Economic Interdependence, Polity Type, Conflict and Peace: When Does Interdependence Cause Peace and Cause War?

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Competing IR paradigms have long debated the relationship between trade and conflict. Some view trade as causing interstate conflict whereas others see it as pacifying interstate relations. To address this ongoing scholarly debate, this study proposes an interactive relationship of interdependence and polity type in affecting peace. I argue that trade interdependence differently affects interstate relations between democracies and autocracies: interdependence causes conflict for autocracies while causing peace for democracies. This interactive hypothesis is tested against the directed-dyad sample of 1950-2001 for which all the relevant data are jointly available. My probit analysis reveals that interdependence increases the probability of conflict initiation for autocratic challengers but decreases it for democratic challengers.

Keywords: Trade, Polity, Peace, Conflict, Statistical Interaction

1. INTRODUCTION

This study examines the relationship between economic interdependence and peace vis-a-vis political regime. More specifically, how interstate economic integration affects interstate political relations and how this effect varies by countries' polity types, democracy and autocracy, are the questions that this study aims to answer. Answering these questions carries an important practical implication. The ascendency of trade integration and political liberalization are two of the most important components of globalization. The volume of world trade has soared exponentially to the extent that world trade accounted for more than 60% of world GDP in 2013, according to the World Bank data. The world has been increasingly democratized despite several setbacks; currently, about 60% of all countries can be defined as electoral democracies (Diamond, 2015; Park, 2017a). If this study finds as is argued below that the presumed pacifying effect of interdependence is only limited to countries with a certain extent of democratic characteristics and that effect is strengthened with higher levels of democracy, a more peaceful world with fewer interstate conflicts may be expected with this increasingly globalized world.[1]

With respect to this study's scholastic implication, the interdependence-peace nexus pertains to one of the most sustained empirical theories in the field of international relations. Over 200 years ago, a founding father of the liberal internationalism, Immanuel Kant, argued that hospitality across borders is an important source of cosmopolitanism and international peace, along with representative democracy and international law. In contemporary political science, scholars conceptualize cross-border hospitality in terms of economic interdependence and operationalize it based on the volume of interstate trade (Mansfield and Pollins, 2001; Oneal, Russett, and Berbaum, 2003; Schultz, 2015).

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[1] However, civil war remains a major aspect of group violence despite its partial recession since the early 1990s (Fearon 2017).

How does trade interdependence affect international conflict and peace? Extant scholarship is divided in both theory and empirics. In theory, whereas realists have warned that trade and resulting interdependence add even more instability and discord to interstate relations already conducted in the shadow of the imperatives of interstate anarchy (Waltz, 1970; Mearsheimer, 1990), liberals have argued that interdependence not only helps increase wealth but also pacifies interstate relations despite the anarchic nature of the interstate system (Deutsch et al., 1957; Keohane, 1990; Doyle, 1997). Evidence, too, has been fragmented. While some present a negative significant impact of interdependence on conflict (e.g., Russett and Oneal, 2001), some report a null relationship (e.g., Kim and Rousseau, 2005). Still others find a significant positive relationship between interdependence and conflict (e.g., Barbieri, 2002).

To address this inconsistency in the literature, this study explores the possibility that the regime types of trading nations condition the relationship between interdependence and conflict. In other words, it proposes that how interdependence affects conflict differs between democracies and autocracies. The realist vulnerability scenario is likely to work for autocracies, but the liberal peace scenario may be the case for democracies. I argue that public constraints and political accountability are the two workhorses for two trading partners to make their interstate relations pacific. Lacking these two democratic components, autocracies, however, may live in a realist world where they rather fight more with their trading partners.

