The Enforcement of U.S. Economic Sanctions and Global De-Risking Behavior

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Abstract:

Evidence suggests that firms frequently over-comply with U.S. sanctions—a process also known as "de-risking." We argue that U.S. enforcement of its economic sanctions has contributed to this phenomenon to the extent that we can observe a systematic relationship between U.S. sanctions enforcement and third-party trade with U.S. sanction targets. Specifically, we theorize that, the greater the frequency and severity of sanctions enforcement penalties imposed by the U.S. against sanctions violators, the more third-party trade with U.S. sanction targets will decline. Analyzing data from 2003-2015, we find that U.S. sanctions enforcement actions correlate with significant declines in dyadic trade between third-party states and U.S. sanctions targets, even when enforcement actions target parties external to that dyad. This suggests that the U.S.'s enforcement of its sanctions magnifies the harm that U.S. sanctions inflict on target economies.

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Introduction

While research has shown that firms often respond to political conflict with opportunistic profit-seeking behavior (Barbieri and Levy 1999; Lektzian and Biglaiser 2013; Barry and Kleinberg 2015), a newer phenomenon has emerged in which firms exercise extreme caution in response to political risks. Rather than seeking to exploit risky but highly profitable business opportunities, many companies increasingly seek to minimize their exposure to risks associated with violating regulations related to financial crimes. This so-called "de-risking behavior" occurs when firms determine that the potential exposure to risks associated with doing business with certain categories of customers or countries lead them to stop servicing those clients altogether. Due to concerns about violating anti-money laundering (AML), countering the financing of terrorism (CFT), or sanctions requirements in places where it may be difficult to prove that transactions are legitimate, companies' risk-based compliance programs have led them to stop servicing any transactions in those locations. In such cases, firms forgo conducting legitimate business transactions in "high-risk" countries because it is too difficult to manage the risks associated with potentially illegitimate transactions that would violate AML, CFT, or sanctions compliance requirements. De-risking behavior is best known for the difficulty it creates for humanitarian organizations to operate in conflict zones, like Syria (Daher and Moret 2020), or in sanctioned jurisdictions, like Iran and Afghanistan (Moret 2015). As the practice has become more commonplace among banks and other firms, it has spread to affect large parts of Africa and the Asia-Pacific region (Asian Development Bank 2021). De-risking behavior is increasingly creating challenges for large swathes of the global population to access the global economy—with the strongest impact on economically vulnerable parties in weakly governed and conflict-prone states. In this study, we argue that the aggressive enforcement of U.S. economic sanctions has played a major role in encouraging firms to engage in de-risking behavior.

Understanding why and how sanctions enforcement actions encourage de-risking behavior contributes to existing research on the determinants of third-party sanctions busting. Thirdparty states can enhance the success of sanctioning efforts by joining senders' sanctioning efforts, particularly with the support of an international organization (Drezner 2000; Bapat and Morgan 2009; McLean and Whang 2010). Third parties can undercut sanctioning efforts, however, by increasing the amount sanctions-busting trade, aid, or investment they provide to targets (Lektzian and Souva 2007; Lektzian and Biglaiser 2013; Early 2011; 2015). Sender governments, like the U.S., can seek to coerce firms in third-party states via adding extraterritorial components to their sanctions regimes. Extraterritorial sanctions provisions are a way of expanding sanctions' jurisdiction beyond their senders' borders (Early 2016). They create legally based sanctions compliance obligations that apply to domestic citizens' and firms' activities abroad or to foreign entities whose activities fall within their jurisdiction. Such measures empower sender governments to punish sanctions violations that occur abroad and foreign actors that violate U.S. sanctions. The U.S. government is the only country to employ extraterritorial sanctions provisions on a widespread basis, given the backlash they often engender.¹ What remains obscured by the polit-

¹ The European Union, for example, has taken steps to protect itself from U.S. extraterritorial sanctions (Directorate-General for External Policies 2020).

ical disputes these measures provoke is how effective they are at discouraging third-party trade with targets.

We theorize that de-risking behavior explains why economic sanctions that are supported via significant enforcement actions can have surprisingly potent effects on disrupting third-party trade with target states. Given the U.S. government's centrality in international financial networks and the size of its markets, it is in a unique position to adopt sanctions policies that make extraterritorial demands on foreign firms' behavior. Armed with new post-9/11 authorities to regulate international financial transactions and punish violations, the U.S. Department of Treasury's Office of Foreign Assets Control (OFAC) has emerged as one as an extremely powerful international regulator capable of inflicting massive penalties on parties that undercut U.S. sanctions (Early and Preble 2020a). We argue that when OFAC takes enforcement actions against firms that violate U.S. economic sanctions, it increases pressure on foreign firms to de-risk from conducting transactions with target states. This includes both providing financial services to facilitate transactions with parties in target states and doing direct business with them. We hypothesize that a greater frequency and severity of penalties imposed by OFAC against sanctions violators will result in non-U.S. (i.e., third-party) states reducing trade with U.S. sanction targets, as fewer firms are willing to facilitate or directly conduct those transactions. Furthermore, due to vicarious learning throughout the international system (Crescenzi 2007), de-risking behavior will result in lower trade within a dyad of a third-party state and a U.S. sanction target even when OFAC enforcement actions target sanctions violators external to the third-party-target dyad.

We test our theory with auto-distributed lag (ADL) models using data on directed dyads involving third-party states and the targets subject to U.S. economic sanctions. Our analysis relies on a novel data set that captures all countries subject to any level of U.S. sanctions, including both national-level and targeted sanctions from 2003-2015. Our inclusive approach is meant to capture the fact that even targeted sanctions create perceived risks and compliance challenges that firms must weigh as part of their business decisions. We find that sufficiently large OFAC penalties are associated with lower trade between third parties and U.S. sanction targets: both exports to the target and imports from the target decline. We also find that sufficiently large OFAC penalties are associated with lower third-party trade to a target of U.S. sanctions even when they affect parties outside of the dyad. Particularly the latter effect appears indicative of significant de-risking behavior taking place amongst foreign firms in response to OFAC's sanctions enforcement actions.

Our results have salient implications for understanding both the coercive reach of U.S. sanctions policies and what has driven the global de-risking phenomenon. Our findings provide context in understanding the root causes of the de-risking problem, which even the U.S. Department of Treasury has acknowledged as becoming a major issue (Rosenberg 2022). Our findings contribute to arguments about how the U.S. has weaponized other states' dependence upon the U.S. financial system (Farrell and Newman 2019), enhancing its ability to alter foreign non-state actors' behaviors. We find that robust sanctions U.S. enforcement actions appears to drive non-U.S. firms to participate in economically isolating target states on a de facto basis, making the costs contemporary U.S. sanctions impose on their targets more severe. This finding may also help explain why contemporary U.S. sanctions have been surprisingly effective relative to 20th Century sanctions (Rosenberg et al. 2016). While previous work also finds that third parties

sometimes adjust behavior in the presence of U.S. sanctions (Peterson 2014, 2021), our study highlights specific mechanisms through which OFAC enforcement of U.S. sanctions—rather than the sanctions themselves—can affect the cost-benefit analysis of third-party firms in ways that leads them to reduce trade with U.S.-sanctioned states. This firm-level calculus has important consequences for understanding how the risk perceptions of firms influences commerce between nations.

The Effects of Economic Sanctions on Targets and Third Parties

The design and implementation of sanctions substantially influence their effects. Economic sanctions can be designed to target individuals, groups, or entire countries; and sanctions affect targets' trade, aid, investments, financial transactions, and freedom of movement. Financial sanctions appear to have become especially impactful since the early 2000s—both in terms of achieving their coercive objectives and in inflicting significant costs on their targets (Drezner 2015; Rosenberg et al. 2015). If sanctions regimes are multilateral and/or have the support of an international organization, that can increase their efficacy as well (Drezner 2000; Morgan and Bapat 2009; McLean and Whang 2010). Finally, the resources and strategies that sender governments employ in enforcing their sanctions can enhance their impact (Bapat et al. 2020; Early and Preble 2020a; 2020b). Early and Peterson (2021) found, for example, that the more frequent and more severe the penalties that the U.S. government imposed on sanctions violators, the less U.S. firms traded with the targets of its sanctions. Senders thus have a lot of potential influence over the economic impact that their sanctions have on targets.

Target states' external relationships with foreign governments and international organizations can also affect how sanctions impact their economies. A target's important third-party trade partners can influence sanctions' severity depending on whether these states join the sanctioning effort (McLean and Whang 2010, Peterson 2021) or instead increase their trade with the target (Early 2011; 2015). Having the support of a trade-based sanctions buster can significantly reduce the economic hardships associated with being sanctioned. The amount of foreign aid that target states receive can also alleviate or exacerbate the adverse effects of being sanctioned (Early 2015). Lektzian and Biglaiser (2014) find that target states' that receive increasing amounts of foreign direct investment (FDI) from third-party states will face reduced pressure to concede to sanctions.

