Staying or Leaving? How Businesses Take Action Towards Economic Sanctions and Evidence from the Ukrainian War

Phuong Pham*

Department of Political Science, Duke University

First version: April 2023

This version: October 2023

Abstract

More than year after the outbreak of the Ukrainian War, regardless of the Western-led waves of sanctions on Russia, around half of Western firms are still maintaining their business there. This phenomenon is puzzling, as it casts doubt on theoretical expectations of the literature on sanctions, which suggests that economic actors should have avoided doing business with sanctioned markets. This paper attempts to answer the question: Following economic sanctions, under which conditions are firms more likely to stay in the target state? I argue that firms which are more economically vulnerable in the sanctioned market are more likely to maintain their business. Specifically, my theory suggests that under economic sanctions, firms that are either in the extractive sectors of the sanctioned state or have more assets there are more vulnerable, thus are less prone to business suspension. Using matching propensity score and logistic model with a dataset from Yale School of Management monitoring the level of withdrawal from Russia of more than 1300 multinational firms along with other firm-level data in a variety of industries, the empirical findings support my theory.

---
*PhD student, phuong.pham@duke.edu

Introduction

Since February 2022, the Russian invasion of Ukraine prompted the United States and its allies to impose a series of economic sanctions on Russia, condemning the Kremlin's breach of international law. In response to these sanctions, numerous international firms adjusted their strategies. Some withdrew most, if not all, of their business activities from Russia, while others continued business-as-usual or merely suspended new initiatives (Alderman, 2023; Financial Times, 2023). Notably, two large beverage companies, Heineken and PepsiCo, despite originating from the same Russia-sanctioning bloc and same industry, exhibited different responses. Heineken ceased all its business activities in Russia, whereas PepsiCo still continues selling product in Russia (Sonnenfeld & Yale Research Team, 2022).

This divergent behavior challenges certain theoretical expectations regarding firms' withdrawal patterns from Russia. A part of the literature on the efficacy of sanctions presumes that such measures would uniformly affect targets with similar characteristics. Thus, companies in the same industry with comparable attributes should theoretically experience and respond to sanctions similarly (Gottemoeller, 2007; Kaempfer & Lowenberg, 2007; Peksen, 2019; Stephanides et al., 2002). Moreover, theories on organized interests suggest that firms within a given industry would share interests, driving them to react similarly to external challenges (W. L. Hansen et al., 2005; Hardin, 1982; Olson, 1971). The new-new trade theory on the politics of trade lobbying, though suggests that there is heterogeneity in firms' behavior towards free trade given the variation in their size, has yet explained the implications of this dynamic on non-trade issues (Ciuriak et al., 2015; Osgood, 2017, 2018). Furthermore, firms typically prefer operating in environments free from threats to their economic activities (Dixon & Moon, 1993; Kobrin, 2022), making the decision to remain in a sanctioned market seem counterintuitive. These anomalies necessitate a deeper exploration of the disparities in firms' responses to economic sanctions. Given the increasing involvement of multinational firms in global politics due to their substantial economic influence (Buthe, 2004; Cowhey & Aronson, 1993; Frieden & Lake, 2002; Gilpin, 2011; Kennard, 2020; Strange, 1991; Thrall, 2021), understanding their behavior under sanctions offers insights into the practice of economic statecraft – a cornerstone of a nation's foreign policy. Thus, an intriguing, yet underexplored question arises: under what circumstances, following economic

sanctions, are firms more inclined to withdraw from the target state?

My paper posits that under economic sanctions, as firms operate in a high-risk geopolitical environment, their sensitivity to exogeneous economic shock will affect their decision whether to leave the market. The greater a firm's economic vulnerability, the likelier it is to remain in the targeted market. Firms, driven primarily by profit maximization and cost minimization, evaluate the trade-offs of operating in sanctioned states. If the costs of continuing business operations overshadow the benefits, they are likely to exit the sanctioned state. However, considering the negative geopolitical consequences of sanctions, the targeted state might employ coercive tactics to retain economic entities. This not only decreases the sanctions' effectiveness but also exacerbates tensions with the imposing countries (Kim et al., 2019; Lee et al., 2023). Such coercive measures substantially elevate the uncertainty for all businesses operating in the sanctioned market. Consequently, such risks increase firms' level of economic vulnerability, hence they often prefer to maintain the status quo.

There are two primary factors influencing a firm's economic vulnerability: its economic footprint in the sanctioned market and its sector. Companies with a substantial economic presence or those operating within extractive sectors have higher degree of asset specificity, therefore exhibit greater vulnerability under geopolitical tension caused by sanctions, leading them to adopt less confrontational stances toward the target state. The more economic presence firms have, the more they are susceptible to policy shifts due to their extensive activities. When sanctions target a state, these firms, due to their significant contributions to the economy, may encounter heightened threats like expropriation or restrictive regulations (Kesternich & Schnitzer, 2010; Marlles, 2006). Consequently, these businesses might perceive higher risks, making withdrawal a costlier proposition. In the same vein, extractive sectors, given their strategic significance to both imposer and target nations' security, become highly politicized under sanctions (Farrell & Newman, 2019a; Gholz & Hughes, 2021; Gholz & Press, 2010; Moran, 1983; Pitron, 2022; Vela-Almeida et al., 2022). Recognizing this criticality, the sanctioned government might heavily regulate inputs for firms in these sectors (Harris, 1991; Hirschman, 1958; Libicki, 1990). Given this high-risk setting and the potential disruptions, extractive firms are less prone to exit the sanctioned market.

Employing a dataset that monitors the decisions of approximately 1300 firms in Russia post the onset of the Ukrainian War, I deploy a logistic model, supplemented with robustness checks, to test the aforementioned hypotheses. The evidence corroborates my theory. This paper's contribution is twofold: firstly, it delves into how economic vulnerability shapes firms' reactions to economic sanctions. As these sanctions escalate the tension between imposers and targets, multinational firms are anticipated to act defensively to safeguard their interests. The nexus between political risks and business operations has been extensively analyzed (Abdelal, 2015; Busse & Hefeker, 2007; Bussy & Zheng, 2023; Caldara & Iacoviello, 2022; Haendel, 2019; Hassan et al., 2019; Horst, 1972; N. Jensen, 2008; Kobrin, 1979, 1980; Wellhausen, 2019). Yet, the intersection of firms' economic vulnerability, risks under sanctions, and their business decisions afterward remains underexplored in the international political economy discourse. Thus, my findings illuminate a crucial determinant of firms' actions in geopolitically risky environments. Given their economic clout, these firms play pivotal roles in shaping economic sanctions and, more broadly, economic statecraft. Hence, understanding their behavior is indispensable for grasping the nuances of economic statecraft. Secondly, this paper augments the political economy of security literature by establishing the economic underpinnings of how geopolitical elements influence firms' responses to sanctions. While this literature has flourished in recent decades (Blanchard et al., 1999; Kirshner, 1998; Mastanduno, 1999; Narizny, 2007; Patomäki, 2007), it rarely contemplates multinational firms as both political and economic security agents. Recognizing their centrality in the current global matrix, both in economic and security domains, decoding the relationship between firms' economic vulnerability and their sanctions response is instrumental in elucidating the politico-economic dimensions of security.

The remainder of this paper is organized as follows: I begin by reviewing the extant literature on sanctions and private actors to pinpoint existing gaps and lay the foundation for my theory. Subsequently, I introduce my theoretical propositions and their underpinning logic, followed by an outline of my empirical strategy for their validation. Drawing upon this framework, I present statistical analyses and robustness tests, discuss the findings, and then wrap up by summarizing the implications for both policymakers and scholars.

1 Economic Sanctions, Geopolitical Risks and Private Actors

Economic sanctions are considered one of the prevalent coercive instruments in international relations, despite the ambiguity of the true cost they inflict on the targets (Baldwin, 1985; Baldwin & Pape, 1998; Drezner, 1999, 2011; Early & Peksen, 2022; Farrell & Newman, 2019b; Pape, 1997; Shin et al., 2016). Hence, there is a substantial part of the literature on how sanctions are formed and how they work. In his seminal work, Baldwin (1985, pp. 28–50) approaches sanctions as forms of economic statecraft and as mechanisms through which states try to weaken their targets. Pape (1997) views economic sanctions in terms of policy goals that imposers want to achieve. Although there is a divergence in the approaches to economic sanctions by these scholars, all of them are state-centric, structural-oriented, assuming that states are the main actors that form the economic sanctions and implement these instruments against their opponents. Then they attempt to answer the same questions: When do states resort to imposing sanctions on their targets? Under which conditions do sanctions work? (Drezner, 1999; Eaton & Engers, 1992; Jentleson, 2022; Lacy & Niou, 2004; Morgan & Bapat, 2003; A. Smith, 1995; Tsebelis, 1990).

Another theoretical strand in the sanctions literature is the sociopolitical one. Studies in this strand seek to add more granularity to the formation and function of economic sanctions by disaggregating target and sender states into smaller agents and analyzing the socioeconomic/sociopolitical forces that can shape states' power and decision. The premise of this sociopolitical approach is that sanctions are not homogeneous in terms of their ends and targets but can be imposed on various targets with different goals. For example, Kirshner (1997, p. 33) presents the "microfoundations" approach of economic sanctions, emphasizing "how groups within the target are affected differentially, and how these consequences change with the form of statecraft chosen". Holding the context of the influence attempt and identities as constant, he argues that whether sanctions are successful depends not on their impact on the target as a whole, but on whether they hurt the right groups in the target states. Kirshner's findings are key to the literature on smart sanctions, which attributes the outcome of sanctions

to whether they hit the right target. Particularly, the key argument of the "smart sanctions" literature is that the success of sanctions hinges on understanding the targets' domestic political economy, which is crucial to target the right group (Drezner, 2011, 2015; Stephanides et al., 2002). Jones (2015, p. 175), rather than focusing on sanctions as strategies themselves, presents the "social conflict analysis" framework analyzing the impact of sanctions on the interests and strategies of sociopolitical groups inside states. He then concludes that sanctions "could not generate powerful political oppositions where none previously existed; nor, despite sometimes inflicting massive economic damage, could they shatter ruling coalitions where they were not already in decay". In general, the sociopolitical approach is more process-oriented than the merely state-centric one above, as scholars in this strand focus more on how sanctions function and how the process dictates the outcomes. Moreover, they are especially interested in the interaction among social groups in a state in forming, receiving, and responding to economic sanctions. Hence, from the sociopolitcal approach, sanctions are successful when they hit the right targets, which are not necessarily the states in general as game-theoretic explanations point out given their different assumptions, but those critical groups for the survival of the targets.

In the same vein as the proliferation of studies on firms' increasing political influence thanks to their economic power (Büthe & Mattli, 2013; Carter et al., 2019; Grossman & Helpman, 1994; Kim & Osgood, 2019; Malesky & Mosley, 2018; Strange, 1996; Wellhausen, 2019), there are works examining how firms behave under economic sanctions. Indeed, because sanctions are tools of economic statecraft, which are critical for achieving security interests, multinational firms, given their role in policymaking, play an instrumental role in forming the statecraft (Narizny, 2007; Rodman, 2001; Vernon, 1971). Under economic sanctions, due to their economic costs on the targets, firms are expected to act under their interests, and their attitude and actions would have an additional impact on the implementation and effects of sanctions on the targets. Morgan & Bapat (2003, pp.67-68), through a game-theoretic model, show two results. Assuming firms "care only about their own profits and are unconcerned about the issues over which sanctions are imposed", they state that those firms placing less value on its economic exchange with a target state or more prone to be investigated is less likely to violate economic sanctions. Besides, sender governments may resort to investigate and enforce punishment to keep firms away from

violation. These works are theoretically foundational for making sense of firms' likelihood to maintain their business in sanctioned market.

