

## **Beyond Kantian Liberalism\*** *Peace through Globalization?*

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Although globalization has become one of the most salient issues in the study of international relations during the past few decades, its net effect on international conflict remains unexplored. I argue that although the manifold phenomena of globalization may conflict (i.e. produce both positive and negative influences), its overall consequences help foster a common peaceful disposition among national leaders who are then less likely to resort to arms in times of crisis. Based on a cross-sectional, time-series dyadic data analysis for 114 countries during the period from 1970 to 2001, this study reports that socio-economic and political globalization in its entirety generates a dampening effect on militarized interstate disputes. Even when common conflict-related control variables such as democracy, economic interdependence, joint membership in international organizations, and others are incorporated into the analysis, globalization emerges as the most powerful explanatory variable. Consequently, globalization when taken in its entirety represents an unambiguous force for interstate peace.

**KEYWORDS:** globalization; net effect; Kantian liberalism; militarized interstate disputes

The Silk Road: For more than 2,000 years, merchants transported their precious cargoes back and forth, accompanied along the way by artisans, envoys, nomads, pilgrims, and refugees who passed along folklore, music, religions, and technologies. (The Art Institute of Chicago)

Students of Kantian liberalism, the contemporary interpretations of Immanuel Kant's (1795/1957) *Perpetual Peace* in the conflict literature, prescribe each individual leg of the Kantian peace tripod (i.e. democracy, economic interdependence, and international organizations) as an optimal solution for halting the recurring nature of international conflict (e.g. Russett and Oneal, 2001; Choi, forthcoming; but see also James et al., 1999; James et al., 2006; Gartzke, 2007). However, these interpretations miss the essence of Kant's treatise: it is not an individual element which leads to a

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less conflictual world, but rather all three elements working in conjunction which creates perpetual peace. Thus, Kantian liberalism should be understood as an aggregate or multidimensional phenomenon, a point Doyle (2005: 463) underscored when noting, “the three [Kantian peace] causes [have] explained liberal peace and liberal war when, and only when, *combined*” (emphasis added).

Meanwhile, some students of international conflict remain concerned that globalization may actually be a negative force undermining the Kantian peace, thereby leading to a world characterized by a Hobbesian “war of all against all” (Hobbes, 1651/1996; Doyle, 2007). Although this concern seems intuitively legitimate given the persistent economic and political disparities between developed and developing regions, existing empirical studies of globalization fail to provide a consistent and comprehensive analysis. Some studies see globalization as merely one single feature of multiple global trends, such as trade or foreign direct investment (FDI), and find its effect on international peace to be detrimental, while other studies report that globalization has a pacifying effect on international conflict. One of the main reasons for these contradicting findings may stem from the fact that these globalization studies, as in Kantian liberalism studies, simply take notice of individual-specific aspects of globalization despite its multifaceted nature (Keohane and Nye, 2000a; Dreher, 2006). By neglecting to envision multidimensional globalization phenomena as a whole, previous studies of globalization are unable to offer a conceptually holistic explanation of how the overall consequences of globalization factor into leaders’ foreign policy behavior.

In this study, I argue that although some features of multiple global forces may appear to be mutually incompatible and conflicting, their overall consequences nevertheless converge into a benign force facilitating a common peaceful disposition among national leaders who are then likely to prefer peace to war in times of crisis. A cross-sectional, time-series dyadic data analysis of 114 countries during the period from 1970 to 2001 supports the argument for the peace-building effect of globalization. In fact, globalization not only emerges as a significant explanatory variable, but it also outperforms the predictive power of each of the Kantian peace variables’ influence over interstate peace.

## Literature Review

Although there is little consensus on how the forces of globalization shape prospects for future peace and prosperity, current scholarly debates can be divided into two opposing groups. The first group of scholars sees globalization as a transition toward a more harmonious and prosperous world by generating various economic and sociocultural gains for all those involved. The rise of global market capitalism and liberal democracy is viewed as a driving force toward cultural convergence in the sense that it dissolves differences of race, ethnic background, religion, culture, language, and economic inequality, theoretically leading to the fundamental equality of all humans. In this context, cultural convergence makes old habits of conflict and war less likely to recur (Williamson, 1996; Kolodziej, 2005). Conceiving of globalization as a process of market expansion and market integration, Weede (2005) provides a compelling argument that capitalism and economic freedom promote peace.

Gartzke (2007) contends that economic development and free markets anticipate a lessening of militarized disputes or wars. Similarly, through direct reference to Kant's (1795/1957) philosophical work, Russett and Oneal (2001) hypothesize a pacifying effect of trade interdependence on conflict and report strong empirical evidence of an enduring liberal peace from 1886 to 1992.

In stark contrast, the second group sees increased global activities as a sinister force breeding conflict, inequality, vulnerability, and the loss of national identity (Kegley and Wittkopf, 2006). Huntington (1996) envisages a gloomy future where the shrinking of territorial distances—caused by globalization—facilitates frequent conflict among peoples with irreconcilable religious differences and deep emotional animosity. In particular, there is concern that the dominance of the Western Christian-secular culture over others, such as Muslim cultures, has the most potential for fomenting clashes. Undoubtedly, the catastrophic events of 11 September 2001 rendered the Huntington prophecy more convincing. A similar conclusion can be drawn if one looks at economic factors as opposed to cultural factors; anti-globalists charge that, because unrestricted flows of global capital produce economic inequality between the few who are well-resourced and the many who severely lack resources, new widespread violence within and across state boundaries will occur (e.g. Wallerstein, 1995).

It appears that most realists are as critical of globalization as anti-globalists. By denying the potential benefits of globalization and instead highlighting growing inequality among nation-states, Waltz (1999) maintains that globalization is simply politics as usual, stating, “rather than elevating economic forces and depressing political ones, the inequalities of international politics enhance the political role of one country” (p. 700). Barbieri's (2002) stimulating work strikes a further blow against the rosy diagnoses provided by pro-globalists. After presenting a trade disruption hypothesis that asymmetric economic interdependence is a cause of interstate conflict, Barbieri shows empirical evidence of the destructive effect of trade with a sample of more than 100,000 observations of pairs of states for the years 1870–1992. Interestingly, some recent works by liberalists echo the contentions of Waltz and Barbieri. For instance, Doyle (2007: 191) expresses his concern that “[the liberal peace] has significant limitations that have been exposed by increasing globalization”. From this perspective, globalization has simultaneously quickened the spread of Americanization and the ascendance of China, which could undermine both international security and peace based on Kantian liberalism.

