# Statecraft through State-directed Private Governance: Regulatory Guidelines Improve Business Sanction Compliance in Cross-border M&As

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**Abstract**

Governments increasingly encourage private companies to self-regulate and voluntarily avoid risky businesses to comply with economic sanctions. Does state-led private governance work, and if so, how? Drawing on elite interviews and industry analysis, I argue that state-directed private governance improves prudence among firms with high perceived business-specific and transaction-specific risks. Focusing on a 2019 framework by the Office of Foreign Assets Control (OFAC), which prompted global firms to develop internal sanction compliance systems, I examine private sanction compliance through due diligence in cross-border mergers and acquisitions (M&As)—an important form of international investment. Empirically, I first develop a novel, sector-based measure of business-specific sanction risk perception using past OFAC enforcement cases. I then conduct transaction-level analyses on 7,749 cross-border M&As from the Orbis dataset. After the OFAC framework, M&As involving risky-sector acquirers are, on average, 18% less likely to succeed if due diligence extends beyond five months, indicating significant transaction-specific risks. This reduction in success could reach 68% when due diligence lasts 33 months. However, the difference between deals in risky and non-risky sectors is insignificant pre-framework. These findings suggest that private self-regulation complements state regulatory oversight in economic statecraft, enabling firms to make more informed business decisions.

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The "retreat of the state" in an era of economic globalization led to the rise of private governance alongside state authority in international politics (Strange, 1996). The prominent theoretical debate in global goernance revolves around how international organizations and transnational advocacy groups foster private self-regulation, addressing the international "governance gap" (Thrall, 2021; Morse, 2021; Büthe and Mattli, 2011; Abbott and Snidal, 2010). Yet great powers still influence global regulatory outcomes (Drezner, 2007). Recently, major sanctioning states have introduced private governance mechanisms in the "high politics" regulatory domains such as national security, prompting firms towards self-regulated compliance. Notably, in 2019, the US Office of Foreign Asset Control (OFAC) released a framework for corporate sanction compliance that set industry best practices (OFAC, 2019). Existing explanations fall short of explaining why state oversight and private self-regulation coexist in the same governance regime, blurring the distinctions between genuine private governance and coerced compliance. This development raises an important theoretical question: Can private governance effectively operate under state oversight, or does it merely reflect the state's coercive power?

Effective state-led private governance must be self-enforcing. The state faces resource constraints and incomplete information about firm operations. Private governance alleviates these enforcement challenges by outsourcing costly information gathering to firms, encouraging them to *voluntarily avoid risky businesses* that could compromise national security. As the Department of Justice (DoJ) Deputy Attorney-General (AG) Lisa Monaco said, corporate compliance officers not only protect companies and shareholders but "more and more frequently that means protecting national security" (DoJ, 2023). For firms, private compliance offers transaction-specific information, enabling what I call *contextual* decision-making, where firms tailor responses to their distinctive business characteristics.

In this study, I examine transaction risk verification, specifically due diligence, in cross-border mergers and acquisitions (M&As)—a key source of international investment where two firms merge into one single entity. M&A is a tricky area for sanction compliance because the transfer of ownership could subject the target firm's previous business relationships to extraterritorial sanctions post-acquisition.

Building on elite interviews and industry analysis, I argue that state-led private governance effectively motivates firms to be more selective of business partners when firms perceive significant business-specific and transaction-specific risks. Business-specific risk refers to firms' expected probability and impact of future state enforcement due to their business characteristics. Enforcement actions serve as a general deterrence to ensure broad-based compliance. Such deterrence operates through firms' risk heuristic based on *past sanction enforcement cases involving same-sector peers*. I argue that this deterrence is effective when firms can identify similarities in business models and risk factors with past violators operating within the same sector as themselves.

Transaction-specific risk refers to firms' uncertainty or lack of confidence regarding potential negative outcomes post-completion. I use the *length of due diligence* to measure transaction-specific risk in M&As. Firms face a cost-uncertainty tradeoff in determining the optimal endpoint for due diligence. On one hand, due diligence is expensive; Firms



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aim to complete the process as quickly as possible (Luypaert and De Maeseneire, 2015). On the other hand, uncertainties are prevalent in most M&A transactions, so prolonged due diligence enhances information accuracy (Ragozzino and Moschieri, 2014; Parvinen and Tikkanen, 2007). Premature completion of due diligence may increase post-acquisition uncertainties (Wangerin, 2019). The length of due diligence thus reflects firms' subjective assessment of the transaction-specific risk. As state-led private governance initiatives raise compliance awareness, firms with high risk on both dimensions are less likely to complete M&A deals because the expected costs may exceed potential returns from consolidation.

Empirically, I take two steps to test my theoretical claims. First, I introduce a novel measure of business-specific risk based on sector similarities with past sanction violators. I code primary sectors of violators in OFAC enforcement actions between 2016-2021. Sectors with consistent enforcement activity both before and after the OFAC private compliance framework in 2019 are categorized as high-risk, whereas those with sporadic or no enforcement actions are considered low-risk. This approach reflects common practice among professionals and lawyers who often reference OFAC enforcement cases to assess firm-level sanction risks and enhance corporate compliance awareness.

Second, I analyze a sample of 7,749 Orbis cross-border M&As between 2016-2021. Using the Cox proportional hazard model, I examine the likelihood of deal success across varying lengths of due diligence, a proxy for transaction-specific risk, before and after the implementation of the OFAC framework. I find that high-risk-sector transactions are on average 18% less likely to succeed if due diligence lasts five months or longer after the OFAC framework in 2019. This reduction could rise to 68% when due diligence lasts 33 months. Before the framework, deals initiated by risky-sector firms are generally no different than ones from non-risky counterparts. This suggests that the OFAC framework, by clarifying regulatory expectations, prompted risky-sector firms to exercise caution in closing deals when extended due diligence indicates high transaction-specific risks. For robustness, I use a list of low-salience sectors as the placebo risk coding and find it has no impact on M&A prudence.

This study advances an evolving debate on state authority in private governance, highlighting the *informational value* of private compliance in facilitating contextual business decision-making when the deterrence of state enforcement looms in the backdrop. Much of the existing work focused on the institutional dynamics of direct state intervention in private governance (Renckens, 2020; Werner, 2012). However, private compliance is context-dependent and hinges on the subjective judgment of the corporate management team. Understanding the informational role of private compliance contributes to our understanding of firm agency in state-endorsed private governance.

Substantively, this study enriches the economic sanctions literature by providing a novel theoretical angle on firm compliance behavior and fills the empirical gap in economic sanction enforcement. Despite the importance of firm-level theories in sanction compliance (Early and Cilizoglu, 2020), research to date has relied on aggregate economic data to test firm-level arguments. This study offers a nuanced view of state-business interactions in an understudied area of private sanction governance and is the first to use transaction-level data to empirically examine business responses to state sanction enforcement.



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# 1 The Politics of State-directed Private Governance

The global private governance literature focused on how business self-regulation serves as an alternative to address the "governance gap" of deepening globalization, challenging the state-centric approach (Vogel, 2008; Hall and Biersteker, 2002; Haufler, 2001). Much of the theoretical discussions revolve around how international organizations or transnational advocacy groups operate as a source of information or legitimacy, incentivizing business self-regulation (Thrall, 2021; Morse, 2021; Büthe and Mattli, 2011; Abbott and Snidal, 2010). However, Drezner (2007) argued that great powers—states with sovereign rule over large internal markets—still largely drive global regulatory outcomes; Non-state actors, including multinational corporations (MNCs), are poor substitutes for great-power regulators, although they do change the process of global governance. Recent work explicitly analyzed how public authority sometimes intervenes in private governance of global sustainability (Renckens, 2020). However, little is known about the effectiveness of state-endorsed private governance in regulating "high politics" areas like economic statecraft.

In recent years, states have increasingly pushed for private governance as a critical step to achieving national security goals, expanding the scope of private self-regulation beyond conventional areas of sustainability, labor rights, financial transparency, and anti-corruption. According to Deputy AG Lisa Monaco, "in today's complex and uncertain geopolitical.....environment, corporate crime and national security are overlapping to a degree never seen before" (DoJ, 2023). On 2 May, 2019, the US sanction enforcement agency released "A Framework for OFAC Compliance Commitments"[1], providing practical guidelines on how companies should structure their internal compliance programs to avoid potential violations. It outlines five components for effective compliance programs: management commitment, risk assessment, internal controls, testing and auditing, and training[2]. The framework elaborates on the details of these components, offers compliance best practices, and explains "root causes" for compliance failures in previous sanction enforcement.

Private governance alleviates resource and informational challenges that make top-down enforcement costly and inefficient. On resource constraints, small teams of government investigators oversee millions of diverse MNCs potentially subject to sanctions. An ex-OFAC official reported that a team of around 20 OFAC enforcement officers monitor millions of global firms across various industries subject to US sanctions programs[3]. This claim is supported by the DoJ's "dramatic expansion", which added 25 new corporate crime prosecutors on national security-related issues (DoJ, 2023). Even this increase may be insufficient if government agencies undertake all enforcement responsibilities.

A related issue is the limited information regulators possess about on-the-ground business operations. The government cannot monitor every business transaction or determine if specific conduct violates existing sanction rules given the large number of regulated firms. This lack of operational knowledge renders corporate compliance a ceremonial structure, as firms could "decouple" informal practice from formal compliance requirements to balance

[1]Throughout the paper, I abbreviate this document as "the framework" or "the OFAC framework".

[2]These advocated measures fit Carrigan and Coglianese's (2011) definition of the "new governance" approach featuring management-based regulations, information disclosure, and voluntary programs.

[3]Interview #A007.



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external pressures and organizational efficiency (Meyer and Rowan, 1977). Consequently, some organizational scholars argue that corporate compliance is "cosmetic" (Krawiec, 2003), "legitimacy façade" (MacLean and Behnam, 2010), or "symbolic management" (Fiss and Zajac, 2006). Private governance mitigates this informational constraint by outsourcing costly information gathering to firms. With the threat of regulatory actions in the background, state-endorsed private governance encourages firms to identify and prevent burgeoning misconduct from escalating to serious breaches that could undermine national security goals.

From the business perspective, private governance facilitates contextual business decision-making and enables flexible responses to potential financial and reputational penalties from state enforcement (Early and Preble, 2023). Firms don't like surprises. Private compliance examines business operations to reveal and prioritize the level of risks involved, informing firms' risk assessments. However, the procedures alone do not guarantee that firms will avoid risky deals altogether. Firms make business decisions based on whether the risk entailed is acceptable, not whether there is any risk involved. A compliance advisor at a global management consultancy noted that corporate compliance strategies and effectiveness largely come down to risk appetite[4]. Despite its costs, private compliance benefits firms by turning the uncertainty of state enforcement into manageable procedures (Power, 2007).

State-endorsed private governance does not preclude voluntary private compliance as the enforcement challenges subject national regulators to the same problems in global business governance—verifying compliance depth and obtaining operational details (Thrall, 2021). Indeed, the state can impose rules requiring firms to police themselves with coercive political power. Firms still decide the degree of effort they are willing to commit to compliance activities as the state has limited resources and knowledge to monitor detailed business operations on a large scale. Additionally, even formal compliance structures are not mandatory in the sanction compliance field. The OFAC framework only "strongly encourages" firms to commit to sanction compliance and explains that the policy is only "intended to provide organizations with a framework" (OFAC, 2019, p. 1). Therefore, firms also have control over formal sanction compliance structures.