Recent studies delve into the effects of sanctions on macro and institutional factors that guide firms' economic decisions. Barry & Kleinberg (2015) note that firms can capitalize on sanctions by redirecting investments to states that offer indirect access to sanctioned economies. Giumelli & Onderco (2021) present empirical findings from Dutch firms, revealing that except for larger enterprises, firms rarely lobby for or against sanctions. Meyer et al. (2023) and Gaur et al. (2023) explore the disruption of the institutional framework for international business by sanctions and assess the strategies employed by Russian firms to counteract targeted sanctions, respectively. In that vein, McLean et al. (2023) finds that economic sanctions actually lead to significant decrease of foreign direct investment in Russia due to the political risks raised to firms. While these works provide valuable insights into the strategic environments firms navigate under sanctions, they largely overlook the micro elements of firms' decisions, leading to a potentially incomplete analysis.

Other scholars have explored how firm-level difference leads to the variation in firms' response to sanctions. Choy et al. (2022) argue that firms with higher "goodwill capital", proxied by the environmental, social, and governance (ESG) score, will be more likely to decouple from Russia and will incur less cost when they do so. Although the work introduces a potential mechanism to explain firms' incentives to suspend their businesses from Russia, it has two main weaknesses. First, it does not take into account the sectoral effects on firms' tendency to decouple from Russia. Firms in different sectors will have different strategic environments so sectoral effects need to be analyzed to examine their propensity and magnitude of withdrawal. Besides, ESG score may be affected by sectors (e.g primary sectors may not be environmentally friendly) so it is difficult to disentangle the real effects of ESG on the tendency of suspension from sectoral effects. Hart et al. (2022) use a randomized survey experiment to understand stakeholders' desire to see their firms exit Russia after the invasion of Ukraine. Despite making sense of the potential microfoundations of firms' decisions, this study has some weaknesses. The term "sanction" used in the article can be misleading, as firms cannot impose sanctions per se. As noted previously, sanctions are a form of statecraft, so states must impose these measures. Although firms are important actors in

sanctions, they can only be the targets or the followers (actors attempting to shape the outcome of sanctions) not the imposer. Next, it has not linked directly to the overarching question of the conditions in which firms are likely to suspend more activities from the target state, as the survey experiment attempts to manipulate the perceived costs of withdrawal, which may not fully encapsulate the real costs for foreign firms to exit Russia.

My theory presents a framework exploring the firms' withdrawal patterns from sanctioned states. I look at a vital factor that determines firms' withdrawal decisions from the market under sanctions: economic vulnerability. Indeed, as mentioned previously, sanctions pose geopolitical risks to multinational firms so their strategies should be driven by their vulnerability. I define vulnerability as the degree to which a firm is exposed to risks which impact their business activities, including but not limited to expropriation, production disruption or discriminatory regulation (Busse & Hefeker, 2007; Hassan et al., 2019; N. Jensen, 2008; Kerner & Lawrence, 2014; Kobrin, 1979; Vernon, 1971). To this extent, my framework advances the findings of McLean et al (2023) by looking at economic foundations of a firm's vulnerability and how they drive firms' actions, instead of just directly studying the association of sanctions and companies' response.

Next, I incorporate a difference in the strategic environments in which firms operate, which are overlooked by the above works. With different environments, firms differ in their economic vulnerability so they behave differently following sanctions. This approach differs from the game-theoretic one, which assumes that firms do not care about the issue of sanctions, or in other words they do not have their policy preference under sanctions (Morgan & Bapat, 2003). Instead, firms do have policy preference, illustrated in the new-new trade literature. This is also true under sanctions. Companies are in different sectors so they must be cognizant of the effects that sanctions have on their sector and themselves. Different sectors introduce different strategic environment and different issues, eventually leading to a variation in their exposure to potential threats. Moreover, my theory considers both the micro and macro foundations of sanctions in shaping firms' decisions so it overcomes the shortcoming of some literature above when just looking at either the microfoundations or macro-drivers of firms' actions under economic sanctions. Additionally, my work looks beyond the international business literature by

investigating non-market interactions, in particular how firms' key characteristics influence its sensitivity to geopolitical risks raised by geopolitical tension between imposing and target states following economic sanctions and its relationship with the state there.

2   Theory & Hypotheses

My main actors are firms, imposing and target states, which follow some theoretical assumptions. First, the strategic decisions of all actors solely hinge on cost - benefit analysis so they would act to maximize their benefits and minimize the costs under sanctions. Second, given the scope of the paper, I assume that the interactions and outcomes among actors during sanctions are independent of their pre-sanctions actions, because sanctions only happen when parties failed to reach an agreement on the conflict. Third, issues of sanctions matter for firms, as they are different in their operation sectors, main sources of profits and preferences in the sanctioned market. Fourth, imposers and target under sanctions have competing goals, in which the former want to pull out as many firms from the sanctioned market as possible, while the latter wants to keep many firms staying there. Finally, for the sake of simplicity, I assume that the imposers would not punish firms that withdraw from the target state.

The premise of my theory is, states do have power to coerce firms to leave the sanctioned market, but firms do not always follow that. Notably, Early (2015) has systematically examined how sanction-busting works, arguing that economic sanctions, for some third-party actors, can offer benefits, either economically or politically so some of them will become sanction-busters. This logic also applies to the firm-level analysis. Economic sanctions, in general, disrupt economic activities of all actors, yet are unable to coerce all firms to obey since firms, especially private and multinational ones, are relatively independent from states. For instance, Rodman (2001), using process-tracing and historical evidence, shows that the United States, though it could use its multinational firms as instruments of sanctions, had lost the unilateral ability to extend sanctions to the foreign activity of its multinational firms. There is also a broader part of the literature arguing that multinational corporations, particularly large ones, do not have to fear the governments, and they are even able to shape the foreign policy (Grossman & Helpman, 1994; Kim et al., 2019; Osgood, 2018; Wilson, 1980). In fact, after sanction regimes are imposed, firms

may not have the same incentives as states do when they have huge profits in the sanctioned market, either thanks to their degree of freedom from the intervention of their home state or the principal - agent issue in the case of state-owned enterprises (Aharoni, 1981; Chang et al., 2007). For the imposing states, though their sanction regimes have enforcement mechanisms that punish entities violating the sanctions, they do not have enough resources to monitor and punish all firms so the enforcement is not always effective, as Morgan (2003). I examine a potential factor that affects a firm tendency of business suspension following sanctions: economic vulnerability.

There are two factors determining a firm's sensitivity to economic shock: input sources and strategic environment. Firms are a diverse lot, with differences in size and assets, leading to varied input sources and strategic landscapes, which in turn influence their vulnerability (Bernard et al., 2022; Greenaway & Kneller, 2007; Kreickemeier & Richter, 2014; Milner, 1988; Milner & Kubota, 2005). In the context of input, firms might predominantly rely on resources from mass markets or governmental entities [1] (Fong, 2000; Libicki, 1990; OECD, 1991; Rodrik, 2004). This reliance impacts their conduct under economic sanctions. Namely, firms exceptionally sensitive to geopolitical shock, due to either high dependence or unforeseen shifts in the cost or accessibility of resources, experience heightened economic vulnerability under geopolitical threats, and that cost is even higher when these resources are strictly regulated by states. This is primarily because of potentially more intense disruptions to their production from sanctions compared to their counterparts with a more diversified input portfolio.

The variation in economic vulnerability is also shaped by firms' strategic environment, which constitutes three components: their relations with both states, their level of presence in the sanctioned market and their sectors. Firms' initial motivations to penetrate a particular market play a significant role. When they have substantial investments in the target state, leading to a pronounced economic footprint over time, they tend to foster closer ties with the local government and establish more localized supply chains or markets. As a result, they reap greater benefits and face fewer alternative options outside that market (Dunning & Lundan, 2008; Eden et al., 2005; Murtha & Lenway, 1994). Similarly, on a sectoral level, certain sectors are more regulated by states. Firms in these sectors, once successfully entering the market and generating profits, inevitably form close relationships with the government. Severing such ties can be

---

[1] I would like to thank Kyle Beardsley for highlighting this point.

harmful to their profit. Consequently, during tension between sanctioning and sanctioned states, economically vulnerable firms are more inclined to remain in the market rather than exit, as their higher vulnerability elevates the cost of business suspension. The decision for firms to withdraw from the target market post-sanctions is thus largely contingent on their degree of economic vulnerability. My theory posits that under economic sanctions, firms with the aforementioned preferences are less prone to withdraw if they are more economically vulnerable. The vulnerability, based on firm-specific characteristics, can be categorized as *ex ante*—pertaining to firms inherently sensitive to geopolitical shocks—and *ex post*—relating to firms with a heightened risk of "retaliation" from either side. Consequently, two specific conditions intensify a firm's vulnerability, which, in turn, affects their propensity to exit the target state.

Firstly, firms with a greater economic footprint in the target state are less inclined to withdraw. Economic interdependence is a pivotal mechanism influencing the behavior of economic actors, as it gauges the potential harm they might endure from sanctions (Baldwin & Pape, 1998; Pape, 1997). Firms that have made significant investments in the target market inherently have limited exit options, often due to a self-selection effect. These firms are either unable to compete in alternate markets or encounter less favorable condition outside (scarce resources or elevated tariffs) than what they enjoy in the sanctioned state. As a result, maintaining their presence in the target market can remain profitable despite the sanctions, especially if they cannot secure comparable opportunities or essential resources elsewhere, which makes them vulnerable to economic shocks caused by geopolitical risks (Fagre & Wells, 1982; Henisz & Zelner, 2005; Klein et al., 1978).

Due to their considerable activities in the sanctioned market, these firms are more susceptible to be entangled in the animosity between the sanctioning party and the target state, given the competing goals of both states. Because of that, they will suffer more from disruption compared to their counterparts with a smaller footprint, thus face remarkable geopolitical risks. However, if a firm has large investments in such a market, they might value that market even more than their home market. Having invested heavily in the target state, these firms usually have high profits there so they would suffer more economic loss caused by sanctions, thus prefer not to suspend their business. Furthermore, they tend to be more integrated into the target economy.

Therefore, under sanctions, they exhibit greater aversion to the uncertainties associated with leaving the target state and the challenge of identifying a suitable alternative (Abdelal, 2015; Dunning & Lundan, 2008). The larger a firm's economic footprint in the target country, the more it becomes economic vulnerable *ex post*.

Hypothesis 1: Firms that have more economic footprint in the target state are less likely to withdraw the market than firms that have less.

Secondly, firms in extractive industries tend to remain in the target market given their pronounced economic vulnerability *ex ante*. I define extractive firms as those involved not just in natural resource extraction but also those offering related services like oilfield operations, refineries, or mining/drilling technologies and equipment. Inherently, these firms typically pursue resources and are among the most capital-intensive and immobile entities (Baker & Martin, 2011; Mahon, 2010; Narula, 2018; Vernon, 1971). As a result, their asset specificity is greater than that of non-extractive firms, leading to disproportionate disinvestment costs (Kermani & Ma, 2023; Riordan & Williamson, 1985). Additionally, the highly politicized nature of these sectors makes input prices volatile in uncertain geopolitical climates. Combined with their dependence on unique non-market attributes like government contracts or incentives more so than firms in other sectors (Barney, 1991; Eden et al., 2005), extractive firms are exposed to more disruptive economic shocks, in turn pulling them back from leaving the market. Their economic vulnerability is further exacerbated by dependencies on other susceptible sectors like finance or manufacturing. Given their foundational role in most economies, sanctioning these sectors can serve the goals of the imposing entities without breaching humanitarian exemptions. When financial or manufacturing entities face sanctions, extractive firms might struggle to secure financing or essential equipment for ongoing projects, making them more economically vulnerable. They might then lean on local producers or institutions in the sanctioned market to carry on their business.