Third-party states can have divergent incentives in responding to sanctions: they may have contrasting political incentives to support or undercut the sanctions against the target and the disruptions caused by the sanctions may deter or incentivize further commercial engagement with the target. Early (2015) argues that profit-seeking motives appear to drive the formation of trade-based sanctions busters (also see: Barry and Kleinberg 2015), but that political considerations drive whether third-party governments provide target states with so-called "black knight" assistance. Lektzian and Biglaiser (2013) find that the perceived commercial opportunities that sanctions create in target states tend to increase the amount of FDI third-party states make in them. In sum, the degree to which sanctions harm targets' economies depends a lot upon how effectively the sanctions are implemented and how much sanctions-busting support third parties can obtain from third-party states.

Sanctions Enforcement Actions and Third-Party De-Risking Behavior

Third-party firms' trade relationships with partners in target states will be sensitive to the potential risks and opportunities (e.g., Lektzian and Biglaser 2013) created by senders' sanctions policies. The severity of the disruptions and hardships that sanctions impose on targets will worsen their firms' terms of trade with the rest of the world. The more that sanctions restrict targets from doing business with their naturally profitable trade partners, the less money that its exporters can charge for their products and the more expensive alternative imports will become. The fewer trade partners that are available to target firms, the more that third-party firms can profit from exploiting third-party firms' imbalanced terms of trade (Drezner 2000; Early 2015).

Senders' sanctions policies may also contribute to the risks third-party firms face in doing business with target states. Economic sanctions create uncertainty in doing business with targets, as target firms' supply chains are at higher risk of disruption, their economies face higher risks of economic crises, and target firms could be at higher risk of going out of business. This uncertainty allows risk-acceptant third-party firms to charge targets a risk-premium for doing business with them, but some third parties will prefer to avoid such risks. Trading with target states also becomes riskier if third-party firms potentially face retaliation from the sender governments for their sanctions-busting trade. As argued by Stepien and Weber (2019: 135), "Even when companies are not directly targeted by the sanction laws, they can still be either indirectly affected or perceive to be affected-and adopt according adjustment strategies. The behavior of these nontargeted companies is equally relevant for the real economic effect of sanctions." Sender governments explicitly make third-party states vulnerable to punishments for sanctions violations by including extraterritorial provisions to their sanctions. These policies can make third-party firms legally liable for violating sanctions in the same way that the sender's own firms are. While the provisions are controversial, powerful sender governments like the U.S. have had at least some success with using them. These policies require senders to make substantial investments in monitoring foreign compliance with sanctions, and in taking enforcement actions to give them real teeth.²

Understanding How International Financial Crimes Policies Create Risks for Corporations

Modern sanctions policies place a significant compliance burden on the private sector. Few governments have the interest, let alone capacity, to screen all the international transactions that their firms conduct. Sanctions policies, along with AML and CFT policies, operate by requiring firms to adopt policies to ensure their own compliance with government policies (Arnold 2016; Early and Preble 2020b). Governments can invest in monitoring compliance by conducting

² Sender governments can also threaten to impose secondary sanctions against third-party sanctions busters, which are targeted sanctions that seek to compel non-state entities to comply with the primary sanctions regimes. These measures differ from extraterritorial previsions, as there is no assertion that third-party firms have a legal obligation to comply with sanctions; sender governments are seeking to gain their compliance via coercion alone.

investigations and audits, but the day-to-day responsibilities for complying with sanctions are firms' responsibilities. Companies will weigh the costs of complying with these policies, both in terms of the investments needed to comply and the opportunity costs of forgoing otherwise profitable transactions, against the risks of non-compliance. Weber and Stepien (2020) theorize that firms respond to sanctions by adopting strategies that either broadly conform with sanctions' requirements or challenge them. Firms that are sensitive to the potential risks of being caught and significantly penalized for violating sanctions have greater incentives to comply with sanctions (Morgan and Bapat 2003).

Given that firms often operate with imperfect information about their business partners or the potential for transactions to be exploited for illicit purposes, firms have been driven towards the adoption of risk-based compliance strategies for implementing requirements related to AML, CFT, and sanctions. The most basic method of ensuring that transactions do not involve any individuals, entities, or destinations subject to sanctions is to use a screening tool that identifies the names and locations of parties that have been black-listed or subject to sanctions. The U.S., European Union (EU), United Nations (UN), and Japan all maintain consolidated lists of parties that are subject to sanctions.³ Given that sanctioned parties have incentives to misrepresent their identities, work through intermediaries or front-companies, and engage in other forms of fraud, firms may face significant challenges in ensuring that their transactions do not violate sanctions requirements. Risk-based compliance strategies allow firms to employ various criteria for assessing the potential risks that transactions may involve a prohibited party (OFAC 2019). An effective strategy for mitigating risks is to employ "Know Your Customer" screening procedures for onboarding new customers (Bank of International Settlements 2016: 4). Such policies, however, involve significant investments of time and resources and may not be appropriate or cost-effective for many types of transactions. Obtaining accurate information about customers may be particularly difficult in many jurisdictions, especially in developing countries. It also can be difficult to obtain accurate information about parties in particular types of transactions, such as correspondent banking services. In the absence of quality, low-cost information about the identities of parties involved in transactions, firms instead adopt broad-based parameters to manage the risks associated with violating sanctions, AML, and CFT policies.

De-Risking Behavior

De-risking behavior, also known as "over-compliance," occurs when firms decide they cannot cost-effectively manage the risks associated with complying with international financial crimes requirements. It entails making determinations that the compliance risks for entire categories of transactions, such as serving certain business sectors or customers from particular countries, cannot be profitably managed. In such cases, firms will make the decision to cease doing business with those categories of customers even if most of them are not facing sanctions, other forms of prohibitions, or have no connection to illicit activities (Asian Development Bank 2021). De-risking behavior is particularly prevalent among banks that face exposure to potentially significant penalties for violations (Bank of International Settlements 2016: 11).

³ For example, see the U.S. List at: <u>https://www.trade.gov/consolidated-screening-list</u>.

While governments and bodies like the Financial Action Task Force (FATF) have tools to officially designate certain jurisdictions as posing significant money laundering risks, individual firms will augment that using their own risk-management criteria. These criteria are often kept proprietary. The decisions of banks to treat certain jurisdictions as being too high of risk can be contagious, as their behaviors will affect the interdependent financial networks that they are part of. Banks that adopt more risk-averse strategies will be viewed by fellow risk-averse partners as safer partners to continue doing business, while fellow banks or other firms that continue to service high-risk jurisdictions may themselves be perceived as being a higher risk partner.⁴

Economic Sanctions as a Cause of De-Risking

While AML and CFT policies contribute to de-risking, economic sanctions—and U.S. financial sanctions, in particular—are thought to have driven such behavior. According to Erica Moret (2021: 75), "A widespread practice of private and public sector over-compliance has accelerated over the past decade as a response to the rising complexity of these interfacing sanctions regimes and other regulations. In the case of the financial and banking sectors, de-risking has intensified in light of increasingly stringent regulatory requirements, a rise in major fines for those found to be in breach of the measures, and an ever more confusing and costly compliance environment." Furthermore, Mark Nance and his colleagues evaluated the existing evidence for claims that AML regulations were driving banks' de-risking behavior in a report for the Federal Reserve Bank of Atlanta (Nance, Tsingou, and Kay 2021). Their analysis found little evidence to suggest that AML regulations had driven the rise of de-risking behavior and showed that the timeline for when de-risking became prevalent started well before any connection was made between it and AML policies. Consistent with these expert perspectives, we argue that the concerns about facing harsh penalties for violating sanctions are what have driven de-risking decisions made by many firms.

De-risking decisions, especially those in the financial sector, to stop doing business with a sanctioned state will adversely affects its constituents' ability to conduct international business. Individuals and firms in jurisdictions or sectors subject to de-risking will have fewer options for engaging in business transactions, making it harder and more expensive to establish business relationships and obtain financing to facilitate international transactions. Those third-party firms still willing to do business with parties in "high-risk" jurisdictions may also impose a significant risk-premiums on those transactions. For jurisdictions that pose extreme risks due to expansive sanctions restrictions, like North Korea, almost no firms or banks will seek to engage in legitimate transactions with them. For other jurisdictions that are deemed as posing higher but less extreme risks, the challenges posed by de-risking to conducting international transactions will not be as extreme—but they still may be significant.