## 2 Private Sanction Compliance in Cross-border M&As

From 2021 to 2023, cross-border M&As[5] constituted an average of 43% of global foreign direct investment (UNCTAD, 2024). Focusing on due diligence, a specific form of private compliance, I argue that formalized rules for private self-regulation lead firms to suspend potentially risky transactions when they anticipate a high probability of future state enforcement. I first explain the OFAC framework and its role in the private sanction governance regime. Then I develop the two components of my argument—business-specific and transaction-specific risks—in sequence and explain why only firms with high perceived risks

[4]Interview #A001.

[5]The term M&A describes corporate consolidation that takes either one of the two forms: (1) two companies join together and form a new company or (2) one company offers to buy 10 percent or more shares of another company. The company that wants to obtain partial or full ownership of the other company is often called the "acquirer", whereas the firm to be bought is called the "target". I will use these terms to refer to the buying and selling firms throughout the paper.



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on both dimensions are responsive to state-led private governance.

## 2.1 M&A sanction compliance and the OFAC framework

Due diligence is a critical stage in M&As. Aside from other legal and regulatory checks, sanction due diligence aims to ensure that target firms have no ownership or business relations with sanctioned entities, known as Special Designated Nationals (SDNs). OFAC regularly updates this list to align with national security goals. Due diligence screens potential transacting parties against the SDN list, including aliases, to avoid prohibited transactions with sanctioned entities. With more time and resources, this process can expand to include comprehensive background checks of target companies, supply-chain audits, employee interviews, and onsite inspections.

The extraterritorial application of US sanctions complicates cross-border M&A sanction compliance. Pre-acquisition, a target firm without US links is not subject to US sanctions. However, if merged with a company with US links, the acquirer assumes primary responsibility for any sanction violations committed by the target post-acquisition. As a legal expert noted, "acquirers have successor liability for economic sanctions violations of companies they acquire. And even in instances where the target of acquisition wasn't subject to US law prior to the acquisition, prior conduct if continued, can create liability and violations for the acquirer immediately post-closing" (Greenberg Traurig LLP, 2020, p. 73). For example, Jiangsu Guoqiang Tools (GQ), a China-based company, was not subject to US sanctions against Iran until it was incorporated into the US firm Stanley Black & Decker. During the M&A due diligence, Stanley Black & Decker identified GQ's pre-merger business ties with Iran, which the US had no jurisdictional authority over before the acquisition. However, GQ continued its trade with Iran post-acquisition, making Stanley Black & Decker liable for violating U.S. sanctions and resulting in a fine of 1.8 million dollars[6].

A "watershed" moment (Schulte Roth & Zabel LLP, 2020), the OFAC framework recommends extensive due diligence on sanction risks throughout the M&A lifecycle, which is well-received within the compliance community. "Compliance is managed by best practices", says a compliance head at a fin-tech company, citing the framework as a key documents for structuring such best practices[7]. Specifically, the framework offers the following guidelines:

> "One of the multitude of areas.....to have presented numerous challenges with respect to OFAC sanctions—are *mergers and acquisitions*.....[T]he organization engages in appropriate *due diligence* to ensure that sanctions-related issues are identified, escalated to the relevant senior levels, addressed prior to the conclusion of any transaction, and incorporated into the organization's risk assessment process" (OFAC, 2019, p. 4. Author added emphasis).

Theoretically, the OFAC framework formalizes the state expectation for private governance in sanction compliance, which was previously implicit between firms and the regulator

[6]Details of this case is available at: https://ofac.treasury.gov/media/9321/download?inline. Last accessed on July 30, 2024.

[7]Interview #A005.



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(Orrick, 2019). By clarifying regulatory goals and offering actionable procedures, the framework improves the appeal of the "fire alarm oversight" (McCubbins and Schwartz, 1984), raising firms' awareness and commitment to self-regulation.

## 2.2 Business-specific risk perception

Firms develop expectations about the probability of future state enforcement against sanction violations based on their business characteristics. Existing studies have found that firms take public cues (Gray, 2009, 2013) and categorizations (Brooks et al., 2015) to inform their investment heuristics—speculative calculations of expected risks and rewards. In the sanction enforcement realm, I argue that *shared sector membership* with past violators in sanction enforcement actions contributes to firms' risk heuristics about their business-specific characteristics. Industry membership is part of a firm's "market identity" (Han et al., 2024, p. 209). According to a forensics and integrity specialist, significant cases are important motivations for private compliance efforts, especially scandals from similar firms or competitors[8]. Firms within the same sector face similar risk factors related to suppliers, clients, or business models. Some sectors are inherently riskier than others. For example, an oil drilling company cannot survive if it does not operate in "dodgy" places, according to a compliance director at a political risk consultancy[9]. For global banks, the risk of sanction violation is consistently high as they could facilitate transactions by sanctioned entities through alias accounts or shell companies (Findley et al., 2024). Given these sector-specific risks, observing firms should anticipate similar risks when they witness consistent enforcement actions against their same-sector peers.

Strategically important sectors are also likely to be prioritized in sanction enforcement efforts. Although in theory, sanction programs can affect a wide range of sectors, some are more important in inflicting economic pain on targeted states than others. Financial institutions, for example, can be weaponized to exclude sanctioned states from interdependent economic networks (Newman and Zhang, 2023; Farrell and Newman, 2019). Strategic sectors are often the enforcement focus because of their importance for achieving sanction objectives. This regulatory priority is likely well-understood among corporate executives, leading firms within these sectors to perceive higher sanction risks. This risk perception is especially salient when there are enforcement actions against peers within the same sector.

The threat of state oversight increases firm participation in private governance (Werner, 2012). With limited resources, regulators punish violators to create broad-based fear and ensure widespread firm compliance. As Early and Preble (2023, p. 19) wrote, "[g]iven that OFAC only has the resources to engage in a limited number of significant enforcement actions, adopting a penalization strategy that maximizes the impact of its cases can help OFAC be more effective at deterring sanctions violations". The US government, facing resource constraints, has shifted its strategy from pursuing numerous smaller cases to targeting a few large "whales" to enhance deterrence of non-compliance (Early and Preble, 2020). This fear-based compliance motive, known as the "general deterrence effect", occurs when

[8]Interview #A006
[9]Interview #A003.



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enforcement actions against some firms instill fear in others, encouraging compliance (May, 2005; Thornton et al., 2005). Regulatory deterrence is effective when observing firms think they could be potential enforcement targets. Thus, state punishment acts as a deterrent only if the case is *relevant* to the observing firms. Shared membership with past violators heightens observing firms' sense of relevance, strengthening general deterrence.

### 2.3 Transaction-specific risk perception and due diligence duration

Firms should also be comfortable with the potential negative outcomes that may arise after completing a specific transaction. In M&As, this subjective assessment of post-acquisition uncertainty is captured by the *length of due diligence*. Due diligence aims to provide the buyer sufficient assurance to proceed with the deal (Snow, 2011). However, due diligence faces a "stopping problem" if the buyer is skeptical of the target's actual value (Daley et al., 2024). I focus on the "cost-uncertainty tradeoff", where firms must weigh the cost of extending the due diligence process against the uncertainties that may arise after the acquisition. Due diligence is an expensive process. It requires financial, legal, and organizational resources to gather and verify information about target firms, including financials, ownership structure, and supply chain partners. The opportunity costs of prolonged due diligence are also significant. Delaying deal completion can defer the efficiency gains expected from the merger, open space for other competitive bidding, damage the acquirer's market reputation, and complicate financing arrangements (Luypaert and De Maeseneire, 2015; Luo, 2005).

On the other hand, the risk of insufficient due diligence is substantial. Uncertainties abound in M&As as firms rarely "stage" investments (Ragozzino and Moschieri, 2014). During negotiations, acquirers and targets have "asymmetric incentives"—conflicting goals due to informational problems, bounded rationality, risk, and self-interest—that can extend the due diligence process (Parvinen and Tikkanen, 2007). The acquirer cannot approach potential risks as simple box-ticking. It is crucial to cross-check the target's information with multiple sources, including onsite audits and interviews, and to allow sufficient time for resolving potential concerns before finalizing the deal. Premature termination of due diligence can increase post-acquisition uncertainties, as the target's true quality may not be fully revealed. Deals with less comprehensive due diligence are associated with lower performance and a higher likelihood of goodwill impairment post-acquisition (Wangerin, 2019).

In practice, terminating due diligence before resolving sanction risks is a common factor for M&A sanction violations. For instance, a US-based firm Illinois Tool Works (ITW) only "warned" its M&A target, AppliChem, upon discovering the latter's Cuban business during due diligence, and then quickly proceeded with the transaction *within one month*. This decision resulted in a 5.5-million-dollar fine when AppliChem continued Cuban operations post-acquisition, violating US sanctions[10]. This hefty financial penalty could have been avoided if ITW had spent more time in due diligence to make sure that AppliChem completely ceased Cuban operations.

The cost-uncertainty tradeoff suggests that the length of due diligence reflects firms'

[10]Details of this case is available at: https://ofac.treasury.gov/media/7556/download?inline. Last accessed on July 30, 2024.



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subjective assessment of acceptable transaction risks. Generally, firms prefer to complete due diligence as quickly as possible to materialize M&A benefits. However, it makes business sense to extend the due diligence if transaction risks are significant. A longer due diligence period thus indicates higher (perceived) transaction risks. One study finds that business executives are more likely to withdraw from acquisitions when the negative information from due diligence outweighs the expected opportunities; Otherwise, they ignore the negative information (Puranam et al., 2016). If the perceived transaction risk is low, as indicated by shorter due diligence periods, firms may quickly finalize M&A deals with confidence, even if they operate in high-risk sectors. Given that the national regulator has formalized M&A due diligence in private compliance guidelines, I expect firms from high-risk sectors to be more likely to suspend deals when due diligence reveals substantial transaction risks through an extended duration.

### 2.4 Targeted sanction compliance

I elaborate on my argument along the two dimensions discussed above in Table 1, emphasizing that the OFAC framework only motivate investment prudence firms with high perceived business-specific and transaction-specific risks. Specifically, I expect that state-led private governance initiatives encourage firms to suspend transactions when both conditions are met: (1) they operate in sectors prone to sanction enforcement and (2) due diligence reveals significant transaction risks.

| | | Business-specific risk perception | |
|---|---|---|---|
| | | low | high |
| Transaction-specific risk perception | low | (pre-framework) no expectation<br>(post-framework) safe closure | (pre-framework) no expectation<br>(post-framework) informed neglect |
| | high | (pre-framework) no expectation<br>(post-framework) weak relevance | (pre-framework) no expectation<br>(post-framework) guided prudence |

Table 1: An illustration of the theoretical argument

In the pre-OFAC framework environment, there was no formal state requirement for M&A sanction compliance across different risk profiles. As a result, we should not expect significant differences in M&A behavior based on these risk profiles. Therefore, I use "no expectation" for all risk profiles, indicating that M&A success rates should be similar regardless of the combination of business-specific and sector-specific risks.

***Hypothesis 1:*** *Pre-framework, there is no significant difference in the likelihood of M&A success across different risk profiles.*

By raising compliance awareness and clarifying expectations, the OFAC framework will trigger differentiated responses based on the composition of risks. In the bottom-right cell, firms high on both business-specific and transaction-specific risks will be more cautious in proceeding with M&A transactions. I call this scenario "guided prudence". In the top-left cell, firms operating in sanction-prone sectors might anticipate a higher likelihood of future



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state enforcement, but they are not concerned about future punishment if they perceive the transaction risk to be low. I refer to this scenario as "informed neglect" because firms can safely disregard their sector-based sanction risks when due diligence reveals low deal-level uncertainties[11]. In the bottom-right cell, a firm may identify high levels of transactional risks through due diligence. However, if it operates in a sector not typically subject to sanction enforcement, the expected probability and impact of state punishment for sanction violations is relatively low. Therefore, the enforcement risk is of "weak relevance" for these M&As post-acquisition. Finally, in the top-left cell, a low-risk-sector firm that completes due diligence quickly can expect a "safe closure" of M&A deals, both business-specific and transaction-specific risks are minimal.