Moreover, due to the industry's heavily regulated nature and its barriers for foreign entities (Danzman, 2019; OECD, 1991; Vivoda, 2011), extractive firms often need to foster close ties with the target government once they establish a presence. This is crucial for profit retention and ensuring reduced competition from other foreign competitors (Eden & Molot, 2002; Fagre &

Wells, 1982). Consequently, firms operating in this sector find themselves in high-risk geopolitical scenarios with limited exit strategies. This context deters them from taking aggressive stances against the target government (N. M. Jensen & Johnston, 2011; Kobrin, 1980, 1984; Moran, 1973; Rudra & Jensen, 2011). While these critical sector firms might be targeted by imposing states during economic sanctions due to their significance in the target economy (Drezner, 2015; Farrell & Newman, 2019b; Stephanides et al., 2002), not all of them will face penalties. And even if they were universally penalized, resource constraints might prevent equal punishment for all non-compliant firms (Morgan & Bapat, 2003). Therefore, unless the *ex post* vulnerability surpasses the *ex ante* one, these firms would likely prioritize retaining their presence in the sanctioned market over adhering to sanctions.

Hypothesis 2: Extractive firms are less likely to withdraw from the target state following economic sanctions than non-extractive firms

3   Research Design & Empirical Strategy

3.1   Data & Case Selection

3.1.1   Data

I rely on multiple sources to construct my cross-sectional database. My main data source is the list of companies withdrawing and staying in Russia after sanctions, collected by the team from Yale School of Management since 2022 (Sonnenfeld & Yale Research Team, 2022). This cross-sectional data consists of more than 1300 firms operating in Russia by the time the Ukrainian war occurred and their countries of origin, sectors, and, most importantly, their level of withdrawal from Russia following the economic sanctions, which are essential for my model. While this data does not contain all firms doing business in Russia, the number of observations and sectors are representative, as they are mostly major firms so the external validity of my study is plausible. In addition, I use the Orbis dataset, which contains information on private firms around the world, to collect other firm-level data for my study, including their total revenue, total market capitalization, and number of subsidiaries in Russia, which are all necessary for my empirical analysis. For the in-force BITs in Russia, I get the list from the International Investment

Agreements Navigator, United Nations Conference on Trade and Development (UNCTAD), which tracks the total number of BITs in a specific country and their status. I also use the fDiMarket data by Financial Times to get the information on capital expenditure and history of operations of foreign firms in Russia. Although the data does not have the foreign investment information before 2003, it does not greatly affect my empirical models because Russia has not fully opened the market for foreign investors until 1995 (Freeland, 2000). Since it takes foreign companies many years to establish their business in any host states, the period of 8 years from 1995 to 2003 is not as important as that after 2003 when looking at the history of a firm in Russia.

3.1.2 Case Selection

Russia is a good case to validate my theory for three reasons. First and most importantly, despite having ambiguous effectiveness, the sanctions on Russia since 2014 are comprehensive and massive, ranging from different sectors and agents, and became even more unprecedented following Russia's invasion of Ukraine in 2022 (Ashford, 2016; Bayramov et al., 2020; Drezner, 2015; The White House, 2022). Specifically, up to January 2023, more than 1600 Russian entities and 9600 individuals have been sanctioned by the United States and its allies. Under this sanction regime, the United States and Western countries have mainly targeted Russia's vital industries, such as oil, technology, and natural resources, by various measures, ranging from export banning to import suspension. Tightening sanctions on these sectors, the United States and its allies expect to cripple Russian economy and ultimately forces the Kremlin to stop invading Ukraine. To further ostracize Russia from the international community, the Western-led sanction waves also attempt to deny Russia's access to the global financial system and revoke Russia from most international organizations, and carry on sanctions on its energy sector since 2014 (The Atlantic Council, 2022). Therefore, the case of Russia has a high variation in the firms' size, industries, and response, which is suitable for my hypothesis testing. On top of that, because one of my hypotheses look at the sectoral effect on the likelihood of withdrawal, given the prolonged sanctions on Russian energy sector, if the result is significant, it can even further strengthen my second hypothesis. Secondly, as one of the largest markets in the world,

Russia is an important destination for multinational firms to invest in. In fact, more than 700 foreign firms with thousands of subsidiaries are operating in Russia up to March 2022 (Statista, 2022). As such, the large-scale economic sanctions imposed by the international community are expected to induce a considerable variation in the firms' interests in Russia, in turn leading to different responses to international sanctions[2]. Additionally, according to a study from FDI Intelligence, Financial Times in 2018, Russia has the most balanced mix of FDI sectors among commodity-based countries worldwide. This means there are diverse firms in terms of their origins and sectors in Russia. Because my theory considers how firms' areas of business and origins affect their withdrawal decision, such variation is helpful to empirically evaluate my theoretical expectations. To support my statistical analysis, I select two pairs of cases based on two explanatory variables: Mitsui - Weatherhead and Heineken - PepsiCo. By fixing or varying the independent variables, if the outcomes support the hypotheses, my cases will illustrate the causal logic underpinning my theory (Gisselquist, 2014; King et al., 2021).

3.2 Dependent Variable

As my unit of analysis is firm, for the sake of empirical interpretability, my dependent variable is *Withdraw*, which is a binary one capturing the firms' withdrawal from Russia since the invasion of Ukraine in February 2022. I code this dummy variable based on the ordinal categorization of the original data, including five level: *Digging In*, which points to firms that continue business-as-usual in Russia; *Buying Time*, which are companies postponing future planned investment/development/marketing but carrying on substantive business; *Scaling Back*, which are companies scaling back substantial business operations but continuing some others; *Suspension*, which points to firms temporarily curtailing most or nearly all operations while keeping return options open; *Withdrawal*, which are firms totally halting Russian engagements or completely exiting Russia. Following that, firms which fall into the *Suspension* and *Withdrawal* will be coded as 1, and 0 otherwise.

---

[2]The case of sanctioning Russia, though have someunique dynamics, can be extrapolable since it is multidimensional, ranging from human rights violation to strategic deterrence, which are primary purposes of sanctions. In that sense, my findings can be true in other cases of sanctions.

3.3 Independent Variables

The first independent variable is *Extractive*, coded as 1 if the company is in extractive sectors and 0 otherwise. I coded them based on the GSIC. Accordingly, firms in energy and materials industries are considered extractive. Not only capital intensive but these industries are also highly exposed to sanctions from Western countries when a lot of their products are under strict scrutiny (European Council, 2023; Office of Foreign Assets Control, 2023). Therefore, if the result is significant, it provides strong evidence for my argument on the salience of sectoral effects on business suspension. The second variable is the number of subsidiaries in Russia, which measures the level of economic footprint of firms on the Russian market. There are two reasons why the number of subsidiaries is a good proxy for economic footprint. Firms' subsidiaries in a foreign country illustrate the status of their economic activities there. Accordingly, a firm opens foreign subsidiaries to expand their activities in potential foreign markets, then increases their revenues and diversifies their assets (J. Birkinshaw, 1997; J. M. Birkinshaw & Morrison, 1995; Ghoshal & Bartlett, 1988; Jarillo & Martíanez, 1990; Kostova & Roth, 2002). Firms also form foreign subsidiaries as crucial entities in their global structure in order to gain access to local knowledge and resources, which are foundational to their competitiveness in that market [3]. For example, Toyota, with more than 215 subsidiaries in the United States, has a very deep understanding of the local market so it can tailor their products well, making them among the best-selling foreign automobile brands in America. The more subsidiaries they have in a specific country, the more their investment is, the more assets they have, and the more localized their supply chains are. Subsequently, when firms invest heavily in a market, they are more economically active on that market. In addition, other measurements for firms' economic presence on the market, such as their foreign direct investment or revenue from a specific market, are often not accessible to outsiders. Therefore, assuming that all of the subsidiaries of firms in my data are making real profits[4], the number of subsidiaries in Russia is a good alternative for measuring the firm's economic footprint on Russia.

---

[3]Paterson and Brock (2002) offer a comprehensive review on theoretical strands of subsidiary management. See also Moore and Birkinshaw (1998), Roth and Morrison (1992), Foss and Pedersen (2002)

[4]Most firms in my list are major publicly traded or private ones, and some of them are mega state-owned enterprises, so this assumption is plausible.

3.4 Control Variables

There are some observable confounding factors for my study. The firm's size can affect its decision to withdraw from a targeting market and its likelihood to depend on the market. When a firm is small/medium and invests in a specific market, it is more likely to rely on the market due to its limited size, which influences its tendency to escape a market following economic sanctions. As such, I use the natural logarithm of total employees as one control variable for firms' size. I also control a firm's total market capitalization amount to address firms' size, in tandem with the number of employees, also in natural logarithm terms.

Additionally, I control for the level of firms' economic presence in the US and allies with their number of subsidiaries there. As my theory suggests, the economic footprint in the imposers matters for firms when responding to the sanctions, because when they have more economic activities in the imposers than in the target, they are more likely to take assertive actions towards the target government to avoid being punished by the imposing governments or being boycotted in these markets[5]. Next, I include a dummy variable of *US_allies*, 1 if a firm is from the United States or its allies, and 0 otherwise. Because these countries impose sanction regimes, firms from these countries may have a larger propensity to take assertive actions toward Russia. Thus, assuming that the US and its allies are homogeneous in their interests in sanctioning Russia, controlling for firms' origins can help improve the precision of my estimation (Wellhausen, 2014). Controlling for *year_in_Russia* is also necessary, as history of operation in Russia also matters. Firms that have been in a market for a longer time have more economic activities there so generally less likely to withdraw. For extractive firms, due to a high diminishing return, under economic sanctions, firms with longer history can be more likely to exit given a relatively higher cost of extraction compared to cost of suspension.

3.5 Empirical Strategy

I employ a logit model to test my hypotheses with a set of independent variables mentioned above. The equation of my model is:

$$Logit[P(Y \leq 1)] = \beta_0 + \beta_1 \cdot Extractive + \beta_2 \cdot RussiaSubsidiaries + \epsilon$$

---

[5]As I sum up subsidiaries from all of these markets, the number of subsidiaries is mostly much higher than that in Russia alone. Therefore, using the ratio of Russian and US/allies subsidiaries can make the variable highly left-skewed.

Before running the model, I need to address the selection bias caused by my data. Specifically, firms that have subsidiaries in Russia are structurally different from those that are not, making it difficult to get the causal link between the strategic sectors and the magnitude of withdrawal. Therefore, assuming that at the first place, firms decide to invest in Russia on observable factors (Ho et al., 2007), I will do the full matching at the firm level on their characteristics with the set of control variables above. More specifically, I will run the model to estimate the propensity score (the conditional probability of an observation of being in the treatment group given its characteristics, here the probability of having one or more subsidiaries in Russia given a set of matching variables), then match all firms based on their propensity score. Full matching looks at all available observations in the data and groups them into subclasses. Each subclass has at least one treated unit and at least one comparable unit that is not in the treated group. Because of this, the algorithm ascertains that all subclasses are formed in an optimal way such that treated observations are in the same subclass with as many untreated comparable ones as possible (B. B. Hansen, 2004; Rosenbaum, 1991; Stuart & Green, 2008). For this reason, full matching not only addresses the non-random issue in my sampling firms[6] but also helps minimize the sum of the absolute within-subclass distances in the matched sample, thus enables me to keep most of the observations after matching as well as optimizing the weight of the sample. The equation of matching is:

$P(Treatment = 1 \mid X) = \Phi(\beta_0 + \beta_1 \cdot US\_Allies + \beta_2 \cdot Subsidiaries\_US\_Allies + \beta_3 \cdot ln\_employees + \beta_4 \cdot ln\_market\_capitalization + \beta_4 \cdot year\_in\_Russia + \epsilon)$

The within-country interdependence of firms can introduce another identification issue for my model. Because firms' activities are affected by each other when they are in the same state, their withdrawal decisions may not be independent as well, which violates the independence assumption for the logistic model. To ameliorate these issues, I will use two-way clustered standard error at the country level and the matched subclass. Additionally, firms in some sectors may have more subsidiaries than others (Betz et al., 2021), which is also another source of bias to the coefficient estimates in my second hypothesis [7]. To address this issue, I include industry fixed effects when testing my economic footprint hypothesis. By doing so, firms within

---

[6]Firms make their investment decision based on observable factors so matching on these variables can solve the selection bias.

