Cascading Noncompliance: Explaining How International Cooperation Breaks Down

Jonas B. Bunte* University of Texas at Dallas bunte@utdallas.edu

Geoffrey Gertz
Brookings Institution
GTGertz@brookings.edu

Alexandra O. Zeitz European University Institute alexandra.zeitz@eui.eu

Abstract

How do informal regimes break down? Though there is increasing interest in the failure and demise of international institutions, this research has mostly focused on formal institutions. We examine the process of regime breakdown in the context of informal regimes, outlining the specific process by which compliance collapses in response to an outside challenger. We argue that the emergence of such an outside challenger can kick off a dynamic process whereby the incentive to defect from the regime becomes contagious. Deviation from the regime subsequently spreads throughout the membership in a sequence we call cascading noncompliance. We empirically investigate this phenomenon in the context of the international regime on export finance, where China has become an important outsider placing competitive pressure on the regime. In line with our expectations, we demonstrate that the earliest defectors from the regime are those most exposed to Chinese trade competition. More importantly, we demonstrate that members' subsequent divergence from the regime is driven by responses to those initial noncompliers from within the regime's membership.

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^{*}Corresponding Author. University of Texas at Dallas, 800 W Campbell Rd, 75080 Richardson, TX, USA, 972-883-3516.

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Scholars of international cooperation are increasingly interested in how international cooperation breaks down, with members exiting international organizations (IOs) (Borzyskowski and Vabulas, 2019), IOs becoming 'zombie' institutions (Gray, 2018) or even disappearing altogether (Eilstrup-Sangiovanni, 2018). However, studies on IO breakdown have almost exclusively focused on formal IOs, where a legal treaty clearly specifies binding obligations and a secretariat is tasked with a clear mandate, such that states' exit or the organization's demise is a stark, clearly identified event. Yet, much of international cooperation instead takes place in informal international organisations, with no legally binding obligations (Rowan and Roger, 2020; Vabulas and Snidal, 2013). Rather than relying on formal enforcement mechanisms, these informal IOs rely on "explicitly shared expectations" and states' joint interests to foster compliance with agreed provisions (Vabulas and Snidal, 2013) p. 197). How, then, does cooperation in these informal IOs break down? On the one hand, theory expects that cooperation in informal IOs ought to be fragile, since "states are...less tightly constrained and arrangements can be more readily abandoned" (ibid., p. 209). On the other hand, the flexibility of informal IOs is precisely intended to accommodate a range of preferences in its non-binding commitments.

We argue that informal agreements are vulnerable to the rise of outside challengers, since members lack formal tools to enforce compliance once the free-riding of an outside challenger alters the utility of continued compliance. Since informal regimes are often established to provide coordination among a small group of like-minded states, they are especially susceptible to free-riding by states not party to the regime. Our core argument is that outsiders can lead to diminished compliance with a regime by altering the pay-offs of continued compliance for those states in the regime most exposed to the challenger. Once these states have stopped complying with the regime, the utility for other members to continue complying with the regime also diminishes. This sets off a process we call *cascading non-compliance* in which the drivers for non-compliance increasingly come from within the regime itself. This negative feedback loop of decreasing compliance marks the breakdown of the regime, as fewer and fewer members are willing to adhere to the provisions of the regime.

We develop this argument in the context of the international regime designed to limit competition in official export finance. Since the 1970s, advanced economies have cooperated through an informal regime to limit over-subsidization of finance provided by government export credit agencies (ECAs) (Moravcsik, 1989). The agreement aims to provide a level playing field among the largest players in export finance by setting standards for pricing loans. Historically, this agreement has worked well. Levit (2004) documents extremely high compliance rates between the 1970s and the 2000s. However, since the mid-2000s China has emerged as a major export creditor operating outside the regime. Official export credit has been crucial to Chinese companies' expanding global reach. Since China is not a party to the export credit regime, it is free to undercut the price floor designed to limit competition in export finance, giving Chinese firms an advantage over competitor exporters from western countries.

We trace how the rise of China as a major export creditor operating outside the regime is leading members of the regime to reduce their compliance. Regime members are unevenly exposed to Chinese competition. While for the *average* regime member the threat of Chinese competition is insufficient to shift incentives toward defection, for the specific members who compete most directly with China, compliance with the regime becomes too costly to sustain compliance. Crucially, once these primary defectors become noncompliant, their actions in turn influence the remaining members, who begin to see higher costs and fewer benefits to continued compliance. Today the export credit regime appears to be in the midst of breaking down, a process catalyzed by the rise of Chinese competition but driven by the internal dynamics within the regime.

This paper makes three contributions. First, we develop an argument explaining how informal regimes break down in the face of outside challengers, highlighting how competition alters the calculus for compliance in regimes without legal enforcement mechanisms. This extends the growing literature on the fragility of international institutions to the process of regime collapse in informal institutions. Specifically, it develops an account of the *process* of regime breakdown, moving beyond explanations focused on the binary outcomes of regime survival or death.

Second, we make an empirical contribution by charting the contemporary developments in an area of the world economy that that has received scant attention in IPE literature (for exceptions, see Moravcsik, 1989; Blackmon, 2014; Hopewell, 2017; Hopewell, forth.). State-backed export credit agencies are economically important; as of 2017 there are some 60 public ECAs providing over \$200 billion in medium- and long-term financing (US EXIM, 2017). As Andrew Moravcsik (1989, p. 176) puts it, export credit is "the financial lubricant that keeps the international trade system going." By examining the stability of cooperation in export finance, we contribute to the study of how states interface with global markets and how governments shape global economic flows.

Lastly, our argument contributes to recent scholarship examining the consequences of China's rise. Much work is concerned with the direct consequences of China's behavior in the international arena, with China seen as undermining global standards in areas such as intellectual property rights, environmental protection, and debt and foreign aid (Bunte, 2018). We show, however, that China's rise may also have indirect consequences for international cooperation. Specifically, we suggest that China's approach in areas of international cooperation traditionally dominated by Western states can set off mutual competition among previously cooperative states. China is large and disruptive enough that its rise will serve as a shock to many regimes currently in cooperative equilibria; these equilibria may be less stable than they appear, and there are no guarantees that regimes will resettle into new cooperative equilibria after the dust settles.

The remainder of the paper is structured as follows. Section [1] develops our argument for cascading noncompliance in informal regimes. We discuss the research design, case selection, and data in Section [2]. Section [3] develops the case of cooperation on export credits, providing evidence that the mechanism by which compliance collapses aligns with our expectations. We explore possible alternative explanations in Section [4]. Section [5] concludes and discusses the applicability of our argument to other international regimes.

1 The dynamics of regime breakdown: Cascading noncompliance

We examine how international regimes can break down when they come under competitive pressure from states outside the regime. Specifically, we focus on informal regimes with a non-universal membership that are vulnerable to free-riding.

As a starting point, we borrow the Vabulas and Snidal (2013) three part definition of informal intergovernmental organizations as those with (a) an explicit group of state members who (b) have an explicit shared expectation about the organization's purpose and (c) participate in regular meetings, but lack a permanent secretariat, staff, and headquarters. Such informal arrangements are widespread in international politics, ranging from the "G" groupings to agreements on arms control, financial regulation and monitoring, and environmental protection. There is a growing interest among scholars of international organization in informal international cooperation, with the recognition that non-legalized cooperation is an important feature of international politics, even if it may serve different aims than formalized cooperation (Vabulas and Snidal, 2013; Rowan and Roger, 2020). States may use non-legalized commitments because they are more flexible, allowing them to better respond to unpredictable or politically sensitive international issues (Gautier, 2006).

Within this broader set of informal regimes, we narrow the focus of our analysis by two additional criteria. First, we focus on regimes with non-universal membership because we are concerned with how regimes respond to the rise of an outside challenger. In order for there to be an outsider, the regime must have a non-universal membership, made up of only a subset of the world's states. Such club or "minilateral" arrangements are common in world politics, with the aim of bringing together like-minded or the most essential states on a given issue (Kahler, 1992).

Second, we narrow our argument to those regimes that are vulnerable to free-riding by outsiders. Technically, club goods are those that can be restricted such that they are only available to members of the club. For instance, non-members of regional trade agreements do not receive the favorable lower tariff rates members provide to other members. However, "minilateral" cooperation can also generate private benefits for non-members, which can then impose costs on the members. These clubs function as cartels, cooperating to limit competition among members. Members privately benefit from the collective agreement, e.g. a higher price. Meanwhile, actors outside the cartel derive private benefits by setting their price to outcompete cartel members.

