Political influence in commercial and financial oil trading : the evidence from US firms

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Mila Kashcheeva* and Kevin K. Tsui**
February 2015

Abstract

International politics affects oil trade. But do financial and commercial traders who participate in spot oil trading also respond to changes in international politics? We construct a firm-level dataset for all U.S. oil-importing companies over 1986-2008 to examine how these firms respond to increases in "political distance" between the U.S. and her trading partners, measured by divergence in their UN General Assembly voting patterns. Consistent with previous macro evidence, we first show that individual firms diversify their oil imports politically, even after controlling for unobserved firm heterogeneity. However, the political pattern of oil imports is not entirely driven by the concerns of hold-up risks, which exist when oil transactions via term contracts are associated with backward vertical FDI that is subject to expropriation. In particular, our results indicate that even financial and commercial traders significantly reduce their oil imports from U.S. political enemies. Interestingly, while these traders diversify their oil imports politically immediately after changes in international politics, other oil companies reduce their oil imports with a significant time lag. Our findings suggest that in designing regulations to avoid harmful repercussions on commodity and financial assets, policymakers need to understand the nature of political risk.

Keywords: international politics, FDI-based imports, hold-up risk, energy security
JEL classification: F13, F51, F59, Q34

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1. Introduction

Liberalization of energy markets, associated with an increase in energy derivatives trading and other related financial investor activities, have been encouraging investors to use energy commodity assets as a hedge against increasing portfolio risks recently. For instance, there is more trade internationally in crude oil than in any other commodity. Despite the increasing interaction between energy and finance because of the low correlation between returns to energy products and stock returns, little is known about the political risk of energy commodity trading.

Since Churchill's days, energy policymakers have believed that diversification of oil import sources is the key to "energy security". The idea of energy security can be traced back to the time when Winston Churchill changed coal to oil as power source for the Royal Navy prior to the First World War. According to Churchill, "Safety and certainty in oil lie in variety and variety alone." However, many contemporary economists maintain that the world oil market is "one great pool," because crude oil is fungible in an integrated oil exchange market (Adelman, 1984). If oil is completely fungible, oil moves to the nearest market to minimize transportation cost, and cost minimization prevents the market from distinguishing sources from friendly and hostile regimes. Who is right? First of all, it is important to recognize that the global oil market has changed a lot since Churchill's days. For the most part of the oil history, the market structure had been based on relatively rigid long-term contracts. In particular, the so-called oil's golden era (1874-1974) when the real oil price was relatively stable within a range of $10 to $20 per barrel (in 2007 dollars) had come to an end.

Over the past several decades, the global oil industry has seen a transformation in the contractual structures used to purchase and sell crude oil. The current spot markets have been developed since the early 1970s, when they were aimed at fine-tuning demand and supply that

covered not more a few percent of international oil trade. In other words, spot and futures market are relatively new to the oil industry. Indeed, even today the majority of the oil products are still sold under term contracts. Political risk is important in the modern oil market because the oil sector in many oil-rich countries are controlled by the state-owned monopoly companies. While the extreme high price volatility is well-known in the modern oil market, the coexistence of spot market and term contracts in oil trade has created a great deal of confusion in many public debates (Smith, 2009).

An examination of the role of international politics in shaping oil trade requires a good understanding about the contractual nature of world oil transactions. In this paper, we use firm-level data to examine if changes in international politics affect oil import decisions of financial and commercial traders. Mityakov, Tang, and Tsui (2013) (MTT, hereafter) provide the first systematic macro evidence that unlike many other traded goods, major-power countries with oil investment overseas diversify their oil imports significantly away from their political enemies. In particular, the political effect on oil trade is concentrated among the subsample of nondemocratic countries with higher expropriation risk. MMT conjectured that oil imports are affected by political risk because oil trade is often associated with backward vertical FDI, which is subject to selective discrimination risks, such as tax renegotiation and expropriation. Oil production involves massive upfront investments in exploration, and geological knowledge is country- or even oilfield-specific. In the presence of sizeable appropriable quasi rent (Klein, Crawford, and Alchian, 1978), it is common for bilateral oil trade to be subject to state influence with relationship-specific investment in exploration, pipelines, and refining capacity.[1] Under this