Comparing M&A success in the post-framework world, I expect only firms with high business-specific and transaction-specific risks to be the most selective of M&A partners because sanction risks are the most salient for this type of firm. Operating in a sanction-prone sector, firms anticipate a high chance of state sanction enforcement based on their sector membership. High transaction risks prompt these firms to extend due diligence for additional assurance. With expectations for private compliance explicated, firms with "double risks" are encouraged to suspend risky deals, as the expected cost of violation is significant.

***Hypothesis 2:*** *The OFAC framework reduces M&A deals success rate if they involve firms in risky sectors and have undergone lengthy due diligence that indicates significant transaction risks, compared to other risk categories.*

## 3 Research Design

I take two steps to test my hypotheses developed in the previous section. First, I introduce a new measure of business-specific risk perception based on past OFAC enforcement cases from 2016 to 2021. I code the primary sector of violating firms and identify high-risk sectors that had enforcement actions both before and after the 2019 OFAC framework. Sectors with isolated or no enforcement are considered low-risk. I use due diligence duration to proxy for the perceived transaction-specific risk, as the cost-uncertainty tradeoff suggests that this duration reflects firms' risk assessment. Following the standard approach in the financial economics literature, I calculate transaction-specific due diligence durations using the time difference between announcement and conclusion dates (or the last observed date if the deal is incomplete). Second, I apply the Cox proportional hazard model to analyze how sector-based sanction risk perception, conditional on due diligence length, impacts deal success before and after the OFAC framework.

This section introduces the sector-based risk perception measurement, due diligence measurement, model specifications, alternative mechanisms, and the sampling procedure. The next section discusses the results and robustness tests of the statistical analysis.

[11] For example, if due diligence reveals that the target company has no business ties with potentially sanctioned entities, the likelihood of a post-acquisition sanction violation remains low, even if the acquiring firm operates in a sanction-prone sector.



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### 3.1 Measuring sector-based risk perception with OFAC enforcement

I develop a binary variable to indicate whether a firm operates in a sector at high risk of sanction enforcement. Theoretically, sanction compliance risks can apply to all firms, as "transactions" with sanctioned entities are broadly defined. In practice, however, the sanction impact can vary across sectors, with enforcement being more intense in some than in others. To capture this variation, I compile 91 cases of OFAC enforcement actions between 2016 and 2021[12], the same period as my statistical analysis, and code the primary Standard Industrial Classification (SIC) code for each violation. Early and Preble (2023, 2020) coded and applied this database to their analyses of OFAC enforcement. This paper complements their data coding effort by focusing on the sectors of violating firms. Figure 1 plots the distribution of sectors involved in sanction enforcement cases.

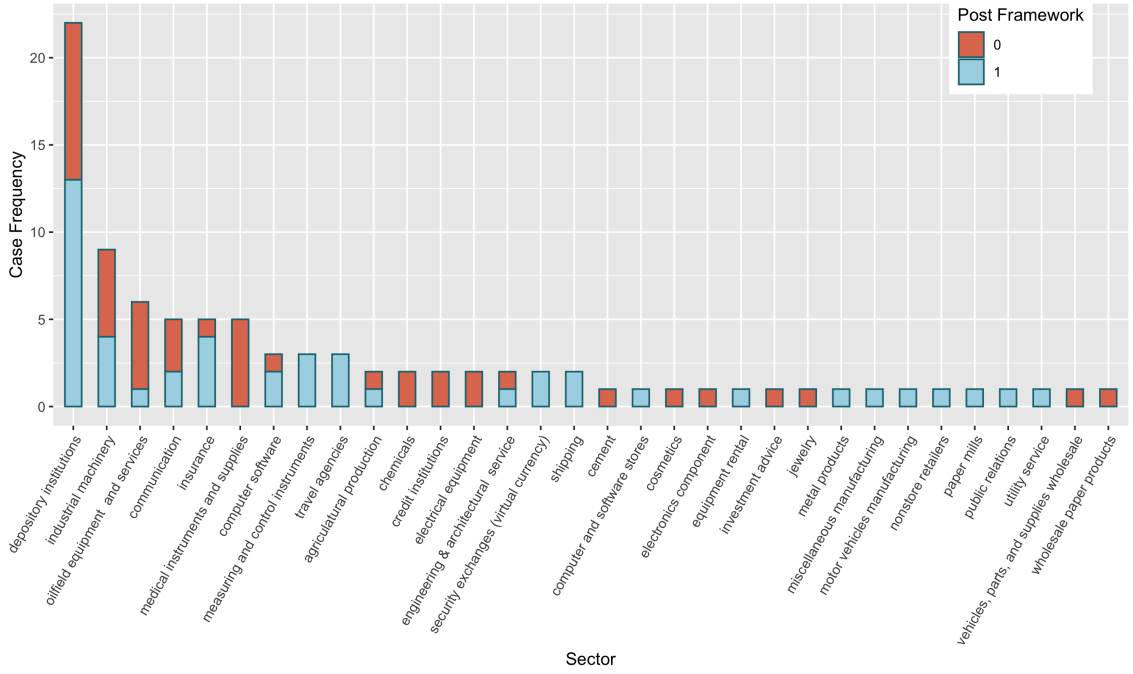


Figure 1: Number of enforcement actions by sectors

I consider only the sectors with enforcement actions occurring *both* before and after the OFAC framework as high-risk for both conceptual and empirical reasons. Conceptually, this measurement deliberately accounts for both frequency-based deterrence and the recency bias in business decision-making. Enforcement frequency matters for regulatory deterrence. Inconsistent enforcement—where sectors experience cases either only before or only after the framework—may indicate a shifting regulatory focus and, consequently, weak deterrence. Firms in sectors with sporadic enforcement are likely to be opportunistic in sanction compliance, as the perceived likelihood of punishment is low. In contrast, frequent enforcement actions against peers within the same sector reinforce firms' risk perceptions. This frequency-based deterrence operates through a cognitive mechanism known as the "availability bias", which suggests that corporate executives rely on recent cases to shape their risk assessments (Early and Preble, 2023). Additionally, sectors with frequent enforcement signal high reg-

[12]The public database on enforcement actions is available at: https://ofac.treasury.gov/civil-penalties-and-enforcement-information. Last accessed on July 30, 2024.



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ulatory priority, indicating that the state is more vigilant in ensuring compliance within strategically important sectors to uphold the effectiveness of sanctions.

Empirically, this coding decision has two advantages. First, it includes most sectors with high enforcement frequency without relying on arbitrary selections of such sectors. One tempting alternative approach is to treat all firms in sectors at time $t$ as high-risk as long as there is an enforcement case at $t-1$. However, this approach overlooks how enforcement frequency influences firms' calculation of future enforcement probabilities. For example, this alternative approach would assign the same sanction risk to depository institutions and the jewelry sector simply because both have enforcement cases. In practice, global banks have much higher sanction risk exposure than jewelry traders. Another coding option would focus on a few top high-enforcement sectors or use categorical variables to differentiate enforcement frequencies, but this would introduce arbitrary thresholds in categorizing sectors. My proposed coding scheme avoids these arbitrary decisions while considering frequency-based deterrence by excluding sectors with sporadic enforcement from the high-risk category.

The second advantage of my proposed coding rule is that it captures sector-based deterrence both before and after the OFAC framework, enabling more solid comparisons of average success rates across periods. My subsequent statistical analysis compares the average deal success rates pre- and post-framework, so a fair comparison should focus on sectors enforced in both periods. If enforcement actions only occurred after the implementation of the framework, such as in the case of virtual currencies, there would be no regulatory deterrence in the pre-framework period. Similarly, if enforcement actions only occurred before the framework, no post-framework reference exists to evaluate the framework's impact. The final list of risky sectors, shown in Table 2, includes those with enforcement cases both before and after the framework.

| SIC codes | Sector |
|---|---|
| 0100-0191 | Agriculture |
| 1300-1389 | Oil and gas extraction |
| 3500-3599 | Industrial machinery |
| 3660-3699 | Communication equipment |
| 6000-6099 | Depository institutions |
| 6300-6411 | Insurance services and brokerage |
| 7372, 7373 | Computer software |
| 8710-8713 | Engineering and architectural services |

Table 2: List of high-risk sectors

My approach to measuring sanction risk perception aligns with how sanction professionals "make the business case" to raise compliance commitment. Corporate leaders are often reluctant to invest in compliance because its benefits become evident only after regulatory breaches have occurred. Compliance professionals frequently have to convince the management that "good compliance is good business" (Parker, 2002, p. 63). In practice, compliance champions use past enforcement cases to demonstrate the relevance of sanction risks, encouraging executives to allocate more resources to compliance. Even if companies have established compliance programs, such reminders reassure business leaders that the compliance costs are justified (Thornton et al., 2005). One specific example of using OFAC



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enforcement as a business pitch for compliance is found in professional analyses. A typical analysis, like the one in Lexology (2023), cited several OFAC enforcement cases including the S&P Global and Toll Holdings Limited to demonstrate the risk of sanction violations.

A sector-based sanction risk measurement is also superior to aggregate risk proxies. One could measure sanction risk by considering whether the M&A target firm's home state is under sanctions. However, this approach is less precise at the deal level because modern sanctions are "smartly" designed to target specific activities or entities rather than entire countries. Therefore, firms can still engage in business with partially sanctioned regions if the transactions are unrelated to or exempted from sanction restrictions. For example, a state-level coding would categorize China as a U.S.-sanctioned state due to Hong Kong and Xinjiang-related restrictions. Yet, there are still thousands of acquisition deals involving Chinese companies. This does not indicate that the sanction programs are ineffective; rather, it suggests that these transactions are not prohibited under the existing sanction restrictions. A state-level measure fails to capture the nuanced differences in sanction restrictions that apply to specific business transactions.

### 3.2 Measuring transaction-specific risk with due diligence length

I use the due diligence length to proxy for transaction-specific risks in M&A deals. Measuring the sanction-related M&A compliance is difficult because deal-specific due diligence information is often confidential. This is partly because due diligence reveals the corporate secrets of target firms. Meanwhile, firms usually keep their internal compliance practices opaque to prevent potential criminals from learning how to circumvent them[13]. Due to these challenges, past research leveraged global audit experiments to test private compliance with the known-your-customer (KYC) procedures, essentially banking client due diligence, in financial transparency standards (Findley et al., 2024, 2013). Instead of pursuing resource-intensive experiments, I use observational data and measure the time difference between deal announcement and closing as a proxy for due diligence length in M&A negotiations.

This proxy of M&A due diligence is a common practice in the financial economics literature, as the process itself cannot be directly observed (Gada et al., 2021; Wangerin, 2019; Marquardt and Zur, 2015; Amel-Zadeh and Zhang, 2015). According to Wangerin (2019), there are three types of due diligence: preliminary due diligence, due diligence review (DDR), and transactional due diligence (TDD). During the preliminary due diligence, both acquirers and targets evaluate the feasibility of the deal using only public information. Once confidentiality agreements are signed, acquirers gain access to curated private information about the target firm during the DDR stage. After the signing of the acquisition agreements, acquirers can extensively verify all information on the target firm. In Figure 2, I reproduce a simplified version of the figure in Wangerin (2019, p. 2349), which illustrates the due diligence process in M&A deals.

I use the difference between a deal's announcement and closing date (or last observed date for incomplete deals) to measure due diligence efforts behind M&A deals. According to Marquardt and Zur (2015), public announcements are made after the signing of acquisition

[13]Interview #A005.