This cartel logic also plays out in policy domains, where non-members can benefit from regulatory arbitrage by setting looser regulations than members. For example, in the anti-money laundering regime, countries that remain outside the regime can gain a competitive advantage as they become more attractive destinations for illicit money relative to countries adhering to the rules. Unlike free-riding challenges with public goods — e.g. where a group of states agree to limit greenhouse gas emissions and worry they cannot exclude other states from the collective benefit of lower emissions — in the case of cartels, states' compliance with an agreement can yield separate, private benefits for outsiders that are not enjoyed by members.

We understand the break down of cooperative international behavior as a spectrum, rather than a binary outcome. At one end of the spectrum is members' explicit withdrawal and disavowal of an institution (Borzyskowski and Vabulas, 2019). For instance, Ecuador chose to formally terminate its membership in the International Center for Settlement of Investment Disputes (ICSID) in 2009, with then-President Rafael Correa declaring at the time that the institution "signifies colonialism, slavery with respect to transnationals, with respect to Washington, with respect to the World Bank and we cannot tolerate this" (Diaz, 2009).

Short of complete withdrawal from an institution, members can also explicitly deviate from the written rules and obligations of an institution. For example, through the World Trade Organization members have made multiple commitments on tariffs, subsidies, intellectual property, and other trade-related issues. Members may at times fail to comply with some of these specific obligations, though overall continuing to participate in the cooperative regime. Individual acts of noncompliance may not suggest a breakdown of the regime, but sufficiently widespread non-

¹There is a longstanding literature theorizing the sources of states' (non)compliance with international agreements; for an overview of these issues, see Simmons (1998).

compliance could constitute the effective demise of international cooperation, particularly if an institution is unable to credibly respond to acts of noncompliance. One function of dispute settlement procedures in international institutions is to clarify when a member has failed to uphold its obligations, and initiate enforcement mechanisms, thereby deterring the spread of noncompliance and allowing cooperation to persist.

This last point, however, highlights a key difference between formal and informal institutions. Formal institutions tend to have clear explicit rules, procedures for monitoring compliance, and (in some cases) mechanisms for carrying out enforcement. Informal institutions lack such tools, making it far more difficult to understand what 'compliance' constitutes and how to differentiate compliance from non-compliance. Returning to our definition of informal institutions, recall that they require an explicit shared expectation about the organization's purpose. It is thus fair to say that when states act against the explicit shared purpose of an informal institution, this is an act of informal noncompliance, even if no formal obligation has been breached.

Just as widespread formal noncompliance can constitute the breakdown of a formal institution, widespread informal noncompliance is evidence of the breakdown of international cooperation in informal regimes. As Schachter, an international lawyer writing in the 1970s, puts it,

We must...recognize that noncompliance may be so substantial and widespread as to bring into question whether the [non-binding] agreement is still operative. Just as the parties may terminate an agreement expressly, they may do so by not observing its terms in a manner or on a scale sufficient to confirm their rejection of the agreement. This does not mean, of course, that any violation of the requirements of the agreement would signify its termination (Schachter, [1977], p. 304)

Yet without clear, explicit rulings on what qualifies as informal noncompliance, the process of cooperation breakdown in informal institutions is likely to occur below the radar, and may not initially be obvious to casual outside observers. As Vabulas and Snidal argue, "because they are informal, IIGOs [informal inter-governmental organizations] may *fade away over time* more frequently than FIGOs [formal inter-governmental organizations] "(Vabulas and Snidal, 2013,

p. 205). The breakdown of informal regimes may happen not with a bang, but with a whimper.

We study the *process* through which incentives for non-compliance can spread through an informal international regime in the face of an outside challenger, ultimately leading to the breakdown of cooperation.

Our argument in a nutshell: Primary and secondary defectors

Our argument for the process of regime breakdown rests on the fact that states are differently integrated into the international system, with states more exposed to the policies and behaviors of some states than others. This is why club arrangements emerge in the first place. These arrangements rest on the benefits of cooperation outweighing the costs of compliance and of outsiders' potential free-riding. The composition of the club's membership is intended to ensure this is the case. If all members of the club comply, then the negative externalities of mutual restraint are kept low, no large states are left outside of the club, so negative externalities from others' free-riding are minimal. In this way, the club is able sustain itself.

When an outsider appears, however, the utility of continued compliance declines for some members. Crucially, this is not the same for all members of the club. This is because states are differentially integrated into the international system and thus differentially exposed to the behavior of an outsider to the club. Those that are most exposed to a free-riding outsider — for instance, because they are in the same region of the world or because they are direct competitors for capital or export markets — will face the highest costs. For these states, the costs of continued compliance with the regime may come to outweigh the benefits of memberships, and they will have incentives to deviate from the provisions of the regime. We refer to these states as the primary defectors.

While the primary defectors are responding directly to the pressure of free-riding from outside the regime, the next step of the argument concerns dynamics internal to the club itself. Once primary defectors have deviated from the rules of the club, the existing club members face new, additional costs of compliance. The behavior of the primary defectors increases the costs of

compliance for those states most exposed to them. Because of the design of most clubs — which intend precisely to bring together those states most exposed to each other — numerous members will face increased costs due to the noncompliance of the primary defectors. These most exposed states now face a diminished utility from continued compliance with the rules of the club. Given this reduced utility, these states may cease complying with the rules of the regime, becoming secondary defectors.

In this way, the emergence of an outsider that remains outside the club and does not comply with its provisions sets off a negative feedback loop, leading states to stop complying with the regime. We refer to this phenomenon as *cascading non-compliance*. Crucially, a key part of this process arises from interactions *among* the members of the regime. While the utility of continued compliance is initially recalibrated in response to meaningful free-riding by an outsider, this sets off a reinforcing cycle among members of the regime in which the cost of continued compliance increases as additional club members defect. In the context of an informal regime, this non-compliance may become so widespread as to lead to effective breakdown of the regime.

Formal representation of the argument

To formalize these dynamics, consider the utility a regime member i derives from compliance in time t as described in equation $\boxed{1}$.

$$U_{it} = \pi - \mu - \sum_{j \neq i} (\kappa_{ijt} \times \gamma_{jt}) \tag{1}$$

The member receives a payoff from club membership π , which are the direct benefits the state receives from the policy. The member also pays a cost μ for complying. These benefits and costs are constant for all members of the regime, they reflect the direct consequences of the club's prescribed policies, for instance higher air quality through standards in the energy sector or lower tax evasion through coordination on money laundering, as well as the direct costs of implementing those policies. For simplicity's sake, we assume that these benefits π and costs μ

of complying with the regime are constant across all members and time. 2

In addition to the direct benefits and costs of policy change, members also face the fact that they generate private benefits for non-members by creating opportunities for competition. In other words, members face a cost from free-riding. To capture this negative externality of other actors' noncompliance, all members must pay an additional cost of compliance that varies over time and across members. This cost is a weighted average of the level of noncompliance by both members and non-members, where the weight is members' exposure to other countries within the international system. This is defined as $\sum_{j\neq i} (\kappa_{ijt} \times \gamma_{jt})$.

Countries in the international system vary in their compliance with the regime. For simplicity's sake, noncompliance is defined in binary terms, as γ_{jt} . Other countries' noncompliance will not impose the same costs on all members, because of differences in exposure. This is why the cost of others' noncompliance varies across individual members of the regimes; some will be more exposed to noncompliers than others.

Exposure is captured in terms of κ_{ijt} , defined very broadly to be compatible with a wide range of factors that could increase states' sensitivity to the behavior of other states, such as geographic proximity, volume of trade, volume of financial flows, or ideological similarity. κ_{ijt} is simply the share of exposure from i to j relative to i's total exposure to other actors, as illustrated in equation 2. It captures how important j is to i compared to other actors. This could capture a country's most important trade competitors, competitors for capital in international financial markets, or closest neighbors.

$$\kappa_{ijt} = \frac{\theta_{ijt}}{\sum \theta_{imt}} \tag{2}$$

A number of insights arise from this formalization that are relevant to understanding when states are likely to re-evaluate their compliance with a regime. First, a member's utility from

²Of course, this is a simplifying assumption. Standards will be less costly to implement for those states that already have similar rules in place and the costs of compliance may diminish over time as domestic institutions adjust. Similarly, higher benefits will accrue to those for whom the policy brings about the greatest improvement. In a classic price cartel, the actor able to produce the good at the lowest cost benefits the most from fixing the price.

compliance can decline because of increasing exposure to noncompliers, such as actors outside the regime. This might happen, for example, because a member becomes a closer trading partner or competitor with a noncomplier or because a noncomplier become more dominant in international financial markets or regional politics, Second, a member's utility from compliance can decline because of increasing noncompliance among states to which the member is already highly exposed, including fellow members of the regime. Given that most regimes are precisely intended to include all states to which the members have high levels of exposure, the initial threat to compliance is likely to come from outside the regime. However, if members of the regime begin to deviate from the provisions of the regime, this will also affect the utility of other members, especially if they are highly exposed to each other.