The brief discussion of these two opposing arguments reveals four shortcomings in existing studies. First, by focusing on some specific sub-dimensional trends of globalization, existing studies appear to be unsuccessful in putting their research question into a broad perspective (i.e. a holistic conceptual framework), resulting in the two seemingly contrasting perspectives of globalization. Second, the empirical results of existing studies are highly sensitive to how globalization is measured (i.e. measurement error) and which individual feature of globalization is selected to be operationalized (i.e. selection bias). In other words, both the magnitude and sign of coefficients may drastically change depending on the choice of sub-feature indicator. In addition, by including conceptually similar globalization factors such as FDI

and portfolio investment in the same model, existing empirical studies suffer from multicollinearity problems. Third, most empirical studies treat globalization as a mere quantitative increase of economic activities like trade or FDI and typically report inconclusive findings. Last, most existing studies overlook the fact that global trade or FDI is more than an economic phenomenon because it accompanies social and cultural changes as well as political transformations; trade is not merely an exchange between two parties, but also an instance of social interaction and cultural exposure.

In the next section, I present a conceptual explanation of globalization that aims to surmount the aforementioned four limitations of existing studies, by conceiving of globalization holistically as a multidimensional phenomenon.

## **How Increased Globalization Influences Interstate Conflict**

There are many different forms of globalization, some of which may occasionally produce uneven, contradictory, and even incendiary events (see Rodrik, 1997). Because of this, there is no reason to believe that the diverse phenomena of globalization should all have the same effect in their relationship to international conflict. I do not claim, therefore, that globalization is an unqualified good, and I concede that there are some negative repercussions associated with it. What I wish to argue, however, is that the net consequences of multidimensional globalization phenomena are beneficial in terms of international conflict in that they ultimately help foster a common peaceful disposition among national leaders who are then likely to prefer non-violent conflict resolutions over military confrontations in times of crisis.

How can we concede that some features of globalization increase conflict, while still insisting that globalization, on the whole, increases peaceful resolutions? Indeed, it seems perfectly plausible, as the above-mentioned realists and anti-globalists argue, that some uncontrollable global forces not only widen economic inequality between the rich and the poor, but also deepen an asymmetric power relationship between the powerful and the weak (Waltz, 1999; Barbieri, 2002). Thus, it is not hard to envisage that national leaders, in order to repel those cacophonous global forces, may be inclined to wage war. However, just as the Silk Road generated numerous peace-promoting effects on the relationship between the East and the West in addition to increased trade audiences, today's all-encompassing globalization forces help promote the need and the means for mutual understanding, communication, and non-violent forms of interaction among nation-states. In this manner, I argue that these peace-promoting global forces tend to be so great that they overshadow the destructive forces of globalization.

In the first instance, economic globalization creates an expansion and refinement of peace-inducing norms and practices. Integration into the global economy requires countries to embrace social and political values associated with liberal economics such as individualism, universalism, tolerance, and equity, despite the initial impression that such values appear to be irreconcilable with local norms and practices (see Mousseau, 2002). In this sense, economic globalization is inextricably tied to enhancing certain liberal qualities of political and cultural globalization. Russett and Oneal (2001: 276) make a similar observation that "trade and foreign

investment serve as media for communication between nations on a broad range of matters beyond their specific commercial relations, thereby exposing people to the ideas and perspectives of others on a range of issues". Despite the encroachment of some unfavorable trends such as class polarization and persistent local particularities of cultures, socio-economic and political globalization forces together increase exposure to values which approach universal adoption, such as respect and moderation. Because such universal values develop into a common medium as a basis for non-violent communication between nation-states, a common peaceful disposition is nurtured among national leaders who are then less likely to resort to arms in times of crisis.

At the heart of the beneficial consequences of economic-social and political globalization is the revolutionary development of global communication technology such as expanded computer networking, televised international conferences, and rapid transcontinental travel. Thus, aside from multiplying the number of countries that subscribe to a shared set of global peace-inducing norms and practices, globalization also entails the proliferation of technology and venues which serve as the basic infrastructure for political communications among national leaders. If, as Flanagan (2001: 11) maintains, "information [technology] is a critical element of political empowerment", then the myriad forms of global communication technology, from wi-fi and instant messaging to cell phones and blogs and global media networks, stimulate a new level of global political, socio-cultural, and economic awareness among national leaders. Because information technology makes political communications more accessible and reliable, it helps reduce misunderstanding and misperception, which are often considered to lead to inadvertent and unnecessary military confrontation (Choi and James, 2007).

In addition to information technology, transnational entities such as the UN, WTO, IMF, and World Bank are agents of socio-economic and political globalization in that they are consciously designed to knit together peace, growth, financial stability, trade, and investment at the global level (Frost, 2001). These global organizations undeniably offer national leaders the opportunity of fostering a common peaceful disposition among themselves through their promotion of global norms and policies on world peace and prosperity. However, as some realists point out, when an international organization makes global economic policy decisions which are directly connected with each nation-state's security policy concerns, disadvantaged countries may express resentments. While I do not deny the potential threat of such a negative implication of globalization, I argue that because national leaders, on the whole, have more incentives to pursue the benefits of global economy for economic development, they are more likely to eschew potential military security complications (Reinicke, 1997; Keck and Sikkink, 1998; Keohane and Nye, 2000a; Ramsaran and Price, 2003). Thus, the positive incentive structure produced by processes of globalization is such that it constrains the security policy options of states. For example, the economic incentives to integrate into global marketplaces caused South Africa, Ukraine, Belarus, Kazakhstan, Liberia, Brazil, and Argentina to conform to the nuclear non-proliferation norm by abandoning their aspirations for nuclear capabilities, a move that sacrificed the acquisition of a considerable military deterrent capability (Kay, 2004: 15).

In summary, although increased global networking of socio-economic and political forces may produce a discordant environment to some extent, on balance it causes national leaders to share a common peaceful disposition in the forms of globally accepted norms, policies, and practices, and thus to adopt and support similar ways of resolving disputes peacefully. As expressed in Deutsch et al.'s (1957) vision, the globalized world is becoming "a pluralistic security-community", in which political conflicts of interest are resolved by processes of peaceful change, while maintaining the legal independence of separate governments. Europe presents itself as an archetypal case for this argument. In tandem with economic and political integration, NATO and the EU have made the interstate use and threat of military force less likely in the Western European region over the past 50 years (Keohane and Nye, 2000a, 2000b).

