

Do International Organizations Reduce the Risk of Crisis Recurrence?

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Abstract

This paper examines the effect of international organizations (IOs) on the recurrence of international crises. In line with existing literature on conflict onset, I suggest that country-dyads with more co-memberships in IOs have a lower probability of fighting again. Moving beyond this claim, however, I argue that the scope and mandate of the IO are not relevant for the risk of crisis recurrence. Ultimately, all types of IOs promote links between states and strengthen their chances for effective international cooperation. Empirically, I examine the probability of crisis recurrence between 1950 and 2008, using the count of dyadic co-memberships as the main explanatory variable. The results show that co-membership in any type of IO has negative and significant impact on crisis recurrence. Moreover, the disaggregation of IOs into different categories (e.g., those dedicated to conflict prevention, peace-brokering, or security) also points to a negative effect. The effects of IOs disaggregated by type, however, are not significantly different from the overall IO impact.

Keywords: international organizations, international crisis, recurrence, joint membership, quantitative analysis

Introduction

Can we predict the failure of peace after a crisis has been settled? Some crises might break out again after years of peace, yet others are fully resolved and do not recur. The International Crisis Behavior (ICB) dataset indicates that almost one-half of all international crises since 1918 were recurring ones, meaning they were related to some earlier outbreak of hostility between the same actors on the same issue (Hewitt 2003).¹ A recurring crisis is a failure to maintain peace between actors. A nonrecurring crisis and the durability of the settlement following the first cri-

sis is regarded a “success.” But what specific factors affect the risk of nonrecurrence of an international crisis?

International organizations (IOs) play an intermediary role between states. But how? Do IOs actively prevent international crises from recurring between the same actors, or do the ties formed via IO membership more passively affect the outcome? In what follows, I explore the *passive* mechanisms employed by IOs that induce the nonrecurrence of an international crisis, measured by counts of state co-memberships in IOs.² By passive impact, I mean those elements that IOs offer

1 I use the definition of international crisis from Brecher and Wilkenfeld (1997, 4): a crisis may pertain to hostile, verbal, or physical interactions between two or more states, with a heightened probability of military hostilities. Hence, all crises in my data are of an international and interstate character.

2 Hence, I do not address the effect that IOs may have by *intervening* in an international crisis. I focus on mechanisms that are able to “heal” states’ rivalries and potentially prevent intervention more indirectly (or passively). IOs’ membership primarily encourages cooperation among states and, therefore, offers peace and good relations (Shannon 2009). I thus focus more on the functional role of IOs (Keohane 1984); hence, I

without actually intervening in a conflict, such as communication forums, information provision in the background, reputational effects, and preemptive policies. For this research, I define IOs as *formal* institutions with at least three member-states (Pevehouse, Nordstrom, and Warnke 2004).

IOs are characterized by various mandates that define their purpose. Different classifications of IOs would appear to help identify what the impact of specific IOs in international crises may be. Existing literature has examined the impact of IOs on crisis onset and in the context of militarized interstate disputes (Boehmer, Gartzke, and Nordstrom 2004; Shannon 2009), but little attention has been paid to crisis recurrence.

Although crisis onset and crisis recurrence have many similarities, they differ in important ways. When a pair of states experiences a conflict, the actors acquire a certain disposition toward their opponent that might be dangerous for postconflict stability. Additionally, recurrent conflicts might be more severe and intense than earlier disputes. In the words of Walter (2004), “conflict begets conflict.” In line with Hewitt (2003), Quinn, Mason and Gurses (2007), Kreutz (2010), and Mason et al. (2011), this broaches the important point that many outbreaks of conflict are recurrences of a past conflict rather than “new” disputes.

My analysis first considers all IOs (regardless of their mandate), then I examine the impact of those IOs that are potentially more skilled in the passive promotion of peace, such as peace-brokering IOs (Shannon 2009). I also explore the significance of IO mandates by disaggregating peace-brokering IOs into security IOs and nonsecurity IOs. Ultimately, this study reveals that co-membership in any type of IOs will reduce the risk of crisis recurrence, and the magnitude of this effect does not differ significantly from that of IOs explicitly dedicated to maintaining peace.

The remainder of this article proceeds as follows. First, I illustrate more thoroughly how crisis recurrence differs from crisis onset, and I review the determinants of crisis nonrecurrence (i.e., the mechanisms that lower the risk of crisis recurrence). Second, I outline my theoretical argument behind the impact of IOs on states’ relations and crisis prevention. Third, I describe my research design, model, and variables employed for the empirical analysis. The last section presents the results and concludes with a discussion of the findings and avenues for further research.

do not assume an independent role for IOs and see IOs more as an “information arena” or forum for exchange.

Crisis after Crisis

A peace agreement does not necessarily lead to the resolution of a crisis. Sometimes, underlying issues remain unresolved. As a result, we might observe the outbreak of another crisis between the same actors for the same underlying reasons but due to a new trigger (Hensel 1994; Vasquez 2000). Against this background, Colaresi and Thompson (2002) argue that past and future crises are interrelated, because the initial cause keeps states in ambivalent relationships that can increase the risk of another crisis.