An illustration

To illustrate this dynamic, let us provide a brief numerical example (see Table 1). Let us assume there are only four countries in the world: Korea, Canada, France, and China, of which the first three are members of a regime and China is an outsider to the regime. The direct benefits of compliance π are equal to 1 and the direct costs of compliance μ are equal to 0.5. In addition, countries face a variable cost of other actors' noncompliance, which is determined by their exposure to noncompliant countries. With respect to the exposure κ_{ijt} , our starting point is a world like the 1980s where the first three states are not as highly integrated with the Chinese economy. Consequently, Korea, Canada, and France are each exposed to China with only 20% while equally exposed to each other. For example, Korea might be exposed to China with 20%, to Canada with 40%, and France with 40%. With respect to noncompliance γ_{ijt} , China is a noncomplier, i.e. $\gamma_{China}=1$, and all the other countries are compliers.

In this initial period, all three countries derive a positive utility from cooperation. For each, their low exposure to the only noncomplier means that variable costs of compliance are kept low. For example, Korea's utility is calculated as follows: $U_{Korea} = 1.0 - 0.5 - [(0.2 \times 1) + (0.4 \times 0) + (0.4 \times 0)] = 0.3$. This reflects the fixed benefits and costs of cooperating, as well as the cost of

		Benefit	Cost	Exposure	Compliance	Interaction	Utility
		π	μ	κ_{ijt}	γ_{jt}	$\frac{\sum_{j\neq i}(\kappa_{ijt}\times\gamma_{jt})}{0.2}$	U
t=1	Korea	1.0	0.5	$\kappa_{Korea,China}$ =0.2	$\gamma_{China} = 1$	0.2	0.3
				$\kappa_{Korea,Canada} = 0.4$	$\gamma_{Canada} = 0$		
				$\kappa_{Korea,Canada} = 0.4$	$\gamma_{Canada} = 0$		
	Canada	1.0	0.5	$\kappa_{Canada,China}$ =0.2	$\gamma_{China} = 1$	0.2	0.3
				$\kappa_{Canada,Korea}$ =0.4	$\gamma_{Korea} = 0$		
				$\kappa_{Canada,Canada}$ =0.4	$\gamma_{Canada} = 0$		
	France	1.0	0.5	$\kappa_{Canada,China} = 0.2$	$\gamma_{China}{=}1$	0.2	0.3
				$\kappa_{Canada,Korea}$ =0.4	$\gamma_{Korea}=0$		
				$\kappa_{Canada,Canada}$ =0.4	$\gamma_{Canada} = 0$		
t=2	Korea	1.0	0.5	$\kappa_{Korea,China} = 0.6$	$\gamma_{China}{=}1$	0.6	-0.1
t—Z	Noica	1.0	0.5	$\kappa_{Korea,China}$ =0.0 $\kappa_{Korea,Canada}$ =0.2	$\gamma_{Cnina} = 1$ $\gamma_{Canada} = 0$	0.0	-0.1
				$\kappa_{Korea,Canada}$ =0.2 $\kappa_{Korea,Canada}$ =0.2	$\gamma_{Canada}=0$ $\gamma_{Canada}=0$		
	Canada	1.0	0.5	$\kappa_{Canada,China} = 0.2$	$\gamma_{China}=1$	0.2	0.3
	Cunada	1.0	0.5	$\kappa_{Canada,Korea} = 0.4$	$\gamma_{Korea}=0$	0.2	0.0
				$\kappa_{Canada,Canada} = 0.4$	$\gamma_{Canada}=0$		
	France	1.0	0.5	$\kappa_{Canada,China} = 0.2$	$\gamma_{China}=1$	0.2	0.3
				$\kappa_{Canada,Korea} = 0.4$	$\gamma_{Korea}=0$	-	
				$\kappa_{Canada,Canada} = 0.4$	$\gamma_{Canada} = 0$		
				- ·····,-			
t=3	Korea	1.0	0.5	$\kappa_{Korea,China} = 0.6$	$\gamma_{China}{=}1$	0.6	-0.1
				$\kappa_{Korea,Canada}$ =0.2	$\gamma_{Canada} = 0$		
				$\kappa_{Korea,Canada}$ =0.2	$\gamma_{Canada} = 0$		
	Canada	1.0	0.5	$\kappa_{Canada,China}$ =0.2	$\gamma_{China} = 1$	0.6	-0.1
				$\kappa_{Canada,Korea}$ =0.4	$\gamma_{Korea} = 1$		
				$\kappa_{Canada,Canada}$ =0.4	$\gamma_{Canada} = 0$		
	France	1.0	0.5	$\kappa_{Canada,China}$ =0.2	$\gamma_{China} = 1$	0.6	-0.1
				$\kappa_{Canada,Korea} = 0.4$	$\gamma_{Korea} = 1$		
				$\kappa_{Canada,Canada}$ =0.4	$\gamma_{Canada} = 0$		

Table 1: Hypothetical utility calculations for members of a three-state club

others' noncompliance, which is low since China is the only non-complier and Korea's exposure to China is low. Given the positive utility from compliance to the regime, Korea has the incentive to continue to comply with the regime, as is also the case for Canada and France, see Table 1.

In period 2, the outsider China has grown in importance, but not for all countries. China does not compete directly with Canada or France, but it does compete with Korea for access to export markets. For this reason, Korea's exposure to China has increased to 60%, with Korean exposure to Canada and France reduced to 20% each. By contrast, the exposure profile of Canada and France remains unchanged. Korea's growing exposure to China means that Korea's

costs from China's noncompliance have increased, thereby reducing Korea's utility of continued cooperation. Following equation 1 Korea's utility U_{Korea} in this second period thus amounts to $U_{Korea} = 1 - 0.5 - [(0.6 \times 1) + (0.2 \times 0) + (0.2 \times 0)] = -0.1$. The negative utility implies that Korea has the incentive to stop complying, becoming a primary defector. By contrast, the utility calculations of Canada and France have not changed, since their largest exposure continues to be to regime members that are compliant with the regime, which suggests they will remain compliant with the regime.

This changes in period 3, however. While Canada and France's exposure to China has not changed, Korea's noncompliance with the regime has increased Canada and France's costs of continued continued compliance. Specifically, France and Canada's sizable exposure to Korea means that Korea's noncompliance now imposes a meaningful cost on each of the two other members of the regime. Calculating the utility for Canada thus yields utility $U_{Canada} = 1 - 0.5 - [(0.2 \times 1) + (0.4 \times 1) + (0.4 \times 0)] = -0.1$. After the noncompliance of the primary defector, both remaining compliers now obtain a negative utility from compliance. This is likely to cause them to defect from the rules of the club. Importantly, these secondary defectors did not respond directly increased competition from China, but rather instead to the changed behavior of fellow members of the club.

Expectations

In sum, our argument suggests that heterogeneous exposure to outsiders can set off a negative feedback loop in which the primary defectors' noncompliance shifts other states' utilities from cooperation, triggering subsequent noncompliance by secondary defectors. We argue that these dynamics outlined above capture the *process* by which an informal regime breaks down. Our model of this process yields two specific theoretical expectations:

- 1. Countries most exposed to outside competition should be the earliest defectors.
- 2. Incentives to defect will spread beyond those states initially highly exposed to the outside

competitor, as competition within the regime is contagious, and primary defections breed secondary defections.

In the remainder of this paper, we assess empirical support for these propositions in the export credit regime.

2 Universe of cases and case selection

In this paper, we are not interested in estimating a causal effect, but rather in identifying a causal mechanism. For this reason, we analyze a single case study that allows us to probe the underlying pathways leading from compliance to defection. In the words of Gerring (2009, p. 45), "when studying decisional behavior, case study research may offer insight into the intentions, the reasoning capabilities, and the information-processing procedures of the actors involved in a given setting." Given that our theory relies on changes in the calculations made by individual governments, we chose the approach of a single case study to shed light on how actors' incentives to comply change over time.