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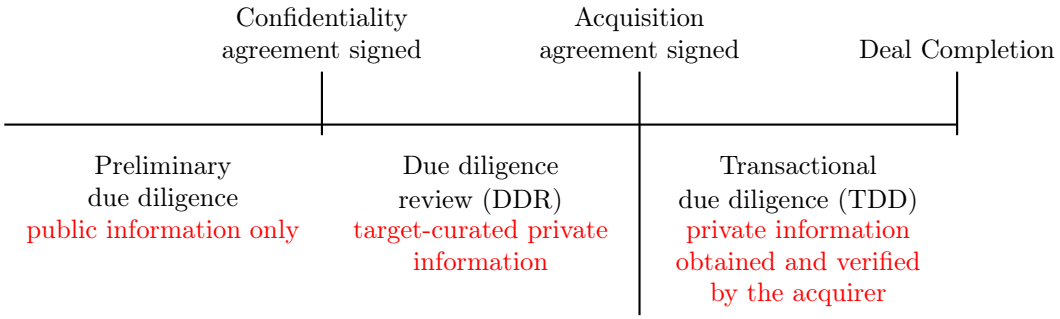


Figure 2: Due diligence process in M&A negotiations

agreements in typical M&A processes, in which case the acquirer have access to more private information on the target. Deal announcement thus captures the TDD process as depicted in Figure 2 where acquirers evaluate true sanction risk exposures of the target. This measure excludes the preliminary due diligence and DDR where both sides probe into the deal's potential, as these stages may involve rumored but not confirmed deals.

### 3.3 Model specification

My outcomes of interest are the length of due diligence and a binary variable indicating M&A deal success. Figure 3 presents the distribution of successful and unsuccessful deals across different due diligence lengths. To model the time-to-event aspect, I employ the Cox proportional hazard model to analyze the M&A event history. Since one of my dependent variables is deal success, the substantive interpretation of the "hazard rate" is the probability of deal success. The Cox model has the following semi-parametric specification:

$$h_i(t|X) = h_0(t)e^{\mathbf{X}\beta}$$

where the left-hand side is the hazard ratio for observation $i$. The non-parametric part comes in with the baseline hazard function $h_0(t)$, which is unspecified but assumed to be constant across subjects. The difference in hazard ratios is the exponential linear combinations estimated through partial likelihood.

Without constraints on the shape of the baseline hazard, the semi-parametric Cox model is often preferred over parametric event-history specifications (Golub, 2008). This is because we often lack solid *a priori* expectations for the nature of baseline hazards in the social world. The demanding proportional hazard ratio assumption, which is key to the validity of Cox models, also applies to many parametric models. However, violations of the proportional hazard assumption can be more easily identified and corrected in the Cox model, unlike in parametric models.

I follow the standard statistical remedy to correct violations of the proportional hazard assumption (Golub, 2008; Box-Steffensmeier and Jones, 2004) and provide substantive interpretation to the combined coefficients using the relative hazard ratio. The proportional hazard posits that hazard ratios are independent of time. When this assumption does not hold, as is often the case in social science research, interacting time with violating variables



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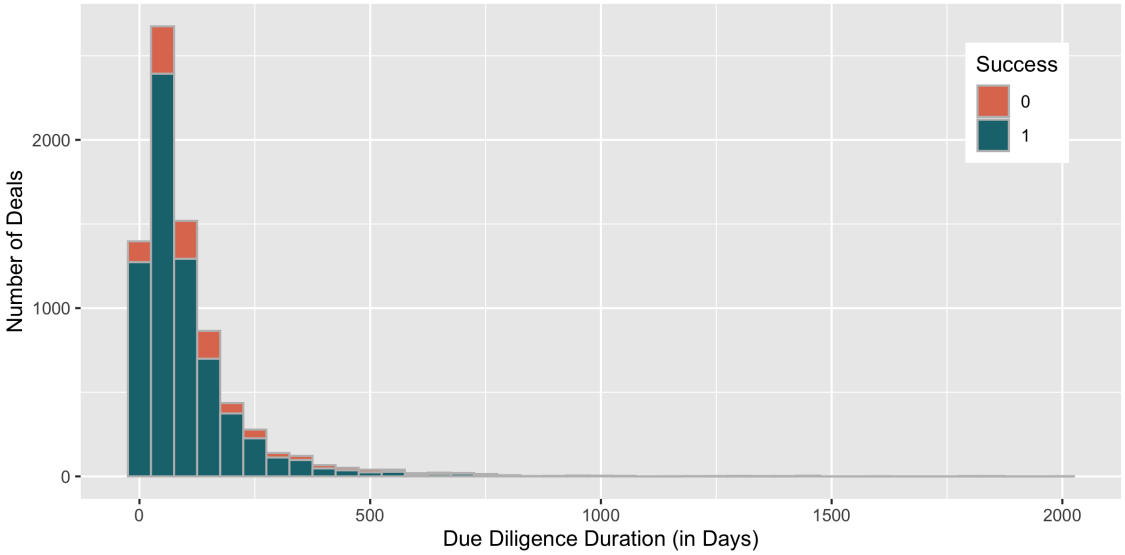


Figure 3: Deal frequency by due diligence length and final success

allows the coefficients to be conditional on the change of time. The Schoenfeld residual test identifies violations of the proportional hazard assumption for all covariates, producing chi-squared scores and p-values[14]. For each model specification, I first run the regression without any time interactions. Then I conduct the Schoenfeld residual test and include time interaction terms for covariates with test statistics less than 0.05. Full regression tables and Schoenfeld residual tests for all specifications are reported in the Statistical Appendix.

With time interactions included, I do not interact the sector-based risk perception with the indicator of whether a deal is affected by the OFAC framework (or Russian invasion) to avoid further complications. This modeling decision assumes that the impact of my explanatory variables is linearly additive, while in theory, either the OFAC framework or the Russian invasion could have non-linear effects on deals with salient sanction risks. However, the model interpretation will be too complicated if both interactions are present. It is thus a reasonable tradeoff to assume away the non-linear impact of the OFAC framework because the time interaction term is more critical to ensure valid estimations of the Cox model when the proportional hazard assumption is violated. Nevertheless, I still compare the impact of risk perception on deal success in pre- and post-framework samples separately.

I calculate the relative hazard and associated confidence intervals post-estimation to provide substantive interpretations for the combined impact of violating variables and their time interactions (Licht, 2011; Golub and Steunenberg, 2007). This modeling choice also serves a theoretical purpose as I explicitly hypothesized the interaction between sector-based risk and due diligence duration. Holding other variables constant, the relative hazard between observation $i$ that is a high-risk acquirer and a low-risk counterpart $j$ is

$$\frac{\hat{h}_i(t)}{\hat{h}_j(t)} = exp([\hat{\beta}_1 + \hat{\beta}_2 ln(t)] * risky\ acquirer)$$

[14]A p-value greater than 0.05 suggests that we fail to reject the null hypothesis where the covariate is likely to satisfy the proportional hazard assumption. A p-value smaller than 0.05 indicates a violation of proportional hazards for the particular covariate.



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where $\hat{\beta}_1$ is the coefficient for the variable *risky acquirer* and $\hat{\beta}_2$ is the coefficient for its time interaction. The standard deviation for the combined coefficient is given by

$$se_{(\beta_1+\beta_2 ln(t))} = \sqrt{var(\hat{\beta}_1) + (ln(t))^2 var(\hat{\beta}_2) + 2ln(t)cov(\hat{\beta}_1,\ \hat{\beta}_2)}$$

This approach allows me to identify the impact of sanction compliance concerns on deal success without specifying the unobserved amount of sanction-related due diligence. Relative hazards compare the impact of independent variables across deals with the same due diligence length. This identification assumes sanction-related transaction risk is comparable among deals with similar due diligence lengths.

Censoring is an important issue in event history analysis. In my data, censored observations are pending, postponed, or have no follow-up after announcements[15]. Their survival time, or due diligence length, is coded as the difference between the announcement and observation end date of December 31, 2022. The Cox proportional hazard model handles right-censored observations by allowing them to contribute to the "risk set" but not the "failure time" at each event time (Box-Steffensmeier and Jones, 2004). In the context of my M&A data, the Cox model includes all unsuccessful deals (censored or not) in the denominator and takes only successful deals as the numerator in estimating the partial likelihood function.

I use cluster-robust standard errors to account for intra-cluster correlations within the same acquiring firms, as deals from the same acquirer may share similarities. Some firms may engage in multiple M&As during the study period, and potential correlations of deals from the same company could bias the final estimates due to violation of the independent sampling assumption. By clustering the standard errors at the firm level, I adjust for within-firm correlations to obtain more reliable and robust estimates.

### 3.4 Control variables

Factors other than sanction-related concerns can influence the duration and success of M&As. Deal value can affect the M&A process as larger deals may be more complicated and take longer to complete (Lee, 2024; Luypaert and De Maeseneire, 2015). To control for this factor, I include the logarithm of deal value. Additionally, Luypaert and De Maeseneire (2015) highlighted the importance of deals' payment methods in determining the length of deal completion, as cash and tender could indicate deal complexity. I account for these factors with two binary indicators: one for cash payments and one for tender offers, each taking a value of 1 if the form of payment is used and 0 otherwise.

Industry relatedness—whether transacting parties are from the same industry—has also been shown to impact M&A duration (Luypaert and De Maeseneire, 2015) and success (Alperovych et al., 2021). Therefore, I include a binary indicator that takes a value of 1 if both acquirer and target firms have the same primary industry code, and 0 otherwise.

[15]Notably, I do not consider withdrawn deals to be right-censored because their final status is known. These deals have a zero probability of experiencing success. This should not be confused with dropouts in conventional survival analysis settings such as medical research, where subjects withdraw from the study and their final status (death) is unknown to researchers.



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Finally, I control for the target firm's home-state regime type using the Polity V scores as the literature has established the relationship between democracy and foreign direct investment (Jensen, 2003; Li, 2006). More democratic regimes may attract M&A deals, and the quality of democratic institutions may reduce due diligence length and increase a deal's chance of success. Table 3 in the Appendix displays the summary statistics of all variables.

### 3.5 Sampling procedure

I focus on a sample of 7,749 cross-border M&A deals rumored on January 1, 2016 and last observed on December 31, 2021 from Orbis, one of the largest firm-level commercial databases increasingly used in M&A research (for example, Lee, 2024; Alperovych et al., 2021). The choice of this period provides a roughly equal span before and after the OFAC Framework. Orbis contains detailed records of deal stages. A deal is considered rumored if reported by reputable business journals or websites. Announced deals are those officially confirmed by transacting parties. Beyond the announced stage, a deal can be completed, withdrawn, or become inactive. Figure 4 visualizes these major stages in M&A negotiations.

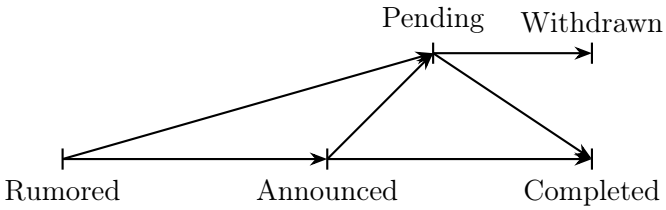


Figure 4: A Summary of M&A Deal Stages

I impose several rules in the sampling procedure. First, I focus on deals that involve only one acquirer and one target. While Orbis contains M&As with multiple acquirers and targets, it is difficult to determine sectoral sanction risk and country-level covariates when multiple firms are involved. Second, given my interest in cross-border M&As, I exclude strictly domestic deals where the acquirer and the target come from the same states. Third, I exclude hostile takeovers, as the due diligence considerations may differ from non-hostile M&As. An implicit assumption for my theory is that both parties are cooperative and want to see the transaction close as soon as possible, which may not hold for hostile takeovers.