[7]I would like to thank Eddy Malesky for reminding me of this identification threat.

the same industry will be treated more similarly to each other than to firms in other sectors, which can help to reduce the impact of sectoral differences on the estimates of the coefficients. Including industry fixed effects can also help reduce the unobserved heterogeneity caused by sectoral difference, which is unable to be captured by matching. For missing values in two variables, total employee and market capitalization, I use multiple imputations, particularly predictive mean matching to address them since they are all continuous (Lall, 2016).

4 Results

At first glance, matching is a suitable method in my study, as there is a lot of overlap between my treated and untreated group in terms of their propensity score, and the distribution is also largely similar, according to Figure 1. This illustrates that my comparison between the treated and control groups is plausible, according to the common support assumption (Austin, 2011; Garrido et al., 2014). Moreover, the covariates, after adjustment, are relatively well balanced, meaning my matching works well for further analysis. Next, in my baseline statistical models, all results are all in line with my theory, as shown in Table 1. The results support my H1. Because firms seek to maximize their benefits, they would thus value markets which they have more economic footprint. As a result, the more subsidiaries a firm has in Russia, the less likely it would exit the market. Looking at Figure 3, holding all else constant, the increase from 0 to 20 subsidiaries decrease the likelihood of withdrawing by approximately 30 percentage points. After the threshold of 30 subsidiaries, the marginal effect on the probability of withdrawal is less remarkable, but still holds negative. For my second hypothesis, the effect of being in extractive industries is overall negative and significant. Substantively, as illustrated in Figure 4, firms which are in extractive sectors are generally less likely to withdraw from Russia by 20 percentage points. Extractive firms are highly economically vulnerable *ex ante* due to their resource-seeking motivation when going abroad and the volatility of their inputs under geopolitical risks so they would prefer maintain the status-quo to take risk of giving up resources in the sanctioned state.

Table 1: Baseline Model

	Dependent variable:	
	Withdrawal	
	(1)	(2)
Russia_subsidiaries	−0.100***	
	(0.015)	
extractive		−0.809***
		(0.190)
US_allies	0.081	−0.002
	(0.130)	(0.119)
ln_employee	0.006	−0.001
	(0.036)	(0.034)
US_allies_subsidiaries	0.001***	0.0003**
	(0.0002)	(0.0001)
ln_market_cap	0.052	0.025
	(0.040)	(0.038)
year_in_Russia	0.061***	0.065***
	(0.012)	(0.012)
Constant	−0.049	−0.767*
	(0.505)	(0.395)
Observations	1301	1301
Industry FEs	Yes	No

*p<0.1; **p<0.05; ***p<0.01

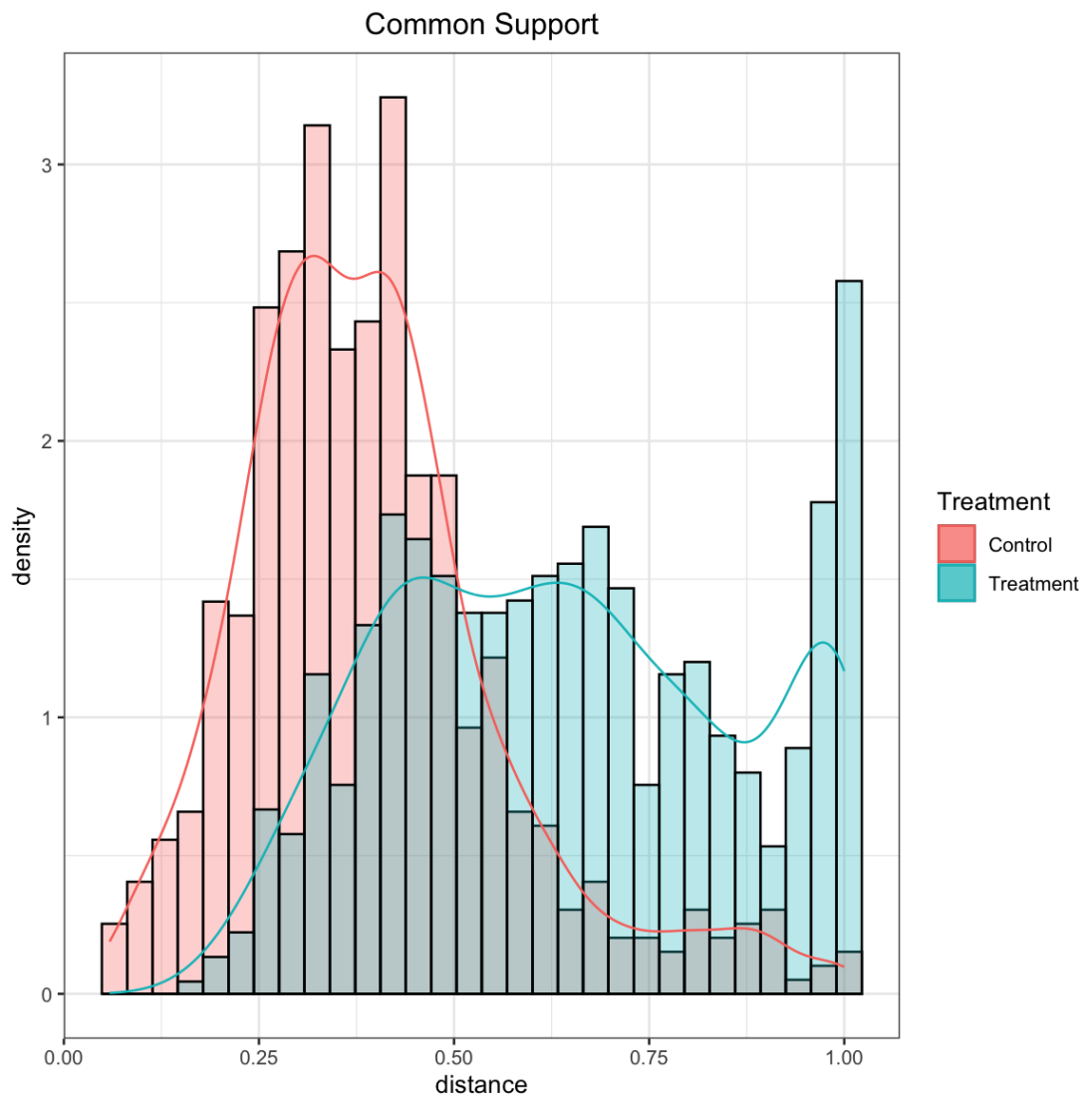*Note: Standard errors are clustered at the sectoral and matching subclasses levels.*
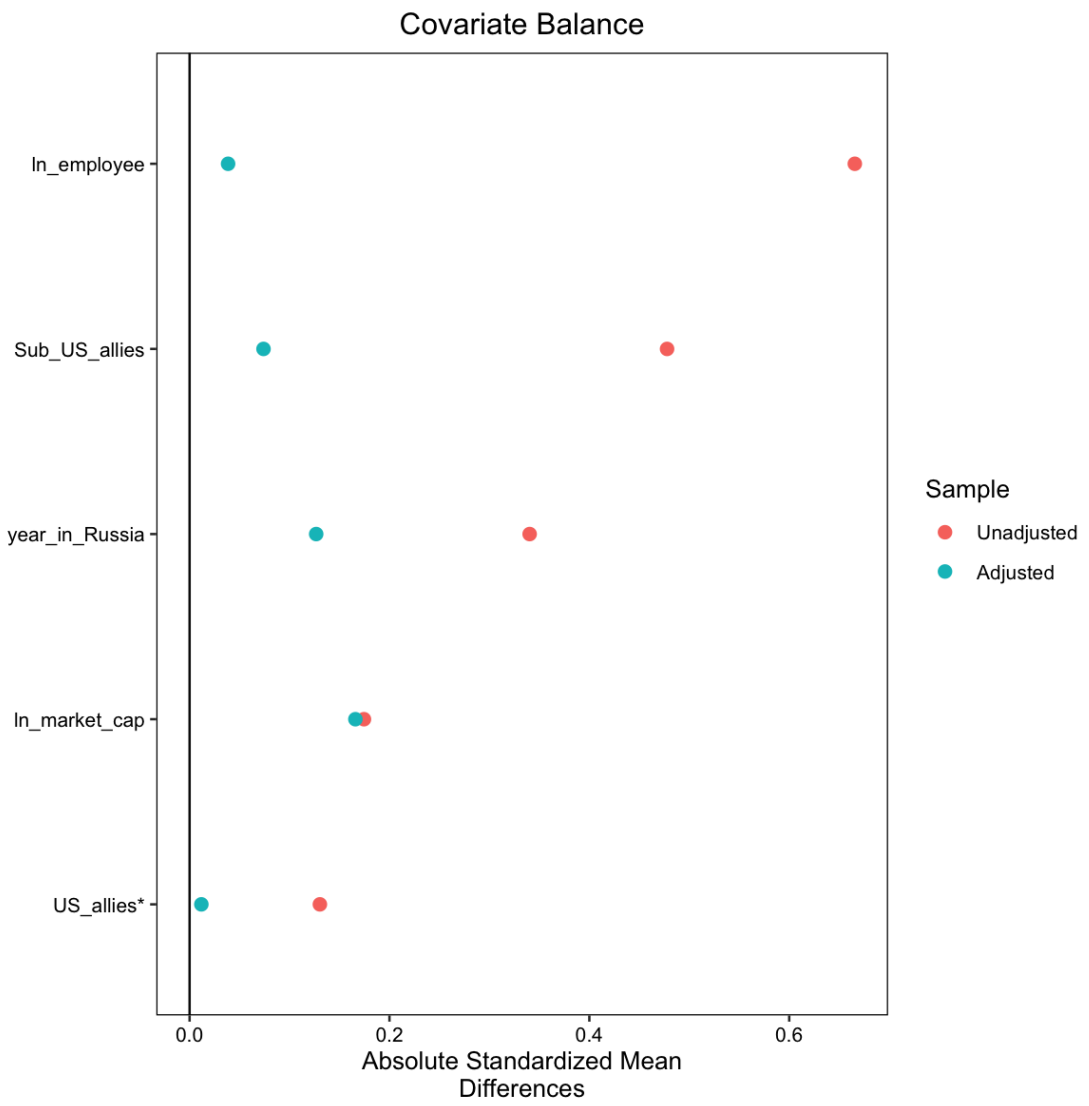
Figure 1: Treatment-Control Overlaps
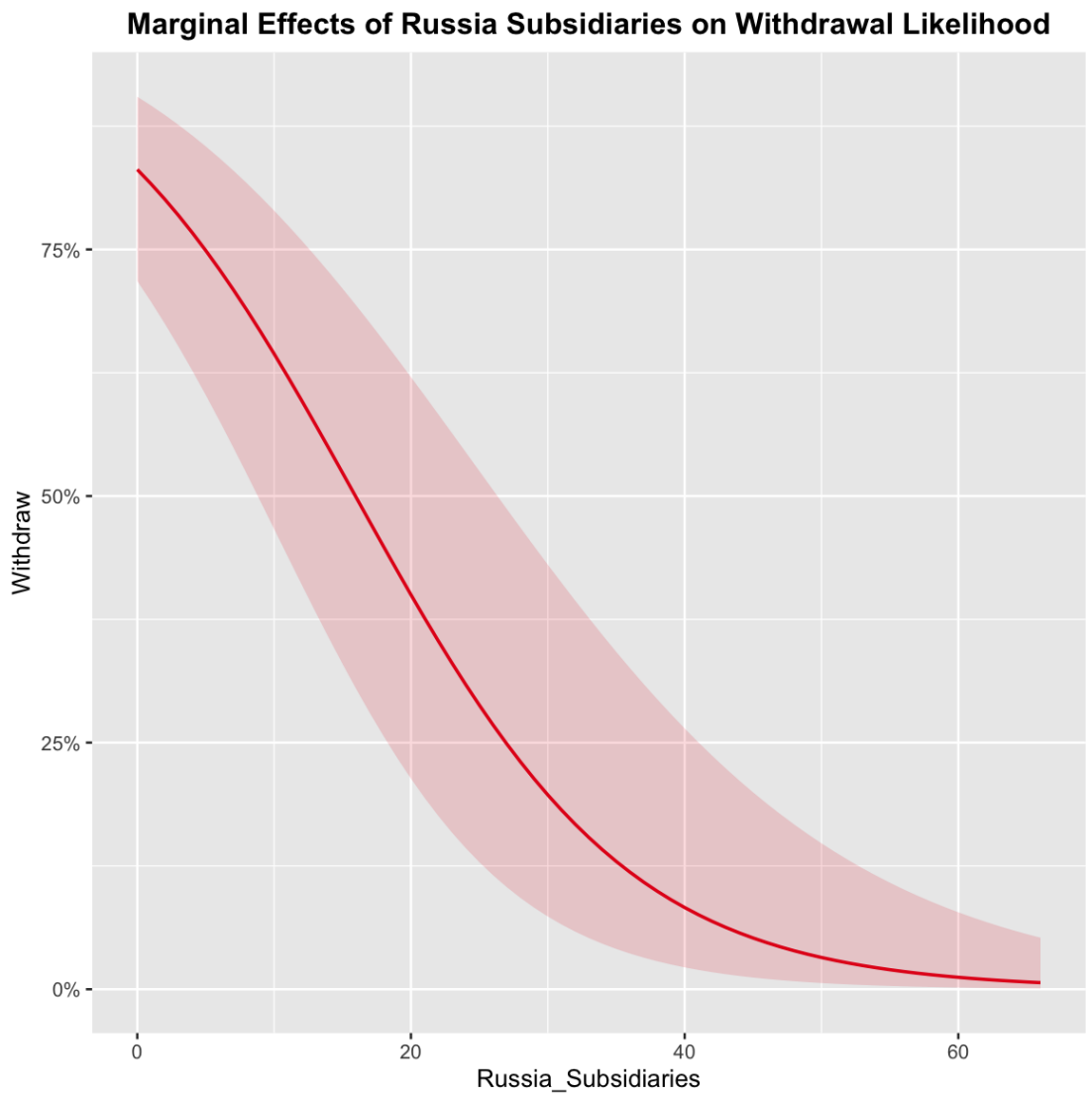
Figure 2: Balancing Plot