Sender governments can affect firms' risk-calculus about doing business with foreign partners by virtue of how they enforce their sanctions (Morgan and Bapat 2003; Early and Peterson 2021). The more frequently sanctions violators are penalized and the larger the penalties im-

⁴ Insights gained via more than twenty interviews with international financial crimes compliance professionals from major international financial service providers, trade compliance officers, and officials from governments and international institutions from 2020-2023.

posed against them, the more that firms will perceive exposure to the risks of doing business with partners in sanctioned states (Early and Peterson 2021). And the more that firms fear being punished with significant penalties for violating sanctions, the more risk averse they should be (Early and Preble 2020b).

U.S. Sanctions Enforcement and Third-Party Trade with Target States

The U.S. employs economic sanctions more than any other government in the world (Morgan et al. 2014) and invests more in implementing and enforcing sanctions than any other government by a large margin (Early and Preble 2020a). In seeking to evaluate the impact of robust sanctions enforcement, the U.S.'s enforcement of sanctions represents the most substantively significant case to study. The U.S. is also the case one with the most publicly available data to study (Early and Preble 2020a). As such, we narrow our theorizing and analysis to focus specifically on how the U.S. government's sanctions enforcement strategies have influenced how third-parties trade with the targets of its sanctions.

When the U.S. government imposes economic sanctions against a target country, it can send ripples through the global economy. Not only do U.S. sanctions alter how U.S. firms trade and invest in target states (Biglaiser and Lektzian 2011), they also alter the third-party states' commercial relationships with the U.S. and the target (McLean and Whang 2010; Early 2015; Lektzian and Biglaiser 2013; Barry and Kleinberg 2015). The U.S. government has empowered OFAC with the responsibility for implementing and enforcing U.S. sanctions. While other law enforcement bodies play a role in criminal violations of U.S. sanctions, OFAC is responsible for pursuing civil cases against sanctions violators—which most corporate violations fall under.

OFAC plays a broad role in implementing and enforcing U.S. economic sanctions. OFAC is responsible for raising awareness of U.S. sanctions obligations and promoting compliance with them. OFAC's enforcement powers allow it to punish sanctions violations, which has multiple different functions for promoting sanctions compliance. Enforcement actions can be taken to cease the ongoing sanctions violation threat posed by specific perpetrators and improve their future compliance. Second, when publicized, sanctions enforcement actions help raise awareness about U.S. sanctions obligations. Finally, sanctions enforcement actions can help to deter violations by other entities by altering their calculus about the risks associated with violating sanctions (Early and Preble 2020a; 2020b). This can encourage entities to alter the risk profile of whom they do business with and adopt more robust internal sanctions compliance programs. Notably, the criteria that OFAC uses to determine the size of the civil penalties associated with sanctions infractions includes a component for how fines could influence other parties' behaviors (OFAC 2009).

OFAC monitors compliance with sanctions and investigates violations via numerous mechanisms. For example, OFAC can review suspicious activity reports (SARs) submitted by firms, can conduct audits of firms' activities, it can receive whistleblower tips, and obtain case referrals from other U.S. agencies. OFAC frequently learns about violations from voluntary self-disclosures from firms seeking more lenient treatment. OFAC's proactive industry outreach efforts enhance its ability to monitor sanctions compliance by enhancing the willingness of sanctions compliance officers to investigate and report suspicious transactions and self-report violations (Early and Preble 2020a; Early 2021). From the Obama to the Trump administrations, the

percentage of OFAC cases originating from voluntarily self-disclosure grew from one-third to two-thirds of cases (Early and Preble 2021). For cases arising from investigations, OFAC shares information and can cooperate with other U.S. agencies involved in implementing export controls, enforcement bodies at the Department of Homeland Security and the Department of Justice, and federal, state, and local prosecutors' offices.

OFAC exercises broad discretion over which infractions it pursues formal enforcement actions, and what penalties it assigns for violations. New legislation and regulations fully adopted in 2009 gave OFAC enhanced powers to impose significant monetary infractions for sanctions violations within the context of general guidelines (OFAC 2009). OFAC can impose individual fines for discrete sanctions violations, which means that it can impose enormous financial penalties totaling hundreds of millions of dollars on high-volume sanctions violators. The largest penalties imposed by OFAC all involved foreign banks that committed large numbers of egregious sanctions violations (Early and Preble 2020a; 2020b). The high volume of transactions needed to make activities like correspondent banking profitable, also can make banks susceptible to enormous risks for large-scale infractions. OFAC also imposes penalties on firms outside of the financial sector, which can range from being in the thousands to hundreds of millions of dollars.

OFAC's strategy for promoting sanctions compliance has evolved over time. In recent years, OFAC has begun to promote that companies adopt more comprehensive "risk-based" compliance strategies. OFAC (2019) explains that firms that have risk-based compliance strategies in place will be subject to greater leniency and lower penalties if they are discovered to have made inadvertent violations. By making companies concerned about the potential for massive fines, we think OFAC increased firms' incentives to over-comply with U.S. sanctions by eliminating transactions involving higher risks and marginal profits. Instead of adopting nuanced risk-management policies, firms decided to just eliminate transactions in high-risk jurisdictions altogether (Rosenberg 2022)—accepting some lost business in return for eliminating their risk of being penalized.

Part of what makes OFAC such a powerful enforcement body is that has the jurisdiction and resources to pursue cases against foreign entities that violate U.S. sanctions. While not all U.S. sanctions contain robust extraterritorial provisions (e.g., the "Helms-Burton Act" of 1996), nearly all U.S. sanctions policies imposed after the 2000s apply to U.S. citizens' and firms' behaviors abroad and to foreign firms doing business within the U.S. or via U.S.-based institutions. OFAC can investigate and penalize sanctions violations that fall under U.S. sanctions' legal jurisdiction even if those infractions occur outside U.S. borders or by non-U.S. entities (Early 2016). This has empowered OFAC to pursue major sanctions violations cases against dozens of foreign financial institutions that violated U.S. sanctions (Early and Preble 2021a). OFAC has also punished foreign-based entities for violating U.S. sanctions requirements outside the financial sector. In 2016, OFAC imposed fines on two Halliburton subsidiaries based out of the Cayman Islands for violating the "Cuban Assets Control Regulations" (OFAC 2016). In 2017, OFAC imposed a \$12 million fine on Singapore-based CSE TransTel Pte. Ltd. for over a hundred apparent violations of U.S. sanctions involving the sale and financing of telecommunications exports to Iran (OFAC 2017). These infractions all illustrate the global reach of OFAC's sanctions enforcement powers and ability to impose substantial penalties against for those violations.

OFAC's enforcement actions have been successful at discouraging U.S. firms from doing business with the targets of U.S. sanctions (Early and Peterson 2021), but that's where we expect the agency to have the strongest jurisdiction.

The Hypothesized Effects of OFAC's Enforcement Actions on Third-Party Trade with Targets

We theorize that OFAC's enforcement actions will promote de-risking behavior that will lead to reductions in third parties' trade with the targets of U.S. sanctions. We expect that OFAC's enforcement actions will have the largest impact on the target-third-party dyads against which they are taken. We also consider whether the broader risk-environment created by OFAC's enforcement actions can harm third-party firms' willingness to do business with target states. OFAC's enforcement actions can lead some firms to engage in de-risking behavior-ceasing their business relationships with target states even though they do not have to. In turn, the decisions of those firms-particularly those of financial service providers (FSPs)-will make it harder and more costly for businesses in targets to do business with even willing third parties. Firms in third-party states will consider both the lucrative opportunities that U.S. sanctions can create when they go unenforced, and the potential risks sanctions create in target states when the U.S. does enforce them. When OFAC takes enforcement actions against entities in a third-party state or directly related to the sanctions imposed against a specific target, it should affect the risk calculus of firms doing or considering doing business with affected entities. Both the direct risk of potentially being sanctioned for activities that clearly violate sanctions, and the compliance costs associated with ensuring that business activities do not unintentionally violate U.S. sanctions, may discourage firms from doing business with U.S. sanctions targets. Enforcement actions involving the target of sanctions could also signal an increased risk of doing business with partners in target states and may make it harder for third-party firms to access trade-related services, such as financing and insurance, involving the target.