The debate over whether subsequent crises are related to each other has hinged on different assumptions about prior crises and their effects, which take the form of two distinct approaches. The first posits that states that have already experienced a crisis are likely to see another, related crisis (Hensel 1994; Vasquez 2000; Colaresi and Thompson 2002). The second approach contends that because states learn from experience, past crises make future crises less likely. Through repeated crisis, actors become more experienced and uncertainty is reduced (Wagner 2000). Interaction between the same actors means that the disputants know their opponents, as well as their strategies, and they can more accurately predict future movements. When actors do not know their opponents’ intentions, they are more uncertain about the relationship, which increases the risk of crisis recurrence (Gartzke and Michael 1999).

This debate differentiates *crisis onset* from *crisis recurrence*. Both concepts clearly have things in common, since crisis onset and crisis recurrence may be due to similar circumstances (Walter 2004; Quinn et al. 2007; Mason et al. 2011). In addition, every case of crisis recurrence is a case of crisis onset, but not the other way around. However and despite their similarity, crisis recurrence substantially differs from crisis onset and, hence, merits special attention (Grieco 2001; Walter 2004; Quinn et al. 2007; Mason et al. 2011). As demonstrated in the literature, crisis recurrence brings together actors with a history of interaction (Walter 2004; Quinn et al. 2007; Kreutz 2010; Mason et al. 2011; Rustad and Binningsbø 2012). This past interaction determines states’ behavior and choices. In essence, crisis recurrence is the continuation of a crisis onset where actors failed to permanently end an initial disagreement (Goertz, Bradford and Diehl 2005). Moreover, since actors learn from past experience, the knowledge of actors, the information on their opponents, their incentive structure, and the overall circumstances in the context of crisis recurrence frequently differ from those of crisis onset. While I do not seek to underestimate the importance of crisis

onset by focusing on crisis recurrence, I aim to examine the determinants and measure the predictability of *crisis recurrence* considering IO influence.

As in the case of crisis onset, commitment problems and information asymmetry are associated with crisis recurrence (Fearon 1995). Therefore, every mechanism that reduces uncertainty between states can be considered a way of mitigating a crisis and lowering the risk of recurrence. The literature identifies several mechanisms that reduce uncertainty such as democratic forms of government, globalization, and trade ties (see Chan 1997; Gleditsch 1992; Oneal and Russett 1999; Oneal, Russett and Berbaum 2003; Weede 2005; Gartzke 2007; Böhmelt 2010; Gartzke and Hewitt 2010). In general, these studies find that states can maintain good relations via different channels and for various purposes. Boehmer et al. (2004) focus on the features of IOs that are likely to be effective in eliminating crises. They argue that institutionalized IOs enhance the amount of information available to states, which reduces the likelihood of an international crisis. At the same time, institutionalized IOs help to mitigate commitment problems among states, thereby promoting cooperation and good relations.

Peace Through International Organizations

At least since World War II, there has been an increase in states forming and joining IOs. States join IOs for efficiency gains, legitimacy reasons, or, more generally, to reduce transaction costs and promote cooperation (Keohane 1984; Fearon 1998; Hawkins et al. 2006; Dorussen and Ward 2008, 2010). Some IOs have more narrowly defined roles (e.g., the North Atlantic Treaty Organization), while others may cover a wider range of tasks (e.g., United Nations or the European Union). In general, states use IOs as *instruments* to fulfill their interests (Archer 2014, 114). As indicated above, I follow Dorussen and Ward (2008, 2010), among others, and do not assume an independent role for them (see also Keohane 1984).³

IOs may specifically deal with matters of conflict and peace (Boehmer et al. 2004; Shannon 2009). They have acted as third-party actors in conflict to bring

about settlement and postconflict stability. And they can help states prevent conflict in the first place (Kadera and Mitchell 2006; Mitchell and Hensel 2007). To this end, IOs can be *passive* and *active* mediators.⁴ On one hand, IOs act as *active* mediators when they become directly involved in peace and conflict bargaining (Mitchell and Hensel 2007). An IO actively intervenes in a crisis by helping disputants to implement peace-building policies, possibly through enforcement, management, and authoritarian approaches (Joachim, Reinalda, and Verbeek 2008, 6–10; Hansen, Mitchell, and Nemeth 2008). States enter a crisis when the outcomes of belligerent bargaining fail to satisfy (Fearon 1998; Powell 2002; Boehmer et al. 2004; Pevehouse and Russett 2006; Hafzel 2007; Hansen et al. 2008; Shannon 2009; Shannon, Morey, and Boehmke 2010; Bakaki 2016). IOs operating as active mediators may systematically facilitate bargaining and secure solutions for belligerents by using financial resources, political leverage, and legitimacy elements (Tallberg et al. 2013) in the form of mediation, arbitration, and adjudication (Boehmer et al. 2004; Mitchell and Hensel 2007; Shannon 2009). For example, the Organization for Security and Co-operation in Europe established the Minsk group as an effort to find a peaceful solution to the Nagorno-Karabakh conflict in the Caucasus.