Marginal Effects of Russia Subsidiaries on Withdrawal Likelihood

Figure 3: Russian Subsidiaries Effects
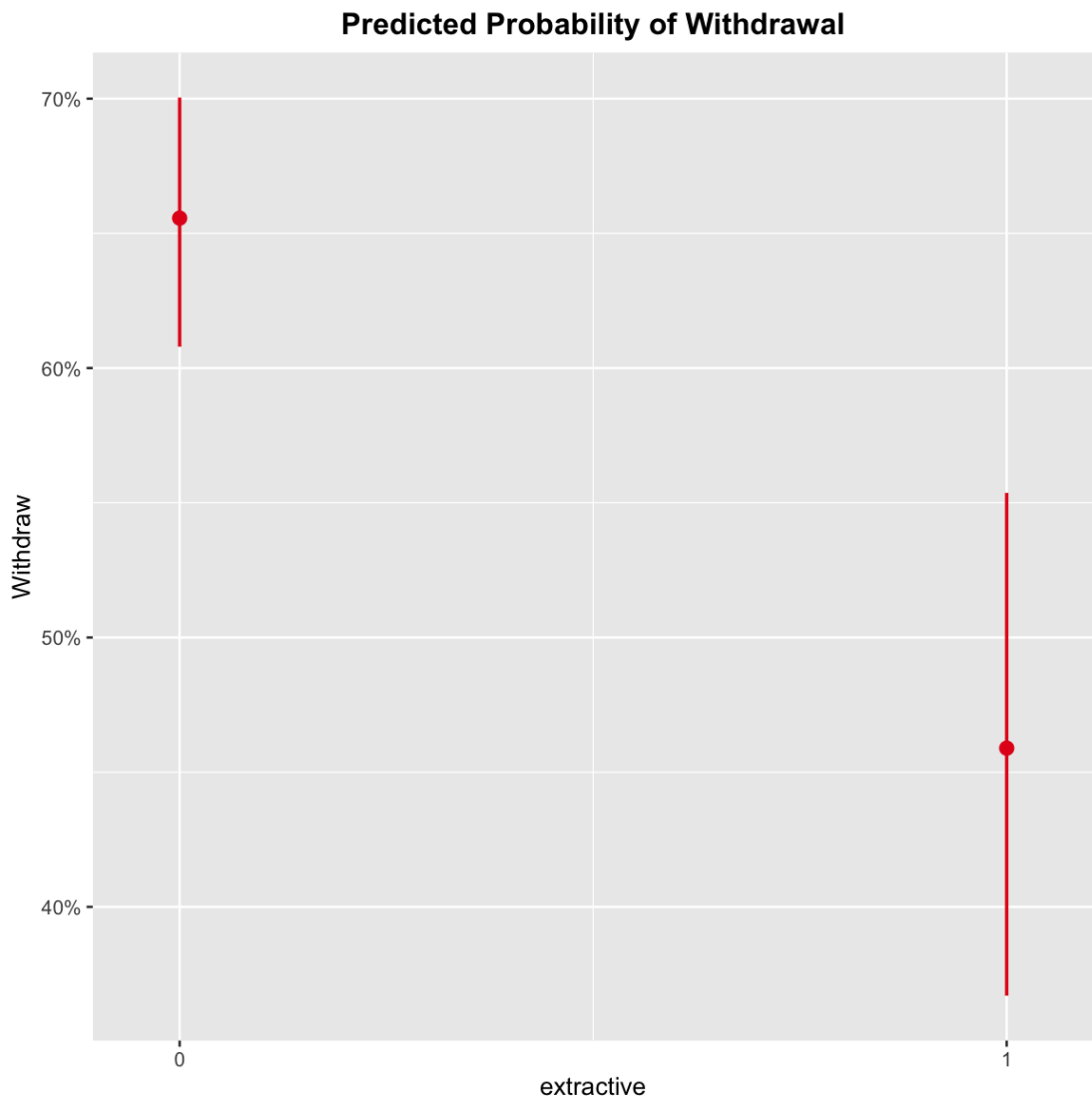
Predicted Probability of Withdrawal

Figure 4: Extractive Effects

5 Robustness Check

I run four robustness tests for my model, and all are robust compared to my baseline model (see Appendix B2). First, I run the entropy matching model with country-clustered standard errors to see whether my results are robust to a different method of matching. The entropy balancing model will match observations by creating a set of matching weights and then forcing certain balance metrics to hold, thus keep as many observations as possible (Hainmueller, 2012). Second, keeping the baseline model, I add a state-level control variable, which is a dummy variable of *BIT* indicating whether a country where a firm originates from has a bilateral investment treaty with Russia. Controlling for this variable can take into account the level of investment from both the imposers and their firms to the target. Once a BIT is in force, both parties' governments and companies could be more likely to invest in each other, as a BIT provides regulations to protect firms' business activities against the state's negative intervention, which makes the destinations more attractive for investors (Dolzer & Stevens, 1995; Elkins et al., 2006; Kerner, 2009; Ramamurti, 2001; Simmons, 2014). Next, I run ordered logit model on the original categories of my outcome variables with full matching to see whether my coding scheme is consistent, with standard errors clustered at the country and matching subclasses. Next, I will run my baseline model using full matching with the same set of matching variables except a dummy variable *US_firm* instead of *US_allies*, which is 1 when a firm is from the US, and 0 otherwise. As American firms are under strict control of sanction regimes implemented by Office of Foreign Asset Control (OFAC), they can be, on average, more likely to suspend their business with Russia than firms from other countries (Early & Peterson, 2022). If the results hold, that provides even stronger evidence for my theoretical mechanisms.

6 Case Study

6.1 Mitsui - Weatherhead

The United States and Japan have been among of the strongest supporters of sanctions against Russia since the outbreak of the Ukrainian war. Nonetheless, one of Japanese largest firms, Mitsui, is still operating in Russia despite the tightening sanctions. At the beginning of the Russian

invasion, Mitsui expressed deep distress and concern about the Russian-Ukrainian situation but did not take any assertive actions following the economic sanctions (Mitsui, 2022a). In August 2022, Mitsui submitted a press release consenting to take ownership of shares in Sakhalin Energy LLC to operate the Sakhalin II project, based on Russian Presidential Decree No.416 dated June 30, 2022, and Governmental Decree No.1369 dated August 2, 2022 (Mitsui, 2022b). In the case of Weatherford, its reaction is similar to Mitsui: announcing its concern about the invasion of Ukraine but did not take any remarkable action against Russia other than put a hold of shipment and stopped investing in new projects in the market or deploying new technologies. However, it still plans to continue its operation in Russia after suspending new invetment or technological deployment, according to its most recent announcement (Rogtec, 2023). Despite having different characteristics, these firms have responded to the sanctions in similar way: maintaining their key business activities in Russia.

My theoretical framework explains the reaction of Mitsui and Weatherford well. As argued earlier, under economic sanctions, firms in extractive industries, with close ties to the target state may receive benefits that outweigh the costs of punishment. The involvement of Mitsui in large government projects like Sakhalin II demonstrates their close ties with the Russian government. Despite a reduction of approximately $1 billion in its asset value in the project, Mitsui still holds significant shares at 12.5 percent there (Imahashi, 2022). Similarly, Weatherford has contracts with large customers providing significant shares of the planned revenue for 2023, and the company's management intends to continue to fulfill existing contractual obligations, as well as enter into new contracts with customers" (Rogtec, 2023; Weatherford, 2022). In essence, being highly capital intensive and dependent on the host's resources, the company would face significant potential losses if they were to suspend their business there, thus has not made any remarkable withdrawals from Russia.

6.2   Heineken - PepsiCo

There is a divergence in the responses to sanctions of these two large beverage companies, despite being in the same industry and the same bloc of sanctioning Russia. On the side of Heineken, right after the invasion of Ukraine, since March 2022, the company initiated the withdrawal

process, and has taken assertive actions toward Russian government, from reneging on its promise to invest in Russia to blaming the government on delaying exit paper work (Sonnenfeld & Yale Research Team, 2022). Recently, Heineken has completely exited Russia with the expectation of €300 million loss (Heineken, 2023). This is far from the case with PepsiCo. It enjoyed a remarkable bump in its revenue despite the war and sanctions with roughly 300% increased net profits compared to 2021 (Afanasieva, 2023). Given its active presence in Russia, PepsiCo has been classified as international sponsor of war, and faces boycott from customers.

The outcomes of this comparison align with my theory. Despite their similarities, Heineken and PepsiCo diverge in their level of business withdrawal under sanctions due to variations in their economic footprint in Russia. While PepsiCo has eighteen subsidiaries in Russia, Heineken has only one, according to the data from Orbis. This difference is both quantitatively and qualitatively significant. As shown in the statistical analysis, the increase from one to eighteen subsidiaries leads to a 29.4 percentage points decrease in the likelihood of withdrawing from Russia. Qualitatively, PepsiCo's significantly larger economic footprint in Russia than Heineken's reflects the importance of Russian market. In fact, its revenue in Russia is $4.6 billion, among the largest gains in 2022 across firms staying in Russia (Afanasieva, 2023). Such a large amount of generated revenue makes it difficult for PepsiCo to pull out its business from Russia. For Heineken, with only one subsidiaries and around $350 million loss, it is less risky to completely leave Russia as the level of integration to the market is not as high as that of PepsiCo thanks to its lower level of economic presence.