In 2013, for example, OFAC imposed a \$750,000 penalty against the Turkish trading company Finans Kiymetli Madenler Turizm Otomotiv Gida Tekstil San. Ve Tic (hereafter, "Finans"). The company had facilitated exports for Iran's oil and gas industry, which was subject to U.S. energy sector-sanctions (OFAC 2013). More broadly, this enforcement action was important because Turkish firms were proactively sanctions-busting on Iran's behalf. For OFAC, punishing Finans provided an opportunity to discourage other Turkish firms from sanctions busting on Iran's behalf. In explaining the penalty, OFAC (2013: 1) noted that its "…civil monetary penalty will have a compliance/deterrence effect by encouraging greater due diligence by foreign financial institutions that maintain accounts for third-country trading companies."

We thus expect that the robust enforcement of sanctions will encourage de-risking behavior that will have a negative effect on third-party trade with the targets of U.S. sanctions. This effect will be particularly noticeable when (at least) one of the parties to a potential business deal resides in a state directly affected by OFAC enforcement. Third-party firms should be more aware of those punishments and perceive greater risks of also becoming the subject of OFAC's attention. DIRECT EFFECT HYPOTHESIS: The more frequently OFAC imposes sufficiently large financial penalties, the lower the subsequent dyadic trade between a third-party state and a U.S. sanction target will be when at least one of these states is affected directly by the penalty.

Beyond the direct enforcement actions taken by OFAC against the target or specific thirdparty, we theorize that OFAC's other enforcement actions can affect systemic perceptions of the risks entailed in doing business with the entire class of states sanctioned by the U.S. Previous research has shown that states can learn vicariously from international political events (Crescenzi 2007), including from sanctions (Peterson 2013). Imposed sanctions demonstrate U.S. preferences and resolve, deterring third-party states who wish to avoid sanctions from engaging in proscribed behavior (Peterson 2014). Other work notes that third parties' response to U.S. sanctions transcend proactive avoidance of the sanctioned behavior. For example, U.S.-sanctioned states, both weakened and stigmatized by sanctions, are more likely to be the target of armed conflict by third parties (Peterson and Drury 2011). Most relevant here, recent research finds that third parties reduce dual-use exports—those that have militarized as well as civilian purposes—to states that face U.S. sanctions over issues such as nuclear proliferation, armed aggression, and human rights abuse (Peterson 2021).

Accordingly, we theorize that the aggregate sanctions enforcement actions taken by OFAC against other third-party states affects firms' level of concern about the risks of trading with *any* particular target of U.S. sanctions. In other words, firms pay attention to OFAC's overall levels of sanctions enforcement activity—not just those actions that affect the specific trade partner they are considering trading with.⁵ They can learn vicariously from the experiences of other firms penalized for sanctions violations. High levels of enforcement activity may also make FSPs less willing to finance any transactions involving the targets of U.S. sanctions, making it harder and more costly for firms in target states to trade with third parties.

OFAC's aggressive enforcement of sanctions has had a systemic, persisting effect on how banks view the risks of violating U.S. sanctions. During 2009-2015, OFAC imposed hundred million dollar-penalties against a host of foreign banks for helping third-party firms undercut U.S. sanctions against Iran and other targets. OFAC's enforcement actions targeted some of the Europe's largest banks, including BNP Paribas SA (2014), Credit Suisse AG (2009), HSBC Holdings, plc (2012), Credit Agricole Corporate (2015), and Commerzbank AG (2015). The perceived peril created by these punishments discouraged many financial institutions from doing any business with Iranian entities—even for transactions that would not violate U.S. sanctions. OFAC's penalties made the perceived risks of running afoul of U.S. sanctions outweigh the prospective benefits of servicing Iranian customers for many banks. Indeed, after the U.S. lifted restrictions on foreign banks conducting transactions with Iran as part of the Joint Comprehensive Plan of Action nuclear deal in 2016, the U.S. had trouble convincing foreign financial institutions to re-establish ties with Iran given their concerns about the remaining U.S. sanctions. The

⁵ Even the direct effect we discuss above generally involves some degree of vicarious learning, given that, in most cases, at least one state in the third party-U.S. sanction target dyad is not directly involved in OFAC enforcement.

banks' unwillingness to finance transactions involving Iran meant that third-party firms that could legally do business with Iran faced significant challenges in consummating trade deals (Gladstone 2016). As this example illustrates, the fear and uncertainty created by OFAC's enforcement actions leads risk-averse FSPs and traders to avoid doing business with the targets of U.S. sanctions. OFAC's enforcement actions can therefore have both a direct and more systemic impact on discouraging commerce with sanctioned states. Even more than in the "direct" scenario discussed above, we think that the systemic effects of enforcement actions would constitute stronger evidence of de-risking behavior taking place by third-party firms. Substantively, finding evidence that supports this mechanism would dramatically enhance the deterrent power that can be ascribed to OFAC enforcement actions.

SYSTEMIC EFFECTS HYPOTHESIS: The more frequently OFAC imposes sufficiently large financial penalties, the lower the subsequent dyadic trade between a third-party state and a U.S. sanction target will be when neither of these states is affected directly by the penalty.

Research Design

We test our hypotheses using data on bilateral trade and OFAC civil penalties. Our unit of analysis is the directed dyad year in which one state has been sanctioned by the U.S. government. We allow state 1 in the dyad to be any non-US state (henceforth referred to as the "third party" within which firms could respond to OFAC enforcement), while state 2 in the dyad can be any state that has been sanctioned by the U.S (henceforth the "target").⁶ Comprehensive and targeted sanctions are incorporated into our definition of U.S. sanction targets. Sanction targets include states under country sanctions programs (e.g., Cuba Sanctions or Iran Sanctions) as well as those where entities listed on the Specially Designated Nationals (SDN) list reside. This design allows us to examine how the third party's exports to the target and imports from the target vary with the presence of OFAC penalties, thus avoiding possible bias from summing directional trade flows. Our analysis covers the period from 2003 (the first year OFAC civil penalty data is available) until 2015 (the most recent year in which some control variables are available).

We code two dependent variables to capture bilateral trade: the third party's exports to the target and the third party's imports from the target. Both variables are coded as the natural log of trade flow (+1), with raw data taken from the Atlas of Economic Complexity (The Growth Lab at Harvard University 2019). We separate trade flows by direction given that it might be easier for export-oriented firms to secure assistance from their government to guard against U.S. retaliation. Conversely, states might be less willing to aid importing firms, for example given possible political pressure from import-competing firms.

⁶ We identify U.S. sanction targets using ICEWS events data (Boschee et al. 2015). See appendix for more details. The appendix also presents models in which the importer has been sanctioned by a non-US state; as expected, there is no association between US sanctions enforcement and third-party trade with these states.

Our primary explanatory variables capture the number of OFAC penalties meeting specific size thresholds. We take the penalty-level data from Early and Preble (2020a)⁷ and transform it to capture two major classes of penalties. First, we count penalties that are fall inside the thirdparty-target dyad, meaning that either firms in the third party were issued the penalty, or the penalty was issued for violation of U.S. sanctions against this specific target. Second, we count penalties that fall *outside* the dyad, meaning that the penalty was paid by firms *not* based in the third party for violation of U.S. sanctions against some state other than the specific target. While we expect that inside penalties will have a stronger association with bilateral trade, outside penalties could likewise lead to caution by firms in the third party who become aware of the ability of OFAC to punish firms that violate U.S. sanctions. We count the number of these two types of OFAC penalties at three different size thresholds: \$500,000 or more, \$1 million or more, and \$25 million or more—specifying different models for each of these three thresholds. These thresholds mirror those specified in Early and Peterson (2021), and are useful to gauge how different-sized penalties affect third-party-target trade without forcing a strict linear relationship between penalty size and trade volumes.⁸ Figure 1 demonstrates that count of penalties by year across these thresholds.

We control for factors that could confound our main results, as well as for gravity model variables that improve model fit. First, we control for dyadic political affinity with two dummy variables. We recode the Peace Scale (Klein, Goertz and Diehl 2008) such that values less than 0.5 are coded as an adversarial relationship and values above 0.5 are coded as friendship. Values equal to 0.5, defined by the authors as negative peace, or where no Peace Scale data is available (in most cases because states have little opportunity for armed conflict), compose the reference category. We also include similar indicators for both the third party's and the target's relationship with the United States, given that US adversaries might attempt to be Black Knights who bust sanctions (Early 2015). For similar reasons to control for political relationships, we include a dichotomous indicator of whether the third party is also facing US sanctions.

Given that regime type could indicate trade levels and the likelihood of agreement with US policy preferences, we also code two variables to capture dyadic regime variation. The first variable is equal to 1 when both states are consolidated liberal democracies, defined as scoring 7 or above on the Polity IV combined revised democracy score (Marshall and Jaggers 2014). The second is equal to 1 when both states are consolidated authoritarian states, with Polity IV scores less than -7. Mixed regime types compose the reference category. We also include dichotomous variables that capture the third party's and target's membership in the OECD. Most OECD states are relatively developed and most maintain generally positive relations with the United States. These factors together suggest generally high trade levels but also could affect willingness to

⁷ These data are aggregated across target industry sector. However, the appendix presents models looking solely at the financial sector.

