–1299.

2.3 Petroleum Exports and International Cooperation

Michael Ross and Erik Voeten highlight how petroleum revenues may alter incentives for international cooperation by investigating why petro-states are less likely to join international organizations. They argue, "oil wealth weakens two economic incentives that normally compel states to participate in international institutions: the need to attract foreign direct investment (FDI) and the need to gain access to foreign markets."[29]

Joining international institutions are costly commitments because they compel "states to make policy compromises or relinquish a portion of their sovereignty."[30] Countries are willing to incur these costs in exchange for economic advantages as these institutions help "states realize gains from trade and attract FDI."[31] Petro-states are not similarly incentivized to join these institutions given that, despite the risk of their assets being expropriated by the state, the strategic importance of oil and the "exceptional profitability of many petroleum-sector investments" guarantee the flow of FDI into the country.[32] Additionally, the low elasticity of petroleum allows oil exporters "to gain access to foreign markets without granting reciprocal access to their trade partners, giving them less incentive to make costly commitments to broader trade regimes."[33] Since other export sectors are significantly reduced in petro-states due to the Dutch disease phenomenon, there is little need for investment beyond domestic sources as well as access to foreign markets for these products.

Ross and Voeten argue that "a country's oil exports, rather than its overall oil production, inhibits cooperation."[34] Attracting FDI, however, should be based on oil production opportunities rather than the ratio of the state's exports. For example, Iraq is not currently exporting much oil, but it is attractive to investors by offering favorable FDI terms. Adjust-

[29]Ross and Voeten (2015, p. 85)
[30]Ibid, p. 86.
[31]Ibid.
[32]Ibid, p. 87.
[33]Ibid, p. 88.
[34]Ibid, p.89.

ing for cases like Iraq is unlikely to substantively alter Ross and Voeten's empirical results. Theoretically, however, this distinction is significant.

My theory, described in the following section, differentiates itself from these previous studies by asserting that a key explanation for the increased probability of militarized conflict by petro-states is determined by the proportion of the economy dependent on oil revenues. The state's ownership of these resources limits commerces' pacific influence on foreign policy decisions. Notably, this effect holds even between countries with substantial trading relationships not involving oil exports. This causal process will be explored in greater detail in the case study of Venezuela and its rivalry with Colombia.

3 Theory

I argue that states dependent on oil revenue are involved in a higher proportion of militarized conflicts because they are not deterred by the costs incurred from a rupture in bilateral trade with interdependent partners. The theoretical foundation of this argument is rooted in the manner in which oil revenue affects the relative power between business elites and the state. In this section, I first demonstrate how the unique properties of oil revenue result in a smaller and less influential private sector relative to non-petrostates. Then, I explain how the influence of business vis-à-vis the state incentivizes non-military responses to disputes with economically interdependent partners. Finally, I clarify my definitions of conflict and petro-states use in both the quantitive and qualitative analyses.

3.1 Oil and the Private Sector

The well-known phenomenon of the Dutch Disease explains why oil dependent economies have smaller and less influential private sectors. Abundance in natural resource production causes a decline in the manufacturing and agricultural sectors. One reason is due to "the 'resource movement effect': as the resource sector booms, it draws labor and capital away from the agricultural and manufacturing sectors and raises their production costs."[35] The decline of these sectors is also the result of "the 'spending effect': as money from the booming resource sector enters the economy, it raises the real exchange rate. A higher real exchange rate makes it cheaper to import agricultural and manufactured goods than to produce them domestically."[36]

The more oil a country produces, the greater the size of the government as a fraction of the country's economy.[37] Business power is further reduced when the government owns and operates the petroleum industry, which is the case for nearly all petro-states since the 1970s.[38] The large income, accrued directly from oil and natural gas, frees these governments from having to rely on tax revenues, reducing the influence of societal interest groups. Furthermore, these factors distort commercial markets so that business success is not based on economic competition but instead depends on cultivating access to government goods.

This causal chain is explained in a more general sense by Patrick J. McDonald, who asserts that "governments possessing access to large quantities of public property are more likely to engage in military conflict than governments overseeing more privatized economies."[39] The financial autonomy gained by public assets "enables governments to redistribute pub-

[35]Ross (2012, Kindle Locations 1148–1149).
[36]Ibid, Kindle Locations 1149–1151.
[37]Ross demonstrates this relationship in Figure 2.2, which "displays the oil incomes of 134 countries (on the horizontal axis), and the estimated size of their governments, as a fraction of their country's economy (on the vertical axis). As the upward-sloping line indicates, the more oil a country produces, the larger its government" (Ibid, Kindle Locations 845–847).
[38]Mahdavi (2014, p. 228).
[39]McDonald (2009, p. 17).

licly owned wealth within the economy toward political supporters (members of the winning coalition), tie significant portions of society to their survival in office and prevent the emergence of active opposition to its policies."[40] Reducing the size of the private sector is critical as "domestic economic sectors capable of surviving open competition from foreign producers generally support restrained national interests and cooperative foreign policies."[41]

Empirically, there have been few attempts to measure the size of the private sector. A notable exception is "How Large Is the Private Sector in Africa?" by Stampini et al..[42] Using detailed national account data to measure the size of the private sector, they find "that the African private sector is relatively large, with a few outliers concentrated amongst resource rich countries."[43] These outliers tend to be oil-exporters: "Algeria, Angola, Equatorial Guinea, Libya and Nigeria."[44]

3.2 The Commercial Peace

Like Ross and Voeten, a core component of my theory is based on the commercial peace thesis: economic interdependence reduces militarized conflict and promotes international cooperation. The former argue that oil exports are distinctly different from trade in other goods. In contrast, I theorize that the increased aggressiveness of petro-states is due to the impact of oil dependence on public-private relations at the domestic level, resulting in reduced commercial influence on foreign policy.

Although there are some detractors of the commercial peace thesis, the majority of studies have found a robust relationship between economic interdependence and a reduced proba-

[40]Ibid, p. 57.
[41]Ibid, p. 48.
[42]Stampini et al. (2013).
[43]Ibid, p. 2.
[44]Ibid, p. 24.

bility of militarized disputes.[45] While economic interdependence has been most commonly operationalized as international trade, other forms of economic ties, such as FDI and monetary coordination have also substantiated the commercial peace.[46] Similarly, research on trade networks and conflict have found a positive relationship between economic ties and reduced militarized violence.[47]

The mechanism responsible for the pacific effects of economic interdependence is the influence of the business community on foreign policy decisions.[48] Therefore, variation in the effectiveness of economic interdependence to deter conflict should be driven by the degree of domestic business power. Within this context, I argue that petro-states are not deterred from the use of military force to settle disputes with economically interdependent partners, because oil revenue reduces commercial influence on national policy.