It is important to note that only when the combined effects of socio-economic and political globalization forces occur simultaneously, are national leaders adequately exposed to their synergistic peace-promoting effect and thus are increasingly like-minded in maintaining a peaceful status quo rather than launching revisionist military campaigns. If the combined globalization forces are met in both states in a dyad, the likelihood of conflict is expected to be much lower. Consequently, a dyad where only one state is constrained by globalization should also be less likely to engage in a conflict because at least one side is capable of producing a pacifying influence on the development of a dyadic conflict. In contrast, dyadic states with no constraints of globalization are more likely to resort to use of force. Thus, the hypothesis about the relationship between globalization and conflict is as follows:

*H<sub>1</sub>: The net effect of socio-economic and political forces of globalization creates a common peaceful disposition among national leaders, which dampens the likelihood of international conflict between two states in a dyad.*

## **Research Design: Empirical Model Building, Operationalization, and Data Sources**

I test the globalization hypothesis in the context of a standard statistical model of the Kantian peace with a sample of all possible dyad years for 114 countries during the period from 1970 to 2001. In particular, the research design of recent work by Oneal and Russett (2005) is used as the frame of reference to examine the net effect of multidimensional forces of globalization compared to each of the three Kantian peace ingredients and other control variables. In this way, we can examine how the presumed Kantian peace world reacts to increased globalization.

The dependent variable is the onset of a militarized interstate dispute (MID) of any severity. A MID is "a set of interactions between or among states involving threats to use military force, displays of military force, or actual uses of military force" (Gochman and Maoz, 1984: 587). The dependent variable is dichotomous, 1 for the initial year of a MID in the dyad and 0 otherwise.

Seven independent variables are included: globalization, democracy, economic interdependence, joint membership in international organizations, geographic distance, national capability ratio, and allies. It should be noted that, despite the fact

that Oneal and Russett's research design has become a standard choice of replications in numerous studies, it fails to assess the Kantian peace tripod as an aggregate phenomenon. As the following passage indicates, Russett and Oneal (2001: 281) are quite forthright about the limitation.

The summary of our findings thus far understates the pacific contribution of the Kantian system because we have emphasized the independent contributions of each of its three elements. In the real world, one Kantian influence does not usually increase while the others are held constant. Rather, as Kant anticipated, democracies tend to be interdependent and members of the same IGOs.

Russett and Oneal lament that they have been unable to devise and run an aggregate test on an indexed version of the interdependent tripod, so there is a significant gap between Kant's original vision and the empirical findings. Utilizing a definition of globalization which highlights its multifaceted nature, this study examines the overall implications of globalization by using a composite index of multiple global trends. This method effectively avoids the shortcomings of the Kantian peace literature, which has continuously fallen short of conducting a rigorous empirical analysis since it employs three individual measures of the tripod for the combined phenomenon of the Kantian peace rather than a single aggregate indicator. In addition, using an aggregate indicator of globalization is likely to reduce the risk of measurement error, selection bias, and multicollinearity problems that appear to have jeopardized the validity of the scientific findings of existing studies, as noted earlier.

The globalization variable is operationalized with the KOF index of globalization, developed and compiled by Dreher (2006).<sup>1</sup> A composite index from the KOF dataset combines all three key areas of globalization (i.e. economic, socio-cultural, and political globalization) measuring an overall level of globalization on a scale of 1 (least globalized) to 100 (most globalized).<sup>2</sup> This is done with the intent of capturing the holistic effect of multifaceted globalization as opposed to dissecting it into discrete elements, such as economic globalization, socio-cultural globalization, and political globalization. As noted, it is plausible that some components, such as economic or political globalization, may not exert a force in the same direction or to the same degree as other factors or for every country. The construction of the KOF composite index takes this concern into account by combining different econometric formulas; the index allows for countervailing tendencies from different features of globalization, since some factors may

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<sup>1</sup> The dataset is publicly available at <http://www.globalization.kof.ethz.ch/>.

<sup>2</sup> Economic globalization measures nine different economic aspects of integration representing the ebb and flow of numerous economic transactions. Socio-cultural globalization is linked to thirteen different social phenomena, identifying the spread of information and ideas based on personal contact, such as outgoing telephone traffic transfers, information flows, and cultural proximity. Political globalization captures three political elements of integration stemming from global diffusion of government policies, which includes the number of embassies in a country.

increase the likelihood of conflict while others decrease it (for technical details of the index construction, see Dreher, 2006, and <http://globalization.kof.ethz.ch/>). In this sense, the composite index is an appropriate choice to capture the net consequences of the three globalization phenomena.

Consistent with the way that democratic peace advocates convert democracy scores from a monadic level into a dyadic level, the globalization variable also uses the weak link measure (see Dixon, 1994). In each dyad, the state with the lower globalization score is taken to be the stronger determinant of future interactions. Hence, the more globalized that state is, the more it will be constrained from engaging in a dispute, and therefore the more peaceful the dyad will be.

Each of the three Kantian peace variables is expected to reduce the likelihood of conflict. The democracy variable assumes the weak link: the score for the less democratic state in a dyad is taken to be the stronger determinant of a dispute. Hence, the more democratic a state is, the more it will be constrained from engaging in a dispute, and therefore the more peaceful the dyad. The democracy variable is operationalized with Polity on a scale of -10 (least democratic) to 10 (most democratic) (see Marshall and Jaggers, 2000). The economic interdependence variable also assumes the weak link, relying on the less interdependent state to determine the likelihood of a dyadic dispute. Increased interdependence will lead to a decreased possibility of a dispute. The economic interdependence measure is the lower trade-to-GDP ratio. In a more exact sense, economic interdependence should have been called *trade* interdependence, given its conceptual and empirical nature. The joint membership in international organizations (IOs) variable is measured by the total number of IO memberships that both countries in the dyad share. The more joint memberships in IOs, the more constrained the two states will be from engaging in a dispute, leading to a more peaceful dyad.

Since geographic proximity increases states' opportunities and willingness to seek aggressive military campaigns, the geographic distance variable is included. The national capability ratio variable is introduced to control for power preponderance. It is expected that an asymmetric power relationship reduces a militarized dispute, since strong states can achieve their political goals without resorting to force, while weak states are not likely to challenge the strong. The variable is operationalized as the natural log of the ratio of higher to lower national capability on population, industry, and military strength. The allies variable is incorporated to account for the argument that a military alliance creates a dampening influence on a dispute (Choi and James, 2003, 2004, 2008; Oneal and Russett, 2005).