⁸ To the extent that bigger penalties lead to more de-risking, we better distinguish the impact of active enforcement from the impact of the mere existence of U.S. sanctions.

comply with the extraterritorial provisions and/or secondary sanctions stipulations of US sanctions.⁹



Figure 1: OFAC civil penalty count by year

Our gravity model indicators come from CEPII (Mayer and Zignago 2011). We control for each state's logged GDP (in constant dollars). We also include a measure of the logged, population-weighted distance between the third party and the target, as well as a dummy variable indicating direct contiguity.

Estimation

Given the nature of our time-series, cross-sectional data, a number of problems to inference arise. We have several time-invariant—or nearly invariant—variables that make dyad fixed

⁹ In the supplementary appendix, we go one step further, considering whether the third-party's OECD membership status could condition the relationship between OFAC enforcement and third-party-target trade.

effects impractical. More broadly, the desire to retain between-dyad variation renders the use of fixed effects sub-optimal. However, a Hausman test suggest that dyad random effects models are biased and therefore inappropriate. Further, we find strong evidence of serial correlation and heteroskedasticity in a simple, pooled regression. Accordingly, we estimate auto-distributed lag (ADL) models with heteroskedasticity-consistent standard errors, incorporating lags of our dependent variable and time-varying explanatory variables in order to model the dynamics in our data and produce white noise residuals. We use the following process to determine the optimal lag length for the time-varying variables (our DV, main IVs, and GDP values).¹⁰ First, we layer "for" loops in R to run regression models with every combination of up to seven lags of the timevarying variables, consolidating the relevant model output in a single data frame. Second, we conduct Breusch-Godfrey (BG) tests for serial correlation (of orders 1-4) for each model. Third, among the models in which we fail to reject the BG null hypotheses of white noise residuals, we select the model with the minimum BIC, suggesting the best model fit. We followed up the automated procedure with a manual process of varying lags around those designated as optimal by our automated code to verify final model choices. All models are estimated in R version 4.1.1 using the plm package version 2.4-1.

Analysis

We find strong support for our hypotheses that inside-dyad and outside-dyad OFAC penalties that are sufficiently large are associated with an immediately lower level of imports and exports form a given state to a U.S. sanction target. Table 1 presents coefficients and heteroskedasticity-consistent standard errors for ADL models 1-3, which examine the third party's (logged) imports from the U.S. sanction target using three different OFAC penalty thresholds when coding our main explanatory variables. We present a partial table that includes all lags of our main explanatory variables and the first-order lagged DV, but not other lags to save space. Complete tables can be found the appendix.

The coefficient for the contemporaneous inside-dyad OFAC penalty variable is negative and significant in all three of models, suggesting that a higher number of OFAC penalties either against the third party for violations of U.S. sanctions or for violations of U.S. sanctions against the target—or both—is associated with immediately lower imports to the third party from the target. This coefficient also increases in magnitude across models 1-3 as penalty thresholds increase in size, suggesting a stronger response to more severe OFAC enforcement actions. This increases our confidence that the enforcement actions are responsible for discouraging trade. The contemporaneous coefficient for the count of outside-dyad penalties is likewise significant in all three models. It is smaller in magnitude, though, as would be expected given that the OFAC enforcement actions were targeted towards states outside the third party-target dyad.

¹⁰ A number of the other controls technically do vary over time for some dyads but do so minimally and as such are better considered as cross-sectional variables.

	DV = log third party imports from U.S. sanction target		
	Model 1: 500k threshold	Model 2: 1m threshold	Model 3: 25m threshold
LDV _{t-1}	0.42*** (0.40, 0.44)	0.42*** (0.40, 0.44)	0.42*** (0.40, 0.44)
Inside penalty _t	-0.05*** (-0.08, -0.02)	-0.07*** (-0.10, -0.05)	-0.12*** (-0.15, -0.08)
Inside penalty _{t-1}	-0.05** (-0.08, -0.02)	-0.04** (-0.07, -0.01)	
Inside penalty _{t-2}	-0.07*** (-0.10, -0.04)	-0.08*** (-0.11, -0.05)	
Outside penalty _t	-0.02*** (-0.03, -0.01)	-0.04*** (-0.05, -0.03)	-0.04*** (-0.05, -0.02)
Outside penalty _{t-1}	-0.04*** (-0.05, -0.02)	-0.04*** (-0.05, -0.03)	-0.05*** (-0.06, -0.03)
Outside penalty _{t-2}	-0.02*** (-0.03, -0.01)	-0.02*** (-0.03, -0.01)	-0.02*** (-0.03, -0.01)
GDP importer _t	0.96*** (0.77, 1.15)	0.93*** (0.74, 1.12)	0.90*** (0.71, 1.09)
GDP target _t	0.56*** (0.29, 0.83)	0.54*** (0.27, 0.81)	0.56*** (0.28, 0.83)
OECD importer	0.02 (-0.03, 0.07)	0.02 (-0.04, 0.07)	0.02 (-0.04, 0.07)
OECD target	-0.04 (-0.08, 0.00)	-0.04* (-0.08, -0.00)	-0.04* (-0.08, -0.00)
US ally importer	-0.10** (-0.17, -0.03)	-0.09** (-0.16, -0.02)	-0.13*** (-0.20, -0.07)
US rival importer	-0.22*** (-0.32, -0.12)	-0.22*** (-0.32, -0.12)	-0.21*** (-0.31, -0.11)
US ally target	-0.12*** (-0.17, -0.07)	-0.12*** (-0.17, -0.07)	-0.12*** (-0.17, -0.07)
US rival target	-0.07* (-0.14, -0.01)	-0.09** (-0.15, -0.03)	-0.15*** (-0.21, -0.09)
Dyadic ally	0.11*** (0.05, 0.18)	0.11*** (0.05, 0.18)	0.11*** (0.05, 0.18)
Dyadic rival	-0.48 (-1.01, 0.06)	-0.48 (-1.01, 0.06)	-0.47 (-1.00, 0.06)
Both democracies	0.07*** (0.03, 0.10)	0.07*** (0.03, 0.10)	0.07*** (0.04, 0.10)
Both authoritarian	-0.20 (-0.53, 0.14)	-0.20 (-0.53, 0.13)	-0.21 (-0.55, 0.12)
log Distance	-0.07*** (-0.10, -0.04)	-0.07*** (-0.10, -0.04)	-0.07*** (-0.10, -0.04)
Contiguity	0.25*** (0.16, 0.34)	0.25*** (0.16, 0.35)	0.26*** (0.17, 0.35)
US sanction against importer	-0.02 (-0.06, 0.02)	-0.02 (-0.06, 0.02)	-0.02 (-0.06, 0.02)
Constant	-1.52*** (-1.94, -1.11)	-1.48*** (-1.90, -1.06)	-1.80*** (-2.20, -1.40)
Observations	49,058	49,058	49,058
R-squared	0.83	0.83	0.83

* p less than 0.05, ** p less than 0.01, *** p less than 0.001

Table 1: coefficients and 95 percent confidence intervals for ADL models with heteroskedasticity-consistent standard errors. Note: multiple lags are presented only for main explanatory variables. Full tables are presented in the appendix



Figure 2: substantive predictions with 95% confidence intervals

Coefficients are only partially informative—particularly given that our dependent variable is logged. Accordingly, we present Figure 2 to illustrate the substantive immediate and longrun impact of a single OFAC penalty on the third party's imports from and exports to the target.¹¹ We transform each coefficient β as follows: $\exp(\beta) \cdot 1 \times 100$, to identify the immediate percentage change in trade associated with a single OFAC penalty. As the left-hand plot in Figure 2 shows, the effects of inside-dyad penalties have a consistently negative and significant immediate association with imports from the target, with estimates of trade reductions increasing in magnitude from approximately -5% (using the \$500,000 threshold) to -12% (using the \$25 million threshold). On the other hand, outside-dyad penalties are associated with a smaller but still

¹¹ We calculate long-run multipliers (LRM) using the DeltaMethod command through the Car package in R. LRM are calculated as follows, for *p* lags of the DV and *q* lags of a given explanatory variable: $\frac{\sum_{i=0}^{q} \beta_{t-i}}{1 - \sum_{i=1}^{p} \alpha_{t-j}}$

statistically significant reduction in imports from US sanction targets, between approximately -2% to -4%. While the substantive immediate effects we report here might be considered modest, they represent the effect of a single OFAC penalty. However, we witness as many as eight inside-dyad penalties and 14 outside-dyad penalties in any given year, with a median of 7 outside penalties (summarized at the 500k threshold).