[1] A related reason why oil is only partially fungible is that oil has to be refined, and refineries are built to handle specific types of oil. For example, according to the EIA, "Venezuela's crude oil is heavy and sour by international standards, and hence a significant fraction of the Venezuela's oil production must go to specialized domestic and international refineries" (http://www.eia.doe.gov/cabs/venezuela/oil.html).

hold-up risk hypothesis, only firms with oil investment overseas are expected to respond to international politics. In other words, to the extent that financial and commercial traders are not subject to any expropriation risk, one may expect changes in international politics has a smaller or even no effect on these profit-maximizing traders.

Our results suggest that financial and commercial traders also respond to changes in international politics. However, unlike other oil companies who reduce their oil imports with a significant time lag after a deterioration in international relation, financial and commercial traders diversify their oil imports politically immediately after any political change. The rest of the paper proceeds as follows. Section 2 reviews the empirical literature on the relationship between international politics and trade. Section 3 describes the data. Section 4 presents our initial evidence on the effects of international politics on oil imports from American firms. Our main results focusing on financial and commercial traders are presented in Section 5. Some policy implications are discussed in Section 6. Section 7 concludes.

2. Literature Review

There is a growing body of empirical literature that examines the effects of international politics on trade. Summary (1989), an early contribution, identifies several political factors, such as arms transfers and the number of foreign agents registered in the United States, which affect bilateral trade flows between the United States and other countries. Mitchener and Weidenmier (2007) show that political ties, measured by membership in an empire, more than doubled bilateral trade during 1870-1913 (a.k.a. the first wave of globalization). Comparing the two waves of globalization, Jacks, Meissner, and Novy (2011) conclude that the dominant force of world trade growth has switched from political ties and other trade cost declines in the first wave to the post-war global output growth during 1950-2000 (a.k.a. the second wave of globalization). In

particular, they show that the pro-trade effect of political ties (measured by imperial membership) has been diminishing over time. Similarly, Head, Mayer, and Ries (2010) document the erosion of colonial trade linkages after independence.

Blomberg and Hess (2006) show that political violence (e.g., interstate war) has a negative effect on trade. More importantly, the authors conclude that world peace is perhaps a more important trade-creating factor than bilateral trade pact. Using a rich historical dataset, Glick and Talor (2010) show that, although wars are rare events, the war impacts on international trade (as well as national income and global economic welfare) are large and persistent. On the other hand, Acemoglu and Yared (2010) find that two countries jointly experiencing greater increases in militarism has lower growth in bilateral trade. These results suggest that military policies affect international trade.

Other special political events also affect international trade. Berger et al. (2013) show that following a CIA intervention during the Cold War period, the foreign government was influenced to directly purchase US imports rather than imports from other countries. Using disaggregated trade data, Michaels and Zhi (2010) find that the deterioration of relations between the United States and France from 2002-2003 significantly reduced bilateral trade, because private firms do not always choose the cheapest suitable inputs.

Although crude oil has consistently dominated US imports as well as world trade flows, it has been largely overlooked by the existing literature. In the case of coal, Wolak and Kolstak (1991) observe that over 1983-1987 Japan imported a significant amount of coal from the United States even though the price of US coal was above that of all other suppliers, whereas the Soviet Union consistently had the smallest market share despite its coal was the cheapest. In addition, Japan also consistently imported significantly more coal from Australia than from South Africa,

even their prices were similar. Wolak and Kolstak consider a pure economic reason of price-risk diversification to explain Japan's coal import strategy, although the trade pattern is also consistent with the close Japan-US security ties during the Cold War.

MMT quantify the lack of a significant relationship between international politics and aggregate trade in the contemporary world. However, their results also highlight that the presence of heterogeneity in the response of trade to international politics is pervasive, and such heterogeneity takes many forms (e.g., across countries, goods, and time), so that extrapolating estimates from one population to another can be misleading. Overall, their findings support the hold-up risk hypothesis, which suggest that even when international politics matter for trade, the politics-trade relationship has an economic origin. Using detailed firm-level data, our paper extends MMT's cross-country analysis to examine if financial and commercial traders who participate in spot oil trading also respond to changes in international politics.