We select this case from among a universe of instances of international cooperation that meet the scope conditions of our criteria. In other words, non-universal arrangements that are not legally binding. Furthermore, we are interested in how incentives to comply with the regime are altered by outsiders that do not adhere to the rules of the regime. How many instances of international cooperation fit these criteria? To estimate the universe of cases, we use Rowan and Roger's dataset of informal international organizations, and identify those organizations that count at least ten G20 countries among their members but do not include China. This is intended to identify agreements that include many large economies and where China is a meaningful outsider. Of the 36 informal IOs that have ten or more G20 members in 2010, the last year in Rowan and Roger's dataset, 13 (36%) do not include China. Just over a third of club agreements that include an important share of the world's economies have China as an outsider.

³It is interesting to note that a broadly similar ratio pervades among formal agreements. Of the legally-binding

These agreements include the Egmont Group of Financial Intelligence Units, which facilitates information exchange to combat money laundering and terrorist financing. China is the only G20 member that is not a member of the Egmont Group and does not contribute to its information sharing arrangements. Similarly, China does not participate in the International Association of Deposit Insurers, which helps to set standards and transmit information among deposit insurers in leading and developing economies. In a different issue area, China is outside the small club of countries in the Missile Technology Control Regime, which includes 14 G20 members. The regime has developed export controls for the sale and transfer of missile technology.

One illustrative case of how China ends up outside informal arrangements is the Paris Club for debt restructuring, which is an informal arrangement among creditor countries to coordinate on policies toward creditors in debt distress. The membership of the Paris Club emerged from among those countries with the largest exposure to developing countries' debt, i.e. the world's most significant lenders. Today it includes 22 countries, of which 11 are G20 members. As China has become increasingly important as a bilateral lender to developing countries, its absence from the Paris Club has become more notable, placing pressure on the club's continued relevance for members. Recently, the IMF has warned that the common Chinese practice of collateralized lending, in which loans are secured by natural resources, can undermine coordination in the event of a restructuring, since the collateral effectively creates a more secured, senior class of creditors (IMF, 2020) While cautiously framed, the IMF's warning reflects a concern that other countries could adopt a Chinese approach to collateralizing debt to enjoy a protected status in the event of a potential debt restructuring. For as long as China remains outside of existing bodies for coordinating debt restructuring, there is a risk that other creditors may adopt a "Chinese-style" approach to lending in order to protect their interests in the event of a borrower's inability to repay.

From among this universe of cases, we look for a "typical case" that meets the scope conditions

IOs in the Correlates of War dataset, there were 66 in 2010 that counted ten or more G20 countries among their membership. Of these 66, 11 did not include China.

⁴The membership of the Paris Club has sometimes seen it referred to as a "lenders' cartel," see e.g. Kaiser, [2016]

for this type of cooperation, in order to explore whether our hypothesized process of regime breakdown actually took place (Seawright and Gerring, 2008, p. 299). We select the Arrangement on Officially Supported Export Credits (known colloquially as 'the Arrangement'), an informal agreement that governs public support of export finance. The Arrangement has a defined list of members, an explicit purpose - limiting competition in official export credits, in order to create a level playing field for exporters - and its members meet regularly, though without a formal headquarters or significant secretariat.

First, the case matches the key characteristics of our scope conditions. The export credit Arrangement has non-universal membership and a cartel-like quality that risks generating private benefits for non-members. While the Arrangement includes all major advanced economy ECAs, there are several ECAs in emerging economies that operate outside the regime. By restricting competition among its members, the Arrangement generates a private benefit for each member, namely reducing the cost of providing export finance. In so doing, it provides opportunities for free-riding by non-members, who can take advantage of the coordination among Arrangement members to outcompete them by by undercutting the price floor.

The second motivation for studying the export credit regime is its durability. As noted above, the agreement worked well for 30 years. The breakdown in international cooperation was thus by no means inevitable, nor is it reasonable to assume that the breakdown was accidental. Indeed, this durability helps us control for important alternative explanations that could explain the eventual breakdown of cooperation. For instance, Gray (2018) suggests one reason institutions breakdown is a lack of bureaucratic capacity or secretarial support, but throughout its life the Arrangement has consistently relied on secretarial support from the OECD secretariat. Similarly, given the importance of export credits for facilitating ever-increasing volumes of international trade, it is unlikely that the agreements has outlived its original mandate (Colgan, 2014; Wallander, 2003; Boin, Kuipers and Steenbergen, 2010).

Finally, the third motivation for selecting the export credit regime is it is a substantively

⁵As discussed further below, the Arrangement is affiliated with the formal institution of the OECD, and uses OECD secretariat resources for some of its functions.

important area of international political economy which remains understudied, and thus allows us to make important theoretical and empirical observations.

3 The dynamics of regime breakdown in the export credit regime

What is the export credit regime?

Export credit facilitates cross-border purchases. For example, a developing country government might be interested in a turbine for a power plant offered by an American company. However, given the cost of this product, the buyer is unable to pay the entire sum at once. Instead, the government needs a loan, which would facilitate immediate payment to the supplier for the turbine, while allowing the buyer to spread out repayment over a period of time. Unfortunately, such loans are difficult to obtain. First, goods like turbines, airplanes, and other machinery are expensive; second, the creditworthiness of foreign buyers is often difficult to ascertain. For both reasons, private banks are frequently not willing to provide credit for such cross-border transactions.

In light of this problem, governments have created public agencies that fill this gap: Export Credit Agencies (ECAs). Today all advanced economies have at least one officially supported ECA. These government agencies are intended to provide financing for export projects that are unable to secure private loans (Blackmon, 2014). In the example above, the American ECA—the US Export-Import Bank—would pay the American company the purchasing price of the turbine, which ships the turbine to the developing country. In turn, the recipient government repays the loan to the US Export-Import bank over time, including interest. This way, ECAs can facilitate the business of domestic firms abroad, and foreign governments gain access to critical technology that would otherwise be out of reach.

ECAs have conflicting objectives. On the one hand, they have a mandate to support exports

of domestic firms and support job creation in the home country. For this reason, ECAs want to provide financing on attractive terms, helping exporters to win contracts. On the other hand, ECAs are public (or publicly supported) agencies and any losses they make ultimately need to be paid for by their sponsoring governments (Stephens, 1999). In the 1980s, the US Treasury Department estimated that OECD governments collectively paid between \$15 and \$20 billion per year in direct subsidy costs of export credits (Kohler and Reiter, 1986, p. 2). In the absence of any coordination to tame competition, official ECAs in the 1970s found themselves caught in an arms race of ever-increasing export subsidies contributing to budget deficits.

For this reason, a group of countries consisting mostly of OECD members have attempted to cooperate to limit competition on export credits. Since 1978, these countries have operated on the basis of the Arrangement on Guidelines for Officially Supported Export Credits, known colloquially as "the Arrangement" (OECD, 1998). The Arrangement "seeks to prevent an export credit race" in which exporters gain market share on the back of subsidized finance provided by their home country governments and instead aims to establish a "level playing field" among exporters, competing on the quality and cost of products and services, rather than the price of financing (Summary Overview of the Arrangement). The Arrangement reduced the public cost of export finance while still enabling domestic firms to export to markets where private finance was not available. The current members of the Arrangement are Australia, Canada, the 28 member countries of the European Union, Japan, Korea, Norway, New Zealand, Switzerland, Turkey, and the United States.

The Arrangement was never formalized as a treaty and is explicitly referred to in-text as a "Gentleman's Agreement among the Participants," i.e. it is not legally binding. It relies on the benefits it generates for members — especially lowering the cost of subsidizing their exports by restricting price competition — to sustain compliance. The 1978 Arrangement was followed over subsequent decades by a series of further agreements to address other dimensions of export finance competition, including the use of tied aid, the standardization of risk pricing, and sector-specific rules for ships, nuclear power, aircraft, and renewable energy projects.

While the Arrangement introduces the potential for free riding it has nevertheless been quite successful. Between the 1970s and 2000s, participants valued the benefits from adherence, resulting in near unanimous and consistent compliance by the parties to the Arrangement. Levit (2004) documents high compliance with the regime in the early 2000s and historically. Similarly, US ExIm bank officials note in interviews that, "By and large it has worked really well. The Arrangement tamped down on governments going hog wild on subsidizing exports" (Interview, 2018a). Moravcsik (1989) explains this is because governments directly benefited from the lower cost of export subsidies, as well as the information exchanged among Arrangement members.