The right-hand plot shows that the long-run impact of enforcement actions has a considerably larger negative association with imports from U.S. sanction targets, varying from -70% to -80% for inside-dyad penalties, and varying between -55% to -65% for outside-dyad penalties. Taken together, these results suggest that, particularly in the long run, OFAC enforcement actions can significantly reduce third-party trade with the targets of U.S. sanctions even when the penalties are experienced by firms in a different state and for violations of sanctions against a different U.S. sanction target. Further, these results imply that OFAC's enforcement actions can make existing sanctioning efforts against a target harsher without formally changing their scope or severity. Accordingly, with respect to imports, the statistical evidence supports both of our hypotheses.

Table 2 replicates Table 1 but uses the third party's (logged) exports to the target as the dependent variable. Results here look similar but generally smaller in magnitude and somewhat less statistically significant. Once again, the coefficient for the count of inside-dyad OFAC penalties is negative and statistically significant in all three models examining progressively higher penalty thresholds. The magnitude of the coefficient is fairly similar to those in our import models with respect to the lower penalty thresholds (500k and 1m), but smaller than the comparable coefficient for imports for the largest penalty threshold (25m). The coefficient for the count of outside-dyad OFAC penalties is negative in all three models but smaller in magnitude across all three export models (relative to the equivalent coefficients in the import models). Further, the outside-dyad penalty coefficient is statistically significant only in Models 5 and 6, suggesting that the penalty threshold to spark vicarious learning is higher for exports to U.S. targets than for imports from those targets. Overall, Table 2 results suggest that third-party firms limit exports to U.S. sanctions targets less than they limit imports from U.S. targets. Figure 2 illustrates these findings.

	DV = log third party exports to U.S. sanction target		
	Model 4: 500k threshold	Model 5: 1m threshold	Model 6: 25m threshold
LDV _{t-1}	0.41*** (0.39, 0.43)	0.41*** (0.39, 0.43)	0.41*** (0.39, 0.43)
Inside penalty _t	-0.08*** (-0.11, -0.04)	-0.09*** (-0.12, -0.05)	-0.06** (-0.10, -0.02)
Outside penalty _t	-0.01 (-0.02, 0.00)	-0.02** (-0.03, -0.01)	-0.02** (-0.03, -0.01)
GDP exporter _t	0.69*** (0.40, 0.97)	0.66*** (0.37, 0.95)	0.67*** (0.38, 0.96)
GDP target _t	1.44*** (1.23, 1.66)	1.43*** (1.21, 1.65)	1.44*** (1.22, 1.65)
OECD exporter	0.07** (0.02, 0.13)	0.07* (0.01, 0.12)	0.07* (0.01, 0.12)
OECD target	0.10*** (0.05, 0.16)	0.10*** (0.04, 0.15)	0.10*** (0.04, 0.15)
US ally exporter	-0.15*** (-0.21, -0.09)	-0.15*** (-0.21, -0.09)	-0.15*** (-0.22, -0.09)
US rival exporter	-0.20*** (-0.29, -0.11)	-0.20*** (-0.29, -0.11)	-0.20*** (-0.29, -0.11)
US ally target	-0.18*** (-0.26, -0.11)	-0.18*** (-0.26, -0.11)	-0.19*** (-0.26, -0.11)
US rival target	-0.12*** (-0.19, -0.05)	-0.13*** (-0.21, -0.06)	-0.17*** (-0.25, -0.10)
Dyadic ally	0.06 (-0.01, 0.13)	0.06 (-0.01, 0.12)	0.05 (-0.01, 0.12)
Dyadic rival	-0.15 (-0.41, 0.10)	-0.15 (-0.41, 0.10)	-0.15 (-0.40, 0.11)
Both democracies	0.05* (0.01, 0.09)	0.05* (0.01, 0.09)	0.05* (0.01, 0.09)
Both authoritarian	-0.04 (-0.26, 0.17)	-0.04 (-0.26, 0.17)	-0.05 (-0.27, 0.17)
log Distance	-0.16*** (-0.18, -0.13)	-0.15*** (-0.18, -0.13)	-0.15*** (-0.18, -0.13)
Contiguity	0.20*** (0.11, 0.29)	0.20*** (0.11, 0.29)	0.20*** (0.11, 0.30)
US sanction against exporter	-0.03 (-0.07, 0.02)	-0.03 (-0.07, 0.02)	-0.03 (-0.07, 0.02)
Constant	-3.11*** (-3.54, -2.68)	-3.07*** (-3.50, -2.65)	-3.11*** (-3.53, -2.69)
Observations	49,058	49,058	49,058
R-squared	0.81	0.81	0.81

* p less than 0.05, ** p less than 0.01, *** p less than 0.001

Table 2: coefficients and 95 percent confidence intervals for ADL models with heteroskedasticity-consistent standard errors. Note: full tables are presented in the appendix

A Closer Look at U.S. Sanctions Enforcement Actions and Third-Party Trade with Iran

The United States has had various bilateral sanctions in place against Iran dating back to the Iranian Revolution in 1979. The period of our analysis from 2003-2015 coincided with more severe, comprehensive sanctions imposed for nonproliferation, counterterrorism, human rights, and democratization purposes. In 2005, the UN and EU also began imposing nonproliferation sanctions against Iran following revelations that the country had pursued secret nuclear weapons-related research and development activities. Enforcing U.S. sanctions against Iran became a priority for the U.S. government during the administrations of presidents George W. Bush and Barack Obama, putting OFAC's spotlight on investigating and punishing violations of U.S. sanctions against Iran at home and abroad (Early and Preble 2020b). Notably, many of the U.S.'s closest allies had also been the most proactive states involved in undercutting U.S. sanctions against Iran (Early 2015). We thus examine how the U.S.'s more aggressive sanctions enforcement efforts influenced the Netherlands' and Japan's trade with Iran. The contextual evidence in both cases helps illustrate how OFAC's enforcement actions contributed to declines in both countries' imports and exports with Iran.

OFAC Enforcement Actions, the Netherlands, and Trade with Iran

During our period of analysis, Dutch companies were actively penalized by OFAC for their roles in undercutting U.S. sanctions against Iran. OFAC imposed five penalties against Dutch firms for sanctions violations between 2010-2014, four of which were larger than \$500,000 and two of which were greater than \$25 million. The \$619 million-penalty that OFAC imposed against ING Bank, N.V. in 2012 was, at the time, the largest sanctions penalty the agency ever imposed. The apparent violations in the case involved a scheme to hide parties' identities that were subject to the U.S. sanctions regimes involving Cuba and Iran in over 20,000 transactions (OFAC 2012). This massive penalty, taken as part of OFAC's "whale-hunting" strategy of imposing enormous fines against high-profile violators, sent shockwaves through both the Dutch and international financial sectors. As Figure 1 illustrates, 2009-2015 were peak years for OFAC imposing massive penalties for sanctions violations. Both OFAC's penalties against Dutch firms and its major "outside dyad" penalties would have created substantially greater risks and challenges for doing business with Iran. The observed declines in Dutch trade with Iran in Figure 3 after 2010 are thus consistent with our argument that OFAC's enforcement actions made it more difficult, dangerous, and costly for Dutch firms to continue trading with Iran.



Figure 3: OFAC Enforcement Actions and Bilateral Trade with Iran

The EU also imposed robust sanctions during this period, but there are strong reasons to think that U.S. sanctions enforcement actions still had a significant impact. Indeed, most EU states have a lackluster track record of implementing sanctions at the national level—making minimal investments in sanctions enforcement and having weak penalties for violations. In the Netherlands, for example, "the standard maximum fine is only 87,000 EUR" (Giumelli, Geelhood, de Vries, and Molesini (2022: 41). More severe violations can incur penalties of ϵ 830,000 and prison sentences, with administrative fines for the lack of internal compliance mechanisms topping out at ϵ 4 million for repeat offenders (Giumelli and Onderco 2021: 198). In investigating Dutch firms' compliance with sanctions, Giumelli and Onderco (2021: 201) found that firms were critical of Dutch regulators' competence in the realm of sanctions implementation. Yet, at the same time, they also uncovered evidence that Dutch firms often preferred de-risking in response to being exposed to sanctions violations risks. The authors explained this seeming contra-

diction by observing that Dutch firms were more afraid of U.S. enforcement actions rather their own government's penalties (Giumelli and Onderco 2021: 203-205). This suggests that OFAC's enforcement actions against Dutch companies and outside cases had persisting negative effects on Dutch companies' willingness to do business with U.S.-sanctioned states like Iran.