This proposed interaction of interdependence and democracy in affecting international conflict and peace is tested against the directed dyad-year data from 1950 to 2001 using a recently-developed technique for binary time-series cross section analysis. The findings offer evidence for the conditioning effect of regime type on the relationship between interdependence and conflict. Interdependence is found to have a significant positive effect on conflict initiation for highly autocratic countries. The effect is opposite for those with some democratic characteristics, decreasing conflict initiation. Furthermore, this conflict-inhibiting effect of interdependence is found to be larger for highly democratic countries than moderate democracies. This significant interactive relationship is found to be robust across the two different interstate systems when the data are divided into two separate periods, the Cold War (1950-1989) and the post-Cold War (1990-2001).

The remainder of this study proceeds as follows. The next section reviews the debate in the literature. The third section develop a theoretical argument on the interaction of interdependence and regime type and draw two interactive hypotheses. Data and measurement are discussed in the fourth section, followed by the fifth section which will report statistical results. The sixth section concludes this study with implications for future research and the real world.

2. INTERDEPENDENCE AND CONFLICT, NET EFFECT

Both theoretical expectations and empirical findings are mixed in previous research. Theoretically, realists argue that trade makes national economies vulnerable to foreign markets and generates political discord among trading partners. Nation states become desperate to extend their control over the sources of vulnerability and discord. Interdependence increases uncertainty, suspicion, and power imbalances among states, and it ultimately boosts security competition and causes more military conflicts (Waltz, 1970;

Gilpin, 1977; Mearsheimer, 1990). In contrast, liberals argue that interdependence pacifies interstate relations largely for two reasons. First, trade increases national wealth and brings trading partners into a relationship of mutual dependence (Cain, 1979; Stein, 1993; Krueger, 1997). In recognition that their economic wellbeing and prosperity depend on each other, trading partners do not want to disrupt their commercial ties with war. Second, interstate trade creates a web of thick connections between two societies, increasing mutual familiarity and understanding. Mutual respect, developed from this process, underpins the interactions of the two societies and cooperation becomes institutionalized and legalized to the extent that war becomes socially unthinkable (Deutsch et al., 1957; Mueller, 1989; Keohane, 1990; Doyle, 1997).

Empirical evidence is mixed in three respects. Whereas there are many findings supportive of the pacifying effect of interdependence, many other findings suggest the null effect and even the opposite, conflict-generating effect. First, Polacheck (1980) initiated the empirical literature on this topic. With a post-World War sample from 1958 through 1967, his bivariate regression analysis finds a significant inverse relationship between the volume of bilateral trade and an indicator of dyadic conflict derived from the Conflict and Peace Data Bank (Azar, 1980). Many follow-up studies report similar evidence with improved designs and data, controlling for other important war and trade correlates, employing more comprehensive measures for military conflict, and using much longer periods of time (Mansfield, 1994; Russett and Oneal, 2001; Hegre et al., 2010). Second, Uchitel's (1993) case study is the first to provide the exact counterevidence that trade increases conflict. She indicates that Nazi Germany and Imperial Japan during the interwar period had much dependence on foreign strategic goods and they adopted expansionist and aggressive foreign policies to overcome it. Barbieri's (1996, 2002) statistical analyses find that trade interdependence heightens the risk of interstate military conflict. Third, scholars have reported null findings for the trade-conflict relationship. Kim's (1995) probit estimation for the 1948-1986 period produces a negative but insignificant relationship between interstate trade and interstate conflict. A few more studies add null finding to more recent years, 1960-1988 (Keshk et al., 2004; Kim and Rousseau, 2005).

Indeed, the literature diverges with little consensus, which highlights gaps in our understanding and underspecified aspects of the trade-conflict link. This study tries to fill these gaps in two ways. First, it takes into account the interaction between economic interdependence and political institutions in effecting hostile or pacific interstate relations. The mechanisms for the interdependence-peace link presuppose political accountability and trust-based norms of conflict resolution, two of the most important characteristics of democracy. For trading partners lacking these two key elements, interstate commerce may constitute a significant source of instabilities and insecurity even producing more military disputes, as sceptics predict. Second, this study distinguishes who launches a military attack against whom by focusing on conflict initiation rather than conflict onset. In other words, it differentiates the challenger and target states of military conflict in its research design to pinpoint the initiator's decision to use force against its target. Doing these two things will help reveal the possible bifurcated complex mechanisms by which economic interdependence affects differently interstate relations in different political settings.