If we are interested in explaining regime breakdown, what would that entail in the export credit regime? Most obviously, members could publicly declare that they were opting to walk away from the Arrangement, and would no longer be bound by its obligations. Alternatively, members could begin no longer complying with the specifically agreed rules governing export finance, such as a floor for interest rates and maximum loan maturities.

Less obviously, however, members could also begin deviating from the explicitly shared expectation of the purpose of the Arrangement, namely to create a "level playing field" in export financing conditions so that export sales are determined on the basis of quality and price, rather than their financing terms. Members could act in ways not specifically prohibited by the Arrangement but which nonetheless serve to sweeten their export financing options and differentiate themselves from other ECAs, constituting informal noncompliance with the regime. Notably, since the Arrangement governs many types of export finance but not all, members can restructure their export credit options in order to evade the strictures of the institution. We will demonstrate that the rise of Chinese export finance has led to an increasing deviation from the Arrangement in these ways.

China's rise and role

China's emergence as the world's largest supplier of export credits has significantly changed the export credit landscape (Bunte, 2019). China's two primary ECAs, the Export-Import Bank of

China (China EXIM) and the China Export & Credit Insurance Corporation (SINOSURE) provided a combined \$64 billion in export credit in 2018 (US EXIM, 2019). China is now clearly the biggest provider of export credit; US EXIM estimates that Chinese export-related finance increased from about 10 percent of total export finance provided by G-7 countries in 2008 to approximately equal the G-7 sum by 2018 (US EXIM, 2019).

Indeed, a 1986 report warned that the then-newly industrializing countries of Brazil, South Korea, Singapore, China, and Hong Kong were beginning to offer export credit programs, and that "the optimal strategy for the nonmembers is to offer interest rates just below the consensus rates" (Kohler and Reiter, 1986, p. 25).

China appears to be strategically capitalizing on the Arrangement, free-riding on the restraint of Arrangement members. In one document China EXIM explicitly advertises that it will set its interest rates just below those of the Arrangement for strategic recipient partners (China EXIM Bank, 2017) p. 1). Moreover, China's position outside the OECD Arrangement not only allows it to offer lower interest rates, but also to avoid other strictures in its export credits, as a representative of the US ExIm bank pointed out, "[T]he Chinese are more generous with grace periods. [...] But the big difference is funding available in unlimited amounts, and without conditions such as on bribery, the environment, or human rights" (Interview, 2018c). Similarly, the industry lobby group Business at OECD notes that it "is aware of instances of export support from countries not bound by the Arrangement that are more generous than would be permitted under its terms" (Business and Industry Advisory Committee to the OECD, 2018).

This has clear consequences for the competitiveness of Chinese firms. For instance, a US diplomatic cable from 2007 from the Embassy in Ghana notes, "China competes aggressively with the US and others for deals with the Government of Ghana, often to the frustration of US businesses. Because China is not bound by the OECD Export Credit Agency agreement nor international norms concerning labor rights, environmental protection, and corruption, the *playing field is not level*" (U.S. Embassy in Ghana, 2007).

⁶We thank Interview (2018b) for bringing this to our attention.

One potential response to a systemically important outsider is to bring them into the regime. Members of the Arrangement, led primarily by the United States, have endeavored to bring China into the export credit regime in one form or another since the mid-2000s. After several years of informal consultations, US President Obama and Chinese Vice President Xi Jinping agreed in 2012 to open formal talks on export credit, with the goal of reaching a deal by 2014 (Palmer, 2012). This effort came to be known as the International Working Group (IWG) on export credits.

As of 2020, however, this working group has yet to have a significant effect on coordinating export finance. A former high-ranking official at US ExIm noted that while it was positive talks were ongoing, China "is good at slow-walking" negotiations, and he did not expect any major breakthroughs in the near term (Interview, 2018a). By 2014, an internal European Union assessment noted that "A real problem at this stage is [...] the fact that the activities of the working group are for the time being very much driven by its OECD participants. With the exception of South Africa and Turkey, many non-OECD participants are rather cautious when it comes to making active contributions" (European Commission, 2014). While the IWG continues to meet regularly, none of our interviewees were enthusiastic on its prospects, with one interviewee noting that, "Nothing really has happened" (Interview, 2018a). Indeed, a 2018 survey of export credit professionals found that only 13 percent believed the IWG had made any progress, 23 percent suggested there had been no progress, while a full 64 percent were not even aware of what the IWG was (Thompson, 2019).

The lack of progress in talks with China is not surprising, given that China appears to have little interest in restraining its export credits, and does not appear to face the financial pressures Western countries did when they originally set up the Arrangement. For example, one internal Chinese government document notes that,

When the borrower cannot repay the loan, the project that has been insured for export credit risk will be compensated according to relevant Sinosure policies; for projects that are approved by the State Council to be exempted from export credit insurance and that are waived from debt, *China ExIm will first offset the loss from these bad*

debts with the special reserves and the general reserves. If those are inadequate to fully offset the loss, the difference will be included in that year's profit and loss statement (China EXIM Bank, 2017).

The Chinese model of export finance is not subject to the same financial constraints as the export credits of current members of the OECD Arrangement.

Breakdown in the export credit regime

How have existing members of the ECA regime responded to the rise of China as an important player operating outside the regime? A high-ranking official from the US Export Import (ExIm) bank provides a stark answer to this question: "War has broken out among ECAs. [...] Western ECAs are competing very hard against one another, and trying to steal US exports right and left" (Interview, [2018c]).

This view is widely shared among officials working in ECAs, as well as other practitioners in the field. The Canadian export credit agency notes that the "emergence of Asian ECAs, notably in China ... has invoked a response by other countries to adopt more aggressive trade promotion as the playing field becomes increasingly competitive" (EDC, 2018, p. 25). Similarly, the Business and Industry Advisory Committee to the OECD (2018) noted increasing "unfair competition within the OECD" that "dilutes the benefits and merits of the OECD Arrangement." A private banker working in export finance reported in 2018 that a "trade war has been simmering for the last three or four years, and it has been quite covert, under the surface. It's been the sort of competition between ECAs that we have seen where national interests are promoted" (Manders, 2018).

Evidence from within developing countries also supports this view. For instance, an interviewee in the Ministry of Finance in Ghana noted that "The huge amounts of money that the emerging donors are throwing about and how it is linked to their own firms is leading traditional donors to change their approach, to also consider their own firms" (Interview, 2017a). In Kenya, a debt management official observed, "What we have seen changing is the element of creditors supporting

their local companies through ECAs, for instance, Spain, Belgium ... The China model creates circumstances that other creditors are responding to" (Interview, 2017b).

Notably, no member has announced any intention to leave the Arrangement, nor have they explicitly deviated from the specifically agreed upon rules governing interest rates and maturities. Instead, ECA members are informally noncomplying with the overall purpose of the Arrangement, in two ways. First, they are adjusting internal policies to gain a competitive edge against one another. For instance, one important ECA policy is the level of domestic content required for a transaction to be eligible for official export credit support. Historically these requirements have been relatively high, to ensure that government-backed export credits are in fact benefiting domestic rather than foreign firms. Increasingly, however, Arrangement members are lowering domestic content requirements, allowing them to offer financing to a much broader pool of potential projects (US EXIM, 2018; Dawar, forth.).

Second, and more importantly, ECAs have begun to offer financial products not explicitly covered by the Arrangement, such as market window, investment and untied programs. These products provide ECAs greater flexibility, since they technically fall outside the agreed-upon rules to limit competition. In practice, however, such "trade-related" financing serves a similar function as official ECA activity, but without the strictures of the Arrangement. This move outside the confines of the Arrangement leads to greater competition, and away from the "level playing field" to which ECAs have committed themselves.

US EXIM estimates that the share of total global trade-related finance activity covered by the OECD Arrangement fell from close to 100 percent in 1999 down to only about a third today (US EXIM, 2019, p. 20). While much of this change is driven by the rise of non-member export credits, it also crucially reflects the fact that Arrangement members are shifting more and more of their trade finance outside the rules of the Arrangement to be able to more directly compete with non-members.

 $^{^{7}}$ In the US, for example, the maximum level of support US ExIm will provide in any transaction is the lesser of 85% of the total value of all goods and services in a contract, or 100% of the value of the US-produced goods and services in a contract. This means US ExIm is unable to finance large deals that involve significant foreign content.