3. The Data and Descriptive Statistics

We combine data from the following sources for our analysis. First, our firm-level crude oil imports data are taken from the U.S. Energy Information Administration (EIA). The EIA dataset provides monthly oil imports data by transaction since 1986. We use this dataset to construct annual oil imports figure by firm.

Data on political distance between country pairs are obtained from Dreher and Sturm (2012), which provides indices of political distance based on voting positions of country pairs in the United Nations General Assembly from 1970-2008. In particular, our measure of political distance, which lies between 0 and 1, is calculated as d/d_{max}, where d is the sum of metric distances between votes by a country-pair in a given year and $d_{max}$is the largest possible metric distance for those votes. Votes are coded as either 1 ("yes" or approval for an issue), 2 (abstain),

or 3 (“no” or disapproval for an issue). For instance, when two countries always cast the same vote for any proposal, their political distance is zero. Alesina and Dollar (2000) argue that UN votes are a reliable indication of the political alliances between countries, because the pattern of UN votes is strongly correlated with alliances and similarity of economic and geopolitical interest. Unlike other indices based on alliance portfolios, UN voting-based indices provide significant time-series variation in political distance. Following Dreher and Sturm (2012) and the majority of the literature, we focus on all votes (i.e., including both key and non-key votes).

Data on standard gravity controls are taken from various sources. GDP and population data are taken from the Penn World Table. Our oil reserves data are obtained from EIA and BP Statistical Review of World Energy.

In the full sample, we have 149,801 observations from 60 exporting countries. There are 156 oil-importing firms. Among them, 5 are identified as financial traders, and 5 are identified as commercial traders. The financial traders are: Axel Johnson Inc., Barclays Capital Energy Inc., JP Morgan Ventures Energy Corp., Morgan Stanley Capital Group. Inc., and UBS AG London Branch. The commercial traders are chemical ones: Archem Co., Atofina Petrochemicals Inc., Cain Chemicals, DOW Chemicals. Co., and Equistar Chemicals LP. The descriptive statistics for the variables we use in our analysis are summarized in Table 1.

4. Political Limits on Oil Imports

In our analysis we employ the standard workhorse model in international trade: the gravity equation, which links trade flows between countries to distance between them and their (economic and/or demographic) sizes. Distance in this model is understood quite generally. It includes not only geographical distance but also could account for other factors that reduce trade. In our paper we focus on political relations as impediment to trade.

In its multiplicative constant-elasticity form, the gravity equation for trade states that oil import of firm i from country j to the United States at year t, denoted by M_{ijt} is inversely proportional to their distance D_{ijt} (which typically includes all factors that might create trade resistance), and proportional to the product of the two countries' GDPs, denoted by Y_{it} and Y_t^{US}:

$$(1)\ M_{it} = e^{\alpha} \times (D_{it})^{\beta} \times (Y_{it})^{\gamma} \times (Y_t^{US})^{\delta} \times e^{\eta_{it}} ,$$

where $\alpha, \beta, \gamma,$ and δ are unknown parameters, and η_{it} is an error term. Provided M_{it} is strictly positive, we can log-linearizing the above equation to obtain the standard representation of gravity equation: $\ln M_{it} = \alpha + \beta \ln D_{it} + \gamma \ln Y_{it} + \delta \ln Y_t^{US} + \eta_{it}$. Our point of departure from the traditional gravity model is our focus on international politics, and hence D_{it} measures the one-year lag of political distance between the United States and country i at year t. The coefficient of interest is β, the estimated impact of US foreign relations on the log of oil imports to the United States. Because crude oil export depends on oil endowment, we also control for oil reserves. In our first specification, we control for country fixed effects and country i's population. In our second specification, we also control for year fixed effects. Adding year fixed effects captures all time-specific characteristic (e.g., global oil price, as well as US GDP, oil reserves, etc.). In our full specification, we also control for firm fixed effects.