3. THE INTERACTIVE EFFECT OF INTERDEPENDENCE AND DEMOCRACY

This section explores the theoretical possibility that interdependence pacifies interstate relations only for democracies, rather than autocracies. However, while interdependence is theorized to affect interstate conflict, it is national leaders who have the final say on the decision to launch armed forces against foreign countries. Leaders are commonly assumed to make such a decision with great caution (Bueno de Mesquita et al., 2003). The two main theoretical reasons that liberals put forward for the pacifying effect of interdependence include the material and social utilities that domestic societies enjoy in association with interstate trade. Leaders can respond to economic and social demands by avoiding military conflict with important trading partners that may disrupt their commercial relations. Yet, this response essentially depends on how much leaders need to be sensitive to public preferences and sentiments. In relation to political regime, leaders in democracies tend to bear more political accountability and suffer from more public constraints as compared to those in autocracies. Whereas autocrats seek to satiate the tastes of a small in-group, democrats need the majority or plurality support of the entire society to earn and maintain political power (Olson, 1993; Reiter and Stam, 2002; Bueno de Mesquita et al., 2003). Hence, the end result for policy differs between democrats and autocrats. Democrats tend to implement 'public goods-oriented' policies aimed to satisfy a broad spectrum of public preferences whereas autocrats tend to implement 'private goods-oriented' policies aimed to satisfy a selected range of parochial interests (Bueno de Mesquita et al., 2003).

External security is the most salient foreign policy issue (Jacobs and Page, 2005). If possible, leaders may want to be able to make conflict and war when it serves their private interests as well as public interests. This war motivation itself should not differentiate democrats and autocrats. What differentiates them is the limited range of private interests democrats can overtly pursue in war making as compared to autocrats. Democrats are constrained from making risky and costly military conflicts because they bear high audience costs and political accountability (Fearon, 1994; Reiter and Stam, 2002; Bueno de Mesquita et al., 2003). Unless war motivations and aims make sense to public sentiment enough to justify the associated costs and risks, it is hard for democrats to order military attacks abroad (Maoz and Russett, 1993; Park, 2017b).

Initiating armed forces against trading partner countries will hardly be acceptable to democratic societies at least for two reasons. First, fighting with important trading partners is economically costly, as it will ruin trade routes and lead to market disruptions (Long, 2008). Furthermore, in modern economies, many trading investments are made into relation-specific assets, which are designed to support a specific commercial exchange with a specific trading partner (McKewon, 1991). Relation-specific goods can only be redeployed to another market with significant losses in production value (Besanko et al., 2017). A good example of relation-specific goods is a Korean automaker having factories and production lines in America, or vice versa. Second, attacking an important commercial partner incurs serious normative costs to the challenger's society that has constructed friendship, mutual understanding, and mutual respects with the target society through commercial hospitality (Deutsch et al., 1957; Park, 2017b). Recent research shows that ordinary citizens do care about the legitimacy of a military mission as well as its material benefits (Gelpi et al., 2009). Taken together, citizens in democracies are not likely to approve of waging military hostilities against commercially-friendly foreign countries, for both materialistic and normative reasons. Of course, not all

people in a democracy prefer economic openness and trade integration. Yet, it is reasonable to think that people in democracies are more likely to prefer trade and economic liberalization than are those in autocracies. This premise has a solid empirical background. For instance, Kleinberg and Fordham's (2010) cross-national survey study shows that citizens who favor international trade tend to favor trading partner countries and this positive public attitude depends on the level of interdependence, and vice versa. Likewise, many studies have shown that trade and economic liberalization are more prevalent among democracies rather than autocracies (Milner and Kubota, 2005; Decker and Lim, 2009). All in all, the general public preference level for trade and trading partners should be higher in democratic societies than in autocratic societies, and thus empirically proving that democratic leaders have strong incentives to maintain peace with foreign trade partners. The discussion leads to the following hypothesis:

> H1. Trade interdependence decreases the probability that democracies initiate employment of armed forces against their trading partners, and this conflict-reducing effect is stronger for more democratic states.