The data analysis employs standard logistic regression with peace years correction (a.k.a. logit splines) developed by Beck et al. (1998), generalized estimating equations (GEEs) advocated by Zorn (2001), and rare event logit developed by Tomz et al. (1999) and King and Zeng (2001). It should be noted that the use of logit splines follows Oneal and Russett's (2005) study, but GEEs and rare event logit are introduced to further verify the statistical robustness of the main findings reported below. Following Zorn's (2001) approach, the GEEs model is adjusted for first-order autoregressive correlation (AR1) within each unit, testing statistical significance using Huber/White/Sandwich robust standard errors that take into account the



clustering of dyadic data. All independent variables are lagged one year to mitigate problems of reverse causality.

## **Empirical Results**

The following empirical results consist of three sub-sections: basic analysis, substantive effects, and robustness tests. Basic analysis provides insight into the impact of globalization on the onset of MIDs. Substantive effects are provided to ensure that the basic analysis findings are not statistical artifacts. Additional robustness testing is implemented to make sure that the results reported are not sensitive to multicollinearity problems.

### ***1. Basic Analysis***

Table 1 shows the empirical results where the dependent variable is the onset of all MIDs. Since the hypotheses are directional, a one-tailed significance test for each variable at the 0.05, 0.01, and 0.001 levels is employed. Logit splines are used for Models 1 and 2, GEEs are implemented for Models 3 and 4, and rare event logit is employed for Models 5 and 6. Model 1 is the replicated results of Table 1 in Oneal and Russett's (2005: 299) article after limiting their study period to 1970–2001, including joint membership in IOs, and excluding contiguity, major power, and system size.<sup>3</sup> The pseudo  $R^2$  value of 0.24 indicates that the replicated model has a moderate level of explanatory power in predicting a dispute. More precisely, the pseudo  $R^2$  value that is calculated with the information from  $-2$  Log Likelihood for the full model and the intercept only shows improvement in the overall fit of the model due to the presence of the seven independent variables. As Oneal and Russett report, democracy and economic interdependence reveal a constraining effect on leaders' conflict behavior. Specifically, high-quality democratic governance and close trade relations in a dyad reduce the likelihood of a dispute. Joint membership in IOs shows statistical significance, but its effect is counterintuitive in that IOs seem to increase the likelihood of a dispute. The impact of IOs found here is in line with Oneal and Russett's (1999: 23) previous findings: "[the IOs] coefficient is now not only positive but nearly four times its standard error". Such conflicting findings require further refinement of the theory and empirical probes. The hypothesis about geographic distance is supported. When two states are geographically separate from each other, they are less likely to experience a dispute. The capability ratio variable is significant, but not in the hypothesized direction. An asymmetrical power relationship between two states appears to be a contributing factor of a dispute, which is consistent with

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<sup>3</sup> Contiguity is not included because it is conceptually related to geographic distance; major power is not considered because it has no theoretical meaning aside from its reflecting a state's frequent involvement in international conflict; and system size is not incorporated because it has no theoretical justification to be included in a dyadic analysis. When these three variables are included, the globalization variable is still significant. The results can be obtained from the author upon request. I am grateful to the editor and anonymous reviewers for these suggestions.

Table 1. Globalization and the Onset of International Conflict, 1970–2001:  
All Militarized Interstate Disputes

Variable	Logit splines		GEEs		Rare event logit	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Globalization		–0.0346*** (0.0110)		–0.0387*** (0.0126)		–0.0397*** (0.0127)
Democracy	–0.0555*** (0.0137)	–0.0300* (0.0155)	–0.0461** (0.0155)	–0.0203 (0.0167)	–0.0437** (0.0156)	–0.0162 (0.0169)
Economic interdependence	–41.9963* (25.1527)	–33.3750 (22.9253)	–18.6771 (16.8061)	–11.5378 (14.2102)	–16.5828 (16.8043)	–9.6967 (14.2457)
Joint membership in IOs	0.0661*** (0.0109)	0.0819*** (0.0117)	0.0166* (0.0088)	0.0383*** (0.0123)	0.0158* (0.0089)	0.0380*** (0.0124)
Geographic distance	–0.9118*** (0.0974)	–0.9499*** (0.1023)	–1.2146*** (0.0917)	–1.2510*** (0.0994)	–1.2113*** (0.0915)	–1.2482*** (0.0994)
Capability ratio	0.2276*** (0.0636)	0.2575*** (0.0631)	0.2033** (0.0723)	0.2538*** (0.0744)	0.2056** (0.0721)	0.2570*** (0.0739)
Allies	–0.1335 (0.2310)	–0.3191 (0.2269)	0.1919 (0.2743)	–0.0809 (0.2945)	0.2251 (0.2748)	–0.0629 (0.2958)
Constant	0.5178 (0.8693)	1.4069 (0.9643)	2.2556** (0.7772)	3.1084*** (0.8920)	2.2497** (0.7804)	3.1295*** (0.8962)
Chi <sup>2</sup>	597.43	648.98	327.15	326.83	n/a	n/a
P of Chi <sup>2</sup>	0.0000	0.0000	0.0000	0.0000	n/a	n/a
Pseudo R <sup>2</sup>	0.24	0.24	n/a	n/a	n/a	n/a
N	145,847	145,847	145,847	145,847	145,847	145,847

Numbers in parentheses are robust standard errors adjusted for clustering on dyads with the logit splines models; semi-robust standard errors adjusted for clustering on dyads with the GEEs models; robust standard errors adjusted for clustering on dyads with the relogit models.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ , one-tailed tests.

Reed's (2000) findings. The alliance variable fails to achieve significance, as reported in Oneal and Russett's (2005) study.

Model 2 includes the same independent variables that appear in Model 1 plus the globalization variable, which is incorporated to demonstrate the peace-building effect of globalization in competition with all the other conflict-related factors.<sup>4</sup> As hypothesized, increased globalization lessens the likelihood of the onset of militarized disputes because the interwoven effects of economic networks, socio-cultural exchanges, and political integration simultaneously help national leaders to nurture a common peaceful disposition toward world peace. Once globalization is incorporated into Oneal and Russett's model, the significance of democracy weakens, economic interdependence loses its significance, and IOs remain significant and as before in

<sup>4</sup> Appendix 1 provides a matrix of Spearman's rho rank correlation coefficients for all possible pairs of columns of a matrix. It shows that the correlation between globalization and any of the three Kantian peace elements ranges from 0.445 to 0.509.

a counterintuitive direction. It appears that increased globalization, through the synergistic net effect of multiple global forces, exerts more pacific influence than any of the Kantian peace ingredients individually. The effects of the three realist variables remain the same as those in Model 1.