3.3 Definitions

3.3.1 Petro-states

I define oil dependence as total oil and gas revenue as a share of the total economy (GDP).[49] Table 1 lists oil producing states at distinct thresholds of oil dependence. Conventionally speaking, few would refer to Canada and Argentina, as well as the other states at the 10% level, as petro-states. Rather, it is around 20% to 30% of oil dependence that one begins to observe the unique characteristics that the literature associates with petro-states. This threshold will be shown to be substantively significant in the empirical portion of this paper.

[45] Comprehensive literature reviews can be found in Mansfield and Pollins (2009); McMillan (1997); Schneider and Barbieri (2003).

[46] See for example, Bussmann (2010); Gartzke et al. (2001); Kim (2013); Lee and Mitchell (2012); Polachek et al. (2011); Rosecrance and Thompson (2003); Suzuki (1994).

[47] For example, Dorussen and Ward (2010); Jackson and Nei (2015); Kinne (2012); Lupu and Traag (2013); Maoz (2009); Souva and Prins (2006).

[48] Fordham and McKeown (2003); Fordham and Kleinberg (2011); Kleinberg and Fordham (2013).

[49] Oil and gas revenue are from Ross (2013).

Table 1: Oil Dependent Countries

Oil Dependence	Country	Oil Dependence	Country
90%	Algeria	**30%**	Egypt
	Angola		Indonesia
	Bahrain		Norway
	Equatorial Guinea	**20%**	Ecuador
	Kuwait		Mauritania
	Libya		Malaysia
	Oman		Mexico
	Qatar		Papua New Guinea
	Saudi Arabia		Sudan
	Turkmenistan	**10%**	Argentina
	Trinidad and Tobago		Canada
	United Arab Emirates		Ivory Coast
	Uzbekistan		China
	Yemen		Colombia
80%	Gabon		Vietnam
	Iraq		Pakistan
70%	Gabon		Vietnam
	Nigeria		Suriname
60%	Bolivia		Tunisia
	Kazakhstan		Ukraine
50%	Azerbaijan		
	Chad		
	Russia		
	Venezuela		

3.3.2 Conflict

The literature on interstate disputes often fails to agree on the meaning of conflict. International conflict can occur on a variety of levels, including trade disputes, diplomatic disagreements, and unintentional border violations. Increased interaction through commercial exchanges may actually increase non-violent interstate disputes. This study is specifically concerned with the militarization of disputes that could develop into war. The use of military force is an important threshold in international relations as it is at this point that "diplomacy becomes more actively coercive... there is a perception of a heightened risk of war, and the emotional climate of decision-making becomes increasingly clouded by hostility and fear."[50]

4 Research Methods

The hypothesis that petro-states are not deterred by economic interdependence from using military force is tested with two regression models. The first model adapts the typical commercial peace logit regression on the probability of militarized disputes with fatalities. There is a substantial loss of information, however, by looking at only fatal militarized conflicts. Therefore, the second approach is a two-part model (2PM), which is similar to Heckman and Heckit selection models, but does not require an exclusion restriction. This model allows for the analysis of the distinct effects on the severity of the militarized dispute, while accounting for the variables' influence on the onset of conflict.

As it is difficult to directly observe these mechanisms, the regression models are followed by a case study of Venezuelan relations with Colombia in order to further demonstrate the plausibility of my argument. The first part of the study focuses on how oil production

[50] Hensel (1994).

in Venezuela shaped the political economy in determining state relations with the private sector. The second part examines Hugo Chávez's counterintuitive decision to initiate a high intensity militarized dispute with its second most important trading partner — Colombia, ending the mutually beneficial trading relationship for both countries.[51]

5 Regression Results

5.1 Data and Model Specification

In order to assess the theoretical expectations of my argument, this section tests the following hypothesis:

> **Higher levels of oil dependence will reduce the effectiveness of economic interdependence to decrease the likelihood of a high intensity militarized conflict.**

The significance of the variation in oil dependence on the pacific impact of bilateral trade is examined with two models: a logit model for the probability of a militarized dispute with fatalities and a 2 PM specification that tests these effects on the severity of the dispute.

The dependent variable for both models are taken from the Correlates of War (COW) Militarized Interstate Disputes (MIDs) version 4.0.[52] These recorded incidents vary greatly in the degree of military violence — from unreciprocated disputes to full scale wars. In order to select only those conflicts with serious hostilities on both sides, the first model uses a

[51] Notably, each country was each other's largest trading partner of non-commodity goods, lending support to my argument that it is not the composition of the exported goods but the domestic transformation based on oil dependence that drives the aggressiveness of petro-states.

[52] Palmer et al. (2015).

dichotomous indicator for the occurrence of a militarized dispute with at least one fatality. The advantage of doing so allows for these results to be comparable to other studies on the determinants of interstate conflict.

Yet, many serious confrontations with the potential for war do not result in fatalities. Moreover, there is a loss of information when interstate disputes are assessed on a binary level rather than along a range of severity. Typically scholars have operationalized dispute severity according to the highest level of violence used. One problem with this approach is that unreciprocated disputes are often considered as quite severe, even though they typically involve fishing boats and minor border violations. An alternative is a scale that incorporates a measure of each state's highest actions. The MID dataset details the behavior of each state along a 5-point level of hostility (LOH) scale, in which "1 is no militarized action, 2 is the threat to use force, 3 is the display of force, 4 is the use of force, and 5 is war."[53] Diehl and Goertz[54] develop an interval scale—the baseline rivalry level (BRL)—that combines the LOH with the fatality level for each state in the dispute "so that the nonfatality cases are of lower severity than the conflicts with fatalities."[55]

One complication with analyses of dispute severity is the possibility of selection bias. Given that these analyses are restricted to conflicting states, they "do not employ a random or representative sample."[56] The solution, used by most scholars, has been a Heckman selection model, which requires an exclusion restriction — the determination of variable(s) that should effect the onset of conflict, but not their severity. For example, Braithwaite and Lemke use contiguity, rivalry, and minor-minor status to identify conflict onset.[57] Sweeney (2003) selects allies. Yet none of these variables can be theoretically justified. When this is the case, Brandt and Schneider argue that:

[53]Sweeney (2003, p. 737).
[54]Diehl and Goertz (2001, pp. 281–298)
[55]Sweeney (2003, p. 737).
[56]Braithwaite and Lemke (2011, p. 114).
[57]Ibid.