One consequence of the log-linearization is that zero trade observations are dropped from the sample. Because our focus is on oil imports of firms and the distribution of oil endowment is highly uneven across countries, the number of observations dropped is indeed quite large. Following Santos Silva and Tenreyro (2006), we estimate the multiplicative form (1) using the Poisson pseudo-maximum-likelihood (PPML) estimator. The main advantages of the PPML

estimator are that while it provides a natural way to deal with zero values of the dependent variable, it is also consistent in the presence of heteroskedasticity.

Columns 1 to 3 of Table 2 present the results using the full sample. The first row reports the estimates of the political distance coefficient, our variable of interest. For instance, column 1 shows that there is a negative and statistically significant association between our measure of political distance and oil imports. Column 2 shows that our result is robust to the inclusion of year fixed effects. In our full specification, which controls also for firm fixed effects, a point estimate of -1.176 implies that a one standard deviation increase in political distance (0.122) is associated with a reduction in oil imports by 13 percent.[2] These results, therefore, suggest that the MTT's results are indeed robust to using firm-level data.

Before examining the political oil import pattern of different subsamples of firms, we conclude this section by considering if the trade pattern depends in the characteristics of the oil-exporting countries. In particular, we consider if firms tend to diversify politically when they import from OPEC countries, perhaps because the majority of the OPEC countries sell their oil via term contracts instead of spot trading. The rest of Table 3 shows that indeed the import diversification pattern is significant only in the OPEC-countries subsample. In particular, in our full specification, column 6 shows that using the subsample of OPEC countries the point estimate of the political distance coefficient is -1.794 (standard error = 0.320, and hence statistically significant at the 1% level). However, in the subsample of non-OPEC countries, the corresponding point estimate is 0.067 (with standard error = 0.963, and hence highly insignificant both economically and statistically).

[2] Implied responses to changes in political distance are computed as: $\exp(\Delta x * \beta)-1$, where Δx is change in distance measure in question and β is estimated coefficient.

Recall that in our baseline specification, we use one-year lag political distance. Table 4 reports the estimates for the effects of concurrent and lagged political distance using the subsample of OPEC countries. Consistent with the existence of adjustment cost, Table 4 shows that in all specifications the estimated coefficients of the lagged political distance are more significant both economically and statistically than the coefficients of the current measure. Interestingly, the result from the "kitchen-sink" specification reported in column (5) shows that only three lagged political distance variables, namely t-2, t-3, and t-4, are significantly correlated with oil trade. In other words, neither current nor one-year lagged political distance is significantly correlated with oil trade, once higher-order lagged political distance are controlled for. One natural interpretation is that there exists short-term commitment in trade volume stipulated in term contracts when firms import oil from OPEC countries. In addition, consistent with MMT's hold-up risk conjecture, contemporaneous oil exports rely on past drilling (and thus may not react), whereas future production and exports could be severely affected by divestment.

5. Political Limits on Oil Imports by Financial and Commercial Traders

To examine the heterogeneity in responses according to the characteristics of the oil-importing firms, we divide the sample into (1) firms that we financial and commercial traders, and (2) the rest of the oil companies.

The first three columns of Table 5 show that in the subsample of commercial traders, the estimated coefficients are economically large but statistically insignificant. Similar results are found when we consider the subsample of all financial and commercial traders (columns 4-6). For instance, in our full specification, column 6 shows that the point estimate of the political distance coefficient is -4.487 (standard error = 3.360). This estimate is rather noisy, perhaps

because of the relatively smaller sample size. On the other hand, the results from the last three columns suggest that, there is an economically small but statistically significant effect in the subsample of other oil companies.

Because the cost of adjustment are different under spot trading and term contracts, we consider the lagged effect on oil trade in the next two tables. Interestingly, when lagged effects are included, the short-run impact of international politics on oil trade becomes statistically significant in the subsample of financial and commercial traders (Table 6). In particular, column 6 shows that the point estimate of the one-year lagged political distance coefficient is -11.202 (standard error = 4.553, and hence statistically significant at the 5% level). Interestingly, the estimated coefficient of the four-year lagged political distance is positive and significant.

Finally, in the subsample of other oil companies, the results reconfirm that there is significant time lag for adjustment (Table 7). Overall, the results indicate that although all oil-importing firms respond to changes in international politics, the response from financial and commercial traders are more elastic in the short run.