Given my use of due diligence length as a proxy for private compliance, I exclude deals with no or imprecise due diligence time. There are three situations where the exact due diligence length is unavailable. The first scenario is a deal that has never been announced, in which case it remains in the "rumored" stage. Since I use the announcement date as a starting point of due diligence, these deals have no due diligence length as they are not officially confirmed. Substantively, it suggests the lack of agreement between transacting parties to officiate the deals.

The second scenario is when a deal is assumed to be completed by the Orbis coders without knowing the exact completion date. Both the deal status and observed due diligence length for these deals are subject to the Orbis coding rules. For certain deals that have no follow-up in two years, Orbis automatically assumes completion. Consequently, there is a



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large spike in due diligence length of 730 and 731 days due to this artificial coding rule.

The last scenario involves deals that have negative or zero due diligence length. Negative due diligence is likely a result of miscoding, while zero due diligence does not capture the actual effort that may occur before a deal's announcement. Although deals in the latter two scenarios are numerous, they do not provide substantial variations in survival time, as they concentrate on a few time points that are artifacts of the Orbis coding process[16].

# 4 Statistical Results

This section presents the statistical results. I focus on acquirers' sector-based risk perception for the main analysis, as they need to understand post-acquisition risks and bear the successor liability for potential violations. I conduct the same set of analyses for target firms' sectoral risk perception and report results in the Statistical Appendix.

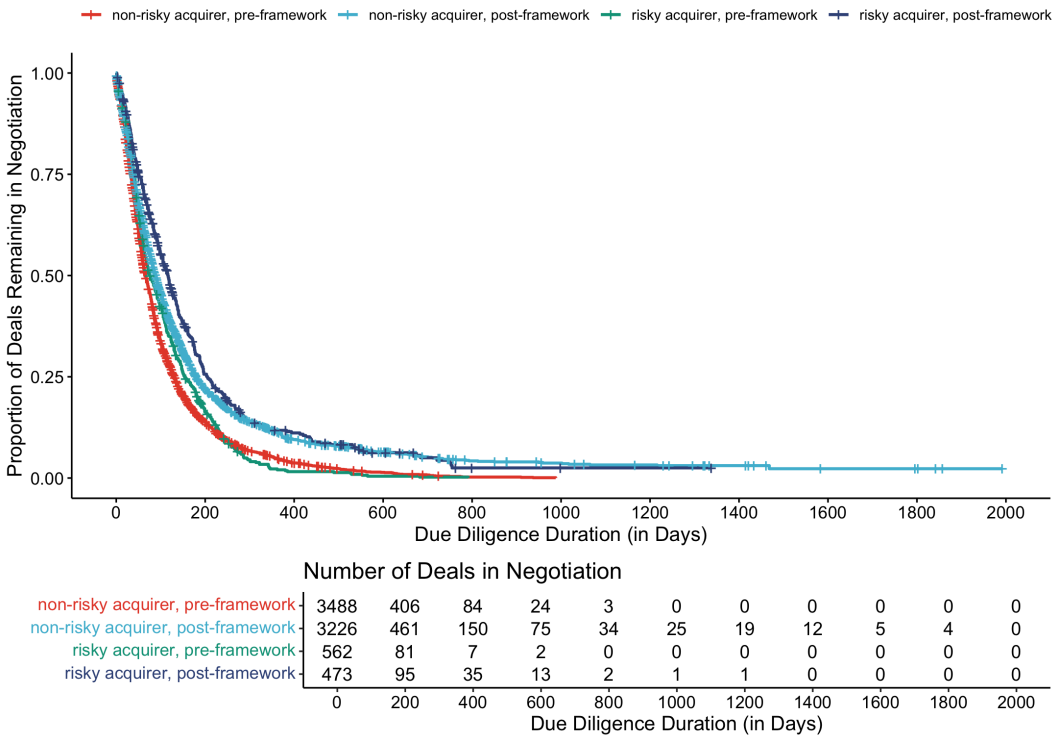


Figure 5: Kaplan-Meier survival plot by acquirer sectoral risk and the OFAC framework

Note: The Kaplan-Meier curve displays the ratio of deals still under negotiation to the total number of deals (vertical axis) over the entire range of due diligence durations (horizontal axis). The legends indicate different groups of deals, distinguishing between those involving acquirers from risky sectors and those affected by the OFAC framework. The risk table at the bottom provides the number of deals still in negotiation at each interval of due diligence length. The curve is based on the observed changes in the proportion of deals in negotiation, without assuming any specific parametric form. No control variables are included in this plot.

To start, I present the non-parametric Kaplan-Meier survival curves by sector-based risk perceptions and periods in Figure 5. Survival curves provide an intuitive visual examina-

[16]22,583 deals have zero due diligence length, and 7,603 are completed assumed. Strictly speaking, deals with zero due diligence length can be considered left-censored, while assumed completions are interval-censored. However, these censored data points are only useful if they provide meaningful information about survival times. While some assumed completed deals have varying due diligence lengths, 40% are clustered in 730 and 731 days. To avoid the selection bias regarding which deals to keep, I drop this category altogether.



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tion of the impact of sector-based risk perception on deal success across the full range of due diligence lengths. In this study, "survival" means a deal remains in negotiation or is withdrawn, as the "hazard" refers to deal success. Therefore, a higher survival probability means lower chances of success. I separate deals along two dimensions: whether they involve a risky-sector acquirer and whether they are impacted by the OFAC framework.

There are three takeaways from the survival plots. First, the proportional hazard assumption is violated as the survival curves cross multiple times, indicating that the success rate is dependent on the due diligence duration. Second, holding the OFAC framework constant, risky-sector acquirers seem to have a higher survival probability, or equivalently lower success rate, than non-risky counterparts when the due diligence length is approximately less than 300 days. However, most deals are completed within this range of due diligence, as the risk table suggests. Third, the OFAC framework appears to have reduced deal success for deals involving non-risky-sector firms as well. I interpret this as the impact of other unobserved factors that impact deal success in the post-framework period. Even so, the deals with risky-sector acquirers are even less likely to succeed post-framework.

The Kaplan-Meier survival plot has several limitations. First, it shows that deals involving risky-sector acquirers generally have lower chances of success in both periods. It does not tell us whether the OFAC framework has an impact. In other words, we don't know if risky-sector deals are less likely to succeed post-framework than risky-sector deals absent of the framework. Second, this plot does not include the impact of other important control variables that could also influence M&A success. In subsequent sections, I present formal statistical tests using the Cox proportional hazard model.

### 4.1 The OFAC framework and M&A success

I compare the success rates in pre- and post-framework samples to show that the OFAC framework prompted caution among acquirers in high-risk sectors in proceeding with M&A deals, reducing their chances of success. In a difference-in-differences setting, this comparison is captured by the interaction term. Since I do not interact the OFAC framework with the sector-based risk perception, I compare the impact of sectoral sanction risk in samples before and after the OFAC framework separately. The downside of this modeling choice is the omission of non-linear interactive effects between the framework and sectoral sanction risk perception. However, this tradeoff seems reasonable to avoid triple interactions and to simplify interpretations.

Figure 6 plots the predicted deal success rates and 95% confidence intervals for risky-sector acquirers *relative to* non-risky counterparts based on fully-specified model (4) and (8) from Table 7 in the Appendix, following the post-estimation procedures suggested by Licht (2011). A relative success rate greater than 1 indicates an increasing chance of success, while a rate less than 1 is associated with a decreasing chance of success.

The left panel shows an upward trend for the average relative success rate, suggesting that deals from risky-sector acquirers are more likely to succeed pre-OFAC framework as due diligence extends. Considering uncertainties, acquirers in high-risk sectors are generally no different from non-risky ones except for the narrow span of due diligence between 91



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and 125 days, where risky-sector acquirers are significantly more likely to conclude deals. I do not attempt to offer theoretical explanations for the pre-framework trend but can safely conclude that sector-specific characteristics contributed to this pattern. The result should also alleviate concerns that risky-sectors M&As are different from non-risky deals for reasons unrelated to the OFAC framework, as relative success rates between risky and non-risky deals are not statistically different pre-framework. This result supports my theoretical claim in Hypothesis 1, which states that M&A success are no different across risk profiles pre-framework.

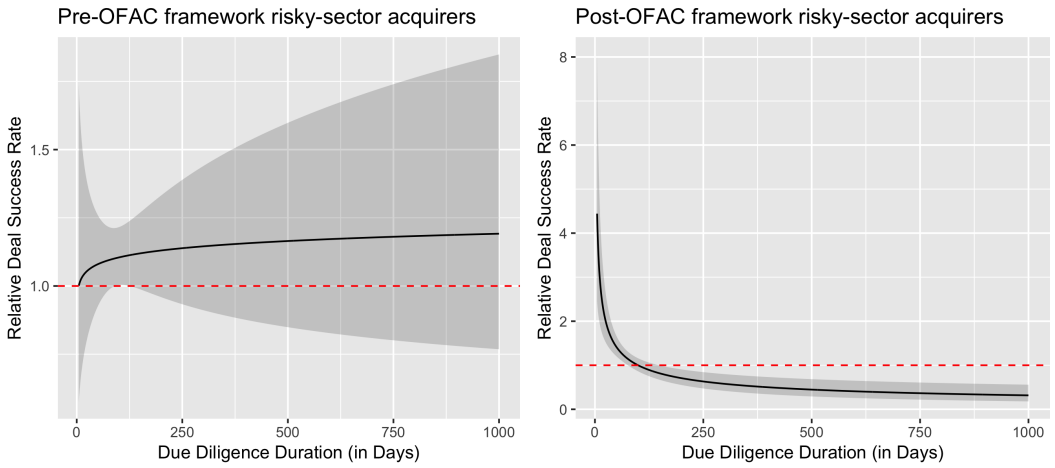


Figure 6: Predicted relative success rate by risky acquirers pre- and post-OFAC framework

Note: The solid line represents the average success rate of acquirers in risky sectors compared to those in non-risky sectors. The gray-shaded areas denote the 95% confidence intervals. A solid line above 1 (marked by the red dashed line) indicates that deals involving risky-sector acquirers are more likely to succeed than non-risky counterparts, and vice versa. The relative success rates and confidence intervals are calculated by exponentiating the combined coefficients and standard errors from models (4) and (8) in Table 7.

The post-framework pattern is completely reversed, as shown in the right panel. Prolonged due diligence reduces the success rate for deals involving high-risk acquirers. Specifically, if due diligence can be completed within 75 days—where the lower bound of the confidence interval is above 1—acquirers from risky sectors are more likely to proceed with deals compared to non-risky counterparts. However, if due diligence lasts 147 days, or roughly five months, risky-sector acquirers are on average 18% less likely to conclude deals than non-risky ones. The drop in deal success becomes more significant as due diligence protracts. When due diligence extends to 1000 days, or 33 months, risky acquirers are 68% less likely to successfully close the deal than those initiated by non-risky-sectors acquirers.

The result supports Hypothesis 2, which posits that deals involving acquirers in high-risk sectors are less likely to succeed when due diligence is extended in the post-framework period. Referring back to the theoretical illustration in Table 1, the downward slope in the right panel suggests that, with business-specific risk held constant, risky-sector acquirers gradually shift away from "informed neglect" to "guided prudence" as due diligence prolongs. Risky-sector acquirers exhibit greater caution than their non-risky counterparts, for whom sanction risk is of "weak relevance", particularly when due diligence extends beyond five



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months. Since my model evaluates the relative success rate, a direct comparison between "guided prudence" and "safe closure" is not feasible as they differ on both risk dimensions. But indirectly, for deals in low-risk sectors, M&As categorized under "weak relevance" are expected to have lower success rates than those under "safe closure" due to the extended due diligence. Given that deals under "guided prudence" have an even lower likelihood of success than those under "weak relevance", they are less likely to succeed than those in the "safe closure" category.