On the other hand, IOs can also *passively* encourage states' cooperation. Specifically, IOs provide platforms and forums for their members to communicate and exchange ideas. In this way, IOs passively increase interaction opportunities, which lengthens the shadow of the future and raises the reputation costs for belligerents that violate agreements (Mitchell and Hensel 2007). Also, promoting information dissemination passively lowers uncertainty, which, as mentioned above, reduces the probability of a crisis. From a constructivist point of view, Dorussen and Ward (2008, 2010) argue that IOs serve as vehicles of communication between their members, building trust and social capital among them. Frequent interactions in IOs can even lead states to redefine their social identities in less conflictual terms (see also Koremenos, Lipson, and Snidal 2001, 786). Along these lines, political psychologists have examined the impact of images and perceptions on foreign policy. They argue that interactions via IOs contribute to changing state elites' images of other decision makers, potentially changing an enemy into a more benign actor (Cottam 1977, 62;

3 In this context, Dreher, Mikosch, and Voigt (2015), for example, argue that membership in IOs signals to potential investors more benign policies and a more stable political environment, which ultimately increases foreign direct investment inflows. In this instance, the IO is a means to an end for states to pursue their sovereign interests, not a significant autonomous actor.

4 A mediator is defined as a party that offers nonviolent third-party assistance to resolve a crisis peacefully (Bercovitch, Anagnoson, and Wille 1991; Bercovitch 1996, 3).

Cottam 1994, 32). Liberalism provides another explanation of the role of IOs in interstate relations, suggesting that IOs create trade links that strengthen domestic support for good bilateral relations (Moravcsik 1993, 1997). That is, states are less likely to challenge peace in the short run if they anticipate significant future interaction opportunities and they value the payoffs from those interactions. Ultimately, though, if a conflict escalates, the various linkages created via IOs' passive elements were insufficient for peace.

Against the background of this general overview of the active and passive roles played by IOs, I now proceed to a specific examination of the relationship between the *passive* role of IOs and the risk of crisis recurrence.⁵ The presence of passive conflict mitigation mechanisms (indicated here by joint membership) likely exert influence on conflict onset, duration, termination, and recurrence. However, IOs' passive influence can build and capitalize on the information and experience accumulated since the initial crisis onset and, as a result, has unique impact on crisis recurrence. Three interrelated points gleaned from the above discussion substantiate this claim. First, shared memberships in and increased interactions via IOs not only provide information through multiple channels (Dorussen and Ward 2008, 2010), but also align member-states' preferences (Mitchell and Hensel 2007). In turn, repeated interactions in IOs raise the stakes for future interactions, which may make existing peace harder to challenge and concluded bargains more durable (Fearon 1998; Mitchell and Hensel 2007).

Second, IOs deter conflict (Shannon 2009; Bakaki 2016). Abbott and Snidal (1998, 26) describe this feature when highlighting that "[IOs] increase the prospect of continued interaction, often across issues, and generalize reputational effects of renegeing across members of the organization." Therefore, when states share memberships in IOs, and they have shared repeated interactions, they are less likely to continuously risk peace and stability with other member-states for securing further interactions.

Third, IOs promote preemptive policies aiming at securing peace and stability, thereby altering states' conflicting interests. For instance, IOs prevent conflict by legitimating collective decisions and changing perceptions of identity and self-interest (Oneal and Russett 1999; Mansfield and Pevehouse 2000; Pevehouse and Russett 2006). This discussion leads to the formulation of the first hypothesis:

5 See Chapman and Wolford (2010), who focus on the active elements of IOs when examining conflict recurrence.

H1: *Dyads with more joint memberships in IOs have a lower risk of international crisis recurrence than dyads with fewer joint memberships in IOs.*

As discussed above, IOs concentrate on different issue areas. Some are formed with the explicit purpose of helping countries peacefully manage their grievances (Shannon 2009). Given this, I examine whether IOs specifically dedicated to conflict mitigation and more likely to address security aspects as such are in a better position to *passively* reduce the risk of crisis recurrence than other IOs with different agendas. In line with this rationale, Boehmer et al. (2004) argue that IOs require a certain degree of institutional structure to effectively intervene in conflicts. Thus, their analysis divides IOs according to their degree of institutionalization: minimal (having meetings and information gathering), structured (having policy agendas), and interventionist (having mediation mechanisms). Such work examines the direct (i.e., interventionist) attempts by IOs to resolve interstate conflicts.

Due to the focus of my study on the *passive* influences of IOs, though, disaggregating IOs along the degrees of institutionalization that primarily focus on the active role of IOs may not be the best approach. Instead, I disaggregate IOs based on characteristics more indicative of their *passive* role in crisis prevention: what IOs are or represent. I use the classification in Shannon (2009), who defines peace-brokering IOs as those that provide information and have the capacity to offer mediation (see Table 1). These IOs are highly institutionalized, and they are likely to encourage their members to manage disputes peacefully. They mandate harmonious relations within their ranks and incorporate dispute settlement mechanisms into their charters (Shannon 2009). If peace-brokering IOs are indeed able to provide information, manage states' conflicting interests, and even resolve states' disputes by actively intervening in conflicts (Shannon 2009), they might also be able to offer their expertise *passively*—and before the recurrence of a crisis (see also Shannon 2009; Shannon, Morey and Boehmke 2010).