> the 'cure' may be worse than the 'disease.' In other words, scholars should not ingenuously refer to a selection model just because they face problems of missing covariates, strategic interactions, and non-random data—instances in which they (or others) think that selection models may be necessary—since the appropriateness of a selection model and the quality of the results are highly sensitive to the identification of the selection process itself.[58]

Vance and Ritter argue that the solution to this identification problem is the two-part model (2 PM).[59] Not only does the 2 PM not require exclusion restrictions, but it may also do a better job in addressing inquiries for which "censoring of the dependent variable raises concerns of sample selectivity bias."[60] An additional advantage of this model is that the "results from the 2 PM are interpreted in terms of actual outcomes," rather than potential outcomes.[61] Thus, my second model—2 PM—tests the hypothesis that the degree of oil dependence alters the effectiveness of bilateral trade to reduce the severity of conflict, as measured according to the BRL scale.

5.2 Independent Variables

BILATERAL TRADE: is the natural log of the total trade flow between a dyad.[62] Given that the model also includes the natural log of both states' GDP, this variable is essentially equivalent to the measurement of trade dependence (total trade divided by the higher GDP of the two nations). Additionally, it avoids confounding the effects of trade and economic size on the probability of conflict.[63]

[58] Brandt and Schneider (2007, p. 5).
[59] Vance and Ritter (2014)
[60] Ibid, p. 528.
[61] Ibid, p. 529.
[62] All monetary values are in current US$. Data is from Barbieri and Keshk (2012).
[63] For a more detailed explanation see: Hegre et al. (2010, p. 768), Keshk et al. (2004, pp. 1164–1165).

OIL DEPENDENCE: is the value of oil and gas revenues divided by GDP from the state whose economy is most dependent on oil revenues. The state within a dyad that is most dependent on oil revenues should have the least influential private sector. Therefore, if the theory is correct, this value should have the largest impact on the effectiveness of trade to reduce the probability of conflict.

5.3 Control Variables

The model specification is adapted from Hegre et al. (2010); Oneal and Russett (2005) because most of the literature on conflict onset and escalation are based on Oneal and Russett models. Moreover, these variables have been shown theoretically and empirically to be significant predictors of militarized disputes.

GDP:[64] As mentioned above, the natural log of each states GDP are included in the model. They are represented according to the lower and higher value.

Lower and higher democracy: are the Polity scores for each state.[65]

Probability of Winning and National Capacity: are both based on Composite Index of National Capacity (CINC) score (version 4.0).[66] This index attempts to capture a nation's capacity for military conflict through measurements of a state's iron and steel production, military expenditures, military personnel, primary energy consumption, total population, and urban population. The probability of winning is the larger CINC value divided by the sum of both states' scores. This provides an indicator of the balance of power between the states as "conflict should be less likely when capabilities are closer to equal."[67] The model

[64]Data are from Feenstra et al. (2013), Maddison (2010).
[65]Marshall and Jaggers (2002)
[66]Singer (1988).
[67]Bennett and Stam (2000, p. 669).

also includes the natural log of the higher CINC score, because "the larger state is the weak link in the chain of peaceful dyadic relations [as] it is less constrained in projecting military power."[68]

Contiguity: is a dichotomous indicator of whether the states in a dyad share a common border.[69] Shared borders greatly increase the propensity towards conflict.

Distance: is the natural log of the distance between the capitals of both countries. This value accounts for transportation costs of projecting military power further from home as well as the degree of political relevance between pairs of states.[70]

Alliances: denote whether the states have at least one formal alliance.[71]

Additionally, temporal dependence is adjusted for with a cubic spline for peace years as described in Beck et al. (1998). These coefficients are not reported in the results below.

5.4 Results

5.4.1 Militarized Disputes with Fatalities

- Table 2 reports the logit coefficients for the probability of a militarized dispute with fatalities. Equation 1 is the standard commercial peace model. Bilateral trade falls just outside of a 95% confidence interval. The interaction of trade and oil dependence in Equation 2 tests the hypothesis that the lack of business power in oil dependence states reduces the effectiveness of economic interdependence at deterring conflict. In this equation, bilateral trade gains substantive and statistical significance, suggesting that accounting for the variation in

[68] Hegre et al. (2010, p. 768).
[69] Stinnett et al. (2002).
[70] Hegre et al. (2010, p. 766).
[71] Gibler and Sarkees (2004).

Table 2: Fatal Militarized Disputes

	(1)	(2)
Bilateral Trade_{ln}	-0.062^{+}	-0.094*
	(0.034)	(0.037)
Higher Oil Dependence		-1.239*
		(0.533)
Bilateral Trade_{ln} * Higher Oil		0.216^{+}
		(0.112)
Smaller GDP_{ln}	0.211**	0.235***
	(0.068)	(0.068)
Higher GDP_{ln}	-0.033	-0.009
	(0.106)	(0.105)
Lower Democracy	-0.121***	-0.125***
	(0.018)	(0.018)
Higher Democracy	0.028*	0.021^{+}
	(0.012)	(0.012)
Higher $\text{Capability}_{\text{ln}}$	0.687***	0.647***
	(0.094)	(0.097)
Probability of Winning	-2.608***	-2.453**
	(0.752)	(0.769)
Contiguity	1.591***	1.537***
	(0.231)	(0.231)
$\text{Distance}_{\text{ln}}$	-0.477***	-0.492***
	(0.089)	(0.090)
Alliances	0.525**	0.585**
	(0.191)	(0.194)
N	280626	280626
Dyads	11024	11024
Log-likelihood	-2191.480	-2183.499

Standard errors in parentheses

Omitted: peace years and splines

$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < .01$, *** $p < .001$

domestic business power strengthens the commercial peace argument.