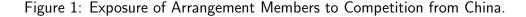
Participants in the regime are worried that persistent noncompliance may lead to breakdown of the Arrangement. For instance, the director of the Italian ECA recently noted,

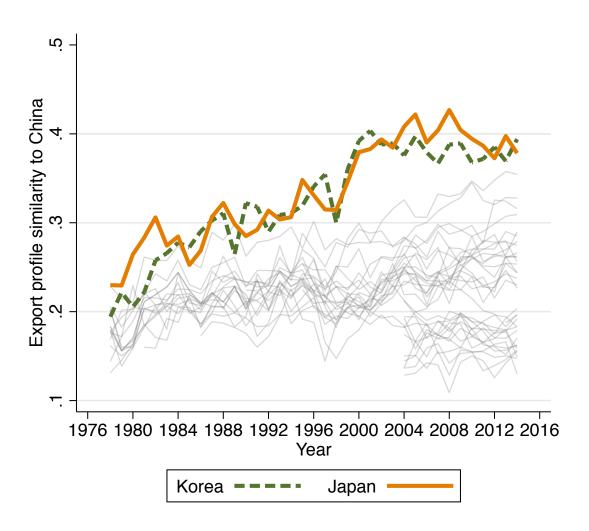
In the most recent years the OECD regulatory framework has appeared less and less able to capture the actual international trade, as non-export related operations conducted by ECAs continue to grow. Products aimed at supporting the internationalization of national companies, the issuance of surety bonds as well as any form of untied financing not directly linked to national procurement remain outside the scope of the OECD (Valerio, 2016).

An official from the Finnish ECA commented, "Many countries provide various programs outside the scope of the Arrangement [...] If a country provides many support windows both in and outside the scope of Arrangement, it may bring competitive advantage" (Karkovirta, 2018). Similarly, Juliette Schleich, a policy analyst in the OECD's Export Credits Division, argues that Arrangement ECAs are responding to the rise of Chinese export finance by deviating from the principle of a level playing field: "One way for OECD participants to keep competing with these new players has been to adapt and develop new products *so we are seeing competition inside, within the participants*, with the development of new products that are on the margins of OECD principles" (EKN (Swedish Export Credit Agency), 2019).

In sum, there is ample evidence that noncompliance within the export credit regime has increased over time. We now return to our expectations identified above to evaluate whether the process and sequence of noncompliance in the export credit regime matches onto our theory.

Expectation 1: Primary defectors Our first expectation was that countries most exposed to the outsider, i.e. China, should be the earliest and clearest defectors. To assess exposure to Chinese competition, we create an index that measures the similarity in countries' export market structure with that of China, using a similar approach to that of Fuchs, Nunnenkamp and Öhler (2015). The index is calculated as the ratio of the share of exports from country i to country j in all of China's





exports, which are then averaged at the exporter-year level. The index varies from 0 to 1, with high values indicating that the composition of export markets for an exporter is more similar to that of China, a proxy for exposure to Chinese competition.

Figure 1 shows these data. There has been a general increase in exposure to China across all countries over time, as China has become a major export power. For our purposes, what is most important is noting the Arrangement members that are most exposed to China are, not surprisingly, the country's two Asian neighbors, Korea and Japan. This suggests these two ECAs should be among the earliest defectors from the regime.

⁸Trade data are sourced from the Correlates of War project

This indeed is what the empirical record reveals. Japan now provides almost exclusively investment finance and untied loans, trade-related financing that is not covered by the terms of the Arrangement. As of 2017, only about 3 percent of finance provided the Japan Bank for International Cooperation was in the form of traditional export credits (US EXIM, 2019, p. 44). Korea similarly has increased its investment financing, and its own officials have noted one reason is because it allows them to act beyond the confines of the Arrangement: "The benefit of investment credit is that it can be provided outside the OECD Arrangement, so we can be very much flexible in regards to local content and costs... In terms of investment credit, the sky is our limit" (quoted in (US EXIM, 2019, p. 24)).

Other players in the export credit regime agree Japan and Korea were primary defectors. In an interview a US EXIM official noted, "China set the tone when it emerged about 10 years ago. Then the Japanese and Koreans introduced programs outside the Arrangement" (Interview, 2018c). A separate US EXIM report also specifically identifies Japan and Korea as early movers, singling them out as the two countries that "turned so quickly to untied and investment financing programs in their response to the world of competitive financing flowing from China" (US EXIM, 2018) p. 24). And a report prepared by an industry association of contractors also suggested these were the two key actors moving away from the Arrangement: "In particular, Japan, but also Korea have responded with a substantial increase of non-Arrangement official finance to the Chinese official finance competition" (Mudde, Paul, 2018). Katada and Liao (2019) suggest Japan's recent moves to aggressively support its firms' exports are a direct response to China's Belt and Road Initiative.

Thus our first expectation appears supported: Japan and Korea, the two countries most exposed to Chinese competition in export credits, were the primary defectors from the regime.

Expectation 2: Secondary defectors Our second expectation is that, though countries highly exposed to China will be the first to cease complying with the regime, they will not be the only ones. That is, once the primary defectors begin to operate increasingly outside the terms of the

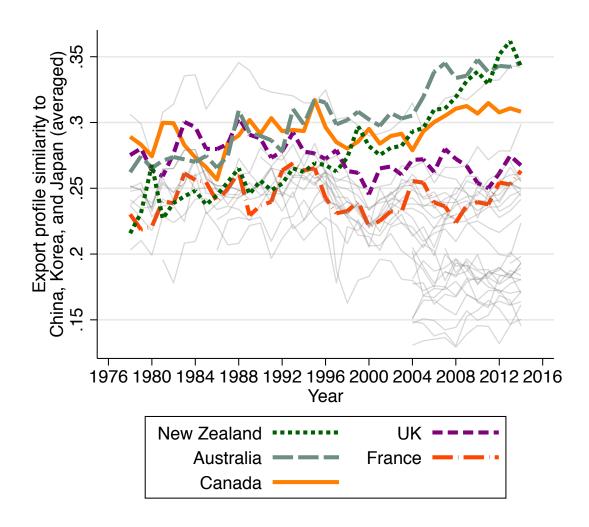
Arrangement, other members will also be under pressure not to comply, sparking a cascade of noncompliance.

Evidence suggests that this process occurred, specifically that competitive pressures among ECAs expanded well beyond those highly exposed to China. A 2017 report from US EXIM notes that while non-arrangement financing was "originally a largely Asian ECA attribute, other ECAs, such as Germany, are steadily making the changes required to match these programs" (US EXIM, 2017) p. 40). Multiple ECAs are introducing programs beyond the Arrangement, and regime practitioners suggest this is driven by competitive dynamics internal to the regime. As observed by a business lobby group in Brussels, the move to create new financing programs "demonstrates the strategic dilemma faced by OECD member countries in the context of uneven global competition. [...] These developments increase pressure on other members to create their own Arrangement breaching programs, and therefore further jeopardize the level playing field." (Business and Industry Advisory Committee to the OECD, 2018)

To better understand this process, we look at which countries are exposed not only to China but also to Japan and Korea, who now increasingly operate outside the regime, using the same metric of export competition as above. Figure 2 identifies these countries, which include regional competitors in Australia and New Zealand, as well as a subset of other Arrangement members in Europe and North America.

Notably, several of these countries feature prominently among the second wave of defectors. For instance, in 2016 the New Zealand ECA, NZECO, revised many of its policies in order to expand its offerings and be more competitive internationally (New Zealand Export Credit Office, 2016). The agency extended the maximum maturity available on certain loan guarantees, and began offering many new financial products, including political risk insurance and a product specifically aimed at domestic firms participating in export supply chains (but who may not be exporters themselves). These reforms were initiated in part in response to a 2014 survey of NZECO client companies, which revealed that some exporters believed they were losing out on export sales because other ECAs offered extended repayment terms, and similarly complained

Figure 2: Exposure of Arrangement Members to Competition from China, Korea, and Japan (averaged).



about "NZECO's lack of 'aggressively pursuing' opportunities like other export credit agencies"' (New Zealand Export Credit Office, 2014). After NZECO passed its reforms, the following year Australia passed new legislation to similarly expand the offerings provided by its ECA, including new investment finance and supply chain financing options (Export Finance Australia, 2017).