The public choice school may offer a different view than Hypothesis 1. According to this view, implementing public goods-oriented policy is as difficult for democracies as for autocracies because of the logic of concentrated benefits and dispersed costs (Olson, 1965; Hardin, 1990).[1] Even when some public goods can be realized through international trade and resulting interdependence, majority benefits by nature are thinly diffused to a wide and diverse spectrum of constituents. People may exercise rational ignorance of these individually-diffused small interests, and be unlikely to put special constraints on their leaders from using force against foreign trading partners.

> H2. Trade interdependence does not affect the probability that democracies initiate armed force against their trading partners.

In contrast to democracies, trade interdependence may effect conflict rather than peace for autocracies for several reasons. First, autocratic systems generate fewer public constraints and lower political accountability against national leaders as compared to democratic systems. These two characteristics of democracy work as the driving forces that allow interdependence to generate pacifying effects by making leaders sensitive to public sentiments and preferences. Second, economic liberalization and trade integration are not as prevalent among autocracies, as discussed above. Likewise, the level of preferences over trade and interdependence should be lower in autocracies than democracies, as it is endogenous to the level of economic openness. Rather, the mercantilist folklore on trade and interdependence may sound appealing to autocracies. Similarly, realists argue that trade harms more than helps as it increases nations' dependence on foreign countries in the anarchic and self-help system (Waltz, 1979). Interdependence means increased vulnerabilities in foreign markets and states will struggle with each other to control the sources of vulnerabilities. As a result, interdependence also means greater competition and conflict, not cooperation (Mearsheimer, 1990). Leaders in autocracies tend to have more leverage and incentives to inflate the magnitude of foreign threats for their political and international

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[1] *I owe this point to an anonymous reviewer.*

ambition as compared to those in democracies (Colaresi and Thompson, 2003). In sum, the vulnerability scenario is likely to be at work in autocracies, and thus trade interdependence is expected to be a conflict-generating force for them.

> H3. Trade interdependence increases the probability that autocracies initiate employment of armed forces against their trading partners, and this conflict-generating effect is stronger for more autocratic states.

Although relatively little research has been done on the interactive effect of interdependence and polity type, two exceptions exist. For instance, Gelpi and Grieco (2008) consider the interaction of trade integration and democracy in explaining conflict initiation using the global sample from 1950 to 1992. They find that trade integration reduces the likelihood of conflict initiation only for democracies, not for autocracies. However, they consider the concept of trade integration too narrowly by focusing on one side's trade dependence on the other, proportional to its GDP. Although this analytical strategy is useful to prove a country's unwillingness to attack another country when its economy relies upon the other's in terms of exports and imports, it cannot fully incorporate the extended pacifying effect of mutual economic reliance. According to the theoretical discussion I have drawn above, not just one's own dependence but also the other's dependence may constrain the former from using force against the latter, as increased contacts and thickened connections by bilateral trade familiarize trading partners and allow them to get along peacefully with each other. Also, Gelpi and Grieco (2008) do not explore the theoretical possibility that interdependence can be a conflict-initiating factor for autocracies. A more recent study by Park (2017b) examines the trade-conflict nexus in terms of not one-side dependence but mutual dependence. Nevertheless, Park's study has two shortcomings. First, its theoretical and analytical focuses treat economic interdependence as a sublevel proxy standard for its larger conception of liberal conflict selectivity. Second, it has a relatively short temporal domain, from 1981 to 2000.