The results also highlight an interesting finding not anticipated by the theory. Deals in the "informed ignorance" category—ones with high business-specific but low transaction-specific risks—have higher estimated success rates relative to those under "safe closure". This difference is not significant in the pre-framework period except when due diligence lasts between 91 and 125 days. This suggests that clarity in regulatory expectations encourages the "informed neglect" strategy, allowing firms from risky sectors to proceed with deals more confidently if they perceive transaction risks to be low. The formal regulatory guideline thus amplifies the pre-framework trend where M&As involving acquirers from risky sectors were more likely to succeed.

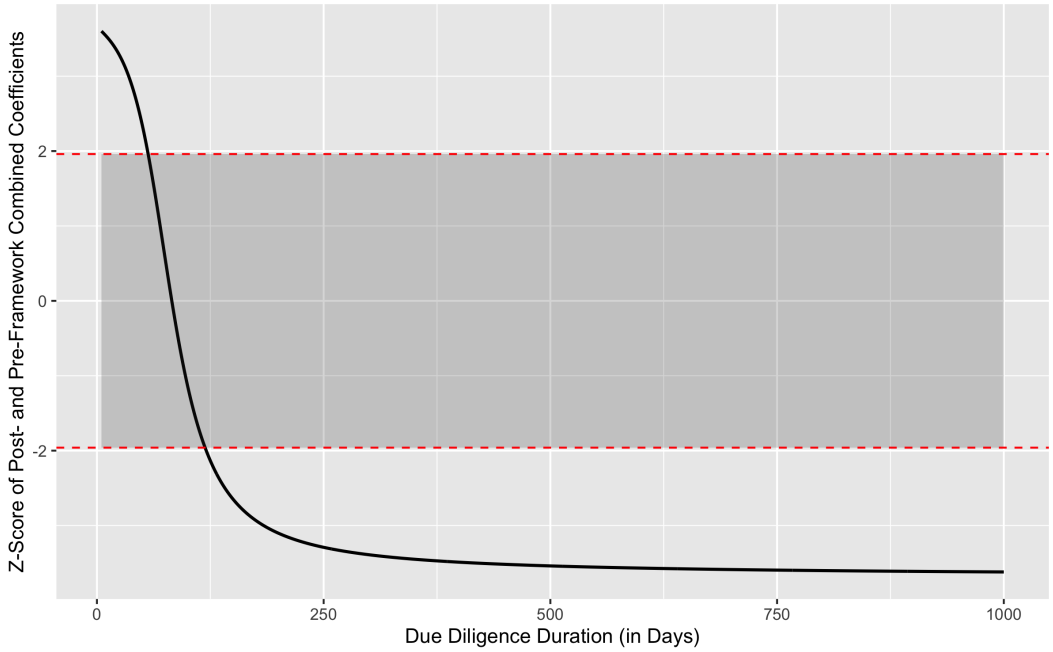


Figure 7: Difference in means test of combined coefficients before and after the framework

Note: This graph displays the test statistics for the difference-in-means of the combined coefficients used to generate the relative hazard ratios in Figure 6. The solid black line plots the trend of the Z-scores, where the numerator of the test statistic is the difference between the combined post- and pre-framework coefficients ($coef_{post} - coef_{pre}$), and the denominator is the square root of the sum of the variances associated with these coefficients ($\sqrt{se^2_{post} + se^2_{pre}}$). The dashed red lines correspond to Z-scores at the 95% confidence interval. Values within the gray zone suggest that the relative successes before and after the framework are not significantly different.

If the OFAC framework reduced M&A success for risky-sector firms undergoing extended due diligence, we should observe significant *inter-period* differences in relative success. Specifically, the post-framework relative success of risky-sector deals compared to non-risky counterparts should differ significantly from that observed pre-framework. Fig-



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ure 7 presents the difference-in-means test statistics for the relative success between pre- and post-framework. It shows that, relative to non-risky M&As, risky-sector deals are significantly less likely to succeed post-framework than that pre-framework when the due diligence lasts 120 days or more. This result suggests that the intra-period difference observed in Figure 7 is statistically significant, lending greater support to Hypothesis 2. Moreover, Figure 7 also confirms that, relative to non-risky M&As, risky-sector deals are relatively more likely to succeed post-framework compared to pre-framework if due diligence is 56 days or less.

One assumption for the inference is that, conditional on due diligence lengths, deals impacted by the OFAC framework are similar to unaffected ones. In other words, the potential selection of M&A targets and deal announcements is unrelated to the OFAC framework. Like many key assumptions in natural experiments, such as the parallel trend assumption, this cannot be empirically tested absent of a true randomized assignment.

I offer two reasons for why this assumption is justifiable. First, deal success rates for risky-sector acquirers are generally not significantly different from non-risky ones before the framework, controlling for other important variables. The difference only becomes significant post-framework. This suggests that the OFAC framework is plausibly exogenous.

Second, there are two types of deals affected by the OFAC framework: (1) those incomplete during the framework and (2) those announced after the framework. For the first type, the target has already been chosen and deals announced. The framework affects their success through transactional due diligence (TDD), a path anticipated by my theory. For the second type, I argue that the choice of M&A targets and deal announcement are likely to be *independent* of the OFAC framework because acquirers only have limited information on targets' sanction risks before the signing of acquisition agreements, at which point the deals are already announced. As discussed in Section 3.2, acquirers can only use public or target-selected private information for due diligence before announcements. Even if acquirers identified signs of sanction violations, that alone would not make or break a deal unless there are more detailed evidence of high post-acquisition risks, which could only be revealed in the TDD process after public announcements. Despite these theoretical justifications, I acknowledge that there is no definitive assurance of as-if random assignment into the OFAC framework. Therefore, I only interpret the results as well-specified observational estimates and not causal identification.

## 4.2 Placebo risk coding

One potential concern is whether sanction compliance contributes to the changing M&A behaviors for risky-sector acquirers post-framework. To alleviate this concern, I present evidence that the placebo risk measure has no impact on M&A success across varying due diligence lengths. I identify a list of "placebo" sectors—ones with low sanction compliance concerns—to further alleviate concerns that reduced deal success may be an artifact of non-sanction compliance considerations. These sectors range from everyday consumer goods like textile and building materials to entertainment services[17]. The full list of placebo sectors is

[17] Although some sectors in this list, such as textile, are potentially subject to human rights-related sanction programs. None appeared in the OFAC enforcement cases during the study period.



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reported in Table 9 of the Appendix. Although sanction compliance applies broadly, placebo sectors are unlikely to be heavily enforced because they are less geopolitically sensitive and less important for the success of sanction programs, compared to the risky sectors used in the main analysis. Additionally, placebo sectors have never appeared in the OFAC enforcement cases during the study period.

Table 13 in the Appendix reports the coefficients of placebo-sector acquirers from Cox models across different specifications. Results show that acquirers in placebo sectors are not systematically different in deal success. There is only a weak negative association, significant at the 10% confidence interval, between placebo acquirers and deal success in the pre-OFAC framework sample when time interactions for control variables are included. But this relationship does not exist in the bivariate regression. Overall, there is no robust evidence of placebo-sector acquirers being affected by the OFAC framework.

# 5 Conclusion

State-endorsed private compliance plays an increasingly prominent role in the enforcement of economic statecraft. This governance regime functions without directly relying on the coercive political power of the national government. Instead, the threat of future enforcement motivates private actors to self-regulate based on their own characteristics and the transaction information obtained through compliance activities. Highlighting the informational role of private compliance, I argue that formalized state expectations for private governance prompt firms to exercise caution in international investments when both their sector-based risk perceptions and perceived transaction risk are high.

I take two steps to empirically test this argument. First, I leverage OFAC enforcement cases to develop a measurement for firms' risk perception based on shared membership with past violators. Second, I examine how this sector-based sanction risk perception influences firms' decisions to proceed with or suspend M&A deals before and after the OFAC framework. Importantly, I find that the OFAC framework reduced deal success by an average of 19% for firms in high-risk sectors when the due diligence lasts four months or longer, indicating significant transaction risks. This targeted improvement in investment prudence does not exist in global geopolitical shocks or risk proxies unrelated to sanction concerns.

This study contributes to the growing literature on the role of public authority in private governance, which has focused on the institutional feedback loops (Werner, 2012) and public interventions as institutionalized support to domestic market actors (Renckens, 2020). My argument emphasizes that the process of private compliance itself carries *informational value* for both firms and the state. Private compliance generates operational information that enables contextual business decisions, increasing firms' flexibility in response to potential state punishment. Meanwhile, the state's resource and information constraints are mitigated when firms undertake the costly endeavor of self-regulation. This study thus complements the institutional approach in the literature by focusing on more micro-level strategic interactions between the state and businesses.

Substantively, this study fills both the theoretical and empirical gap in firm-level studies



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of sanction compliance. Existing research often theorizes firm behaviors and tests them with state-level trade and investment data (Mirkina, 2018; Barry and Kleinberg, 2015; Bapat and Kwon, 2015; Kim, 2013; Lektzian and Biglaiser, 2013; Biglaiser and Lektzian, 2011). This approach is generally appropriate if our theoretical interest is the effectiveness of sanctions as a foreign policy tool. However, to better understand firm behavior in response to state sanction enforcement, we need to avoid forcing complex adaptive corporate strategies into a binary outcome of compliance and violation. Compliance is a continuous variable, and practitioners and national regulators take a legalist approach that acknowledges the importance of context leading up to violations (Chayes and Chayes, 1993). Highlighting the theoretical importance of private governance in economic statecraft, this study addresses a lacuna in the nuanced firm-level theory of sanction compliance. In doing so, I use transaction-level investment data to enable the first empirical test of firm sanction compliance.

The evolution of economic statecraft enforcement suggests that states are adapting to the constraints globalization imposes on political authority. Instead of fighting market incentives, states recognize and embrace business considerations to forge a more collaborative relationship with MNCs. This development suggests that regulatory politics and state-business relations can be a productive area connecting international security and political economy. Firm-level studies of economic sanctions can have more productive dialogues with the literature on private governance in corporate social responsibility (Thrall, 2021; Distelhorst and Locke, 2018), financial transparency (Findley et al., 2014), labor rights (Malesky and Taussig, 2018), and anti-corruption (Jensen and Malesky, 2018; Chapman et al., 2021).