Canada is another notable second wave defector, which itself is now influencing other members. One interviewee noted that after Japan and Korea introduced their non-Arrangement programs, "then Canadians introduced their 'pull' program. Now it's *catching on* with other ECAs [...] At the most recent G-20, all the other ECAs were asking the Italians and Canadians

to explain their programs so they could learn from and copy them. The competition has taken on a life of its own!" (Interview, 2018c). And while other countries are mimicking Canada's aggressive approach, for its part Canada's own ECA notes that its "ongoing scan of trends among other ECAs now often points to areas where [the Canadian ECA] risks falling behind other ECAs and losing ground for our customers" (EDC, 2018, p. 25). Similarly, an official from the French ECA noted in a recent interview that "we have developed benchmarking with other ECAs to be more aware of their new organisation, their new products and the evolution of the market. We are active and we adapt our products or create new ones to better fit our clients' needs" (Global Trade Review, 2018).

Over time, as second wave defectors altered their practices, members paid an increasing costs arising from others' noncompliance. At this point, the pressure to defect from the regime arose from internal dynamics. The case of Austria is instructive in this regard. Austria has only moderate exposure to competition with China. Thus if the key factor explaining ECAs' incentives to defect from the regime was direct exposure to Chinese competition, we would expect Austria to continue complying with the regime.

Yet we see that OeKB, Austria's ECA, has taken a number of steps to increase its competitiveness, deviating from the spirit of the Arrangement. For instance, the country was the largest European provider of tied aid in both 2017 and 2018, another important form of non-Arrangement trade-related support (US EXIM, 2018; US EXIM, 2019). Similarly, in 2016 OeKB halved its domestic content requirement, from 50 percent to 25 percent, allowing the agency to pursue a broader array of projects (Oesterreichische Kontrollbank AG, 2016, p. 7). Austrian officials themselves point to their competition with other OECD member ECAs as the key justification of such reforms: "many other European export credit schemes such as those in Italy, the Netherlands, Belgium, Scandinavian countries or in Switzerland have embarked some time ago to be more liberal regarding national content requirements, resulting in a potential loss of competitiveness for Austrian firms" (Schipfer, 2017).

We see, thus, that Chinese competition alone cannot directly explain the breakdown in com-

pliance in the export credit regime. While China may have pushed Japan and Korea to reevaluate their approach to the export credit regime, these early defections helped spur subsequent non-compliance by secondary defectors. This view is supported by export credit practitioners; for instance, one industry consultant recently summarized the breakdown in the regime as

...cheap Chinese ECA/DFI [development finance institution] debt is now distorting global competition in the global project and trade marketplace. Non-OECD Arrangement countries like Japan and Korea have responded strongly, in effect more or less mirroring the Chinese methodology. And now some OECD Arrangement countries are following suit, circumventing OECD rules... (Mudde, 2018)

Each secondary defector, like the primary defectors and the original outside challenger before them, create additional costs for members of the regime, over time incentivizing them to cease complying with the Arrangement themselves. This supports our second empirical expectation.

4 Assessing alternative explanations

Our analysis of breakdown in compliance with the export credit regime illustrated how cascading noncompliance unfolds. States' utility from continued compliance declined as their exposure to non-compliers increased. Initially, this was driven by competition with China, but subsequently, defecting regime members' noncompliance increased the costs borne by remaining regime members, setting off a negative feedback loop. This dynamic of cascading noncompliance undermined regime members' willingness to comply with the regime, thereby ultimately weakening the regime itself.

To strengthen our confidence in this claim, here we briefly consider two alternative explanations, outlining why these fail to capture *how* cooperation broke down in the regime.

First, one prominent explanation for the emergence and dissolution of regimes is the behavior of the leading state. Hegemons play an important role in setting up regimes for international cooperation, incentivizing other states to comply by offering side payments and increasing the

benefits of compliance by themselves making substantial compromises. Indeed, the US played the leading role in establishing the export credit regime through precisely such tools, including applying financial pressure to holdout states in the 1980s (Moravcsik, 1989). The converse of this account is that the withdrawal of a leading state can precipitate the collapse of international cooperation (Borzyskowski and Vabulas, 2019).

At first glance, it might appear that breakdown in the international export credit regime can be explained by the withdrawal of the US. After all, the US' leadership in export credits has been severely dampened in recent years. Domestic politics, particularly the ascendance of the Tea Party within the Republican party, have led to a weakening of the US EXIM Bank, undercutting this US' role as an international leader in export finance (Hopewell, 2017). However, the weakening of the US as the hegemon of the export credit regime cannot explain the process of cooperative breakdown. If breakdown was caused by the departure or diminishing of the regime's hegemon, then we would expect all regime members to defect simultaneously and that they would point to the US as the reason for their actions. However, we instead observe a sequential pattern, with initial defectors deviating from the regime from the early 2010s, and noncompliance spreading to other regime members in following years. The sequential dynamics of diminished compliance thus do not match a story of hegemonic departure, and we instead have to turn to the preferences of other regime members.

A second alternative explanation suggests variation in regime members' compliance with the Arrangement is a function of institutionally determined preferences. Differences in states' willingness to comply with the regime might be a consequence of their domestic institutions, rather than exposure to international competition. In the case of export credits, the relevant institutional differences among states would be the extent of government intervention in markets, broadly captured in the categories associated with the varieties of capitalism literature (Hall and Soskice, 2001). In liberal market economies, such as the United States or the United Kingdom, private financial institutions are expected to play the leading role in finance, including in export finance, with public export credit agencies only stepping in to address the most severe market

failures. By contrast, in coordinated market economies, including Germany or France, there is more comfort with public banks such as development banks and export credit agencies playing an important role in supporting national economic development.

This would suggest that coordinated market economies would have been among the first to defect from the regime, while liberal market economies would maintain compliance. While it is true that the earliest defectors, South Korea and Japan, both have high levels of public-private coordination and state involvement in the economy, subsequent patterns do not fit this explanation. Specifically, some of the most creative secondary defectors from the regime have been the UK and Canada, both liberal market economies. The UK's 2018 export strategy notes that its reforms have "helped to level the playing field for UK exporters bidding for overseas projects." (UK Export Finance, 2018, p. 54). Similarly, despite being a liberal market economy, Canada has been notable in moving its export finance activities outside the Arrangement. Rather than being explained by domestic institutions, this is more likely to be explained by exposure to competition with the primary defectors, as Figure 2 shows.

5 Conclusion

Much of international coordination takes place in informal bodies. Lacking legal enforcement measures, these agreements rely on the benefits they offer members to induce compliance with the standards and guidelines they develop. We have argued that the calculus sustaining these regimes can unwind when outsiders emerge. This is the case even when only some members of the regime are directly exposed to this outside competition. Once some members of the club have defected, cascading noncompliance can set in.

The pattern and sequence of declining compliance in the export credit regime aligns with our expectations. The first states to reduce their compliance with the Arrangement's commitment to a level playing field were those most directly exposed to Chinese competition, namely Japan and Korea. Subsequently, other members of the Arrangement relaxed their compliance in response

to their exposure to these primary defectors. Ultimately, the diminished compliance with the Arrangement has weakened its relevance and ability to constrain competition in export finance.

We have argued that these dynamics are likely to unfold where outsiders have little incentive to join the regime and members face costs from the outsider's noncompliance, as well as where there are no enforcement mechanisms to keep members in line when the costs of others' noncompliance mount. We have identified a universe of cases that satisfy these criteria, and investigated the process in one of these cases. Future work may wish to examine where compliance is declining across the universe of cases we identified. Notably, our research suggests that declining compliance in such regimes may not be obvious to outsiders, as there may not be clear evidence of members exiting institutions or clearly breaching formal rules. Yet careful empirical work will be able to reveal where informal noncompliance is building up beneath the surface, processes that may be clear to insiders working within the regime even if they are less obvious to outsiders.

More generally, future work ought to consider how the structure of international institutions can shape their dissolution, and how these processes may differ across regime structures. Our work suggests that evaluating the activity, dynamism, and relevance of institutions requires assessing compliance with the explicit shared expectations on the purpose of these institutions. While formal IOs have prescribed withdrawal procedures for states to deploy and stated meeting calendars that can fall into disuse, in informal IOs members can quietly drift away from prescriptions without a formal act and thereby undermine the institution itself. This invites future work on how design features of IOs at their creation may later shape their disintegration.