OFAC Enforcement Actions, Japan, and Trade with Iran

The Japanese government was publicly supportive of the UN nonproliferation sanctions imposed against Iran but was also highly dependent upon Iranian oil in the late 2000s/early 2010s. Despite its most important ally's decades-long sanctions campaign against Iran, Japan had maintained an active trade relationship with the country. This was not an anomaly, as Early (2015) found that Japan was historically the most active third-party state involved in busting U.S. sanctions. Convincing Japan to provide robust cooperation in sanctioning Iran—and going beyond the requirements of UN sanctions—was thus an uphill battle. For example, after the EU imposed a ban on its members insuring vessels transporting Iranian oil in 2012, the Japanese Par-liament passed a law that would insure Iranian oil exports to Japan—undercutting the EU's new measures (Maeda 2012).

The U.S. adopted a wide range of strategies to discourage trade with Iran that entailed diplomacy, secondary sanctions, and the proactive enforcement of its sanctions. Coinciding with EU efforts at curbing Iranian oil exports, the U.S. government pressured Japan to decrease its reliance on Iranian oil in 2012 with threats of secondary sanctions. While the U.S. was leveraging secondary sanctions to coerce Japan to cooperate more fully with its sanctioning efforts, OFAC also put Japan's largest financial institution into its sights: the Bank of Tokyo-Mitsubishi UFJ. In 2012, OFAC imposed an \$8.5 million-penalty on the bank for apparent violations involving the deliberate masking of the identities of parties subject to numerous U.S. sanctions regimes, including Iran (OFAC 2012). Penalizing Japan's largest bank for violating sanctions was a high-profile, attention-getting move meant to shock Japanese firms into recognizing their own potential risks (Preble and Early 2023). At the same time, de-risking caused by OFAC's other enforcement actions would have made it more difficult for Japanese firms to get foreign financing for their trade with Iran. OFAC's enforcement action demonstrated that U.S. sanctions had bite even against a close ally. Ultimately, Japan agreed to curb its oil purchases from Iran (Reuters 2012). The graphs in Figure 3 illustrate the significant reduction in Japanese imports from Iran but its exports also declined significantly after OFAC started imposing drastic penalties. So, while Japan took bold action to circumvent EU sanctions, its government and firms instead decided that undercutting U.S. sanctions against Iran was too risky.

This case shows how the U.S. government jointly leveraged OFAC enforcement actions and threats of secondary-sanctions to discourage sanctions-busting trade with Iran. We expect that OFAC's leadership uses its enforcement actions to complement broader U.S. government efforts at promoting compliance with U.S. sanctions in important cases. OFAC's sanctions enforcement actions appeared to have contributed to Japan's reduction in trade with Iran, complementing a broader interagency effort. In most sanctions episodes, though, the U.S. does not appear to expend significant diplomatic effort at discouraging third-party sanctions-busting (Early 2015). The Japanese case suggests that future research should explore the distinctive effects that threatened or imposed secondary sanctions can also have on trade with sanctioned states.

Discussion

Taken altogether, our findings provide support for both of our hypotheses about how OFAC's sanctions enforcement actions encourage de-risking behavior and discourage third-party trade with the targets of U.S. sanctions. We find that enforcement actions within a dyad have the largest substantive effects, but that enforcement actions occurring outside the third party-target dyad are also associated with declines in trade, particularly with respect to imports when considering long-run effects. Importantly, the potential for multiple enforcement actions in a given year suggest that the cumulative effects of OFAC enforcement could lead to significant declines in third-party trade with targets. These findings, especially those involving the systemic effects of OFAC enforcement actions, are consistent with our explanation that de-risking behavior has led third-party firms to trade less with U.S. sanctions targets. Given that studies of trade with U.S.-sanctioned states that focused predominantly upon data from the 20th Century revealed wide-spread third-party sanctions-busting behavior (e.g., Early 2015), our findings are more noteworthy. OFAC appears to have discovered an effective strategy for making many firms sufficiently scared of the risks associated with doing business with sanctioned states that they end their relations with them altogether.

Conclusion

Our study sought to uncover whether the enforcement of U.S. economic sanctions contributed to global de-risking behaviors by analyzing third-party trade with U.S.-sanctioned targeted states. We theorized that OFAC's sanctions enforcement strategy has driven large swathes of third-party firms to engage in de-risking practices that increase the economic isolation of target states. We hypothesized that both the enforcement actions taken directly against a third-party or target in a dyad (direct hypothesis) and those taken against other parties (the systemic hypothesis) will lead to declines in third-party trade with U.S. sanctions targets. Our analysis uncovers convincing evidence that sufficiently large OFAC enforcement penalties against a party in a dyad involving a U.S.-sanctioned target state is associated with declines in their imports and exports. We also find evidence that OFAC enforcement actions transcend the specific firms and states targeted with civil penalties, as sufficiently large penalties on parties outside the dyad are also associated with reductions in third-party states' imports from target states. The latter finding indicates that third-party firms engage in vicarious learning from OFAC enforcement actions imposed elsewhere in the world, leading to de-risking being a global phenomenon.

Our study contributes to the growing literature on how U.S. sanctions can affect the behavior of third parties beyond the specific states targeted by U.S. economic statecraft. While our study demonstrates the macro-level impact that sanctions enforcement actions have on third-party trade with target states, our study could be complemented by firm-level analyses. Similarly, future work could benefit from considering how the wide-ranging, systemic effects of OFAC enforcement actions influence target behavior. Notably, our data include only dyads where sanctions are ongoing against one of the states. Target leaders who wish to avoid such a fate may be most likely to acquiesce to sanctions or threats thereof. Lastly, we think that it would be worthwhile to collect data on and analyze the impact of secondary sanctions as a way of extending our analysis on how senders can affect third-party economic relationships with target states.

Our findings also shed light on one of the global causes of de-risking behavior that have increasingly isolated some countries from the global economy. Our analysis suggests that the effects of single enforcement actions reverberate to decrease trade directly within the target-third-party dyads they occur within and beyond. This suggests that the U.S.'s aggressive enforcement of its sanctions has contributed to the growing global trend of de-risking behavior. Even more than their well-documented de-risking effects on Afghanistan and Syria (Moret 2015), U.S. sanctions policies could be having broader detrimental humanitarian effects than was previously realized. While the U.S. Treasury Department recently acknowledged that de-risking is a significant problem (Rosenberg 2022), it would do well to consider how its own policies helped create the problem.

References

- Arnold, Aaron. 2016. "The True Costs of Financial Sanctions." Survival 58(3): 77-100.
- Asian Development Bank. 2021. "Financial Cri es Compliance: The Power of Partnerships." *ADB Briefs No. 180.* Available at : <u>https://www.adb.org/sites/default/files/publication/</u> <u>712346/adb-brief-180-financial-crimes-compliance.pdf</u>
- Barry, Colin and Katja B. Kleinberg. 2015. "Profiting from Sanctions: Economic Coercion and US Foreign Direct Investment." *International Organization* 69(4): 881-912.
- Bank for International Settlements. 2016. "Correspondent Banking." Washington, DC: U.S. Bureau of Industry and Security. Available at: <u>https://www.bis.org/cpmi/publ/d147.pdf</u>.
- Bapat, Navin, and Bo Ram Kwon. 2015. "When Are Sanctions Effective? A Bargaining and Enforcement Framework." *International Organization* 69 (1): 131–62.
- Bapat, Navin, Bryan Early, Julia Grauvogel, and Katja Kleinberg. 2020. "The Design and Enforcement of Economic Sanctions." *International Studies Perspectives* 21(4): 438-477.
- Barbieri, Kathleen and Jack Levy. 1999. "Sleeping with the Enemy: The Impact of War on Trade." *Journal of Peace Research* 36(4): 463-479.
- Biglaiser, Glenn and David Lektzian. 2011. "The Effect of Sanctions on U.S. Foreign Direct Investment." *International Organization* 65(3): 531 551.
- Boschee, Elizabeth, Jennifer Lautenschlager, Sean O'Brien, Steve Shellman, James Starz and Michael Ward. 2015. "ICEWS Coded Event Data." Harvard Dataverse, V25. https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/28075.
- Daher, Joseph and Erica Moret. 2020. "Invisible Sanctions: How Over-Compliance Limits Humanitarian Work on Syria." *Impact: Civil Society Research and Development*. Available at: https://impact-csrd.org/reports/Invisible Sanctions IMPACT EN.pdf.
- Directorate-General for External Policies. European Parliament. 2020. *Extraterritorial Sanctions* on Trade and Investments and European Responses. Brussels: European Union.
- Durner, Tracey and Liat Shetret. 2015. "Understanding Bank De-Risking and Its Effects on Financial Inclusion." Global Center on Cooperative Security. Available at: <u>https://www-cdn.oxfam.org/s3fs-public/file_attachments/rr-bank-de-risking-181115-en_0.pdf</u>.
- Drezner, Daniel. 2000. "Bargaining, Enforcement, and Multilateral Sanctions: When Is Cooperation Counterproductive?" *International Organization* 54 (1): 709–731.
- Drezner, Daniel. 2015. "Targeted Sanctions in a World of Global Finance." *International Interactions* 41(4): 755-764.
- Early, Bryan. 2015. Busted Sanctions: Explaining Why Economic Sanctions Fail. Stanford: Stanford University Press.
- Early, Bryan. 2016. "Confronting the Implementation and Enforcement Challenges Involved in Imposing Economic Sanctions," p. 43-69. In Natalino Ronzitti's, ed., *Coercive Diplomacy, Sanctions and International Law.* Boston: Brill Nijhoff.