6. Casual Mechanisms and Policy Implications

In their first attempt to examine the nature of the political forces shaping the modern globalization, MTT argued that unlike much of the history in the last millennium, the expansion of world trade in the contemporary world does not come from "the barrel of a Maxim gun, the edge of a scimitar, or the ferocity of nomadic horsemen." (Findlay and O'Rourke, 2007) However, political distance has a distinctive effect on import of oil. To explain this the sector-specific trade pattern, MMT considered two possible explanations.

First, under the *strategic commodity hypothesis*, import decision of strategic commodities, such as oil, is not driven solely by profit-maximizing motives because of strategic and security considerations imposed by governments. When either importers or exporters are national oil companies controlled by governments, for instance, it is not difficult to understand that trade is subject to state influence. For instance, consider the China-Venezuela oil deal. The round trip voyage from Venezuela to the US Gulf ports is almost five times shorter than that to China, and hence any effort to diversify Venezuelan oil sales away from the United States to China does not appear to be cost effective. The strategic commodity hypothesis implies that the political effect on US import should be more pronounced for nondemocratic exporting countries, because according to the democratic peace doctrine democracies do not fight with each other.

Theoretical foundations for the democratic peace doctrine are provided by Bueno de Mesquita et al. (1999), and more recently Jackson and Morelli (2007). For a similar reason, one may expect international politics should have larger effect on oil imports into countries that are major power. Moreover, strategic and security considerations imply similar trade pattern for the import of other strategic commodities.

An alternative explanation is that oil imports are affected by political risk because oil trade is often associated with backward vertical FDI, which is subject to selective discrimination risks, such as tax renegotiation and expropriation. Oil production involves massive upfront investments in exploration, and geological knowledge is country- or even oilfield-specific. In the presence of sizeable appropriable quasi rent, therefore, it is common for bilateral oil trade to be subject to state influence with relationship-specific investment in exploration, pipelines, and refining capacity. International contracts are largely self-enforcing (Thomas and Worrall, 1994), especially when the oil sector in many oil-rich countries is controlled by the state-owned

monopolies. It is well documented that extractive industries are the most vulnerable to government theft (e.g., Jensen and Johnston, 2011),[3] and that there are oil countries favoring other foreign oil companies over American ones (Chester, 1983). Levchenko (2007) introduces the hold-up problem and incomplete contract into international trade theory, and argues that institutional differences are a source of comparative advantage. Under the *hold-up risk hypothesis*, the political effects should be larger for exporting countries with higher expropriation risk, and only countries with oil investment overseas is expected to respond to international politics. In general, we also expect to see a similar trade pattern for goods that involves backward vertical FDI.

MTT's findings that support the hold-up risk hypothesis, suggesting the politics-trade relationship may have an economic origin. One policy implication of their cross-country evidence is that, when the political limits on trade in the contemporary world are driven primarily by hold-up risks once relationship-specific investments are sunk, to predict the future of globalization, one cannot ignore foreign direct investment by multinational corporations, investment treaties, and the international legal framework (Ruta and Venables, 2012). Moreover, when oil companies do not minimize their transportation cost of oil imports but instead diversify their import sources, MTT identified a cost of oil dependence even in the absence of state intervention or interstate war. Given that the oil industry is highly vertically integrated, the cost arises because of the potential holdup problem in the upstream sector, and enforcement of international contract is less costly when countries involved are political allies. Quantifying this cost of oil dependence provides a useful step towards a better understanding of the relationship between energy policy and foreign policy.

[3] In an earlier study, Kobrin (1984) documents that mining and petroleum expropriations accounted for 32 percent of all nationalizations over the period 1960-1979 period.

One weakness of the evidence supporting the hold-up risk hypothesis is that MTT's results are based solely on country-level trade data. More importantly, not all energy companies based in the United States are vertically integrated with exploration investment overseas. The results presented in this paper reveal that not only oil companies, financial and commercial traders also respond to changes in international political risk. Apparently, the hold-up risk hypothesis cannot explain the behavior of these financial and commercial traders. At the same time, we are very skeptical that the trading behavior of these financial and commercial traders can be explained by the strategic commodity hypothesis either. While we are unable to provide a compelling reason why financial and commercial traders diversify their oil imports politically, we believe the trading pattern we have identified in this paper has important implications for investors who use commodity assets as a hedge against increasing portfolio risks.