H2: *Dyads with more joint memberships in peace-brokering IOs are less likely to see international crisis recurrence than dyads with fewer joint memberships in peace-brokering IOs.*

I also disaggregate the peace-brokering IOs amongst those with a security mandate and those without one. A security IO is a peace-brokering IO, but not necessarily the other way around. Security IOs offer the elements that peace-brokering IOs offer, but they have a

Table 1. Security and nonsecurity peace-brokering IOs

Security IOs		Nonsecurity IOs	
Name	Abbreviation	Name	Abbreviation
African Union	AU	Andean Community	ANDEAN
Association of Southeast Asian Nations	ASEAN	Economic Community of Central African States	ECCAS
Commonwealth of Independent States Charter	CIS	Economic Community of West African States	ECOWAS
European Union	EU	Caribbean Commission	CARICOM
League of Arab States	LOAS	Council of Europe	COE
North Atlantic Treaty	NATO	Nordic Council of Ministers	NCM
Organization for Security and Cooperation in Europe	OSCE	Organization of American States	OAS
Organization of African Unity	OAU	Organization of Eastern Caribbean States	OECS
United Nations	UN	Organization of the Islamic conference	OIC
Western European Union	WEU	Permanent Court of Arbitration	PCA
Warsaw Pact	WPact	Southern African Development Community	SADC

Note: Information on peace-brokering IOs comes from Shannon (2009). The security and nonsecurity classification is based on information gathered from the IOs' websites: security IOs have a reference to military issues according to their scope.

specific military agenda/capability. In their active capacity, security IOs are more likely than strictly economic institutions to compel members to peacefully settle (Shannon 2009).⁶ In their passive informational role, security IOs might advise states on security issues concerning either domestic or international threats. NATO, for example, declares itself a “political and military” alliance with an essential purpose “to safeguard the freedom and security of its members through political and military means.”⁷

I expect that co-memberships in peace-brokering security IOs reduce the risk of crisis recurrence to a greater degree than co-memberships in the other two IO categories. Peace-brokering security IOs offer information more relevant to security and military matters, which should more effectively lower uncertainty between states. In addition, peace-brokering security IOs can promote *ex-ante* peace agreements, thus warding off conflict in the first place. For instance, NATO is a military alliance that explicitly states a collective defense principle. In a direct

capacity, this principal protects alliance members from external aggression. However, NATO also serves an underappreciated passive role by promoting peace *among members* within the alliance. Therefore, I expect the effect of peace-brokering security IOs to be larger than the effect of peace-brokering IOs. Table 1 provides a list of peace-brokering IOs, distinguishing between security and nonsecurity ones.

H3: *Dyads with more joint memberships in peace-brokering security IOs are less likely to see international crisis recurrence than dyads with fewer joint memberships in peace-brokering security IOs.*

Research Design

To examine the relationship between international crisis recurrence (my binary dependent variable) and IO co-membership (my main explanatory variable), I fit probit regression models to time-series cross-sectional data.⁸ In the analysis below, I include models that use both aggregated data of all IOs and disaggregated IO data, differentiating between peace-brokering IOs and peace-brokering security IOs. My sample includes yearly observations of undirected dyads,⁹ which experienced at least

6 Previous studies have examined the performance of security IOs when intervening in militarized interstate disputes (Barnett and Finnemore 1999; Boehmer et al. 2004).

7 A nonsecurity IO specializes in other (nonmilitary) areas such as economic development, social progress, or cultural development. For example, the Permanent Court of Arbitration aims “to facilitate arbitration and other forms of dispute resolution between states.” In this case, there is no reference to military means.

8 This setting is similar to discrete duration data. When replacing the logistic regression by a duration model, the results remain qualitatively the same.

9 Including directed dyads would artificially increase the number of observations and decrease the size of the standard errors.

one international crisis between 1950 and 2008. I focus on the post-World War II era because most IOs were established during that time.

Dependent Variable: Crisis Recurrence

The focus of this study is to explore international crisis recurrence dynamics between states that have seen previous outbreaks of hostilities. The dependent variable in my study, *crisis recurrence*, captures such recurrences of international crisis by drawing from the dyadic version of the ICB dataset (Hewitt 2003). When conflict actors that already experienced one crisis according to the ICB data become involved in subsequent international crises over the same underlying issue, this is coded as recurrence. The variable receives a value of 1 and 0, respectively, depending on whether crisis recurred or not.

Explanatory Variables

The primary explanatory variable is the number of IO memberships shared by a dyad. Specifically, this variable counts co-memberships in any IO for each state dyad that experienced at least one crisis from 1950 to 2008. This data originates from the Correlates of War project (COW) (Pevehouse et al. 2004). The COW IO membership data are recorded in five-year intervals prior to 1965 and annually thereafter. I filled in missing values using linear interpolation. I also filled in missing values after 2005, which is the end date of the COW dataset. The variable *shared memberships in IOs* ranges from 0 (no shared membership) to 76, with a mean value of 30.05. Furthermore, as discussed above, I disaggregate IOs according to their role (or lack thereof) relating to conflict resolution. I follow Shannon (2009, 149), who states:

[T]o appropriately test the relationship between IOs and peaceful conflict resolution, I select organizations according to two criteria: they must be highly institutionalized, and they must be likely to encourage their members to manage disputes.