7   Discussion

There are both scholarly and policy implications from my results. At first glance, they question the literature of "targeted sanctions" suggesting a different outcome than expected regarding the behavior of targeted actors. Thus, two questions arise. Firstly, is targeting specific actors that are important to the sanctioned state a smart approach? As evidenced in the case of Russia, notwithstanding stringent measures of economic sanctions, the majority of Western firms are remaining in Russia, including those that are supposed to suffer significantly from sanctions and punishment (Evenett & Pisani, 2022; E. Smith, 2023). From the policy perspective,

targeted sanctions bring about mixed effects at best. This leads to the second question: Which types of firms should be targeted more to make sanctions work effectively? One of the primary goals of economic sanctions is to cripple the target's economy, and firms' behavior is critical in deciding the success of these tools. However, economically vulnerable firms, which are expected to cause more damage to the target state given their features, are resistant to sanctions, according to my findings. This means their economic vulnerability may not prevent them from doing business with sanctioned state but does the oposite way. Therefore, sanctions can be "smarter" if taking into account the within-group difference among firms, to a larger extent their economic vulnerability. Specifically, targeting firms that may not be able to gain substantial profits from that market or ones that can liquidate or mobilize their assets out of there quickly can be more efficient, as it makes sure that a majority of these firms would exit the market, thus inflict more damage to the target with less effort. To a broader extent, my findings suggest that the literature and policymakers should focus on understanding how sanctions work and who suffers the most from it rather than on the debate of whether sanctions work or not.

On top of that, my study brings implications to the interdependence literature in international political economy and international security. Early works state that economic interdependence can be benign, as it generally decreases the chance of interstate violence (Copeland, 1996, 2014; Keohane, 1984; Keohane & Martin, 1995; Keohane & Nye Jr, 1973; Wagner, 1988). Recently, an emerging line of study on "weaponized interdependence" suggests that states can leverage interdependence as a mechanism of coercion to achieve their interests (Farrell & Newman, 2019b). As such, the United States and the West, as great economic powers, can leverage their position in the hierachy of this interdependence to punish actors, either state or private, which can be effective. Indeed, interdependence does matter, as dependence on a specific market influences firms' behavior when their interests are threatened. Nevertheless, my result shows that taking advantage of interdependence is not always positive. As illustrated above, economically active firms in the sanctioned market are less likely to act according to the economic sanctions, making these measures less effective in punishing the target. Moreover, being aware of this interdependence, the targets can take advantage of this to reduce the damage caused by imposers, especially large powers like Russia. This point poses a question: How can imposers strategically

interact with both the target states and firms to prevent the targets from taking advantage of the interdependence and maximize the effects of sanctions?

Conclusion

Why do some firms disregard the possibility of being punished by imposers under economic sanctions and delay their withdrawal, even continuing their operation in the sanctioned state? In short, the behavior of firms in response to economic sanctions is influenced by their economic vulnerability, leading to variations in their outcome behaviors. Through my analysis, I demonstrate that when firms are more economically vulnerable, the remarkably high cost of suspension deters them to leave the sanctioned market. The degree of economic vulnerability depends on firms' input and strategic environments, which vary across sectors and the level of economic footprint on the target state. As shown empirically, both factors significantly affect their decision to stay or exit the market. Based on my theoretical framework and analyses, I incorporate the economic foundations of firms' cost function under geopolitical risks to explain their behavior following economic sanctions, which few works have done.

In a broader context, my work contributes to the literature on global business politics and the political economy of security. Multinational corporations play crucial roles in international politics, and understanding their behavior patterns helps explain the dynamics of business politics at the international level. Major powers employ economic sanctions to achieve political goals, which disrupt the global economy and impact global politics. Therefore, deciphering firms' reactions to economic sanctions is essential for understanding how the international politics of business evolves. Furthermore, studying firms' responses to economic sanctions contributes to the analysis of how firms influence the development of economic statecraft, which is fundamental to the political economy of security. While military capabilities and economic power are macro-foundations for statecraft, firms and other economic actors behavior serves as a micro-foundation. Existing literature has demonstrated that firms significantly shape economic policies, from trade to investment, all of which are critical to the success of economic statecraft. Exploring how firms behave under economic sanctions contributes to future research on how firms actively participate in shaping economic statecraft. The findings also highlight avenues for further investigation into

firms' behavior under economic sanctions or economic statecraft more generally.

Despite its contributions, my study has limitations. The primary limitation is that it takes sanctions as exogeneous shock, focusing solely on the strategic interaction between firms and the targeted state without incorporating other interactions such as firm-firm, firm-imposer, and imposer-target interactions into the proposed theory. In the "game" of sanctions, strategic interactions occur not only between firms and the target state but also among firms, imposers, and the target state, potentially introducing different strategic environments. Addressing these interactions would provide a more nuanced analysis of firms' decisions and behavior under economic sanctions, as well as other forms of economic statecraft. Although my model partially accounts for the interaction among imposers, their firms, and the target by controlling for firms' origins, it is inadequate to capture all dynamics within these strategic interactions. The firm-by-firm, individual direct exposure to sanctions has not been addressed in my model yet. Future research aiming to understand firms' behavior under economic sanctions can build upon this by considering variations in the strategic interactions among actors during sanctions and empirically testing other potential mechanisms that shape firms' strategic calculus and actions. Further studies can explore the distributional effects of sanctions by adding the firm-by-firm exposure to sanctions into the analyses. Additionally, my research design lacks a more objective measurement of the level of withdrawal from Russia, which prevents the establishment of clear-cut thresholds for each category in my dependent variables. While the model generally explains the effects of the proposed mechanisms on firms' behavior under economic sanctions, the absence of stronger measurement hinders nuanced substantive interpretations of how firms in different categories in the dataset respond differently. Furthermore, the lack of data for firms that do not have business activities in Russia for building counterfactual cases poses a limitation in developing my empirical model. Firms investing in Russia may differ structurally from those that do not, introducing a potential source of selection bias. Future studies can address this gap by constructing empirical models based on data sources that cover both firms operating in Russia and those that do not.

References

Abdelal, R. (2015). The multinational firm and geopolitics: Europe, russian energy, and power. *Business and Politics*, *17*(3), 553–576.

Afanasieva, D. (2023). PepsiCo, Mars See Business Boom in Russia After Staying Behind. https://www.bloomberg.com/news/articles/2023-07-07/pepsico-mars-see-business-boom-in-russia-after-staying-behind?embedded-checkout=true

Aharoni, Y. (1981). Performance evaluation of state-owned enterprises: A process perspective. *Management science*, *27*(11), 1340–1347.

Alderman, L. (2023). Leave Russia? A Year Later Many Companies Can't, or Won't. https://www.nytimes.com/2023/03/02/business/russia-companies-exit.html

Ashford, E. (2016). Not-so-smart sanctions: the failure of western restrictions against Russia. *Foreign Affairs*, *95*(1), 114–123.

Austin, P. C. (2011). An introduction to propensity score methods for reducing the effects of confounding in observational studies. *Multivariate Behavioral Research*, *46*(3), 399–424.

Baker, H. K., & Martin, G. S. (2011). *Capital structure and corporate financing decisions: Theory, evidence, and practice*. John Wiley & Sons.

Baldwin, D. A. (1985). *Economic Statecraft*. Princeton University Press.

Baldwin, D. A., & Pape, R. A. (1998). Evaluating economic sanctions. *International Security*, *23*(2), 189–198.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, *17*(1), 99–120.

Barry, C. M., & Kleinberg, K. B. (2015). Profiting from sanctions: Economic coercion and US foreign direct investment in third-party states. *International Organization*, *69*(4), 881–912.

Bayramov, V., Rustamli, N., & Abbas, G. (2020). Collateral damage: The Western sanctions on Russia and the evaluation of implications for Russia's post-communist neighbourhood. *International Economics*, *162*, 92–109.

Bernard, A. B., Dhyne, E., Magerman, G., Manova, K., & Moxnes, A. (2022). The origins of firm heterogeneity: A production network approach. *Journal of Political Economy*, *130*(7), 1765–1804.

Betz, T., Pond, A., & Yin, W. (2021). Investment agreements and the fragmentation of firms across countries. *The Review of International Organizations*, *16*, 755–791.

Birkinshaw, J. (1997). Entrepreneurship in multinational corporations: The characteristics of subsidiary initiatives. *Strategic Management Journal*, *18*(3), 207–229.

Birkinshaw, J. M., & Morrison, A. J. (1995). Configurations of strategy and structure in subsidiaries of multinational corporations. *Journal of International Business Studies*, *26*, 729–753.

Blanchard, J.-M. F., Mansfield, E. D., & Ripsman, N. M. (1999). The Political Economy of National Security: Economic Statecraft, Interdependence, and International Conflict. *Security Studies*, *9*(1-2), 1–14.

Busse, M., & Hefeker, C. (2007). Political risk, institutions and foreign direct investment. *European journal of political economy*, *23*(2), 397–415.

Bussy, A., & Zheng, H. (2023). Responses of fdi to geopolitical risks: The role of governance, information, and technology. *International Business Review*, *32*(4), 102136.

Buthe, T. (2004). Governance through Private Authority: Non-State Actors in World Politics. *Journal of International Affairs*, *58*(1), 281–291.

Büthe, T., & Mattli, W. (2013). *The New Global Rulers: The Privatization of Regulation in the World Economy*. Princeton University Press.

Caldara, D., & Iacoviello, M. (2022). Measuring geopolitical risk. *American Economic Review*, *112*(4), 1194–1225.

Carter, D. B., Wellhausen, R. L., & Huth, P. K. (2019). International Law, Territorial Disputes, and Foreign Direct Investment. *International Studies Quarterly*, *63*(1), 58–71.

Chang, H.-J., et al. (2007). State-owned enterprise reform. *UN DESA Policy Note*.

Choy, S. K., Lai, T.-k., & Wan, K.-M. (2022). Goodwill Capital, Relationship-Specific Capital, and Corporate Sanctions: An Empirical Study of The Russian Invasion of Ukraine.

Relationship-Specific Capital, and Corporate Sanctions: An Empirical Study of The Russian Invasion of Ukraine (May 21, 2022).

Ciuriak, D., Lapham, B., Wolfe, R., Collins-Williams, T., & Curtis, J. (2015). Firms in international trade: Trade policy implications of the new new trade theory. *Global Policy*, *6*(2), 130–140.

Copeland, D. C. (1996). Economic interdependence and war: A theory of trade expectations. *International security*, *20*(4), 5–41.

Copeland, D. C. (2014). *Economic interdependence and war.* Princeton University Press.

Cowhey, P. F., & Aronson, J. D. (1993). *Managing the world economy: The consequences of corporate alliances.* Council on Foreign Relations.

Danzman, S. B. (2019). *Merging interests: When Domestic Firms Shape FDI Policy.* Cambridge University Press.

Dixon, W. J., & Moon, B. E. (1993). Political similarity and american foreign trade patterns. *Political Research Quarterly*, *46*(1), 5–25.

Dolzer, R., & Stevens, M. (1995). *Bilateral investment treaties.* Martinus Nijhoff Publishers.

Drezner, D. W. (1999). *The sanctions paradox: Economic statecraft and international relations.* Cambridge University Press.

Drezner, D. W. (2011). Sanctions sometimes smart: targeted sanctions in theory and practice. *International Studies Review*, *13*(1), 96–108.

Drezner, D. W. (2015). Targeted Sanctions in a World of Global Finance. *International Interactions*, *41*(4), 755–764. https://doi.org/10.1080/03050629.2015.1041297 doi: 10.1080/03050629.2015.1041297.

Dunning, J. H., & Lundan, S. M. (2008). *Multinational enterprises and the global economy.* Edward Elgar Publishing.

Early, B. R. (2015). *Busted sanctions: Explaining why economic sanctions fail.* Stanford University Press.

Early, B. R., & Peksen, D. (2022). Does Misery Love Company? Analyzing the Global Suffering Inflicted by US Economic Sanctions. *Global Studies Quarterly*, *2*(2), ksac013.

Early, B. R., & Peterson, T. M. (2022). Does punishing sanctions busters work? sanctions enforcement and us trade with sanctioned states. *Political Research Quarterly*, *75*(3), 782–796.