The interaction coefficient for bilateral trade and oil dependence falls just outside statistical significance. This value, however, is insufficient information as to whether there is a substantively meaningful interaction among the independent variables.[72] One method to determine the significance and substantiveness of the interaction is to plot "how the marginal effect of one variable on Pr(Y) varies with the value of another variable."[73]

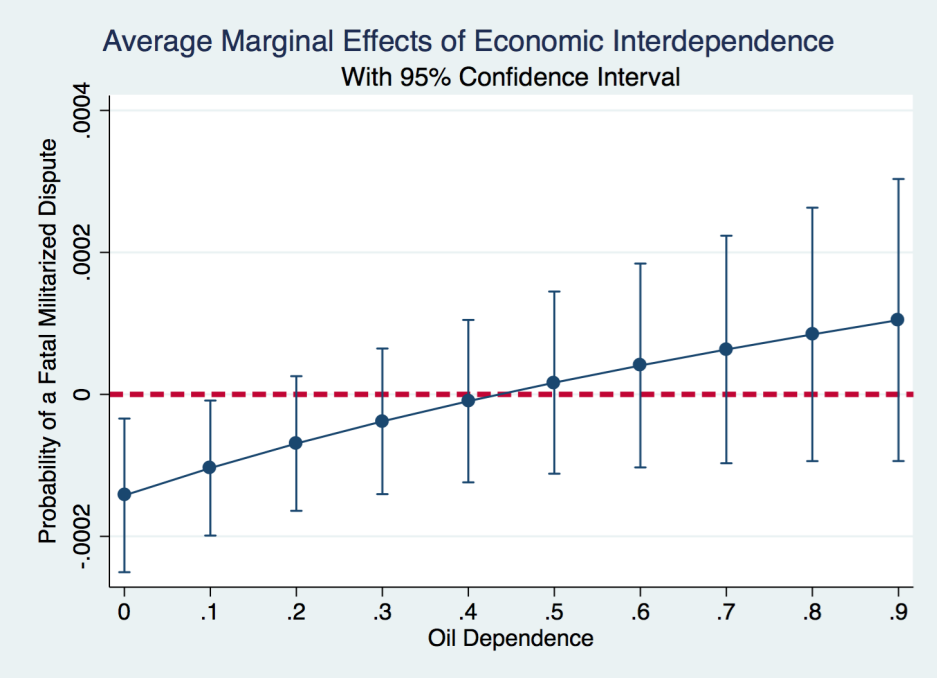

Figure 1: Marginal Effects

Figure 1 shows the marginal effect of bilateral trade on the probability of a militarized dispute with fatalities at various levels of oil dependence. The impact of economic interdependence becomes statistically insignificant when either state is more than 20% dependent on oil revenues.[74]

[72] Berry et al. (2010, p. 257).
[73] Ibid, p. 261.
[74] Although these effects appear quite small, they are substantively important given the rarity of a fatal militarized dispute for all dyads. For this sample there were 449 fatal conflicts out of 280,626 observations.

5.4.2 Hostility Level of Militarized Disputes

- The results of the 2 PM are reported in Table 3. Once again equation 1 is the commercial peace argument. In part one, bilateral trade has no affect on the onset of conflict. In part two, however, economic interdependence significantly reduces the hostility level. This result echoes other findings suggesting that trade may actually increase low level disputes but reduce violent militaritarized conflicts.[75] The interaction of trade and oil dependence in equation 2 is not quite significant in either part of the model. Figure 2, however, demonstrates that oil dependence has a meaningful influence on the pacific effectiveness of bilateral trade.

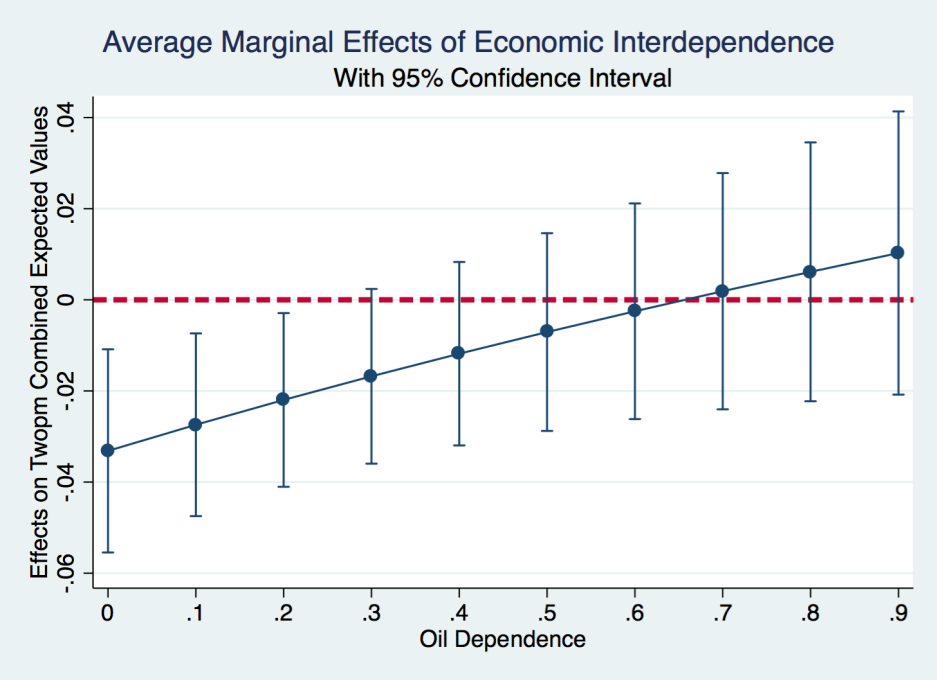

Figure 2: Marginal Effects

The results are quite similar to the logit model. Higher levels of oil dependence – 30% in this analysis — reduce the impact of bilateral trade on conflict severity to statistical insignificance. Thus, we can have even greater confidence that the corresponding decrease

[75]See for example, Crescenzi (2005); Gartzke and Westerwinter (2016); Massoud and Magee (2012); Pevehouse (2004).