That is, first I focus on a category of IOs that can provide information, for example, on state intentions and objectives (peace-brokering IOs). These IOs have resources and diplomatic leverage that can particularly rebuild states' peaceful relations (Shannon 2009). I then disaggregate peace-brokering IOs further into security and nonsecurity IOs. A peace-brokering security IO not only has the elements of peace-brokering IOs, but also expertise on security (military) matters. I identify this with

my own compiled data on whether military means are explicitly mentioned in the IO charters. The variable *shared memberships in peace-brokering IOs* ranges from 0 (no shared membership or no shared membership in peace-brokering IO) to 8, with a mean value of 2.54. *Shared peace-brokering security IO memberships* range from 0 (no shared membership or no shared membership in security peace-brokering IO) to 4, with a mean value of 1.04.¹⁰

Control Covariates

In addition to joint memberships in IOs, I expect other factors to influence crisis recurrence. By controlling for alternative determinants of my outcome variable, I address the issue of omitted variable bias. Moreover, most of the following controls are correlated with the main explanatory variables, which allows me to address the issue of selection bias to a large extent (selection on observables). Regime type is the first control variable. Following Colaresi and Thompson (2002) and Gleditsch (1992), I control for the influence of regime type by considering whether two states in a dyad are jointly democratic. For this, I use the Polity IV data (Marshall, Jaggers, and Gurr 2010). Several studies find that democracies are less likely to experience international crisis (Oneal and Russett 1999; Shannon et al. 2010), and that democracies join and participate in multilateral cooperative agreements such as IOs more often than non-democracies (Elsig, Milewicz, and Stürchler 2011). Following Beardsley (2008) or Shannon et al. (2010), joint democracy is defined as both states in a dyad having a Polity2 score of 6 or higher.

Second, I use a log-transformed version of the Composite Index of National Capability Score to create the capability ratio of the dyad under study. Controlling for capabilities is important for two reasons: on one hand, more asymmetric dyads are more likely to see crisis recurrence (Beardsley 2008). On the other hand, power distribution affects a state's likelihood to join an IO.

- 10 For making use of all available information, these shared-membership variables referring to memberships are counts: the total number of joint IO memberships for each pair of states in each year. For instance, the dyad of the United States-Angola does not share membership in an IO in 1975. A year later, this pair of states shares five memberships in IOs, and a year afterwards they are joint members in eight IOs. Also, note that I provide additional statistical models employing all the different baseline combinations to examine the robustness of the results in the appendix.

More powerful states are usually more active in international politics and, hence, more engaged in IOs (Dorussen and Ward 2008). The data for these variables are taken from the COW project’s national material capabilities indicator (Singer, Bremer, and Stuckey 1972; Singer 1987).

Third, the distance between states is a determinant of crisis recurrence. Geographically distant states have a lower probability of getting involved in a conflict. At the same time, geographically distant countries have fewer interests in collaborating. Following previous studies (Oneal and Russett 1999; Boehmer et al. 2004), I control for contiguity, which is a dummy variable coded as 1 when a pair of states shares a land or river border and 0 otherwise. The data for this variable are taken from the COW project’s data on direct contiguity (Stinnett et al. 2002).

Fourth, in line with Beardsley (2008), I control for the severity of the previous crisis. The severity, and thus the costs, of an earlier crisis may make a future crisis more or less likely (Beardsley 2008). Additionally, a state’s decision to join an IO may be influenced by a previous crisis’s severity; the more intense the earlier conflict, the more willing a country may be to signal good intentions or seek international assistance from an IO in a postconflict situation. To this end, I include an ordinal severity variable that captures (1) no violence, (2) minor clashes, (3) serious clashes, and (4) full-scale war. The data for this item are taken from the ICB project (Brecher et al. 2016).

Fifth, I use a variable that captures the existence of an ethnic component in the previous crisis. Such indicator captures instability at the domestic level. The information for this variable comes from the ICB dataset (Brecher et al. 2016) and codes whether the previous conflict was a (1) secessionist conflict, (2) an irredentist conflict, or (3)

had no ethnic component. Accounting for this variable ultimately controls for “the salience of the crisis domestically and thus captures the pressure on the states to reach more favorable terms” (Beardsley 2008, 732).

Another factor that may affect crisis recurrence is the interest of third-party actors (Beardsley 2008). To this end, a location that is of particular importance to outside actors due to natural resources, for example, might be more crisis prone. Moreover, states in a volatile region might be more active in the international system, and this correlates with IO membership. For this reason, I control for the salience of the geostrategic position of the previous crisis that is measured by the level and number of international systems that are affected by a crisis. This information is coded in the ICB dataset (Brecher et al. 2016) on a five-point scale (from one subsystem to global system).

Finally, states that have peaceful relations for years are more likely to maintain peace and could also be more likely to collaborate in the international system and thus share IO memberships. Hence, along the lines of Boehmer et al. (2004), I control for the time elapsed since the last crisis onset using cubic polynomials (Carter and Signorino 2010).

Empirical Findings

Table 2 summarizes the descriptive statistics of all variables discussed so far as well as the variance inflation factors (VIFs) of the explanatory items. According to the VIFs, multicollinearity is unlikely to be a major issue, since all VIFs are well below the common threshold value of 5 (O’Brien 2007).

Table 3 summarizes the results of the probit models analyzing the relationship between crisis recurrence and

Table 2. Descriptive statistics and VIF

	Obs.	Mean	Std. Dev.	Min	Max	VIF
Crisis recurrence	9,025	0.06	0.24	0	1	
Shared IO memberships	9,025	30.05	15.61	0	76	1.92
Shared peace-brokering IO memberships	9,025	2.54	1.73	0	8	4.51
Shared security peace-brokering IO memberships	9,025	1.04	0.81	0	4	3.56
Joint democracy	8,376	0.05	0.21	0	1	1.11
Contiguity	9,025	0.29	0.45	0	1	1.32
National material capabilities _{it}	8,789	1.49	1.56	0.01	10.87	1.10
Violence	9,025	2.67	1.06	1	4	1.14
Geostrategic salience	9,025	2.58	1.72	1	5	1.56
Ethnic component	9,025	2.67	0.64	1	3	1.14

Notes: The core explanatory variables (count of co-memberships in IOs, peace-brokering IOs, and security IOs) are used in separate models.