Different estimation methods may drastically change the magnitude and significance of coefficients if they are not robust. To account for this possibility, I employ GEEs and rare event logit, neither of which was part of Oneal and Russett's empirical analysis. Models 3 and 4, where GEEs are employed, confirm the dispute dampening effects of globalization. Model 3 displays the replicated results of Table 1 in Oneal and Russett's (2005:299) study with GEEs, and reveals that democracy is significant, economic interdependence is not, and IOs are significant and in a counterintuitive direction. As shown in Model 4, in competition with all three Kantian peace pillars, globalization turns out to exert an independent, pacifying effect on a dispute. When rare event logit is applied in Models 5 and 6, the peace-building influence of globalization remains effective while the three Kantian peace variables show no dampening effect on militarized disputes. The overall results in Table 1 provide evidence that increased globalization is likely to lead to a more peaceful coexistence between two states in a dyad.

A majority of conflict studies focus on causes of militarized disputes while analysis of fatal MIDs remains relatively thin. Oneal et al. (2003) conduct systematic data analysis on causes of fatal MIDs by using distributed-lag models to determine whether democracy, economic interdependence, and IOs decrease the likelihood of a fatal dispute (see also Choi and James, 2005). In extending the analysis of Oneal et al. (2003), Oneal and Russett (2005) report that the Kantian peace variables are determining factors in reducing the likelihood of fatal MIDs.

Table 2 reports the results where the dependent variable is fatal MIDs, defined as disputes in which at least one battle fatality occurred. With respect to the coefficient sign and significance level of globalization, the overall results in Table 2 are similar to those reported in Table 1. Models 1, 4, and 7 show the replicated results of Table 1 in Oneal and Russett's (2005:299) study with logit splines, GEEs, and rare event logit, respectively. While the democracy hypothesis in each model is consistently supported, the economic interdependence hypothesis is not. The IOs hypothesis is supported only in Model 1, but again not in the theoretically predicted direction. According to Models 2, 5, and 8, increased globalization reduces the likelihood of fatal MIDs in a consistent manner, while none of the three Kantian peace variables produces a concrete pacifying effect. In Models 3, 6, and 9, six regional dummies are included to account for regional variability because countries with high levels of economic development and state-building (e.g. in Europe) should be differentiated from those with low levels of these existing conditions (e.g. in Africa).<sup>5</sup> Although Models 3, 6, and 9 are controlled for country heterogeneity, the effect of globalization remains

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<sup>5</sup> North America, South America, Europe, Africa, Middle East, Asia are coded 1 if both states in a dyad are in the region and 0 otherwise. Oceania is not included to avoid a dummy variable trap (Gartzke, 2007).

Table 2. Globalization and the Onset of International Conflict, 1970–2001: Fatal Militarized Interstate Disputes

Variable	Logit splines			GEEs			Rare event logit		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Globalization		-0.0974*** (0.0224)	-0.0660** (0.0244)		-0.0919*** (0.0271)	-0.0737*** (0.0236)		-0.0915*** (0.0271)	-0.0740*** (0.0236)
Democracy	-0.0801*** (0.0252)	-0.0075 (0.0241)	0.0038 (0.0256)	-0.0708** (0.0272)	-0.0092 (0.0273)	0.0088 (0.0255)	-0.0696** (0.0272)	-0.0083 (0.0273)	0.0105 (0.0254)
Economic interdependence	-165.5100 (107.3040)	-108.0660* (64.5071)	-33.6347 (37.2237)	-122.3950 (86.7845)	-69.1025 (56.2092)	-29.6410 (36.2324)	-108.3510 (86.9800)	-54.5769 (56.2335)	-3.3975 (36.2422)
Joint membership in IOs	0.0695** (0.0272)	0.1124*** (0.0233)	0.0941*** (0.0193)	0.0307 (0.0197)	0.0776** (0.0272)	0.0592** (0.0200)	0.0299 (0.0198)	0.0770** (0.0272)	0.0580** (0.0200)
Geographic distance	-1.3333*** (0.0964)	-1.4862*** (0.1532)	-1.5149*** (0.1476)	-1.5167*** (0.1164)	-1.6315*** (0.1854)	-1.7501*** (0.1818)	-1.5139*** (0.1163)	-1.6282*** (0.1853)	-1.7367*** (0.1818)
Capability ratio	0.1659 (0.1198)	0.3131** (0.1193)	0.3055** (0.1269)	0.1732 (0.1226)	0.3468*** (0.1406)	0.3146** (0.1466)	0.1788 (0.1226)	0.3525** (0.1406)	0.3237* (0.1466)
Allies	-0.1961 (0.4944)	-0.7580* (0.4337)	-0.3242 (0.5113)	-0.1282 (0.5486)	-0.8079 (0.5956)	-0.2021 (0.6485)	-0.1077 (0.5485)	-0.7965 (0.5958)	-0.1773 (0.6484)
North America			-1.2850 (0.9310)			-1.6030 (1.1662)			-1.4394 (1.1660)
South America			-0.2541 (1.0997)			-0.3137 (1.2620)			-0.2305 (1.2619)
Europe			-3.0692** (1.0860)			-2.5703** (0.9457)			-2.4066** (0.9456)
Africa			-0.3469 (0.5210)			-0.7378 (0.7075)			-0.7022 (0.7075)

Table 2. (Continued)

Variable	Logit splines			GEEs			Rare event logit		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Middle East			0.4368 (0.6008)			0.5139 (0.6729)			0.5908 (0.6729)
Asia			1.2249** (0.5106)			1.6389** (0.5938)			1.6379** (0.5937)
Constant	1.2700 (0.8626)	3.9195*** (1.2702)	3.6584** (1.4828)	2.4093*** (0.8517)	4.4518*** (1.3900)	5.5082 (1.5090)	2.4367** (0.8515)	4.4684*** (1.3897)	5.4870*** (1.5090)
Chi <sup>2</sup>	335.86	169.48	569.91	304.09	135.41	369.55	n/a	n/a	n/a
P of Chi <sup>2</sup>	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	n/a	n/a	n/a
Pseudo R <sup>2</sup>	0.22	0.26	0.30	n/a	n/a	n/a	n/a	n/a	n/a
N	145,847	145,847	145,847	145,847	145,847	145,847	145,847	145,847	145,847

Numbers in parentheses are robust standard errors adjusted for clustering on dyads with the logit splines models; semi-robust standard errors adjusted for clustering on dyads with the GEEs models; robust standard errors adjusted for clustering on dyads with the rare event logit models.

\*p < .05; \*\*p < .01; \*\*\*p < .001, one-tailed tests.