Eaton, J., & Engers, M. (1992). Sanctions. *Journal of Political Economy*, *100*(5), 899–928.

Eden, L., Lenway, S., & Schuler, D. A. (2005). From the obsolescing bargain to the political bargaining model. In *International business and government relations in the 21st century* (pp. 251–272). Cambridge University Press.

Eden, L., & Molot, M. A. (2002). Insiders, outsiders and host country bargains. *Journal of International Management*, *8*(4), 359–388.

Elkins, Z., Guzman, A. T., & Simmons, B. A. (2006). Competing for capital: The diffusion of bilateral investment treaties, 1960–2000. *International Organization*, *60*(4), 811–846.

European Council. (2023). *Council Regulation (EU) No 269/2014* (tech. rep.). https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02014R0269-20230426

Evenett, S., & Pisani, N. (2022). Less than Nine Percent of Western Firms Have Divested from Russia. *Available at SSRN 4322502*.

Fagre, N., & Wells, L. T. (1982). Bargaining power of multinationals and host governments. *Journal of International Business Studies*, *13*, 9–23.

Farrell, H., & Newman, A. L. (2019a). *Of Privacy and Power: The Transatlantic Struggle Over Freedom and Security*. Princeton University Press.

Farrell, H., & Newman, A. L. (2019b). Weaponized interdependence: How global economic networks shape state coercion. *International Security*, *44*(1), 42–79.

Financial Times. (2023). Russia/Ukraine: companies weigh investor disapproval with cost of exit.

Fong, G. R. (2000). Breaking new ground or breaking the rules: Strategic reorientation in US industrial policy. *International Security*, *25*(2), 152–186.

Foss, N. J., & Pedersen, T. (2002). Transferring knowledge in mncs: The role of sources of subsidiary knowledge and organizational context. *Journal of International Management*, *8*(1), 49–67.

Freeland, C. (2000). *Sale of the century: Russia's wild ride from communism to capitalism*. Little Brown.

Frieden, J. A., & Lake, D. A. (2002). *International political economy: perspectives on global power and wealth.* Routledge.

Garrido, M. M., Kelley, A. S., Paris, J., Roza, K., Meier, D. E., Morrison, R. S., & Aldridge, M. D. (2014). Methods for constructing and assessing propensity scores. *Health Services Research, 49*(5), 1701–1720.

Gaur, A., Settles, A., & Väätänen, J. (2023). Do Economic Sanctions Work? Evidence from the Russia-Ukraine Conflict. *Journal of Management Studies.*

Gholz, E., & Hughes, L. (2021). Market structure and economic sanctions: The 2010 rare earth elements episode as a pathway case of market adjustment. *Review of International Political Economy, 28*(3), 611–634.

Gholz, E., & Press, D. G. (2010). Protecting "the prize": Oil and the us national interest. *Security Studies, 19*(3), 453–485.

Ghoshal, S., & Bartlett, C. A. (1988). Creation, adoption and diffusion of innovations by subsidiaries of multinational corporations. *Journal of International Business Studies, 19*, 365–388.

Gilpin, R. G. (2011). *Global Political Economy: Understanding the International Economic Order.* Princeton University Press.

Gisselquist, R. M. (2014). Paired comparison and theory development: Considerations for case selection. *PS: Political Science & Politics, 47*(2), 477–484.

Giumelli, F., & Onderco, M. (2021). States, firms, and security: How private actors implement sanctions, lessons learned from the Netherlands. *European Journal of International Security, 6*(2), 190–209.

Gottemoeller, R. (2007). The evolution of sanctions in practice and theory. *Survival, 49*(4), 99–110.

Greenaway, D., & Kneller, R. (2007). Firm heterogeneity, exporting and foreign direct investment. *The Economic Journal, 117*(517), F134–F161.

Grossman, G. M., & Helpman, E. (1994). Protection for sale. *The American Economic Review, 84*(4), 833.

Haendel, D. (2019). *Foreign investments and the management of political risk.* Routledge.

Hainmueller, J. (2012). Entropy Balancing for Causal Effects: A Multivariate Reweighting Method to Produce Balanced Samples in Observational Studies (2017/01/04). *Political Analysis*, *20*(1), 25–46. https://doi.org/DOI:10.1093/pan/mpr025

Hansen, B. B. (2004). Full matching in an observational study of coaching for the SAT. *Journal of the American Statistical Association*, *99*(467), 609–618.

Hansen, W. L., Mitchell, N. J., & Drope, J. M. (2005). The logic of private and collective action. *American Journal of Political Science*, *49*(1), 150–167.

Hardin, R. (1982). *Collective action*. Resources for the Future.

Harris, R. G. (1991). Telecommunications services as a strategic industry: implications for United States Public Policy. In *Competition and the regulation of utilities* (pp. 97–119). Springer.

Hart, O. D., Thesmar, D., & Zingales, L. (2022). *Private Sanctions* (tech. rep.). National Bureau of Economic Research.

Hassan, T. A., Hollander, S., Van Lent, L., & Tahoun, A. (2019). Firm-level political risk: Measurement and effects. *The Quarterly Journal of Economics*, *134*(4), 2135–2202.

Heineken. (2023). Heineken Completes Exit from Russia. https://www.theheinekencompany.com/newsroom/heineken-completes-exit-from-russia/

Henisz, W. J., & Zelner, B. A. (2005). Legitimacy, interest group pressures, and change in emergent institutions: The case of foreign investors and host country governments. *Academy of Management Review*, *30*(2), 361–382.

Hirschman, A. O. (1958). *The Strategy of Economic Development*. Yale University Press.

Ho, D. E., Imai, K., King, G., & Stuart, E. A. (2007). Matching as nonparametric preprocessing for reducing model dependence in parametric causal inference. *Political Analysis*, *15*(3), 199–236.

Horst, T. (1972). Firm and industry determinants of the decision to invest abroad: An empirical study. *The review of economics and statistics*, 258–266.

Imahashi, R. (2022). Mitsui, Mitsubishi Slash Value of Sakhalin-2 stakes by $ 1.66bn. https://asia.nikkei.com/Business/Energy/Mitsui-Mitsubishi-slash-value-of-Sakhalin-2-stakes-by-1.66bn

Jarillo, J. C., & Martíanez, J. I. (1990). Different roles for subsidiaries: The case of multinational corporations in Spain. *Strategic Management Journal*, *11*(7), 501–512.

Jensen, N. (2008). Political risk, democratic institutions, and foreign direct investment. *The Journal of Politics*, *70*(4), 1040–1052.

Jensen, N. M., & Johnston, N. P. (2011). Political risk, reputation, and the resource curse. *Comparative Political Studies*, *44*(6), 662–688.

Jentleson, B. W. (2022). *Sanctions: What everyone needs to know®*. Oxford University Press.

Jones, L. (2015). *Societies under siege: Exploring how international economic sanctions (do not) work*. Oxford University Press, USA.

Kaempfer, W. H., & Lowenberg, A. D. (2007). The political economy of economic sanctions. *Handbook of Defense Economics*, *2*, 867–911.

Kennard, A. (2020). The enemy of my enemy: when firms support climate change regulation. *International Organization*, *74*(2), 187–221.

Keohane, R. O. (1984). *After Hegemony: Cooperation and Discord in the World Political Economy* (Vol. 54). Princeton: Princeton University Press.

Keohane, R. O., & Martin, L. L. (1995). The promise of institutionalist theory. *International Security*, *20*(1), 39–51.

Keohane, R. O., & Nye Jr, J. S. (1973). Power and interdependence. *Survival*, *15*(4), 158–165.

Kermani, A., & Ma, Y. (2023). Asset specificity of nonfinancial firms. *The Quarterly Journal of Economics*, *138*(1), 205–264.

Kerner, A. (2009). Why should I believe you? The costs and consequences of bilateral investment treaties. *International Studies Quarterly*, *53*(1), 73–102.

Kerner, A., & Lawrence, J. (2014). What's the risk? bilateral investment treaties, political risk and fixed capital accumulation. *British Journal of Political Science*, *44*(1), 107–121.

Kesternich, I., & Schnitzer, M. (2010). Who is afraid of political risk? multinational firms and their choice of capital structure. *Journal of International Economics*, *82*(2), 208–218.

Kim, I. S., Milner, H. V., Bernauer, T., Osgood, I., Spilker, G., & Tingley, D. (2019). Firms and global value chains: Identifying firms' multidimensional trade preferences. *International Studies Quarterly*, *63*(1), 153–167.

Kim, I. S., & Osgood, I. (2019). Firms in trade and trade politics. *Annual Review of Political Science*, *22*, 399–417.

King, G., Keohane, R. O., & Verba, S. (2021). *Designing social inquiry: Scientific inference in qualitative research*. Princeton university press.

Kirshner, J. (1997). The microfoundations of economic sanctions. *Security Studies*, *6*(3), 32–64.

Kirshner, J. (1998). Political economy in security studies after the cold war. *Review of International Political Economy*, *5*(1), 64–91.

Klein, B., Crawford, R. G., & Alchian, A. A. (1978). Vertical integration, appropriable rents, and the competitive contracting process. *The Journal of Law and Economics*, *21*(2), 297–326.

Kobrin, S. J. (1979). Political risk: A review and reconsideration. *Journal of international business studies*, *10*, 67–80.

Kobrin, S. J. (1980). Foreign enterprise and forced divestment in LDCs. *International Organization*, *34*(1), 65–88.

Kobrin, S. J. (1984). Expropriation as an attempt to control foreign firms in LDCs: trends from 1960 to 1979. *International Studies Quarterly*, *28*(3), 329–348.

Kobrin, S. J. (2022). *Managing political risk assessment: Strategic response to environmental change*. Univ of California Press.

Kostova, T., & Roth, K. (2002). Adoption of an organizational practice by subsidiaries of multinational corporations: Institutional and relational effects. *Academy of Management Journal*, *45*(1), 215–233.

Kreickemeier, U., & Richter, P. M. (2014). Trade and the environment: The role of firm heterogeneity. *Review of International Economics*, *22*(2), 209–225.

Lacy, D., & Niou, E. M. S. (2004). A theory of economic sanctions and issue linkage: The roles of preferences, information, and threats. *The Journal of Politics*, *66*(1), 25–42.

Lall, R. (2016). How multiple imputation makes a difference. *Political Analysis*, *24*(4), 414–433.

Lee, H., Lektzian, D., & Biglaiser, G. (2023). The effects of economic sanctions on foreign asset expropriation. *Journal of Conflict Resolution*, *67*(2-3), 266–296.

Libicki, M. C. (1990). *What makes industries strategic* (tech. rep.). National Defense University, Institute for National Strategic Studies.

Mahon, J. E. (2010). *Mobile capital and Latin American development*. Penn State Press.

Malesky, E. J., & Mosley, L. (2018). Chains of Love? Global Production and the Firm-Level Diffusion of Labor Standards. *American Journal of Political Science, 62*(3), 712–728.

Marlles, J. R. (2006). Public purpose, private losses: Regulatory expropriation and environmental regulation in international investment law. *J. Transnat'l L. & Pol'y, 16*, 275.

Mastanduno, M. (1999). Economic statecraft, Interdependence, and national security: Agendas for research. *Security Studies, 9*(1-2), 288–316. https://doi.org/10.1080/09636419908429402 doi: 10.1080/09636419908429402.

McLean, E. V., Ryu, J., & Whang, T. (2023). The effect of economic coercion on companies' foreign direct investment decisions: Evidence from sanctions against russia. *Conflict Management and Peace Science*, 07388942231198490.

Meyer, K. E., Fang, T., Panibratov, A. Y., Peng, M. W., & Gaur, A. (2023). International business under sanctions. *Journal of World Business, 58*(2), 101426.

Milner, H. V. (1988). *Resisting Protectionism: Global Industries and the Politics of International Trade*. Princeton University Press.

Milner, H. V., & Kubota, K. (2005). Why the move to free trade? Democracy and trade policy in the developing countries. *International Organization, 59*(1), 107–143.