Table 3. Crisis recurrence and IO memberships

	Model 1	Model 2	Model 3
Shared IO memberships	−0.01*** (0.00)		
Shared peace-brokering IO memberships		−0.08*** (0.01)	
Shared security IO memberships			−0.15*** (0.03)
Joint democracy	0.17 (0.11)	0.09 (0.12)	0.02 (0.12)
Contiguity	0.12*** (0.04)	0.10** (0.04)	0.11** (0.05)
National material capabilities _{in}	−0.00 (0.01)	−0.00 (0.01)	−0.00 (0.01)
Violence	0.05* (0.02)	0.07*** (0.02)	0.06** (0.02)
Geostrategic salience	−0.06** (0.02)	−0.05** (0.02)	−0.05** (0.02)
Ethnic component	0.01 (0.04)	0.02 (0.04)	0.01 (0.04)
t	−0.35*** (0.02)	−0.35*** (0.02)	−0.35*** (0.02)
t ²	0.02*** (0.00)	0.01*** (0.00)	0.02*** (0.00)
t ³	−0.01*** (0.01)	−0.01*** (0.01)	−0.01*** (0.00)
Constant	−0.14 (0.16)	−0.29* (0.15)	−0.27* (0.15)
Obs.	7,959	7,959	7,959
Pseudo-R ²	0.34	0.33	0.33
Wald Chi ²	615.44	539.84	513.11

Notes: Robust standard errors clustered on dyad in parentheses. **P* < 0.10, ***P* < 0.05, ****P* < 0.01.

IO shared memberships. Model 1 estimates the risk of recurrence of an international crisis using the count of overall shared IO memberships as the main explanatory variable. Model 2 analyzes the effect of shared peace-brokering IO memberships, and Model 3 examines that of peace-brokering security IOs. The analysis reveals a negative relationship between crisis recurrence and the count of shared memberships across all IOs, peace-brokering IOs, and peace-brokering security IOs. The coefficients of all core explanatory variables are statistically significant. The negative coefficient sign indicates that, as dyads share more memberships in IOs, they have a lower risk of experiencing another international crisis, a result that supports my first hypothesis. Also, states that share fewer memberships in peace-brokering IOs (or no memberships at all) have a higher likelihood of experiencing crisis recurrence (Hypothesis 2). Along the expectations of Hypothesis 3, states that share fewer memberships in

security peace-brokering IOs (or no memberships at all) have a higher likelihood to see crisis recurrence.¹¹

In general, we can interpret these results as substantiating the idea that fewer shared memberships pertain to fewer links between states and, as a result, a higher probability of tensions and rivalries (Dorussen and Ward 2008). At the same time, when states establish collaborative ties (i.e., a state becomes a member in an IO) after a crisis, it indicates that they are willing to develop cooperative relations with their former opponents. Such arguments also hold when examining the disaggregated categories of IOs. Institutions that offer dispute resolution by providing information and even information on security matters as such decrease the likelihood of crisis recurrence for their members. Information reduces uncertainty and thus states' incentives to challenge peace again.

My results do, however, offer the striking insight that the risk of crisis recurrence decreases when states share memberships in IOs, regardless of their mandate. That is, any type of IO is able to generate links among states, thereby promoting cooperation and peaceful relations. The expertise of an IO (peace-brokering or peace-brokering security in this case) is not as consequential for the passive mitigation of conflict as expected. This finding (tested with more rigor below) brings into question previous work that an active IO is necessary for conflict resolution (Boehmer et al. 2004; Shannon 2009).

In Figures 1 to 3 below, I have calculated the predicted probabilities of crisis recurrence in relation to shared IO memberships. In accordance with the theoretical expectations of this study, the risk of crisis recurrence decreases as the number of shared memberships of states in IOs increases. Similarly, pairs of states with no shared memberships have a higher probability of experiencing another crisis. This finding refers to all types of IOs (Figure 1), and the results hold when I focus on

11 In addition, the appendix estimates the risk of crisis recurrence when the baseline category is defined in a less ambiguous way: combinations of (1) shared memberships in peace-brokering IOs and no shared memberships; (2) shared membership in peace-brokering IOs and shared memberships in other IOs; (3) shared memberships in security peace-brokering IOs and no shared memberships; (4) shared membership in security peace-brokering IOs and shared memberships in other IOs; and (5) shared membership in security peace-brokering and shared membership in peace-brokering IOs. The results stay qualitatively the same; more shared memberships in peace-brokering IOs decrease the likelihood of crisis recurrence.