My present study improves upon Gelpi and Grieco (2008) and Park (2017b) on several dimensions. First, it examines the regime-contingent effect of trade on conflict in terms of interdependence rather than one-sided dependence or liberal conflict selectivity. Second, it offers a clear, succinct, and focused theoretical discussion on how trade induces conflict and peace across different regimes. Third, a more extensive time period is examined, as its temporal domain goes from 1950 to 2001, adding 30 more years.

4. RESEARCH DESIGN

My dependent variable is conflict initiation, coded 1 if the challenger state launches a militarized interstate dispute (MID) against the target state in a given year, or coded 0 otherwise. The information on MIDs is from the Correlates of War (COW) project's MID dataset (v.3.1). A MID is defined as an officially and explicitly directed "threat, display or use of military force" by an independent state against another independent state (Jones et al., 1996: 163).[2] The units of analysis are directed dyad-years in which a pair of states (state A

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[2]   As a robustness check, I only considered an actual use of force as conflict initiation, disregarding a threat or display of force. The main result remains the same as reported below in the results section:

and state B) enter into a horizontal data line as the challenger and the target in a given year. In the next horizontal line, the same two appear in the same year again but in the reverse order with state B being the challenger and state A being the target. In contrast to the non-directed dyad-year design widely used in the trade-conflict literature, this directed dyad-year design differentiates the challenger side and target side, allowing identification of who initiates forces against whom (Bennett and Stam, 2000). I examine all the possible directed dyad -years for all the intestate system member states from 1870 to 2001 for which all the variables are jointly available from the COW country list.

My primary independent variable is trade interdependence. Following standard practice (Russett and Oneal, 2001), I measure it by taking the minimum trade dependence level of two states in a given dyad-year [(export+import)/GDP]. This measure is appropriate for this study as it assumes that the challenger considers not only how much its economy depends on the target's economy but also how much the target's economy depends on the challenger's economy. I use Gleditsch's (2002) expanded Trade and GDP Data, available at http:// privatewww.essex.ac.uk/~ksg/exptradegdp.html.[3]

The main idea of this study is that trade interdependence affects conflict initiation differently between democracies and autocracies. Hence, the conditioning variable for the trade interdependence is challenger polity. As is the standard, I measure it as a 21-point index from -10 (most autocratic) to 10 (most democratic), using the polity2 score of Polity IV project.[4] Then, I multiply this challenger polity variable by the trade interdependence variable (trade interdependence × challenger polity) to assess the hypothesized interactive effect of these two variables. I also control for the polity level for target countries, as the regime type of potential targets is found to be associated with potential challengers' decision to use armed forces (Park, 2013).

I control for other important factors that affect conflict initiation, such as contiguity, distance, capability ratio, major power status, and past conflict.[5] Contiguity is a dummy variable, coded 1 if the two countries in a dyad are bordering each other by land or less than 150 miles of water, or coded 0 otherwise. Distance is measured as the natural logarithm of the great circle distance in miles between two states. Capability ratio is the natural logarithm of the target's military capability in ratio to the challenger's military capability. The information on this variable is from the COW project's Composite Index of National Capability. Major

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economic interdependence significantly increases conflict initiation for highly autocratic challengers whereas it decreases conflict initiation for democracies.

[3] As a robustness check, I also used the COW trade data (Barbieri et al., 2009) to reanalyze all the probit models in the result section below. The results are substantively similar. Although the COW trade data cover the 1870-2014 trade, their use does not extend this study's temporal domain (1950-2001) back to the pre-world war eras because of the unreliability of GDP data in those eras. The availability of the COW MID data at the dyadic level from 1816 to 2001 limits this study's end year to 2001.

[4] The Polity IV data are available at http://www.systemicpeace.org/polity/polity4.htm.