Table 3. Substantive Effects of the Onset of International Conflict, 1970–2001<sup>1</sup>

Variable	Based on Table 1 All militarized interstate disputes		Based on Table 2 Fatal militarized interstate disputes	
	Logit splines Model 2	GEEs Model 4	Logit splines Model 2	GEEs Model 4
Globalization increased by 1 standard deviation	–36%	–39%	–72%	–70%
Globalization increased by 2 standard deviations	–59%	–63%	–92%	–91%
Democracy increased by 1 standard deviation	–19%	–13%	–5%	–6%
Democracy increased by 2 standard deviations	–34%	–25%	–10%	–12%
Economic interdependence increased by 1 standard deviation	–12%	–4%	–33%	–22%
Economic interdependence increased by 2 standard deviations	–22%	–8%	–55%	–40%
Joint membership in IOs increased by 1 standard deviation	179%	62%	1311%	165%
Joint membership in IOs increased by 2 standard deviations	680%	162%	1585%	603%

<sup>1</sup>The baseline values are as follows: mean for continuous variables, 0 for Allies, 0 for Contiguity, and 0 for Major Power.

significant. Also of interest, geographic distance is supported across all six models as a pacifier of conflict.

## 2. Substantive Effects

In this type of statistical analysis, if a sample size is very large, small *p*-values can occur even though the difference between the true value of the parameter and the null hypothesized value is small. In other words, with a large number of observations, statistical significance does not necessarily indicate a statistically meaningful or important finding in any practical sense (see Gujarati, 2003). With this concern in mind, the substantive effect of the globalization variable requires further examination. Table 3 reports the substantive effects for globalization and the three Kantian peace variables that appear in Models 2 and 4 in Table 1 and Models 2 and 5 in Table 2. Since the Stata command for rare event logit does not support the substantive effects function, Table 3 does not include such calculations for Model 6 in Table 1 and Model 8 in Table 2. To save space, the substantive effects for the three realist variables are not reported in Table 3. Table 3 shows evidence that as compared with a typical dyad, more globalized dyads are less likely to experience a dispute. For example, according to logit splines in Model 2, as shown in the shaded column, a change of one standard deviation of globalization decreases the likelihood of a militarized dispute by 36%, and two standard deviations by 59%. Democracy and economic interdependence still reduce the likelihood of a dispute, but not as much as

globalization,<sup>6</sup> while joint membership in IOs drastically increases the likelihood of a dispute. A similar pattern for globalization is reported in the rest of the substantive effects analysis. One intriguing finding is that the percent change in the likelihood of a fatal dispute, on average, appears to be twice as high as that for all MIDs. This may imply that global networks make dyadic states more sensitive to fatal disputes since global interconnectedness helps facilitate faster transmission of the destructive images of conflict (e.g. the CNN effect). In short, the empirical results in Table 3 verify that the pacifying role of globalization, in the contemporary era, is not likely to be a statistical artifact, and should help assuage the apprehension of anti-globalists.

### **3. Robustness Tests**

One possible concern with the empirical tests demonstrated so far is that globalization and democracy may be correlated, since globalization may be enhanced by the quality of democratic governance.<sup>7</sup> To address this concern, two additional robustness tests have been undertaken.<sup>8</sup> The first test is based on a reduced form of the logit splines, GEEs, and rare event logit models, in which the democracy variable is dropped from the original empirical equation on the suspicion of a high correlation between globalization and democracy. In this way, it can be ensured that the independent effect of globalization alone is estimated. In addition, because one may also raise a concern that globalization is correlated with economic interdependence (due to the fact that trade as a percentage of GDP is one of the components included in the aggregate measure of globalization) or joint membership in IOs (due to the fact that the number of international organizations a country is a member of is incorporated into the overall index of globalization), the aforementioned robustness testing is also applied to each of these variables. Second, all three Kantian peace variables are excluded from the original empirical equation to relieve any lingering concerns of their multicollinearity problems with the globalization variable.

Tables 4 and 5 report the results of the two robustness tests. While Table 4 reports the results where the dependent variable is *all* MIDs, Table 5 displays those where the dependent variable is *fatal* MIDs. To save space, the results for the three realist variables are not reported in the tables. Models 1, 2, 3, 5, 6, 7, 9, 10, and 11 in each table are reduced models in the sense that one of the three variables (i.e. democracy, economic interdependence, and joint membership in IOs) is excluded in sequence in each model to preclude multicollinearity issues. In Models 4, 8, and 12 in each table, all three Kantian peace variables are dropped to implement the second robustness testing. By and large, the robustness test results in both Tables 4 and 5 confirm that

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<sup>6</sup> Additionally, the significance of democracy is weak and economic interdependence is not statistically significant, as shown in Table 1.

<sup>7</sup> However, as shown in Appendix 1, the correlation between globalization and democracy is only 0.459.

<sup>8</sup> This study also conducts three of the most widely-used diagnostic tests on multicollinearity:  $R^2$  statistics, variance inflation factors, and condition index (see Stata Reference Manual Set, 2001; Gujarati, 2003). The results appear in Appendix 2 and show no indication of severe multicollinearity problems.

Table 4. Globalization and the Onset of All Militarized Interstate Disputes, 1970–2001: Robustness Tests

Variable	GEEs											
	Logit splines						Rare event logit					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Globalization	-0.0422 <sup>***</sup> (0.0096)	-0.0394 <sup>***</sup> (0.0116)	0.0034 (0.0100)	-0.0021 (0.0074)	-0.0431 <sup>***</sup> (0.0115)	-0.0403 <sup>***</sup> (0.0130)	-0.0171* (0.0089)	-0.0207 <sup>***</sup> (0.0065)	-0.0434 <sup>***</sup> (0.0116)	-0.0412 <sup>***</sup> (0.0131)	-0.0185* (0.0090)	-0.0205 <sup>***</sup> (0.0065)
Democracy		-0.0305* (0.0159)	-0.0119 (0.0153)			-0.0202 (0.0168)	-0.0097 (0.0159)			-0.0160 (0.0170)	-0.0047 (0.0160)	
Economic interdependence	-33.7967 (23.2161)		-6.9359 (9.8339)		-11.4694 (14.3268)		-3.3605 (8.6296)		-9.5575 (14.3380)		-2.0041 (8.7717)	
Joint membership in IOs	0.0788 <sup>***</sup> (0.0112)	0.0764 <sup>***</sup> (0.0109)			0.0361 <sup>***</sup> (0.0122)	0.0365 <sup>***</sup> (0.0117)			0.0363 <sup>***</sup> (0.0123)	0.0365 <sup>***</sup> (0.0118)		
Chi <sup>2</sup>	625.93	600.67	544.98	499.61	277.88	330.20	361.89	310.35	n/a	n/a	n/a	n/a
P of Chi <sup>2</sup>	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	n/a	n/a	n/a	n/a
Pseudo R <sup>2</sup>	0.24	0.24	0.21	0.21	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
N	145,847	145,847	145,847	145,847	145,847	145,847	145,847	145,847	145,847	145,847	145,847	145,847

Numbers in parentheses are robust standard errors adjusted for clustering on dyads with the logit splines models; semi-robust standard errors adjusted for clustering on dyads with the GEEs models; robust standard errors adjusted for clustering on dyads with the rare event logit models.