First, while political uncertainties have long been discussed in the business world, the precise nature of political uncertainties have received little attention. The finding in this paper suggest that, even in the absence of the concern of hold-up or expropriation, changes in international relationship between importer and exporter in the case of oil can have a profound impact on trading behavior. In other words, when traders diversify politically, the political risk these traders are trying to diversify is country-paired specific, rather than just specific to any exporter (such as risk of civil war, leadership turnover, terrorist attacks, bad weather, etc.).

Second, unlike other oil companies, financial and commercial traders diversify their oil imports almost immediately after changes in international politics. Knowledge about the nature of the relevant political risks and how financial traders respond to these political risks are useful to policymakers trying to design regulations to avoid consequential harmful repercussions on commodity and financial assets. As liberalization advances and environmental and energy

derivative markets grow and develop, and as energy commodities are becoming closer to financial commodities, these knowledge have become more critical than ever.

7. Concluding Remarks

Concerns about "energy security" have motivated policy researchers to quantify the "externalities" as an oil security premium (Leiby, 2007). These "externalities" include economic losses due to disruptions in oil supply and military spending in vulnerable supply areas. In this paper, we show that even financial and commercial traders may pay attention to such "energy security." In particular, American financial and commercial traders diversify their oil imports away from political opponents of the United States.

Our paper adds to the growing literature of the role of politics in international trade. The evidence we presented suggests that even when import decision is decentralized bilateral trade can be subject to influence of international politics. Why international politics appears to affect financial and commercial traders more in the short run? First, if these financial and commercial traders have no investment in oil-exporting countries that are sunk, they are more able to adjust their oil import in the short run. However, if we reject the hold-up risk hypothesis, why should these financial and commercial traders who only trade in the spot market respond to changes in international politics at all? Is it just because oil is a "strategic commodity"? Regardless of the cause of the political oil import diversification pattern identified in this paper, policymakers trying to design sound and rigorous regulations to avoid consequential harmful repercussions on commodity and financial assets need to improve their understanding of the relationship between political risk and oil trading when environmental and energy derivative markets continue to grow and develop.

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Table 1: Descriptive statistics

Variable	Mean	Standard Deviation	Min	Max
Sample : 149801 observations, 1986-2008				
Oil Imports	350.048	4061.913	0	197479
Political distance (UNGA voting)	0.757	0.122	0.272	0.956
Log exporter's oil reserves	1.191	2.577	-5.006	5.587
Log exporter's GDP	8.495	1.180	5.117	11.646
Log exporter's population	9.599	1.707	5.328	14.091

Note: There are 156 oil-importing firms. Among them, 5 are identified as financial traders, and 5 are identified as commercial traders. The financial traders are: Axel Johnson Inc., Barclays Capital Energy Inc., JP Morgan Ventures Energy Corp., Morgan Stanley Capital Group. Inc., and UBS AG London Branch. The commercial traders are chemical ones: Archem Co., Atofina Petrochemicals Inc., Cain Chemicals, DOW Chemicals. Co., and Equistar Chemicals LP.

Table 2: Political Distance and Oil Imports

	(1)	(2)	(3)
Political distance	-1.298***	-1.180***	-1.176***
	(0.284)	(0.454)	(0.453)
Oil reserves	0.027	0.035	0.034
	(0.026)	(0.031)	(0.031)
GDP	0.466***	0.456*	0.459*
	(0.166)	(0.255)	(0.256)
Population	0.545	-0.187	-0.188
	(0.461)	(0.799)	(0.799)
Country FE	Yes	Yes	Yes
Year FE	No	Yes	Yes
Firm FE	No	No	Yes
Obs (# of countries)	148254(60)	148254(60)	148254(60)

Note: Country-level cluster robust standard errors are in parentheses. All regressions are estimated using PPML method. Political distance is measured with a 1-year lag. Other control variables are measured in log.