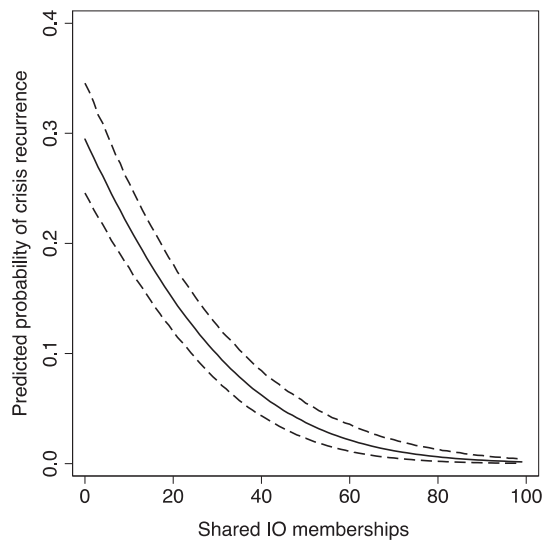


Figure 1. Crisis recurrence and IO shared memberships
Notes: Solid line captures predicted probability point estimates. Dashed lines pertain to 90% confidence intervals. Graph based on Model 1 (Table 2).

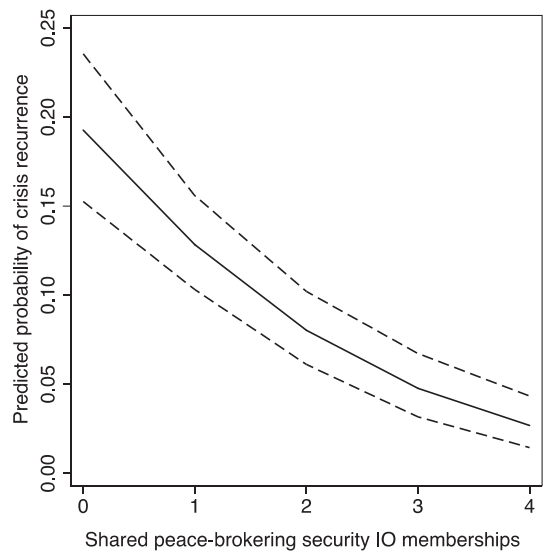


Figure 3. Crisis recurrence and security IO shared memberships
Notes: Solid line captures predicted probability point estimates. Dashed lines pertain to 90% confidence intervals. Graph based on Model 3 (Table 2).

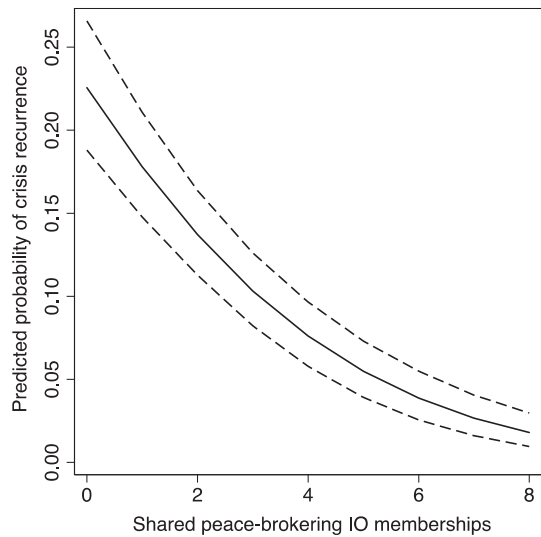


Figure 2. Crisis recurrence and peace-brokering IO shared memberships
Notes: Solid line captures predicted probability point estimates. Dashed lines pertain to 90% confidence intervals. Graph based on Model 2 (Table 2).

peace-brokering IOs (Figure 2) or peace-brokering security IOs (Figure 3). After running *t*-tests on the predicted probabilities of crisis recurrence across different combinations of IO memberships (i.e., IOs and peace-brokering IOs; IOs and peace-brokering security IOs;

peace-brokering and peace-brokering security IOs), I find that there is no statistically significant difference across the different categories of IOs.

Figure 4 shows the effects of the different categories of IOs on crisis recurrence with first differences for each IO category. A first difference is defined as the change in the predicted probability of crisis recurrence when changing a variable of interest from the minimum to the maximum while holding all other variables (i.e., control variables) at their median values. In general, shared IO memberships significantly decrease the risk of crisis recurrence. However, the fact that the confidence intervals of the three IO categories overlap means that the different categories of IOs examined here are not significantly different from each other. Hence, the impact of all types of IOs on crisis recurrence is ultimately the same, with the mandate of IOs not having a major influence on crisis recurrence. To this end, the diplomatic expertise of an IO does not play a primary role in preventing crisis recurrence, although it might become relevant after a crisis starts or when an IO actively intervenes. In other words, states should seek shared memberships in any type of IO to promote peaceful relations. To reduce crisis recurrence, states need to rebuild and maintain friendly relations, but this can be achieved through all sorts of cooperation and links that IOs offer—a focus on security, military, or peace-brokering as such does not seem mandatory.

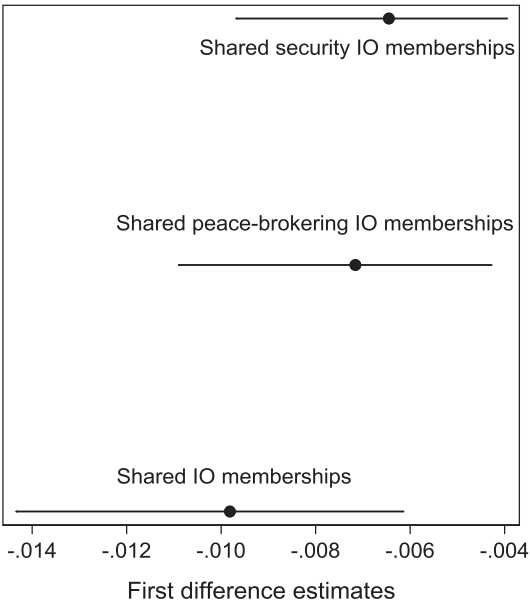


Figure 4. Effects of shared IO memberships: first differences
Notes: Horizontal bars show first difference 90% confidence intervals.