Table 3: Severity Level of Militarized Disputes

	(1)	(2)
LOGIT		
Bilateral Trade_{ln}	0.001	-0.019
	(0.024)	(0.028)
Higher Oil Dependence		-0.628^{+}
		(0.361)
Bilateral Trade_{ln} * Higher Oil		0.111^{+}
		(0.065)
Smaller GDP_{ln}	0.113*	0.127**
	(0.045)	(0.046)
Higher GDP_{ln}	-0.004	0.008
	(0.059)	(0.059)
Lower Democracy	-0.077***	-0.079***
	(0.009)	(0.009)
Higher Democracy	0.014	0.010
	(0.008)	(0.009)
Higher $\text{Capability}_{\text{ln}}$	0.495***	0.479***
	(0.056)	(0.058)
Probability of Winning	-2.044***	-1.974***
	(0.445)	(0.451)
Contiguity	1.750***	1.731***
	(0.154)	(0.156)
$\text{Distance}_{\text{ln}}$	-0.360***	-0.366***
	(0.056)	(0.056)
Alliances	0.478***	0.507***
	(0.125)	(0.126)
REGRESS		
Bilateral Trade_{ln}	-4.564***	-5.128***
	(1.209)	(1.247)
Higher Oil Dependence		-11.735
		(8.156)
Bilateral Trade_{ln} * Higher Oil		2.938
		(1.947)
Smaller GDP_{ln}	0.173	0.454
	(2.182)	(2.172)
Higher GDP_{ln}	-2.870	-2.872
	(2.193)	(2.169)
Lower Democracy	-0.776^{+}	-0.756^{+}
	(0.428)	(0.417)
Higher Democracy	0.655^{+}	0.611^{+}
	(0.357)	(0.361)
Higher $\text{Capability}_{\text{ln}}$	5.523^{+}	5.479^{+}
	(3.314)	(3.295)
Probability of Winning	-29.310	-28.481
	(21.809)	(21.907)
Contiguity	-4.428	-3.742
	(6.569)	(6.553)
$\text{Distance}_{\text{ln}}$	1.472	1.634
	(3.292)	(3.253)
Alliances	7.417	7.468
	(5.306)	(5.327)
N	280626	280626
Log-likelihood	-1.32e+04	-1.32e+04

Clustered standard errors in parentheses
Omitted: peace years and splines
$^{+}$ $p < 0.10$, * $p < 0.05$, ** $p < .01$, *** $p < .001$

in private sector influence with higher levels of oil dependence reduces the effectiveness of bilateral trade to lower the probability of serious conflict between states.

5.4.3 Discussion of results

Both models support the hypothesis that petro-states are involved in a greater number of international disputes because they are unconstrained by the commercial incentives that encourage peaceful conflict resolution. They do so by demonstrating that oil dependence nullifies the effectiveness of economic interdependence to deter higher severity levels of militarized conflict. The pacific effects of bilateral trade disappear in dyads with at least one petro-state, defined as those nations whose economy is greater than 20% dependent on oil and gas revenues.

In addition to supporting the hypothesis on the interactive effects of oil dependence and bilateral trade, the 2 PM demonstrates the strength of the commercial peace given the magnitude of economic interdependence's effects on reducing the hostility level of a given conflict. By distinguishing trade's lack of impact on the onset of a dispute from its substantive ability to reduce the escalation of hostilities, this model allows for a more nuanced version of the economic interdependence thesis. A better specified theory takes into account that increased interaction through trade may lead to more non-violent conflict while significantly decreasing the overall risk of severe militarized disputes. Moreover, given that the magnitude of bilateral trade's effect is even higher when controlling for the impact of oil dependence further confirms that the causal mechanism of economic interdependence is private sector influence on foreign policy. This is illustrated in greater detail in the following case study of Venezuela.

6 Venezuela as a Petro-state

6.1 The Political Economy of Oil

The large share of oil revenues that make up Venezuela's economy typifies how the natural resource curse leads to a classic rentier state that deprives the private sector of leverage in policymaking. As the Dutch Disease predicts, the expansion of oil in the 1920s led to a reduction of the agricultural and manufacturing industries. Along with the overvaluation of the currency, this resulted in "traders [losing] their profitable export business and [having] to rely on imports, using the state as the source of foreign exchange."[76] Thus, as far back as the 1920s, Venezuela's political economy was defined as one in which "the state had the resources to provide something for everyone, and the private sector had ample access to the flow of benefits."[77]

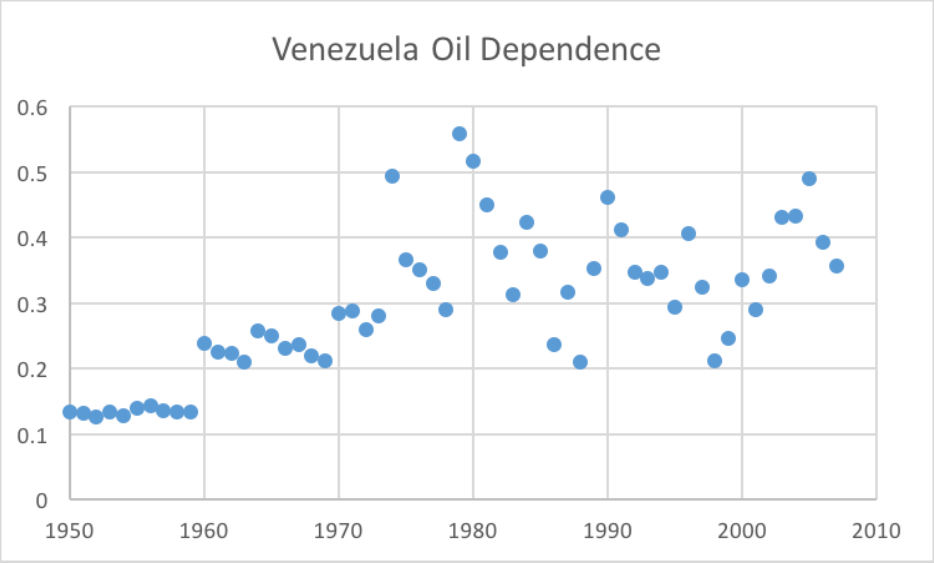

Figure 3: Venezuela

Business success, therefore, was not based on market competition, but rather on establishing relationships to the government to obtain access to state resources. Given that "profits were

[76]Thorp and Durand (1997).
[77]Ibid, p. 230.

dependent on appropriate decisions by bureaucrats or party leaders... businessmen became commensurate lobbyists."[78] Unsurprisingly, this made corruption an integral part of politics as "political leaders used their influence to reward financial contributors to their campaigns with these lucrative deals."[79]

This situation generated a relationship in which the state holds most of the power vis-à-vis the private sector. As a result, the business community has limited commercial influence on public policy. Gabriela Febres-Cordero, former Venezuelan Minister of Trade from 1989–1992, described the business community as beggars, needing the state to survive.[80] The weakness of commerce to influence policy was reflected in President Carlos Andrés Pérez's ill-fated experiment with economic openness and market competition. Ironically, while the goal of this plan was to decrease economic dependency on oil by growing the private sector through privatization and trade liberalization, the policy had no real input from commercial interests. Febres-Cordero explained that this resulted in the perception that the new system would just give greater privileges to those already in power. The business community, already weak in terms of cohesiveness, fractured further as groups vied "for control over raw materials, financing, and distribution channels."[81]

Another aspect of the growing dysfunction in Venezuela public-private sector relations was the long economic depression that had begun in 1974. It was in this context that Hugo Chávez's populist appeal won the presidency. Despite his rhetoric, many in the private sector were cautiously optimistic regarding the election of Chávez, believing that he, like many other left populist leaders, would adopt pragmatic, marketed-oriented policies.