\*p < .05; \*\*p < .01; \*\*\*p < .001, one-tailed tests.



Table 5. Globalization and the Onset of Fatal Militarized Interstate Disputes, 1970–2001: Robustness Tests

Variable	GEEs											
	Logit splines						Rare event logit					
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Globalization	-0.0991*** (0.0207)	-0.1102*** (0.0271)	-0.0468** (0.0167)	-0.0486*** (0.0130)	-0.0937*** (0.0256)	-0.1006*** (0.0296)	-0.0518*** (0.0173)	-0.0528*** (0.0131)	-0.0934*** (0.0256)	-0.0997*** (0.0296)	-0.0518** (0.0173)	-0.0522*** (0.0132)
Democracy		-0.0132 (0.0272)	0.0153 (0.0282)			-0.0107 (0.0287)	0.0150 (0.0277)			-0.0095 (0.0287)	0.0155 (0.0277)	
Economic interdependence	-108.8810* (63.9243)		-49.4914 (44.4155)		-69.5480 (56.1763)		-42.7312 (43.5396)		-54.7205 (56.1978)		-28.1125 (43.6043)	
Joint membership in IOs	0.1116*** (0.0238)	0.1028*** (0.0256)			0.0765** (0.0277)	0.0735** (0.0274)			0.0760** (0.0277)	0.0730** (0.0275)		
Chi2	155.34	143.92	325.52	252.55	127.98	126.60	244.28	204.75	n/a	n/a	n/a	n/a
P of Chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	n/a	n/a	n/a	n/a
Pseudo R2	0.26	0.25	0.21	0.20	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
N	145,847	145,847	145,847	145,847	145,847	145,847	145,847	145,847	145,847	145,847	145,847	145,847

Numbers in parentheses are robust standard errors adjusted for clustering on dyads with the logit splines models; semi-robust standard errors adjusted for clustering on dyads with the GEEs models; robust standard errors adjusted for clustering on dyads with the rare logit models.

\*p < .05; \*\*p < .01; \*\*\*p < .001, one-tailed tests.

increased globalization produces a pacifying influence in a statistically and substantively meaningful way, irrespective of model specifications and statistical methods.

## Conclusions

Most existing scientific studies of globalization take a *single* economic feature, such as trade or FDI, as the main cause of international conflict. However, it is more reasonable to argue that multiple forces stemming from socio-economic and political globalization as opposed to a single force of globalization influence leaders' conflict behavior. For this reason, I emphasize that in the era of increased globalization, national leaders process and respond to international crises by taking into account a myriad of factors which can be understood as one larger, globally determined *whole* (Emerson, 1983). To explain the overall consequences of the manifold phenomena of globalization, I have presented a conceptual framework in which the net effect of economic, socio-cultural, and political forces of globalization is conceived as fostering a common peaceful disposition among national leaders that transforms their world view from realistic pessimism to liberal optimism, thereby dissuading nation-states from pursuing hostile military adventures in times of crisis.

The empirical results reveal that, at least during the past few decades, the net effect of globalization processes has operated favorably in creating a peaceful coexistence between two states in a dyad. Moreover, the results show that the three Kantian peace variables are less robust in explaining leaders' conflict behavior than reported in the conflict literature. In short, the empirical analysis leads one to the conclusion that it is globalization in its totality that promotes peace over and above what researchers have come to expect from the three Kantian perspectives. Kant's (1795/1957) support of a union of republics, commerce, and international law as the strongest contributing factors for attaining permanent peace might have been revolutionary 200 years ago, but it was clearly too early for him to envision the sweeping beneficial outcomes of the late 20th-century phenomenon of globalization. According to the empirical analysis of this study, the historically conflictual nature of the international system may have begun to change during the period from 1970 to 2001, finding good fortune with the increased tide of multiple global forces.

I conclude this study by addressing some potential controversial issues and objections to certain aspects of this empirical analysis. One concern may be that the KOF index has limited coverage in space and time in that it reduces the sample to under half of what Oneal and Russett (2005) have for this period, causing unintended bias in the sample and compromising the comparability of the results of this study with the Kantian peace study. I believe this concern is effectively allayed by my replications of Oneal and Russett's original study (i.e. Model 1 in Tables 1 and 2). Despite the shorter spatial and temporal coverage, the replicated results of these two logit splines models corroborate the Kantian peace propositions with respect to the significance of democracy and economic interdependence, indicating no presence of any peculiar biases in the smaller sample. Only when the globalization variable is plugged into each of the replicated logit splines models does the effect of the Kantian peace variables fade away (see Model 2 in Tables 1 and 2). That is, the Kantian peace elements lose their effective peace-building influences only in

competition with globalization. Despite the fact that the Kantian peace study relies on logit splines models alone, I also fit the sample data with GEEs and rare event logit for further robustness and confirm that globalization matters more than each of the Kantian peace factors throughout the last three decades (see Models 4 and 6 in Table 1 and Models 5 and 8 in Table 2).

It should be emphasized that the findings of this study do not necessarily render the Kantian peace literature obsolete. Rather, they imply that in searching for a better way to make a more peaceful world, we ought to go beyond Kantian explanations and towards processes of globalization. It is possible that we may yet encounter more resistance like the Seattle anti-globalism protests or 9/11 in the process of increasing global interconnectedness; however, we need not take these isolated instances as exemplars of the whole. The analysis in this study makes it clear that we can benefit more from the overall consequences of various globalization forces in pursuit of perpetual peace in the long run. That is, it appears that rather than a time of great danger and crisis, a time of great prosperity and peace awaits us as long as globalization continues to deepen in the next century. In fact, despite individual incendiary examples to the contrary, our world is already undergoing substantial pacification.