To ensure the robustness of the relationship between shared memberships in peace-brokering IOs and crisis recurrence, I control for a number of factors.¹² All control covariates display effects consistent with my expectations across the models (Table 3). That is, joint democracy, the capability ratio, national material capabilities, and the ethnic component are not significantly related to crisis recurrence. Contiguity is a significant determinant of crisis recurrence: noncontiguous states have a lower risk of experiencing crisis recurrence. Then, the models indicate that the higher the level of violence in an earlier crisis, the higher the risk of crisis recurrence. Intense crises are not forgotten or resolved easily. The variable indicating geostrategic salience has a significant effect on crisis recurrence in that the importance of a conflict positively affects the risk of recurrence.¹³ Finally, time dependency is also a determinant of crisis recurrence. Figure 5 graphs the relationship between peace duration and crisis recurrence. It illustrates the likelihood of crisis recurrence as a

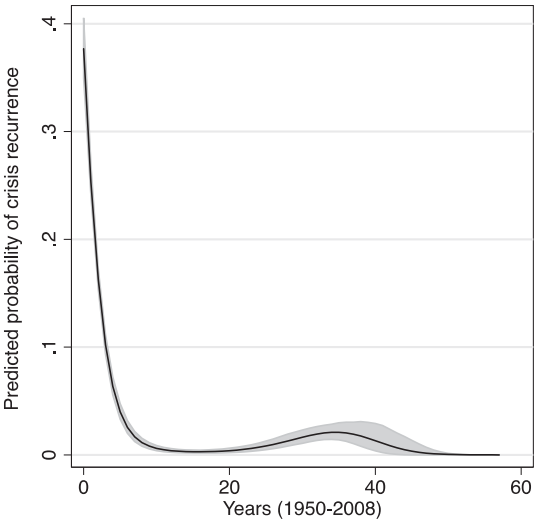


Figure 5. Predicted probability of crisis recurrence over time
Notes: Shaded area pertains to 90% confidence interval. Solid black line captures predicted probability point estimates. Graph based on Model 1. The results remain qualitatively the same for Models 2 to 3.

function of t , t^2 , and t^3 while all other variables are held at their mean levels. The figure portrays that the baseline hazard decreases rapidly with time. The pattern is virtually the same across all models in Table 3.

Note that membership in IOs occurs under certain circumstances when, for example, there is a need for the state to join an IO that is intrinsically related to the crisis in question, which increases the risk of endogenous results (Rubin 1991). Ignoring this may underestimate or overestimate the effect of the remaining explanatory variables. A selection effect is based on the reality that cases that see shared membership in a peace-brokering IO are not a random set and, thus, one must take into consideration the first stage of selection due to the reason that factors leading to membership in an IO may also affect the outcome of a crisis. Under these conditions, if the two processes are not captured jointly, the results of the analysis might be biased. A bivariate probit analysis controls for selection effects in this study, and I provide such an analysis in the appendix (Table A8).

Conclusion

Previous research has identified the possibility that membership in IOs might be associated with promoting peace when the IOs in question demonstrate certain characteristics, such as being institutionalized or engaging in peace-brokering activities (Boehmer et al. 2004; Shannon 2009; Shannon et al. 2010). Here, I explored

12 See the appendix (Tables A3, A5, and A6) for robustness checks including more control variables such as the types of outcomes, bilateral trade, indirect links, and democracy score of the weakest link.
13 See the appendix (Table A4) for a detailed analysis when employing the severity of the previous crisis, geostrategic salience, and the ethnic component in a binary format.

whether IOs in passive capacities can also discourage conflict recurrence. I demonstrated that joint membership in any IO—regardless of scope or mandate—contributes to the maintenance of peace between two rivals. Ultimately, shared IO membership acts as a conflict prevention mechanism and strengthens states' relations regardless of the IO's expertise in a given policy area.

Existing claims about the effect of IOs on international crises hinge on the assumption that IOs are not equal (Boehmer et al. 2004; Hansen et al. 2008). Having examined the impact of IOs in an aggregated and a disaggregated way on crisis recurrence, this study found encouraging results. Engagement with IOs of various capacities during peacetime can reduce uncertainty and thus the likelihood of another crisis. I also presented specific results for the effects of different categories of IOs (all IOs, peace brokering, and peace-brokering security IOs) showing that, although the impact of each category on crisis recurrence differs, these differences are not statistically significant. The predicted probability of crisis recurrence is ultimately similar regardless of the type of IO (or IOs) in which a pair of states shares membership. My analyses using first differences and t-tests underline the findings from the regression table. Shared IO memberships *regardless of type or mandate* reduce the risk of crisis recurrence.

Further research could focus in more depth on the effects of the passive mechanisms that IOs utilize to secure the nonviolation of agreements and alleviation of crisis recurrence. For example, what is the impact of monitoring and enforcement via IOs on maintaining peace? This will develop further the theoretical and empirical framework on the overall role of IOs for states' relations and behavior.

Supplementary Information

Supplementary information is available at the *Journal of Global Security Studies* data archive.

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