Chávez's early economic policies were, in fact, pragmatic rather than ideological. On his cabinet he maintained "the well-regarded finance minister from Caldera's team, Maritza

[78]Ortiz (2006, p. 76).
[79]Gates (2012, p. 245).
[80]Interview with author: 2015.
[81]Di John (2010, p. 120).

Izaguirre," and undertook "an orthodox macroeconomic management" of public expenditures.[82] More importantly, Chávez did not appear to have "any intention to increase the share of the State in the Venezuelan economy in these years."[83] Throughout this period, however, Chávez took steps that gradually further eroded the power of business to shape public policies. By 2002, only one of the five hundred largest Latin American companies was owned and operated by Venezuelans.[84]

The 1999 constitutional reform greatly expanded the powers of the president, eliminated the Senate, and eroded any constraints on the executive. This increased the stakes of holding power and removed the opposition from "any means to influence policy."[85] Although the next two years were characterized by a tense and uneasy relationship between the Chávez government and the business community, commercial interests did not grow truly concerned until 2001 with the passage of a "package of forty-nine laws. . . .that dramatically increased state intervention in the economy."[86] It was not only the content of these laws that enraged economic elites but also the fact that the entirety of Venezuelan civil society had been excluded from any discussion of the state's expanded role in the economy.

The private sector along with other excluded civil society groups took several steps to reduce or remove Chávez's grip on power. In April 2002, Pedro Carmona led a brief coup, but Chávez was restored to power in less than 72 hours. Later that year, workers and managers of PDVSA led a three-month strike. Chávez responded by firing "nearly 60 percent of the PDVSA personnel, including most managers, and assigned control of the oil industry to the military."[87] In 2003, the opposition was able to demand a recall referendum. With popularity ratings under 40%, Chávez took advantage of the rise in the oil price, as well as the state's larger share of the revenues to launch his massive social spending initiatives. The

[82]Campello (2011, p. 143).
[83]Ibid.
[84]Ortiz (2006, p. 72).
[85]Corrales and Penfold-Becerra (2011, Kindle Location 518).
[86]Ortiz (2006, p. 88).
[87]Corrales and Penfold-Becerra (2011, Kindle Locations 603–604).

strategy worked and Chávez won 59% of the vote. With this victory Chávez had completely eliminated the private sector from the regime's "real selectorate" — "the group that actually chooses the leader."[88]

The following details how the complete elimination of business power in the second part of Chávez's presidency altered Venezuela's foreign policy with neighboring Colombia. Chavez broke decades of bilateral conflict management which had prioritized peace for the sake of Colombia and Venezuela's growing and mutually beneficial trading relationship. The distinct political economy of a petro-state is needed to understand Chavez's surprising decision to return the rivals to a state of military conflict, ending most interstate trade. This resulted in large costs to both economies, particularly Venezuela.

6.2 The Colombia - Venezuela Rivalry

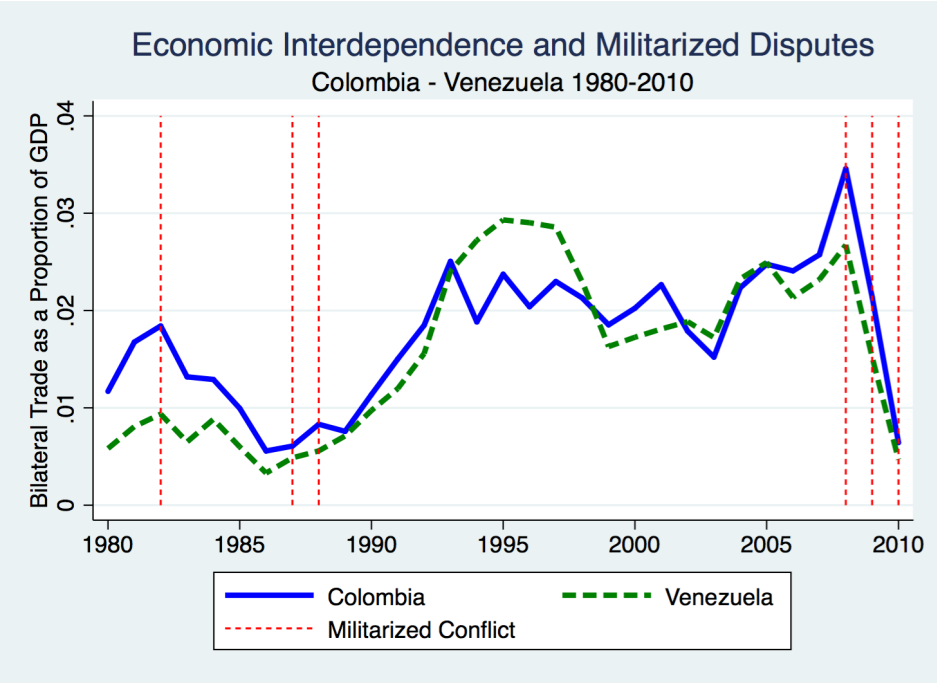

Figure 4: Economic Interdependence

[88]Bueno de Mesquita and Smith (2011, p. 5).

The alteration in Colombia – Venezuela relations is illustrated by examining two similar incidents involving the arrests of Colombia guerrilla leaders in Caracas – the first occurring in 2001 during Chávez's economically pragmatic years and the second in 2005 after Chávez's power had been consolidated.