One may raise a concern against the aggregate measure of globalization, seeing it as preventing clear tests of the various micro-foundational mechanisms. More specifically, one may assert that we cannot grasp the particular processes with a composite index, but can only approach such an understanding through individual/specific variables such as trade or FDI. This, however, is precisely the point; as noted earlier, the main focus of this study is not the effect of an individual feature of globalization, but rather its multidimensional implications whose empirical tests require an aggregate indicator. By using a composite index, we avoid fixating upon one individual/specific element and take into account the comprehensiveness and interconnectivity inherent to multiple global trends. In many ways this is analogous to empirical studies of democracy. If a researcher tries to investigate the overall implications of democracy, he or she should turn to POLITY2, an aggregate indicator in the Polity dataset, because it is constructed to capture a number of conceptually distinct properties of both democratic and autocratic governance. However, if the same researcher intends to see the individual effect of institutional constraints imposed on the executive, he or she should use executive constraints (i.e. XCONST), a disaggregate variable in the Polity dataset (for more information, see Marshall and Jaggers, 2000). The bottom line is that because the research question here is directly related to its overall consequences, globalization has been defined as a composite concept encompassing the socio-economic and political dimensions.

Put differently, if we use each individual component of the KOF Globalization Index, such as FDI, then the analysis is about the FDI–conflict link, not the globalization–conflict link.<sup>9</sup> It should not be assumed that a country with one element of globalization will ipso facto respond to security threats in the same way as a fully globalized country. The former has only one constraining factor, which may be insufficient in reducing the likelihood of conflict, while the latter has multiple

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<sup>9</sup> Indeed, we might even wonder why scholars and policy-makers use the term globalization at all since most of their studies focus solely on the relationship between FDI and conflict.

constraints. More importantly, when the research question relates directly to its overall consequences at the macro level, globalization requires categorization as an aggregate concept. If this study had disaggregated the three dimensions of globalization into its requisite parts—economic, socio-cultural, and political—it would have committed the same research design mistake as the Kantian peace studies, as noted earlier.<sup>10</sup> In fact, future research should incorporate a more multidimensional treatment of globalization, since it cannot be limited to the combined effect of the three sub-dimensions, but it should be seen as the synergistic affect of all possible components. For example, Keohane and Nye (2000a) argue for additional components of globalization including environmental and military measurements. While this study used the KOF overall index of globalization, considered the best in existence because of its scope and quality, a more comprehensive and complex phenomenon of globalization dynamics should be investigated. In this sense, future studies should focus on compiling data on other dimensions and thus constructing an even greater composite index to capture the myriad effects of globalization.

*Appendix 1. A Matrix of Spearman's Rho Rank Correlation Coefficients*

	MIDs	Globalization	Democracy	Econ interdepend	IOs	Geo distance	Capability	Allies
MIDs	1.000							
Globalization	0.003	1.000						
Democracy	0.002	0.459	1.000					
Econ Interdepend	0.042	0.445	0.270	1.000				
IOs	0.035	0.509	0.437	0.543	1.000			
Geo distance	-0.058	-0.047	0.035	-0.325	-0.292	1.000		
Capability	-0.002	0.014	0.075	-0.109	-0.129	0.093	1.000	
Allies	0.042	0.142	0.148	0.236	0.350	-0.342	-0.027	1.000

<sup>10</sup> One may contend that rather than rely on the composite, additive index of globalization as a measure of its overall effect, this study should employ an interaction term of these three different global dimensions. However, as shown in Appendix 3, the results based on multiplicative interaction models fail to show significance on globalization, democracy, economic interdependence, and IOs in a consistent manner. I believe that the use of interaction terms is inapplicable because this study is not testing a *conditional* hypothesis, which requires modeling a multiplicative interaction regression, but examines the combined effect of a manifold globalization. In addition, creating and interpreting interaction terms with three different variables is methodologically challenging and often not recommended for practicality (see Braumoeller, 2004).

*Appendix 2. Multicollinearity Diagnostics for the Globalization Model<sup>1</sup>*

	$R^2$	Variance inflation factors	Square root of VIFs
Globalization	0.4537	1.83	1.35
Democracy	0.3032	1.44	1.20
Economic interdependence	0.1772	1.22	1.10
Joint membership in IOs	0.5584	2.26	1.50
Geographic distance	0.2825	1.39	1.18
Capability ratio	0.0587	1.06	1.03
Allies	0.2442	1.32	1.15
Mean variance inflation factors		1.50	

  

	Eigenvalues	Condition index
1	4.7053	1.0000
2	1.2702	1.9247
3	0.8327	2.3771
4	0.7604	2.4876
5	0.3137	3.8729
6	0.0675	8.3508
7	0.0472	9.9824
8	0.0030	39.4309
Condition number		39.4309
Det(correlation matrix)		0.217

Eigenvalues and condition index computed from the scaled raw sscp with an intercept.

<sup>1</sup> A general rule of thumb: A serious multicollinearity problem is suspected if  $R^2$  is greater than 0.80, if the mean of all the variance inflation factors is considerably larger than 10, or if condition number exceeds 1000.

*Appendix 3. An Interaction Effect among Three Dimensions of Globalization, 1970–2001: Logit Splines*

Variable	All MIDs Model 1	Fatal MIDs Model 2
Economic globalization	0.0700* (0.0331)	-0.0027 (0.0751)
Social globalization	-0.0984* (0.0473)	-0.1201 (0.1021)
Political globalization	0.0403** (0.0170)	0.0119 (0.0416)
Economic*social globalization	-0.0001 (0.0009)	0.0006 (0.0023)
Economic*political globalization	-0.0024*** (0.0006)	-0.0014 (0.0013)
Social*political globalization	0.0023*** (0.0007)	0.0021 (0.0018)

(Continued)

## Appendix 3. (Continued)

Variable	All MIDs Model 1	Fatal MIDs Model 2
Economic*social*and political globalization	-0.0000 (0.0000)	-0.0000 (0.0000)
Democracy	-0.0175 (0.0160)	-0.0023 (0.0247)
Economic interdependence	-20.8018 (22.9089)	-81.6182 (53.4765)
Joint membership in IOs	0.0656*** (0.0122)	0.0874*** (0.0188)
Geographic distance	-1.0430*** (0.1084)	-1.5708*** (0.1437)
Capability ratio	0.2410*** (0.0649)	0.2546* (0.1181)
Allies	-0.0716 (0.2249)	-0.5691 (0.4295)
Constant	1.1598 (1.3135)	4.6036* (2.4626)
Chi <sup>2</sup>	864.50	282.64
P of Chi <sup>2</sup>	0.0000	0.0000
Pseudo R <sup>2</sup>	0.27	0.27
N	145,847	145,847

Numbers in parentheses are robust standard errors adjusted for clustering on dyads.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ , one-tailed tests.

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