Mitsui. (2022a). MOL Statement on the Russian-Ukrainian Situation. https://www.mol.co.jp/en/pr/2022/22029.html

Mitsui. (2022b). Sakhalin II Project. https://www.mitsui.com/jp/en/release/2022/1244554_13406.html

Moore, K., & Birkinshaw, J. (1998). Managing knowledge in global service firms: Centers of excellence. *Academy of Management Perspectives, 12*(4), 81–92.

Moran, T. H. (1973). Transnational strategies of protection and defense by multinational corporations: Spreading the risk and raising the cost for nationalization in natural resources. *International Organization, 27*(2), 273–287.

Moran, T. H. (1983). *Multinational corporations and the politics of dependence: Copper in chile.* Princeton University Press.

Morgan, T. C., & Bapat, N. A. (2003). Imposing sanctions: States, firms, and economic coercion. *International Studies Review, 5*(4), 65–79.

Murtha, T. P., & Lenway, S. A. (1994). Country capabilities and the strategic state: How national political institutions affect multinational corporations' strategies. *Strategic management journal, 15*(S2), 113–129.

Narizny, K. (2007). *The Political Economy of Grand Strategy.* Cornell University Press.

Narula, R. (2018). Multinational firms and the extractive sectors in the 21st century: Can they drive development? *Journal of World Business, 53*(1), 85–91.

OECD. (1991). *Strategic industries in a global economy: Policy issues for the 1990s.*

Office of Foreign Assets Control. (2023). *Sectoral Sanctions Identifications List* (tech. rep.). US Department of Treasury. https://www.treasury.gov/ofac/downloads/ssi/ssilist.pdf

Olson, M. (1971). *The Logic of Collective Action: Public Goods and the Theory of Groups.* Harvard University Press.

Osgood, I. (2017). Industrial fragmentation over trade: The role of variation in global engagement. *International Studies Quarterly, 61*(3), 642–659.

Osgood, I. (2018). Globalizing the supply chain: Firm and industrial support for us trade agreements. *International Organization, 72*(2), 455–484.

Pape, R. A. (1997). Why economic sanctions do not work. *International Security, 22*(2), 90–136.

Paterson, S. L., & Brock, D. M. (2002). The development of subsidiary-management research: Review and theoretical analysis. *International business review, 11*(2), 139–163.

Patomäki, H. (2007). *The political economy of global security: War, future crises and changes in global governance.* Routledge.

Peksen, D. (2019). When do imposed economic sanctions work? A critical review of the sanctions effectiveness literature. *Defence and Peace Economics, 30*(6), 635–647.

Pitron, G. (2022). The geopolitics of the rare-metals race. *The Washington Quarterly, 45*(1), 135–150.

Ramamurti, R. (2001). The obsolescing 'bargaining model'? MNC-host developing country relations revisited. *Journal of International Business Studies, 32*, 23–39.

Riordan, M. H., & Williamson, O. E. (1985). Asset specificity and economic organization. *International Journal of Industrial Organization, 3*(4), 365–378.

Rodman, K. A. (2001). *Sanctions beyond borders: multinational corporations and US economic statecraft.* Rowman Littlefield.

Rodrik, D. (2004). Industrial policy for the twenty-first century. *Available at SSRN 666808.*

Rogtec. (2023). Weatherford Plans to Continue Operations in Russia. https://www.rogtecmagazine. com/weatherford-plans-to-continue-operations-in-russia/

Rosenbaum, P. R. (1991). A characterization of optimal designs for observational studies. *Journal of the Royal Statistical Society: Series B (Methodological), 53*(3), 597–610.

Roth, K., & Morrison, A. J. (1992). Implementing global strategy: Characteristics of global subsidiary mandates. *Journal of International Business Studies, 23*, 715–735.

Rudra, N., & Jensen, N. M. (2011). Globalization and the politics of natural resources. *Comparative Political Studies, 44*(6), 639–661.

Shin, G., Choi, S.-W., & Luo, S. (2016). Do economic sanctions impair target economies? *International Political Science Review, 37*(4), 485–499.

Simmons, B. A. (2014). Bargaining over BITs, arbitrating awards: The regime for protection and promotion of international investment. *World Politics, 66*(1), 12–46.

Smith, A. (1995). The success and use of economic sanctions. *International Interactions, 21*(3), 229–245.

Smith, E. (2023). Nearly a year on from the supposed Russian exodus, most major companies have yet to withdraw.

Sonnenfeld, J., & Yale Research Team. (2022). Yale CELI List of Companies Leaving and Staying in Russia. https://www.yalerussianbusinessretreat.com

Statista. (2022). Number of foreign companies and their subsidiaries in Russia as of March 2022, by headquarters location. https://www.statista.com/statistics/1301719/number-of-foreign-companies-by-origin-russia/#:$%5Csim$:text=Number%20of%20foreign%

20companies%20and%20subsidiaries%20in%20Russia%202022%2C%20by%20origin&
text=A%20total%20of%20723%20foreign,Russia%20as%20of%20March%202022.

Stephanides, J., Cortright, D., Lopez, G. A., Bondi, L., Biersteker, T. J., Brzoska, M., Chopra, J., Conroy, R. W., Doxey, M. P., & Eckert, S. E. (2002). *Smart Sanctions: Targeting Economic Statecraft*. Rowman Littlefield.

Strange, S. (1991). Big Business and the State. *Millennium*, *20*(2), 245–250.

Strange, S. (1996). *The retreat of the state: The diffusion of power in the world economy*. Cambridge University Press.

Stuart, E. A., & Green, K. M. (2008). Using full matching to estimate causal effects in nonexperimental studies: examining the relationship between adolescent marijuana use and adult outcomes. *Developmental Psychology*, *44*(2), 395.

The Atlantic Council. (2022). Russia Sanctions Database. https://www.atlanticcouncil.org/blogs/econographics/russia-sanctions-database/

The White House. (2022). United States and Allies and Partners Impose Additional Costs on Russia.

Thrall, C. (2021). Public-private governance initiatives and corporate responses to stakeholder complaints. *International Organization*, *75*(3), 803–836.

Tsebelis, G. (1990). Are sanctions effective? A game-theoretic analysis. *Journal of Conflict Resolution*, *34*(1), 3–28.

Vela-Almeida, D., Gonzalez, A., Gavilán, I., Sánchez, G. M. F., Torres, N., & Ysunza, V. (2022). The right to decide: A triad of participation in politicizing extractive governance in latin america. *The Extractive Industries and Society*, *9*, 100875.

Vernon, R. (1971). *Sovereignty at bay: The multinational spread of US Enterprises*. New York: Basic Books.

Vivoda, V. (2011). Bargaining model for the international oil industry. *Business and Politics*, *13*(4), 1–34.

Wagner, R. H. (1988). Economic interdependence, bargaining power, and political influence. *International Organization*, *42*(3), 461–483.

Weatherford. (2022). Weatherford Announces Update on Russia Operations. https://www.weatherford.com/investor-relations/investor-news-and-events/news/news-article/?ItemID=15476

Wellhausen, R. L. (2014). *The shield of nationality: When governments break contracts with foreign firms*. Cambridge University Press.

Wellhausen, R. L. (2019). International investment law and foreign direct reinvestment. *International Organization*, *73*(4), 839–858.

Wilson, J. Q. (1980). *The politics of regulation*. Basic Books.

Appendix

A. Additional Descriptive Statistics

A1. Summary Statistics

Table 2: Summary Statistics

Statistic	N	Mean	St. Dev.	Min	Max
extractive	1,301	0.105	0.307	0	1
Russia	1,301	2.533	6.139	0	66
Sub_US_allies	1,301	223.990	510.210	0	4,606
US_allies	1,301	0.489	0.500	0	1
ln_market_cap	1,301	7.002	1.749	−2.617	12.292
ln_employee	1,301	9.074	2.291	0.693	14.291
year_in_Russia	1,301	16.698	4.286	0	19

A2. Balance Measures

Table 3: Full Matching Summary

	Type	Diff.Adj
distance	Distance	0.0007
US_allies	Binary	0.0118
ln_employee	Contin.	0.0385
Sub_US_allies	Contin.	0.0740
ln_market_cap	Contin.	0.1659
year_in_Russia	Contin.	0.1267
All		608 (Control) 693 (Treated)
Matched (ESS)		82.05 (Control) 693 (Treated)
Matched (Unweighted)		608 (Control) 693 (Treated)

Table 4: Matching Equation

	Dependent variable:
	treatment
US_allies	0.584***
	(0.130)
ln_employee	0.155***
	(0.033)
US_allies_Subsidiaries	0.006***
	(0.001)
year_in_Russia	−0.079***
	(0.016)
ln_market_cap	−0.130***
	(0.040)
Constant	−0.078
	(0.443)
Observations	1,301
Log Likelihood	−703.294
Note:	*p<0.1; **p<0.05; ***p<0.01

B. Robustness Check

Table 5: Entropy Balancing & BIT Control

	Dependent variable:			
	Withdraw			
	(1)	(2)	(3)	(4)
Russia_Subsidiaries	−0.103***		−0.079***	
	(0.015)		(0.016)	
extractive		−0.912***		−0.892***
		(0.186)		(0.198)
US_allies	0.065	−0.039	0.664***	0.772***
	(0.127)	(0.117)	(0.170)	(0.163)
ln_employee	0.010	0.009	−0.005	−0.015
	(0.034)	(0.032)	(0.036)	(0.035)
US_allies_Subsidiaries	0.001***	0.0004***	0.001***	0.0003***
	(0.0002)	(0.0001)	(0.0002)	(0.0001)
ln_market_cap	0.022	0.009	0.057	0.026
	(0.040)	(0.037)	(0.041)	(0.039)
year_in_Russia	0.066***	0.073***	0.056***	0.060***
	(0.013)	(0.012)	(0.013)	(0.012)
BIT			−0.986***	−1.233***
			(0.177)	(0.168)
Constant	0.047	−0.887**	0.219	−0.227
	(0.536)	(0.400)	(0.513)	(0.410)
Observations	1301	1301	1301	1301
Industry FEs	Yes	No	Yes	No

Note: *p<0.1; **p<0.05; ***p<0.01

Table 6: Ordered Logit

	Dependent variable:	
	Grade	
	(1)	(2)
Russia_Subsidiaries	−0.065***	
	(0.011)	
extractive		−0.499***
		(0.167)
US_allies	−0.024	−0.119
	(0.109)	(0.103)
ln_employee	0.019	−0.003
	(0.030)	(0.030)
US_allies_Subsidiaries	0.0004***	0.0001
	(0.0001)	(0.0001)
ln_market_cap	0.068**	0.044
	(0.034)	(0.033)
year_in_Russia	0.051***	0.055***
	(0.011)	(0.010)
Digging In|Buying Time	−1.623***	−0.495
	(0.331)	(0.346)
Buying Time|Scaling Back	−0.957***	0.135
	(0.332)	(0.346)
Scaling Back|Suspension	−0.373	0.677*
	(0.334)	(0.346)
Suspension|Withdrawal	1.253***	2.204***
	(0.339)	(0.350)
Observations	1301	1301
Industry FEs	Yes	No
Note:	*p<0.1; **p<0.05; ***p<0.01	

Table 7: Full matching with US firm

	Dependent variable:	
	Withdraw	
	(1)	(2)
Russia_Subsidiaries	−0.095***	
	(0.015)	
extractive		−0.876***
		(0.177)
US_firm	0.361**	0.693***
	(0.162)	(0.144)
ln_employee	−0.011	−0.016
	(0.036)	(0.034)
US_allies_Subsidiaries	0.001***	0.0003**
	(0.0002)	(0.0001)
ln_market_cap	0.031	0.001
	(0.042)	(0.038)
year_in_Russia	0.068***	0.085***
	(0.013)	(0.012)
Constant	−0.077	−0.978**
	(0.518)	(0.385)
Observations	1301	1301
Industry FEs	Yes	No
Note:	*p<0.1; **p<0.05; ***p<0.01	