Table 3: Political Distance and Oil Imports: Response Heterogeneity by OPEC Membership

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Political distance	-1.298***	-1.180***	-1.176***	-1.373***	-1.798***	-1.794***	-1.178	0.073	0.067
	(0.284)	(0.454)	(0.453)	(0.263)	(0.320)	(0.319)	(0.724)	(0.965)	(0.963)
Oil reserves	0.027	0.035	0.034	0.092	0.054	0.054	0.012	0.028	0.027
	(0.026)	(0.031)	(0.031)	(0.066)	(0.072)	(0.072)	(0.028)	(0.050)	(0.050)
GDP	0.466***	0.456*	0.459*	0.514**	0.373	0.375	0.487**	0.535	0.536
	(0.166)	(0.255)	(0.256)	(0.229)	(0.443)	(0.442)	(0.295)	(0.373)	(0.374)
Population	0.545	-0.187	-0.188	0.274	-0.391	-0.387	0.655	0.415	0.410
	(0.461)	(0.799)	(0.799)	(0.503)	(0.993)	(0.996)	(0.734)	(1.391)	(1.388)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Firm FE	No	No	Yes	No	No	Yes	No	No	Yes
Obs (# of countries)	148254(60)	148254(60)	148254(60)	32361(14)	32361(14)	32361(14)	115893(49)	115893(49)	115893(49)

Note: Country-level cluster robust standard errors are in parentheses. All regressions are estimated using PPML method. Political distance is measured with a 1-year lag. Other control variables are measured in log. In columns (1)-(3), the regressions are estimated based on the full sample. In columns (4-)(6) only imports from OPEC countries are included in the subsample, and in columns (7)-(9) the subsample includes only non-OPEC countries. The results of the regression presented in Column (9) should be interpreted with caution because the estimates for the firm fixed effects were not properly estimated.

Table 4: Political Distance and Oil Imports: OPEC Countries Lagged Effects

	(1)	(2)	(3)	(4)	(5)	(6)
Political distance$_{t-1}$	-1.794***					0.055
	(0.319)					(0.557)
Political distance$_{t-2}$		-2.294***				-0.982**
		(0.362)				(0.408)
Political distance$_{t-3}$			-2.495***			-0.596**
			(0.383)			(0.293)
Political distance$_{t-4}$				-2.965***		-2.125***
				(0.382)		(0.415)
Political distance$_{t}$					-1.066***	0.215
					(0.312)	(0.421)
Log exporter's oil reserves	0.054	0.045	0.032	0.029	0.058	0.023
	(0.072)	(0.069)	(0.064)	(0.056)	(0.072)	(0.059)
Log exporter's GDP	0.375	0.441	0.570	0.779	0.449	0.685
	(0.442)	(0.435)	(0.468)	(0.496)	(0.434)	(0.598)
Log exporter's population	-0.387	-0.618	-0.807	-1.085	-0.309	-1.043
	(0.996)	(1.001)	(1.067)	(1.174)	(1.019)	(1.169)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Obs (# of countries)	32361(14)	30818(14)	29271(14)	27724(14)	32361(14)	27724(14)

Note: Country-level cluster robust standard errors are in parentheses. All regressions are estimated using PPML method. Other control variables are measured in log.

Table 5: Political Distance and Oil Imports: Response Heterogeneity by Firm Types

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Political distance	-3.682	-4.391	-4.391	-3.574	-4.487	-4.487	-1.290***	-1.117**	-1.114**
	(4.098)	(3.407)	(3.407)	(4.020)	(3.360)	(3.360)	(0.289)	(0.441)	(0.440)
Oil reserves	-0.351**	0.787*	0.787*	-0.367**	0.726	0.726	0.027	0.034	0.033
	(0.161)	(0.467)	(0.467)	(0.167)	(0.466)	(0.466)	(0.026)	(0.031)	(0.031)
GDP	-1.052	1.930**	1.930**	-0.988	2.005**	2.005**	0.471***	0.458*	0.461*
	(1.258)	(0.815)	(0.815)	(1.251)	(0.798)	(0.798)	(0.165)	(0.258)	(0.258)
Population	10.854*	0.559	0.559	10.374	-0.259	-0.259	0.523	-0.177	-0.178
	(6.189)	(3.910)	(3.910)	(5.940)	(3.851)	(3.851)	(0.455)	(0.796)	(0.796)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Firm FE	No	No	Yes	No	No	Yes	No	No	Yes
Obs (# of countries)	1500 (17)	1500 (17)	1500 (17)	2526 (19)	2526 (19)	2526 (19)	140778(60)	140778(60)	140778(60)