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## Statistical Appendix

| Statistic | N | Mean | St. Dev. | Min | Max |
|---|---|---|---|---|---|
| deal success | 7,749 | 0.860 | 0.347 | 0 | 1 |
| due diligence length (time) | 7,749 | 110.651 | 139.809 | 1 | 1,992 |
| risky acquirer | 7,749 | 0.134 | 0.340 | 0 | 1 |
| risky target | 7,749 | 0.134 | 0.340 | 0 | 1 |
| OFAC framework | 7,749 | 0.477 | 0.500 | 0 | 1 |
| tender offer | 7,749 | 0.159 | 0.366 | 0 | 1 |
| cash payment | 7,749 | 0.491 | 0.500 | 0 | 1 |
| target home regime | 6,386 | 7.207 | 4.832 | −10 | 10 |
| same industry | 7,749 | 0.297 | 0.457 | 0 | 1 |
| logged deal value | 5,753 | 10.503 | 2.673 | −2.049 | 17.967 |
| placebo acquirer | 7,749 | 0.060 | 0.238 | 0 | 1 |
| placebo target | 7,749 | 0.093 | 0.291 | 0 | 1 |

Table 3: Summary statistics

| | No Control Specification | | | Control Specification | | |
|---|---|---|---|---|---|---|
| | $\chi^2$ | df | p value | $\chi^2$ | df | p value |
| risky acquirer | 22.720 | 1 | 0.000 | 10.756 | 1 | 0.001 |
| OFAC framework | 6.260 | 1 | 0.012 | 12.555 | 1 | 0.000 |
| tender offer | | | | 13.249 | 1 | 0.000 |
| cash payment | | | | 0.761 | 1 | 0.383 |
| same industry | | | | 5.337 | 1 | 0.021 |
| logged deal value | | | | 115.135 | 1 | 0.000 |
| target home regime | | | | 0.349 | 1 | 0.555 |
| | | | | | | |
| risky target | 10.600 | 1 | 0.001 | 7.452 | 1 | 0.006 |
| OFAC framework | 6.210 | 1 | 0.013 | 12.524 | 1 | 0.000 |
| tender offer | | | | 13.276 | 1 | 0.000 |
| cash payment | | | | 0.765 | 1 | 0.382 |
| same industry | | | | 5.327 | 1 | 0.021 |
| logged deal value | | | | 114.967 | 1 | 0.000 |
| target home regime | | | | 0.403 | 1 | 0.526 |

Table 4: Schoenfeld test for proportional hazard assumption (risky acquirers and targets, all periods)



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| | *Dependent variable:* | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | deal success | | | | | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| risky acquirer | −0.111*** | 2.830*** | −0.154*** | 1.241*** | | | | |
| | (0.035) | (0.200) | (0.045) | (0.362) | | | | |
| risky acquirer×time | | −0.619*** | | −0.270*** | | | | |
| | | (0.043) | | (0.085) | | | | |
| risky target | | | | | −0.141*** | 2.491*** | −0.187*** | 1.278*** |
| | | | | | (0.035) | (0.173) | (0.044) | (0.412) |
| risky target×time | | | | | | −0.556*** | | −0.285*** |
| | | | | | | (0.037) | | (0.094) |
| OFAC framework | −0.329*** | 7.132*** | −0.334*** | 2.174*** | −0.329*** | 7.122*** | −0.332*** | 2.108*** |
| | (0.025) | (0.163) | (0.033) | (0.258) | (0.025) | (0.162) | (0.033) | (0.259) |
| OFAC framework×time | | −1.559*** | | −0.531*** | | −1.557*** | | −0.517*** |
| | | (0.033) | | (0.060) | | (0.033) | | (0.060) |
| tender offer | | | −0.267*** | −0.668 | | | −0.266*** | −0.677 |
| | | | (0.044) | (0.548) | | | (0.044) | (0.545) |
| tender offer×time | | | | 0.108 | | | | 0.109 |
| | | | | (0.119) | | | | (0.119) |
| cash payment | | | 0.173*** | 0.030 | | | 0.173*** | 0.038 |
| | | | (0.035) | (0.048) | | | (0.035) | (0.048) |
| same industry | | | 0.003 | 1.069*** | | | 0.005 | 1.032*** |
| | | | (0.036) | (0.352) | | | (0.036) | (0.361) |
| same industry×time | | | | −0.238*** | | | | −0.230*** |
| | | | | (0.083) | | | | (0.085) |
| logged deal value | | | −0.033*** | 1.741*** | | | −0.033*** | 1.740*** |
| | | | (0.006) | (0.047) | | | (0.006) | (0.047) |
| logged deal value×time | | | | −0.367*** | | | | −0.367*** |
| | | | | (0.011) | | | | (0.011) |
| target home regime | | | 0.032*** | 0.006 | | | 0.031*** | 0.006 |
| | | | (0.004) | (0.005) | | | (0.004) | (0.005) |
| Observations | 7,749 | 7,749 | 4,504 | 4,504 | 7,749 | 7,749 | 4,504 | 4,504 |
| Log Likelihood | −53,411.790 | −50,725.430 | −29,269.780 | −23,547.790 | −53,408.810 | −50,751.390 | −29,267.040 | −23,546.550 |
| Wald Test | 178.950*** | 3,038.650*** | 226.790*** | 1,791.850*** | 182.690*** | 3,080.420*** | 234.410*** | 1,777.510*** |
| LR Test | 186.709*** | 5,559.430*** | 267.297*** | 11,711.270*** | 192.676*** | 5,507.513*** | 272.772*** | 11,713.760*** |
| Score (Logrank) Test | 186.262*** | 5,234.703*** | 261.610*** | 8,058.658*** | 191.966*** | 5,206.389*** | 265.939*** | 8,059.228*** |

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

Robust standard errors clustering around the acquiring firms reported in the parenthesis

Table 5: Cox model (risky acquirers and targets, all periods)

| | No Control Specification | | | Control Specification | | |
|---|---|---|---|---|---|---|
| | $\chi^2$ | df | p value | $\chi^2$ | df | p value |
| *Pre-framework, Risky acquirer* | | | | | | |
| risky acquirer | 11.900 | 1 | 0.000 | 6.090 | 1 | 0.014 |
| tender offer | | | | 32.833 | 1 | 0.000 |
| cash payment | | | | 2.614 | 1 | 0.106 |
| same industry | | | | 5.668 | 1 | 0.017 |
| logged deal value | | | | 47.973 | 1 | 0.000 |
| target home regime | | | | 0.272 | 1 | 0.602 |
| *Post-framework, Risky acquirer* | | | | | | |
| risky acquirer | 12.400 | 1 | 0.000 | 4.271 | 1 | 0.039 |
| tender offer | | | | 0.133 | 1 | 0.715 |
| cash payment | | | | 5.368 | 1 | 0.021 |
| same industry | | | | 0.936 | 1 | 0.333 |
| logged deal value | | | | 58.895 | 1 | 0.000 |
| target home regime | | | | 0.964 | 1 | 0.326 |
| *Pre-framework, Risky target* | | | | | | |
| risky target | 9.230 | 1 | 0.002 | 3.561 | 1 | 0.059 |
| tender offer | | | | 32.731 | 1 | 0.000 |
| cash payment | | | | 2.742 | 1 | 0.098 |
| same industry | | | | 5.620 | 1 | 0.018 |
| logged deal value | | | | 47.010 | 1 | 0.000 |
| target home regime | | | | 0.262 | 1 | 0.609 |
| *Post-framework, Risky target* | | | | | | |
| risky target | 3.080 | 1 | 0.079 | 4.151 | 1 | 0.042 |
| tender offer | | | | 0.145 | 1 | 0.703 |
| cash payment | | | | 5.601 | 1 | 0.018 |
| same industry | | | | 0.987 | 1 | 0.320 |
| logged deal value | | | | 59.409 | 1 | 0.000 |
| target home regime | | | | 1.047 | 1 | 0.306 |

Table 6: Schoenfeld test for proportional hazard assumption (risky acquirers and targets, pre- and post-framework)



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| | *Dependent variable:* | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | deal success | | | | | | | |
| | pre-framework | | | | post-framework | | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| risky acquirer | −0.084* | 5.583*** | −0.179*** | −0.052 | −0.139*** | 5.418*** | −0.105 | 2.294*** |
| | (0.046) | (0.122) | (0.059) | (0.430) | (0.051) | (0.153) | (0.065) | (0.476) |
| risky acquirer×time | | −1.214*** | | 0.033 | | −1.138*** | | −0.499*** |
| | | (0.026) | | (0.094) | | (0.032) | | (0.109) |
| tender offer | | | −0.154*** | −0.960 | | | −0.368*** | −0.294*** |
| | | | (0.054) | (0.628) | | | (0.068) | (0.096) |
| tender offer×time | | | | 0.192 | | | | |
| | | | | (0.145) | | | | |
| cash payment | | | 0.146*** | 0.023 | | | 0.211*** | 3.102*** |
| | | | (0.049) | (0.057) | | | (0.051) | (0.365) |
| cash payment×time | | | | | | | | −0.660*** |
| | | | | | | | | (0.078) |
| same industry | | | 0.009 | 1.008** | | | −0.007 | 0.128** |
| | | | (0.049) | (0.420) | | | (0.053) | (0.064) |
| same industry×time | | | | −0.241** | | | | |
| | | | | (0.100) | | | | |
| logged deal value | | | −0.050*** | 1.875*** | | | −0.014 | 1.731*** |
| | | | (0.009) | (0.061) | | | (0.009) | (0.067) |
| logged deal value×time | | | | −0.400*** | | | | −0.360*** |
| | | | | (0.015) | | | | (0.015) |
| target home regime | | | 0.028*** | 0.001 | | | 0.036*** | 0.008 |
| | | | (0.005) | (0.006) | | | (0.005) | (0.006) |
| Observations | 4,050 | 4,050 | 2,367 | 2,367 | 3,699 | 3,699 | 2,137 | 2,137 |
| Log Likelihood | −27,620.680 | −27,320.390 | −14,827.280 | −11,774.760 | −21,228.000 | −21,025.310 | −11,743.470 | −9,086.087 |
| Wald Test | 3.350* | 2,214.730*** | 68.100*** | 1,121.380*** | 7.330*** | 1,278.120*** | 79.880*** | 871.960*** |
| LR Test | 3.303* | 603.866*** | 92.404*** | 6,197.451*** | 6.694*** | 412.062*** | 90.976*** | 5,405.740*** |
| Score (Logrank) Test | 3.239* | 700.842*** | 92.285*** | 4,530.075*** | 6.482** | 409.317*** | 86.608*** | 3,683.499*** |

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

Robust standard errors clustering around the acquiring firms reported in the parenthesis

Table 7: Cox model (risky acquirers, pre- and post-framework)

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| | *Dependent variable:* | | | | | | |
|---|---|---|---|---|---|---|---|
| | deal success | | | | | | |
| | pre-framework | | | | post-framework | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| risky target | −0.124*** | 5.564*** | −0.188*** | 0.119** | −0.153*** | −0.175*** | 1.979*** |
| | (0.045) | (0.114) | (0.060) | (0.053) | (0.053) | (0.067) | (0.483) |
| risky target×time | | −1.213*** | | | | | −0.440*** |
| | | (0.024) | | | | | (0.109) |
| tender offer | | | −0.151*** | −0.954 | | −0.366*** | −0.290*** |
| | | | (0.054) | (0.626) | | (0.068) | (0.096) |
| tender offer×time | | | | 0.190 | | | |
| | | | | (0.145) | | | |
| cash payment | | | 0.146*** | 0.024 | | 0.210*** | 3.128*** |
| | | | (0.049) | (0.056) | | (0.051) | (0.373) |
| cash payment×time | | | | | | | −0.664*** |
| | | | | | | | (0.080) |
| same industry | | | 0.011 | 0.981** | | −0.005 | 0.129** |
| | | | (0.049) | (0.419) | | (0.053) | (0.064) |
| same industry×time | | | | −0.235** | | | |
| | | | | (0.100) | | | |
| logged deal value | | | −0.051*** | 1.875*** | | −0.014 | 1.725*** |
| | | | (0.009) | (0.062) | | (0.009) | (0.067) |
| logged deal value×time | | | | −0.400*** | | | −0.359*** |
| | | | | (0.015) | | | (0.015) |
| target home regime | | | 0.027*** | 0.001 | | 0.036*** | 0.007 |
| | | | (0.005) | (0.006) | | (0.005) | (0.006) |
| Observations | 4,050 | 4,050 | 2,367 | 2,367 | 3,699 | 2,137 | 2,137 |
| Log Likelihood | −27,618.820 | −27,335.290 | −14,826.900 | −11,774.210 | −21,227.210 | −11,741.300 | −9,090.096 |
| Wald Test | 7.740*** | 2,519.790*** | 71.430*** | 1,113.660*** | 8.410*** | 84.730*** | 869.470*** |
| LR Test | 7.020*** | 574.080*** | 93.171*** | 6,198.542*** | 8.280*** | 95.311*** | 5,397.722*** |
| Score (Logrank) Test | 6.823*** | 637.692*** | 92.757*** | 4,529.976*** | 7.995*** | 90.342*** | 3,684.670*** |