References

- Blackmon, P. (2014) 'Determinants of developing country debt: the revolving door of debt rescheduling through the Paris Club and export credits'. *Third World Quarterly* 35(8): 1423–1440.
- Boin, A., Kuipers, S. and Steenbergen, M. (2010) 'The Life and Death of Public Organizations: A Question of Institutional Design?' *Governance* 23(3): 385–410.
- Borzyskowski, I. and Vabulas, F. (2019) 'Hello, goodbye: When do states withdraw from international organizations?' *The Review of International Organizations* 42(1): 1–32.
- Bunte, J. B. (2018) 'Sovereign Lending after Debt Relief'. *Review of International Political Economy* 25(3): 317–339.
- Bunte, J. B. (2019) *Raise the Debt: How Developing Countries Choose their Creditors*. Oxford University Press.
- Business and Industry Advisory Committee to the OECD (2018) 'The future of the OECD Arrangement on Officially Supported Export Credits Business priorities': 1–6.
- China EXIM Bank (2017) Interim Measures for the Management of Preferential Export Buyers'

 Credit (PEBC). Tech. rep.
- Colgan, J. D. (2014) 'The Emperor Has No Clothes: The Limits of OPEC in the Global Oil Market'. *International Organization* 68(03): 599–632.
- Dawar, K. (forth.) 'Official export credit support: competition and compliance issues'. *Journal of World Trade*.
- Diaz, F. C. (2009) 'Ecuador continues exit from ICSID'. IISD Investment Treaty News.
- EDC (2018) 'Evolving with the Changing Needs of Exporters'. Government Report.
- Eilstrup-Sangiovanni, M. (2018) 'Death of international organizations. The organizational ecology of intergovernmental organizations, 1815–2015'. *The Review of International Organizations* 70(2): 1–32.
- EKN (Swedish Export Credit Agency) (2019) 'OECD disciplines at a crossroad'. EKN blog.

- European Commission (2014) 'Report from the Commission to the European Parliament and the Council: Annual Report on negotiations undertaken by the Commission in the field of export credits, in the sense of Regulation (EU) No 1233/2011'.
- Export Finance Australia (2017) 'Export Finance Australia mandate changes to drive trade and investment'. *Government Report*.
- Fuchs, A., Nunnenkamp, P. and Öhler, H. (2015) 'Why Donors of Foreign Aid Do Not Coordinate: The Role of Competition for Export Markets and Political Support'. *The World Economy* 38(2): 255–285.
- Gautier, P. (2006) 'Non-Binding Agreements'. In. Max Planck Enyclopedias of Public International La.
- Gerring, J. (2009) What Is a Case Study Good For? In What Is a Case Study Good For? (2009). Case Study Research(37–64). Cambridge: Cambridge University Press.
- Global Trade Review (2018) 'Spotlight on Europe's ECAs'. Global Trade Review.
- Gray, J. (2018) 'Life, Death, or Zombie? The Vitality of International Organizations'. *International Studies Quarterly* 62(1): 1–13.
- Hall, P. A. and Soskice, D., (Eds.) (2001) *Varieties of Capitalism*. The Institutional Foundations of Comparative Advantage. Oxford University Press.
- Hopewell, K. (2017) 'When market fundamentalism and industrial policy collide: the Tea Party and the US Export–Import Bank'. *Review of International Political Economy* 24(4): 1–31.
- Hopewell, K. (forth.) 'Power transitions and global trade governance: The impact of a rising China on the export credit regime'. *Regulation and Governance*.
- IMF (2020) 'Collateralized transactions: Key considerations for public lenders and borrowers'.
- Interview (2017a) 'Interview with Bilateral Desk Officer, Ministry of Finance, Ghana'. *Personal Interview*.
- Interview (2017b) 'Interview with Debt Management Officer, National Treasury, Kenya'. *Personal Interview*.
- Interview (2018a) 'Interview with US EXIM official'. Personal Interview.

- Interview (2018b) 'Interview with US EXIM official'. Personal Interview.
- Interview (2018c) 'Interview with US EXIM official'. Personal Interview.
- Kahler, M. (1992) 'Multilateralism with small and large numbers'. *International Organization* 46(3): 681–708.
- Kaiser, J. (2016) 'Contractual Vs. Rules-Based Approaches to Sovereign Debt Restructuring'.

 *Development 59(1-2): 94–99.
- Karkovirta, P. (2018) 40 years export credit competition goes beyond the Arrangement? In 40 years export credit competition goes beyond the Arrangement? (2018). *Berne Union Yearbook 2018*(100–102). Berne Union.
- Katada, S. and Liao, J. (2019) 'China and Japan in pursuit of Infrastructure Development Leadership Competition or Convergence?' *Working Paper*.
- Kohler, D. F. and Reiter, P. H. (1986) 'Honor Among Nations: Enforcing the "Gentlemen's Agreement" on Export Credits'. *RAND Note*.
- Levit, J. K. (2004) 'The Dynamics of International Trade Finance Regulation: The Arrangement on Officially Supported Export Credits'. *Harvard International Law Journal* 45: 65–182.
- Manders, S. (2018) 'Export finance in focus'. Global Trade Review Apr. 7, 2018.
- Moravcsik, A. M. (1989) 'Disciplining trade finance: the OECD Export Credit Arrangement'. International Organization 43: 173–205.
- Mudde, P. (2018) 'Right problem wrong solution: The threat to the multilateral official finance system'. *TXF News*.
- Mudde, Paul (2018) 'Official Finance Practices of the PR China: Distortion of competition, OECD responses and the threat to the Multilateral Official Finance System.' Report of Sustainable Finance & Insurance, conducted for the European International Contractors e.V. (EIC).
- New Zealand Export Credit Office (2014) 'Summary of Findings of NZECO's Business Survey'.

 Government Report.
- New Zealand Export Credit Office (2016) 'Recent Changes to the NZECO Mandate and Products'.

 **Government Report*.

- OECD Summary Overview of the Arrangement. URL: http://www.oecd.org/trade/xcred/ summaryoverviewofthearrangement.html
- OECD (1998) The Export Credit Arrangement: Achievements and Challenges, 1978-1998. Organisation for Economic Co-Operation and Development.
- Oesterreichische Kontrollbank AG (2016) 'OeKB Integrated Report 2016'. Government Report.
- Palmer, D. (2012) 'U.S., China agree to negotiate export credit deal'. Reuters Feb. 14, 2012.
- Rowan, S. S. and Roger, C. B. (2020) 'Informality and Bias in Studies of International Organizations'. *Working paper*.
- Schachter, O. (1977) 'The Twilight Existence of Nonbinding International Agreements'. *The American Journal of International Law* 71(2): 296–304.
- Schipfer, F. (2017) OeKB: introducing Austria's more flexible national content policy. In OeKB: introducing Austria's more flexible national content policy (2017). *Berne Union Yearbook 2017*(37–39). London: Berne Union.
- Seawright, J. and Gerring, J. (2008) 'Case selection techniques in case study research: A menu of qualitative and quantitative options'. *Political Research Quarterly* 61(2): 294–308.
- Simmons, B. A. (1998) 'Compliance with international agreements'. *Annual review of political science* 1(1): 75–93.
- Stephens, M. (1999) *The Changing Role of Export Credit Agencies*. International Monetary Fund. Thompson, M. (2019) 'Is the OECD Consensus still fit for purpose?' *TXF News*.
- UK Export Finance (2018) 'UK Export Strategy Supporting and connecting businesses to grow on the world stage'. *Government Report*.
- U.S. Embassy in Ghana (2007) 'Chinese Influence in Ghana an Update'. U.S. Embassy Cable.
- US EXIM (2017) 'Report to the US Congress on Global Export Credit Competition 2017'.

 Government Report.
- US EXIM (2018) 'Report to the US Congress on Global Export Credit Competition 2018'.

 Government Report.

- US EXIM (2019) 'Report to the US Congress on Global Export Credit Competition 2019'.

 **Government Report*.*
- Vabulas, F. and Snidal, D. (2013) 'Organization without delegation: Informal intergovernmental organizations (IIGOs) and the spectrum of intergovernmental arrangements'. *The Review of International Organizations* 8(2): 193–220.
- Valerio, P. (2016) The OECD Regulatory Framework and the benefits of international cooperation between the ECAs. In The OECD Regulatory Framework and the benefits of international cooperation between the ECAs (2016). *Berne Union Yearbook 2016* (35–37). London: Berne Union.
- Wallander, C. (2003) 'Institutional assets and adaptability: NATO after the Cold War'. *International Organization* 54(04): 705–735.