6.2.1 2001

On February 13, 2001, Venezuelan and Colombian police made a joint arrest of Jose Maria Ballestas in Caracas. Ballestas was an ELN member wanted for the hijacking of a Colombian commercial airliner in 1999. It was expected that "two days later, on Feb. 15, Mr. Ballestas was to have been handed over at the Caracas airport to two Colombian agents, who were to have transported him there."[89] Therefore, it was with genuine surprise when just moments before Ballestas was to be flown to Colombia, "Venezuela's interior minister and Mr. Chavez's closest political adviser, Luis Miquilena, ordered the guerrilla's release, arguing that he had requested asylum."[90]

The Colombian government grew increasingly frustrated when Venezuelan officials denied knowledge of Ballestas's presence in Venezuela, forcing Colombia's defense minister, Luis Ramírez, to release a video of the guerrilla's arrest. In April, Venezuela rearrested Ballestas, charging him "with forging documents and assuming a false identity."[91] After months of unanswered phone calls from Colombia's Ministry of Defense, Venezuela finally extradited Ballestas in December.

Although the incident raised tensions between Colombia and Venezuela, trade remained the top priority. In March, just days after Colombia filed a formal extradition request for Ballestas, Colombian President Pastrana and Chávez held a bilateral meeting to discuss

[89]Forero (2001).
[90]Webb-Vidal (2005).
[91]BBC World Service (2001).

commercial issues. At the meeting, Pastrana "stressed the significance of the binational economy, which, according to him, had increased by more than 30 per cent. He added that in this regard, this figure is expected to exceed 40 per cent this year."[92]

6.2.2 2005

The situation in Venezuela was quite different in December 2004 when Rodrigo Granda, a senior member of FARC, was captured in Caracas and then "transported to Colombia, and arrested by Colombian officials."[93] Venezuela declared this incident to be a violation of its sovereignty and of international law, while Colombia accused Venezuela of "knowingly harboring Colombian guerrillas."[94] With the commercial sector fully excluded from policy at this point in his presidency, Chávez took the unprecedented action of suspending bilateral trade and business accords in January 15, 2005, demanding an apology from the Colombian government.

Initially, Colombian President, Álvaro Uribe insisted that the government had not been involved, rather "Mr. Granda was picked up inside Colombia and that his capture was the result of the offer of a monetary reward."[95] The suspension of trade and border closure immediately led to a sharp increase in petroleum prices in Colombia and shortages of foods and essential goods in Venezuela.[96] The economic shutdown forced Uribe to respond to "growing protests from his own commercial supporters" by conceding to Venezuelan's demand for an official apology.[97]

There are two significant points to note regarding the Granda incident. On the Colombian

[92]Sanchez (2001).
[93]Randall (2011, p. 148).
[94]Ibid.
[95]Webb-Vidal (2005).
[96]BBC Monitoring Latin America (2005).
[97]Raby (2011, p. 166).

side, economic interdependence worked according to the theoretical expectations. Business elites, suffering from the costs of the suspension in trade effectively pressured President Uribe to give into Venezuela's demand for an apology in order to quickly restore trade. In Venezuela, however, the lack of private sector influence enabled Chávez to politicize the trading relationship. This was just a prelude, however, to the confrontations that lay ahead.

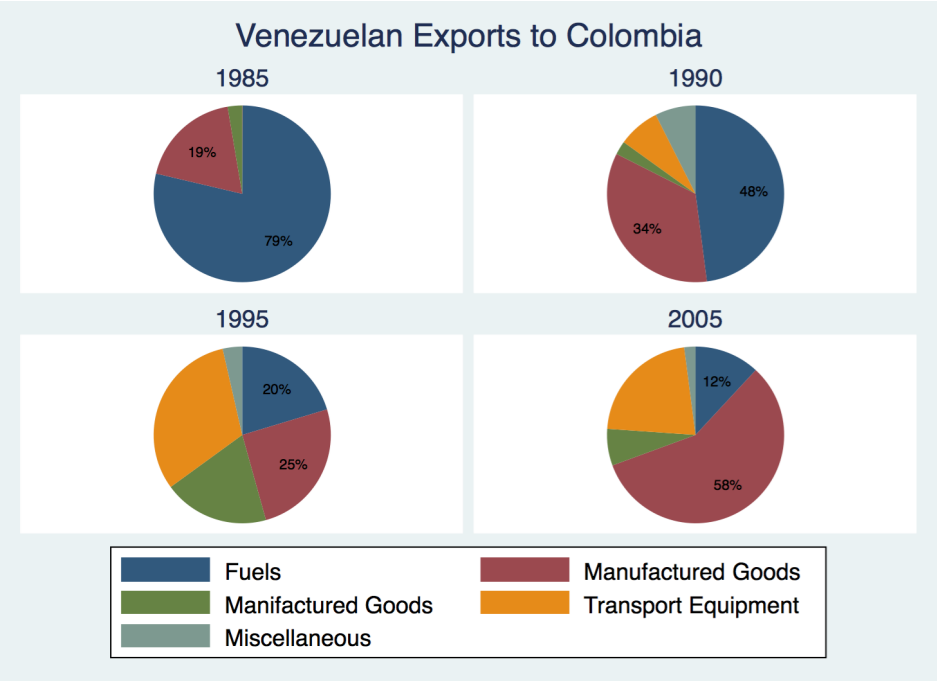

Figure 5: Venezuela Exports to Colombia

6.2.3 From Economic Interdependence to Threats of War

A new low in Colombia - Venezuela relations began with the Reyes incident in Ecuador. In what has become a highly publicized operation, the Colombian military crossed the border of Ecuador, targeting a FARC camp, in which intelligence had just placed one of its highest-ranking members, Raúl Reyes. The pre-dawn raid succeeded in killing Reyes and 24 others.[98] Unsurprisingly, Ecuador reacted hostilely to the event occurring within its territory. The strength of the Venezuelan response was unexpected, however, as Chávez ordered

[98]Marcella (2008).

the mobilization of Venezuelan troops, sending "10 battalions and tanks to the Colombian border."[99] He also threatened to cut off all commerce, and trade slowed along the borders as Chávez began blocking Colombian imports. Latin American leaders responded within days at a "summit in the Dominican Republic in an effort to resolve the dispute before it could escalate further."[100] Relations were finally normalized "when Uribe and Chávez met in Paraguaná, Venezuela."[101] Analysts interpreted the eventual crisis resolution as being "driven by practical economic considerations" given "Colombian-Venezuelan bilateral trade was valued at some $6 billion per annum."[102]