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

Robust standard errors clustering around the acquiring firms reported in the parenthesis

Table 8: Cox model (risky targets, pre- and post-framework)

| SIC codes | Sector |
|---|---|
| 2300-2599 | Apparel, textile, wood products and furniture |
| 5200-5499 | Building materials, garden supplies, general merchandise, and food stores |
| 5600-5999[18] | Apparel, furniture stores, restaurants, and misc. retail |
| 6500-6553 | Real estate |
| 7800-7999 | Motion pictures, amusement and recreation services |
| 8200-8299 | Educational services |

Table 9: List of placebo sectors

| | No Control Specification | | | Control Specification | | |
|---|---|---|---|---|---|---|
| | $\chi^2$ | df | p value | $\chi^2$ | df | p value |
| *All periods, Placebo acquirer* | | | | | | |
| placebo acquirer | 1.100 | 1 | 0.290 | 0.443 | 1 | 0.506 |
| OFAC framework | 6.550 | 1 | 0.010 | 12.493 | 1 | 0.000 |
| tender offer | | | | 13.216 | 1 | 0.000 |
| cash payment | | | | 0.665 | 1 | 0.415 |
| same industry | | | | 4.840 | 1 | 0.028 |
| logged deal value | | | | 115.208 | 1 | 0.000 |
| target home regime | | | | 0.344 | 1 | 0.557 |
| *Pre-framework, Placebo acquirer* | | | | | | |
| placebo acquirer | 0.143 | 1 | 0.710 | 0.350 | 1 | 0.554 |
| tender offer | | | | 32.821 | 1 | 0.000 |
| cash payment | | | | 2.597 | 1 | 0.107 |
| same industry | | | | 5.502 | 1 | 0.019 |
| logged deal value | | | | 46.897 | 1 | 0.000 |
| target home regime | | | | 0.335 | 1 | 0.563 |
| *Post-framework, Placebo acquirer* | | | | | | |
| placebo acquirer | 1.53 | 1 | 0.220 | 0.275 | 1 | 0.600 |
| tender offer | | | | 0.136 | 1 | 0.712 |
| cash payment | | | | 5.210 | 1 | 0.022 |
| same industry | | | | 0.745 | 1 | 0.388 |
| logged deal value | | | | 59.161 | 1 | 0.000 |
| target home regime | | | | 1.020 | 1 | 0.312 |

Table 10: Schoenfeld test for proportional hazard assumption (placebo acquirers)

[18]I excluded auto retailers whose SIC codes are 5500-5599 as these sectors appeared in enforcement cases.



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| | *Dependent variable:* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | deal success | | | | | | | | | |
| | full sample | | | | pre-framework | | | post-framework | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| placebo acquirer | −0.053 | −0.088 | 0.043 | −0.133 | −0.120 | −0.048 | −0.278* | 0.042 | 0.141 | 0.036 |
| | (0.060) | (0.062) | (0.080) | (0.120) | (0.074) | (0.102) | (0.149) | (0.089) | (0.107) | (0.100) |
| OFAC framework | −0.330*** | 7.495*** | −0.331*** | 2.116*** | | | | | | |
| | (0.025) | (0.155) | (0.033) | (0.260) | | | | | | |
| OFAC framework×time | | −1.632*** | | −0.522*** | | | | | | |
| | | (0.031) | | (0.061) | | | | | | |
| tender offer | | | −0.264*** | −0.678 | | −0.146*** | −0.950 | | −0.368*** | −0.308*** |
| | | | (0.044) | (0.549) | | (0.054) | (0.631) | | (0.068) | (0.097) |
| tender offer×time | | | | 0.107 | | | 0.189 | | | |
| | | | | (0.119) | | | (0.146) | | | |
| cash payment | | | 0.171*** | 0.017 | | 0.137*** | 0.019 | | 0.212*** | 3.259*** |
| | | | (0.035) | (0.048) | | (0.048) | (0.054) | | (0.051) | (0.417) |
| cash payment×time | | | | | | | | | | −0.696** |
| | | | | | | | | | | (0.091) |
| same industry | | | −0.008 | 1.163*** | | 0.000 | 0.916** | | −0.021 | 0.107* |
| | | | (0.036) | (0.327) | | (0.049) | (0.395) | | (0.052) | (0.065) |
| same industry×time | | | | −0.258*** | | | −0.215** | | | |
| | | | | (0.075) | | | (0.091) | | | |
| logged deal value | | | −0.034*** | 1.747*** | | −0.052*** | 1.876*** | | −0.016* | 1.718*** |
| | | | (0.006) | (0.047) | | (0.009) | (0.061) | | (0.009) | (0.068) |
| logged deal value×time | | | | −0.369*** | | | −0.400*** | | | −0.357*** |
| | | | | (0.011) | | | (0.015) | | | (0.015) |
| target home regime | | | 0.031*** | 0.007 | | 0.027*** | 0.001 | | 0.036*** | 0.008 |
| | | | (0.004) | (0.005) | | (0.005) | (0.006) | | (0.005) | (0.007) |
| Observations | 7,749 | 7,749 | 4,504 | 4,504 | 4,050 | 2,367 | 2,367 | 3,699 | 2,137 | 2,137 |
| Log Likelihood | −53,416.260 | −50,905.880 | −29,275.420 | −23,567.050 | −27,620.750 | −14,831.630 | −11,771.680 | −21,231.210 | −11,743.660 | −9,112.077 |
| Wald Test | 169.860*** | 2,935.220*** | 216.830*** | 1,856.560*** | 2.600 | 60.530*** | 1,112.500*** | 0.230 | 79.690*** | 857.530*** |
| LR Test | 177.776*** | 5,198.541*** | 256.022*** | 11,672.760*** | 3.160* | 83.695*** | 6,203.596*** | 0.279 | 90.589*** | 5,353.761*** |
| Score (Logrank) Test | 177.540*** | 4,836.579*** | 250.844*** | 8,058.726*** | 3.055* | 83.503*** | 4,531.778*** | 0.282 | 86.205*** | 3,683.968*** |

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

Robust standard errors clustering around the acquiring firms reported in the parenthesis

Table 11: Cox model (placebo acquirers)

| | No Control Specification | | | Control Specification | | |
|---|---|---|---|---|---|---|
| | $\chi^2$ | df | p value | $\chi^2$ | df | p value |
| *Full sample, Placebo target* | | | | | | |
| placebo target | 6.390 | 1 | 0.012 | 0.610 | 1 | 0.435 |
| OFAC framework | 6.540 | 1 | 0.011 | 12.464 | 1 | 0.000 |
| tender offer | | | | 13.116 | 1 | 0.000 |
| cash payment | | | | 0.656 | 1 | 0.418 |
| same industry | | | | 4.933 | 1 | 0.026 |
| logged deal value | | | | 114.633 | 1 | 0.000 |
| target home regime | | | | 0.322 | 1 | 0.571 |
| *Pre-framework, Placebo target* | | | | | | |
| placebo target | 1.860 | 1 | 0.170 | 0.066 | 1 | 0.797 |
| tender offer | | | | 32.064 | 1 | 0.000 |
| cash payment | | | | 2.645 | 1 | 0.104 |
| same industry | | | | 5.257 | 1 | 0.022 |
| logged deal value | | | | 47.746 | 1 | 0.000 |
| target home regime | | | | 0.337 | 1 | 0.561 |
| *Post-framework, Placebo target* | | | | | | |
| placebo target | 3.860 | 1 | 0.054 | 0.821 | 1 | 0.365 |
| tender offer | | | | 0.100 | 1 | 0.752 |
| cash payment | | | | 4.894 | 1 | 0.027 |
| same industry | | | | 0.790 | 1 | 0.374 |
| logged deal value | | | | 59.065 | 1 | 0.000 |
| target home regime | | | | 0.833 | 1 | 0.361 |

Table 12: Schoenfeld test for proportional hazard assumption (placebo targets)



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| | *Dependent variable:* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | deal success | | | | | | | | | |
| | full sample | | | | pre-framework | | | post-framework | | |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| placebo target | 0.029 | 2.451*** | −0.024 | −0.039 | 0.088 | 0.080 | −0.158 | −0.038 | −0.150* | 0.118 |
| | (0.047) | (0.192) | (0.062) | (0.089) | (0.061) | (0.081) | (0.104) | (0.070) | (0.091) | (0.073) |
| placebo target×time | | −0.545*** | | | | | | | | |
| | | (0.042) | | | | | | | | |
| OFAC framework | −0.329*** | 7.199*** | −0.331*** | 2.102*** | | | | | | |
| | (0.025) | (0.161) | (0.033) | (0.262) | | | | | | |
| OFAC framework×time | | −1.571*** | | −0.518*** | | | | | | |
| | | (0.033) | | (0.061) | | | | | | |
| tender offer | | | −0.264*** | −0.680 | | −0.147*** | −0.936 | | −0.370*** | −0.308*** |
| | | | (0.044) | (0.550) | | (0.054) | (0.634) | | (0.068) | (0.097) |
| tender offer×time | | | | 0.107 | | | 0.187 | | | |
| | | | | (0.119) | | | (0.147) | | | |
| cash payment | | | 0.170*** | 0.019 | | 0.140*** | 0.022 | | 0.215*** | 3.257*** |
| | | | (0.035) | (0.048) | | (0.048) | (0.055) | | (0.051) | (0.416) |
| cash payment×time | | | | | | | | | | −0.696** |
| | | | | | | | | | | (0.090) |
| same industry | | | −0.006 | 1.179*** | | −0.002 | 0.939** | | −0.017 | 0.108* |
| | | | (0.036) | (0.329) | | (0.049) | (0.402) | | (0.052) | (0.065) |
| same industry×time | | | | −0.263*** | | | −0.223** | | | |
| | | | | (0.076) | | | (0.094) | | | |
| logged deal value | | | −0.034*** | 1.745*** | | −0.052*** | 1.875*** | | −0.015 | 1.720*** |
| | | | (0.006) | (0.047) | | (0.009) | (0.061) | | (0.009) | (0.068) |
| logged deal value×time | | | | −0.368*** | | | −0.400*** | | | −0.357*** |
| | | | | (0.011) | | | (0.015) | | | (0.015) |
| target home regime | | | 0.031*** | 0.007 | | 0.027*** | 0.001 | | 0.036*** | 0.009 |
| | | | (0.004) | (0.005) | | (0.005) | (0.006) | | (0.005) | (0.007) |
| Observations | 7,749 | 7,749 | 4,504 | 4,504 | 4,050 | 2,367 | 2,367 | 3,699 | 2,137 | 2,137 |
| Log Likelihood | −53,416.560 | −50,781.260 | −29,275.530 | −23,568.730 | −27,621.130 | −14,831.200 | −11,773.810 | −21,231.170 | −11,743.120 | −9,111.268 |
| Wald Test | 169.360*** | 3,044.470*** | 217.070*** | 1,852.690*** | 2.110 | 60.830*** | 1,110.250*** | 0.300 | 80.980*** | 867.250*** |
| LR Test | 177.176*** | 5,447.776*** | 255.804*** | 11,669.390*** | 2.391 | 84.567*** | 6,199.339*** | 0.350 | 91.682*** | 5,355.377*** |
| Score (Logrank) Test | 176.940*** | 5,122.028*** | 250.654*** | 8,059.424*** | 2.450 | 84.406*** | 4,533.363*** | 0.347 | 87.460*** | 3,689.292*** |

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

Robust standard errors clustering around the acquiring firms reported in the parenthesis

Table 13: Cox model (placebo targets)

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