Note: Country-level cluster robust standard errors are in parentheses. All regressions are estimated using PPML method. Political distance is measured with a 1-year lag. Other control variables are measured in log. In columns (1)-(3), the regressions are estimated based on the subsample of commercial traders. In columns (4)-(6), the regressions are estimated based on the subsample of financial and commercial traders. In columns (7)-(9), the regressions are estimated based on the subsample of the rest of the oil companies. The results of the regression presented in Column (2) should be interpreted with caution because the estimates for the firm fixed effects were not properly estimated.

Table 6: Political Distance and Oil Imports: Financial and Commercial Traders Lagged Effects

	(1)	(2)	(3)	(4)	(5)	(6)
Political distance$_{t-1}$	-4.487	-	-	-	-	-11.202**
	(3.360)	-	-	-	-	(4.553)
Political distance$_{t-2}$	-	-1.896	-	-	-	1.768
	-	(3.428)	-	-	-	(2.851)
Political distance$_{t-3}$	-	-	-4.204			-3.870*
	-	-	(2.389)	-	-	(2.268)
Political distance$_{t-4}$	-	-	-	2.271	-	13.108***
	-	-	-	(3.512)	-	(4.342)
Political distance$_{t}$	-	-	-	-	-0.671	1.015
	-	-	-	-	(1.829)	(1.837)
Log exporter's oil reserves	0.726	0.809*	0.322	0.355	0.776	0.259
	(0.466)	(0.480)	(0.361)	(0.305)	(0.440)	(0.430)
Log exporter's GDP	2.005**	1.904*	2.003***	2.167***	1.815	2.134
	(0.798)	(1.043)	(0.695)	(0.674)	(0.741)	(0.749)
Log exporter's population	-0.259	1.626	-0.093	6.536	2.596	7.483
	(3.851)	(3.652)	(3.689)	(4.247)	(4.925)	(3.565)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Obs (# of countries)	2526 (19)	2298 (18)	2208 (18)	2118 (18)	2526 (19)	2118 (18)

Note: Country-level cluster robust standard errors are in parentheses. All regressions are estimated using PPML method. Other control variables are measured in log.

Table 7: Political Distance and Oil Imports: Other Oil Companies Lagged Effects

	(1)	(2)	(3)	(4)	(5)	(6)
Political distance$_{t-1}$	-1.114**	-	-	-	-	0.010
	(0.440)	-	-	-	-	(0.292)
Political distance$_{t-2}$	-	-1.525***	-	-	-	-0.757***
	-	(0.519)	-	-	-	(0.283)
Political distance$_{t-3}$	-	-	-1.533***			-0.363*
	-	-	(0.555)	-	-	(0.197)
Political distance$_{t-4}$	-	-	-	-1.897***	-	-1.340**
	-	-	-	(0.679)	-	(0.598)
Political distance$_{t}$	-	-	-	-	-0.684*	0.103
	-	-	-	-	(0.373)	(0.240)
Log exporter's oil reserves	0.033	0.030	0.027	0.025	0.033	0.025
	(0.031)	(0.027)	(0.027)	(0.026)	(0.032)	(0.025)
Log exporter's GDP	0.461*	0.496	0.555	0.636**	0.484	0.604**
	(0.258)	(0.255)	(0.270)	(0.289)	(0.265)	(0.279)
Log exporter's population	-0.178	-0.365	-0.461	-0.587	-0.148	-0.562
	(0.796)	(0.816)	(0.854)	(0.900)	(0.823)	(0.900)
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes
Obs (# of countries)	140778 (60)	132646 (59)	127109 (59)	121459 (59)	140891(60)	121233 (59)

Note: Country-level cluster robust standard errors are in parentheses. All regressions are estimated using PPML method. Other control variables are measured in log.