This assumption would be challenged a year later when a new crisis emerged in July 2009 over details of a U.S.-Colombia Defense Co-operation Agreement, which would have given U.S. armed forces access to at least three Colombian military bases. Chávez responded by breaking off commercial and economic relations as well as expropriating the assets of Colombian businesses operating in Venezuela. Chávez's reaction seemed to be a repetition of previous squabbles, and Colombian businesses as well as economic analysts expected that trade would resume within weeks. The president of ANDI during this period, Luis Carlos Villegas, predicted "that although exports will fall, they will remain 'high' because of the two countries' economic interdependence."[103]

Rather than a restoration of the trading relationship, tensions between the two countries continued to climb. In October, the kidnapping of 12 youths playing soccer "in the Venezuelan State of Tachira and the subsequent massacre of 11 of them, including nine Colombians" inflamed emotions on both sides.[104] Venezuela followed this incident up with a "protest note to the Colombian Embassy in Caracas," and revived a "theory about a plot to assassinate

[99]Ibid, p. 18.
[100]Randall (2011, p. 151).
[101]Ibid.
[102]Ibid.
[103]The Economist (2009).
[104]BBC Monitoring Latin America (2009b).

President Hugo Chavez."[105] The situation began to be described by some, such as former Colombian President Ernesto Samper, as a "state of pre-war."[106] Certainly, events seemed to be headed in that direction. In November, Venezuelan soldiers blew up two pedestrian bridges.[107] At a public ceremony during the same month, Chávez instructed his generals to "prepare for war" against Colombia.[108] Unsurprisingly, Colombia's armed forces also began assessing scenarios for a possible attack from Venezuela.[109] Similar clashes continued until Uribe's successor, Juan Manuel Santos, took office in August 2010. Although trade was eventually restored in late 2010, the two countries never regained a similar level of interdependence.

This account illustrates the link between oil dependency and a reduction in private sector influence on policy. Lacking the typical commercial constraints against military force, petro-states may choose to militarize their disputes with trading partners, even when it comes at a significant expense to their own economy. In the case of Venezuela and Colombia, it is notable that there was ample evidence at the time that Chávez's decisions were hurting the economy. The prolonged interruption in trade from Colombia led to growing shortages of staples, a problem that has only grown worse in subsequent years.

7 Conclusion

It has become generally recognized that petro-states are more aggressive than their counterparts in the international system. The existing literature, however, has yet to provide a satisfactory causal mechanism explaining the effects of petroleum revenues on conflict. I argue that petro-states do not face the same commercial constraints on the use of military

[105]Ibid.
[106]Ibid.
[107]Hamer (2009).
[108]Pardo (2009).
[109]BBC Monitoring Latin America (2009a).

force to settle interstate disputes. This is due to the fact that natural resource abundance reduces the size of the private sector and makes it dependent on the state for its economic success. The lack of business power on policy-making reduces the incentives to find peaceful resolution to interstate disputes for the mutual benefit of their economies. The militarization of conflicts may be appealing to petro-state leaders even when it results in substantial damage to their economies. In other words, the elimination of business interests from the "selectorate" reduces the negative impact that lost trading opportunities may have on regime stability.

I find substantial support for this theory. While economic interdependence reduces fatal interstate conflict as well as the hostility level of disputes, these pacific effects disappear when at least one state is more than 20% to 30% dependent on oil and gas revenues. Thus, petro-states are uniquely undeterred by economic costs of military conflict. While some have suggested that this is due to the elasticity of oil exports, my case study of Colombia - Venezuela relations demonstrates that petro-state leaders are resistant to the price of militarized conflict even when economic interdependence is based on non-oil products. The causal mechanism of private-public relations is further substantiated by Hugo Chávez's increased aggressiveness once Venezuelan business interest's influence on policy had been eliminated.

The significance of these results is not limited to petro-state aggression, but also makes a substantial contribution to the body of work on the commercial peace. My findings provide evidence of the key causal process for economic interdependence by linking business power to interstate conflict. Furthermore, the two part model demonstrates that the pacific effects of bilateral trade on the severity and militarization of hostilities are even more significant when taking into account the fact that economic interdependence does not reduce the likelihood of a dispute occurrence.

Like most studies in political science the conclusions of this study are limited by the avail-

ability of data. The difficulty of collecting detailed statistics of national accounts has constrained the development of a quantitive indicator for private sector size. Additionally, more qualitative data on the relationship between business and the government in petro-states would provide another test for the causal process between commercial interests and state policymaking. This data would also help identify the variation of business power between petro-state regimes as is evident during different periods of Venezuela's history.

The potential effects of oil price on conflict are also unclear. High petroleum prices likely increase military spending and aggressive foreign policy in petro-states. On the other hand, petro-states may use aggression to rally nationalist sentiment to distract from economic woes when oil prices fall. For example, Russia has continued to prioritize military spending while substantially reducing other budget items.[110] As Colgan alludes to, there is also an endogeneity problem in that "wars and other forms of international conflict involving petrostates cause oil prices to react. At the very least, the endogeneity makes it problematic to investigate the extent to which short-term variations in oil revenue affect international conflict."[111] With respect to my theory, long term decline in the price of petroleum may bring an improvement to business government relations, but as the case study with Venezuela revealed, these changes are unlikely be systemic to the foreign policy making process.

Finally, there is a need for greater investigation as to whether the political economic effects of oil revenue are unique or share properties with other forms of non-tax revenue. Kevin Morrison (2009) demonstrates that all non-tax revenue increases regime stability. Further investigation into how these other forms of non-tax revenue affect business relations with the state is certainly warranted.

The dangers of aggressive petro-states are all too apparent when considering the examples of Venezuela in the late 2000s and Russia's ongoing conflict with the Ukraine. This paper has

[110] In 2015, "the Kremlin boosted its military spending by 21 percent... to $54.1 billion" Makortoff (2015).
[111] Colgan (2013, Kindle Locations 1322–1324).

contributed to the urgent need to understand what motivates such aggressiveness by linking the distinctive political economy of petro-states to their increased willingness to use military force despite economic pressures to do otherwise. These findings should help policy-makers react to current and prospective conflicts, as well as develop strategies to encourage longer term stability and cooperation in the international system.

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