- Early, Bryan and Timothy Peterson. 2021. "Does Punishing Sanctions Busters Work? Sanctions Enforcement and U.S. Trade with Sanctioned States." *Political Research Quarterly* 75(3).
- Early, Bryan and Keith Preble. 2020a. "Going Fishing Versus Hunting Whales: Explaining Changes in How the U.S. Enforces Economic Sanctions." *Security Studies* 29(2): 231-267.
- Early, Bryan and Keith Preble. 2020b. "Enforcing US Economic Sanctions: Why Whale Hunting Works." *The Washington Quarterly* 43(1): 159-175.
- Early, Bryan and Keith Preble. 2021. "The Past, Present, and Future of Sanctions Enforce." *War* on the Rocks, Feb. 23. Available at: <u>https://warontherocks.com/2021/02/the-past-present-and-future-of-u-s-sanctions-enforcement/</u>.
- Farrell, Henry, and Abraham L. Newman. 2019. "Weaponized Interdependence: How Global Economic Networks Shape State Coercion." *International Security* 44(1): 42-79.
- Giumelli, Francesco, Willem Geelhoed, Max de Vries, and Aurora Molesini. 2022. "United in Diversity? A Study on the Implementation of Sanctions in the European Union." *Politics and Governance* 10(1): 36-46.
- Gladstone, Rick. 2016. "Iran Denies Seeking Entry to Banking in the U.S." *The New York Times,* April 16.
- Keampfer, William, and Anton Lowenberg. 1999. "Unilateral vs Multilateral Sanctions: A Public Choice Perspective." *International Studies Quarterly* 43: 37-58.
- Lektzian, David, and Glen Biglaiser. 2013. "Investment, Opportunity, and Risk: Do U.S. Sanctions Deter or Encourage Global Investment?" *International Studies Quarterly* 57: 65-78.
- Lektzian, David, and Glen Biglaiser. 2014. "The effect of foreign direct investment on the use and success of US sanctions." *Conflict Management and Peace Science* 31(1): 70-93.
- McLean, Elena and Taehee Whang. 2010. "Friends or Foes? Major Trading Partners and the Success of Economic Sanctions." *International Studies Review* 54:427-447.
- Maeda, Risa. 2012. "Japan passes law to insure Iran oil imports." *Reuters*, June 20. Available at: https://www.reuters.com/article/us-oil-japan-iran/japan-passes-law-to-insure-iran-oil-imports-idUSBRE85J09Y20120620.
- Moret, Erica. 2015. "Humanitarian Impacts of Economic Sanctions on Iran and Syria." *European* Security 24(1): 120-140.
- Moret, Erica. 2021. "International Sanctions: Improving Implementation through Better Interface Management." SWP Working Papers (August). German Institute for International and Security Affairs. Available at: <u>file:///C:/Users/be947625/AppData/Local/Temp/Moret_W-</u><u>P_International_Sanctions.pdf</u>.
- Morgan, Clifton, and Navin A. Bapat. 2003. "Imposing Sanctions: States, Firms, and Economic Coercion." *International Studies Review* 5 (4): 65–79.
- Morgan, T. Clifton, Navin Bapat, and Yoshiharu Kobayashi. 2014. "Threat and imposition of economic sanctions 1945–2005: Updating the TIES dataset." *Conflict Management and Peace Science* 31:541-558.

- Nance, Mark, Eleni Tsingou, and Stephen Kay. 2021. "Heat versus Light: Fact-Checking the Debate over De-Risking." *Federal Reserve Bank of Atlanta's Policy Hub, No. 8-2021*. (July). Available at: <u>https://www.atlantafed.org/-/media/documents/research/publications/</u> policy-hub/2021/07/15/08-fact-checking-debate-over-de-risking.pdf.
- Office of Foreign Assets Control (OFAC). 2012. "Enforcement Information for December 12, 2012." Washington, DC. U.S. Department of Treasury. Available at: <u>https://ofac.treasury.gov/media/13816/download?inline</u>.
- OFAC. 2013. "Enforcement Information for September 26, 2013." Washington, DC. U.S. Department of Treasury. Available at: <u>https://ofac.treasury.gov/media/13601/download?inline</u>.
- OFAC. 2016. "Enforcement Information for February 25, 2016." Washington, DC. U.S. Department of Treasury. Available at: <u>https://home.treasury.gov/system/files/126/20160225_halliburton.pdf</u>.
- OFAC. 2017. "Enforcement Information for July 27, 2017." Washington, DC. U.S. Department of Treasury. Available at: <u>https://home.treasury.gov/system/files/126/20170727_trans-tel.pdf.</u>
- OFAC. 2019. "A Framework for OFAC Compliance Commitments." Washington, DC. U.S. Department of Treasury. Available at: <u>https://home.treasury.gov/system/files/126/framework_ofac_cc.pdf</u>
- Peksen, Dursun. 2017. "How Do Target Leaders Survive Economic Sanctions? The Adverse Effect of Sanction on Private Property and Wealth." *Foreign Policy Analysis* 13(1):215-232.
- Peterson, Timothy M. 2013. "Sending a Message: The Reputation Effect of US Sanction Threat Behavior." *International Studies Quarterly* 57 (4): 672–682.
- Peterson, Timothy M. 2014. "Taking the Cue: The Response to US Human Rights Sanctions against Third Parties." *Conflict Management and Peace Science* 31 (2): 145–167.
- Peterson, Timothy M. 2021. "Sanctions and Third-party Compliance with US Foreign Policy Preferences: An Analysis of Dual-use Trade." *Journal of Conflict Resolution* online first. <u>https://journals.sagepub.com/doi/full/10.1177/00220027211014945</u>
- Preble, Keith and Bryan R. Early. 2023. "Enforcing Economic Sanctions by Tarnishing Corporate Reputations." *Business and Politics*. DOI: 10.1017/bap.2023.22.
- Reuters. 2012. "Japan seeks exemption on US sanctions on Iran-Nikkei." Reuters, October 29. Available at: <u>https://www.reuters.com/article/japan-usa-iran/japan-seeks-exemption-on-us-sanctions-on-iran-nikkei-idUSL3E8LT9CH20121030.</u>
- Rosenberg, Elizabeth. 2022. "Remarks by Assistant Secretary for Terrorist Financing and Financial Crimes Elizabeth Rosenberg. ABA-ABA Financial Crimes Enforcement Conference, Dec. 5. Available at: <u>https://home.treasury.gov/news/press-releases/jy1143</u>.
- Rosenberg, Elizabeth and Jordan Tama. 2019. "Strengthening the Economic Arsenal." *Center for New American Security* (16 December). Available at: <u>https://www.cnas.org/publications/</u> <u>reports/strengthening-the-economic-arsenal</u>.

- Rosenberg, Elizabeth, Daniel Drezner, Julia Solomon-Strauss and Zachary K. Goldman. 2016. "The New Tools of Economic Warfare." Washington, DC: Center for New American Security. Available at: <u>https://www.cnas.org/publications/reports/the-new-tools-of-economic-warfare-effects-and-effectiveness-of-contemporary-u-s-financial-sanctions</u>.
- Stepien, Beata and Patrick Weber. 2019. "Passive, Aggressive or Creative? Adjustment Strategies of Companies Affected by Sanctions." In, Rob Van Tulder, Alain Verbeke, Barbara Jankowska's, eds International Business in a VUCA World: The Changing Role of States and Firms. Bingley, UK: Emerald Publishing.
- Weber, Patrick and Beata Stepien. 2020. "Conform or Challenge? Adjustment Strategies of Sanction-Torn Companies." *The World Economy* 43: 3006-3024.