[5] Military alliance is a frequently used control for conflict occurrence as countries would be unwilling to use forces against their allies. However, I exclude military alliance because scholars have criticized it as a poor indicator of common security interests (Morrow, 1999; Bennett and Stam, 2000; Park, 2013). Ray (2005) warns that including alliance in examining the effect of regime on interstate conflict may lead to a post-treatment bias (King, 2010). As a robustness check, I included military alliance based the COW measure. Alliance is statistically insignificant and the results for all the other independent variables remain qualitatively the same.

power countries have engaged in more international conflicts, as they have both more global interests and military strengths. I code whether a country is a major power or not based on the COW project's identification of major power status.

The past matters for interstate relations, as two countries fighting today are likely to fight again tomorrow. I use Werner's (2000) peace-year variable measured as the counter of years since the last conflict between two states. To more fully account for the temporal dependence of the data, I use the cubic polynomial of peace year, peace year^2 and peace year^3, following Carter and Signorino (2010). I also use robust standard errors clustered on dyad, to account for the possible heteroscedasticity that may hamper valid statistical inference. Accounting for temporal dependence and heteroscedasticity in terms of peace years and robust standard errors has become the standard for time-series cross-sectional data with a binary dependent variable (Beck et al., 1998). I lag all the independent variables by one year to address the possible endogeneity that the dependent variable affects the independent variables (Russett and Oneal, 2001).

5. RESULTS

The summary statistics for the data from 1950-2001 used in the baseline probit model (Model 1 of Table 2) are presented in Table 1.

The baseline probit results for economic interdependence and other variables are reported in Table 2. First of all, all the control variables are statistically significant in the expected directions in all models, except for target polity in Model 3. Challenger polity, capability ratio, distance, and peace year are negative and statistically significant, suggesting these factors pacify interstate relations by reducing conflict initiation. Contrastingly, target polity, contiguity, and major-dyad significantly increase conflict initiation at the 0.1% level. Of all the controls in all the models of Table 2, target polity is the only variable that has an insignificant effect in Model 3.

In regard to the main independent variable, Model 1 assesses the net effect of interdependence for the entire period, 1950-2001. The estimated coefficient for economic interdependence is negative and statistically significant at the 5% level, suggesting that countries are unwilling to initiate military conflict against their trading partners. This result

Table 1. Summary Statistics, 1950-2001

Variable	Mean	Std. Dev.	Min.	Max
Conflict initiation	.0014	.0378	0	1
Interdependence	.00041	.0027	0	.2417
Challenger polity	-.3464	7.5187	-10	-10
Target polity	-.3410	7.5203	-10	10
Capability ratio	-.0008	2.5259	-9.8359	9.8359
Contiguity	.0306	.1722	0	1
Distance	8.2337	.7708	1.6094	9.4212
Major dyad	.0807	.2723	0	1
Peace years	25.2140	25.8566	0	352

Table 2. The Effect of Interdependence on Conflict Initiation

Variable	Model 1 (1950-2001)	Model 2 (1950-1989)	Model 3 (1990-2001)
Interdependence	-10.7230* 4.9676	-12.4069^ (7.0494)	-7.8817 (6.0243)
Challenger polity	-.01063*** (.0026)	-.0098*** (.0031)	-.0086* (.0042)
Target polity	.0103*** (.0028)	.01626*** (.0033)	-.0063 (.0043)
Capability ratio	-.0214*** (.0056)	-.0147* (.0065)	-.0416*** (.0080)
Contiguity	1.1053*** (.0653)	1.1646*** (.0762)	.9444*** (.0829)
Distance	-.1679*** (.02460)	-.1422*** (.0287)	-.2665*** (.0341)
Major dyad	.6244*** (.0449)	.6407*** (.0524)	.6223*** (.0650)
Peace year	-.04061*** (.0045)	-.0632*** (.0051)	-.0196*** (.0040)
Peace year2	.0007*** (.0001)	.0013*** (.0001)	.0003*** (.0001)
Peace year3	.0000*** (.0000)	-0000*** (.0000)	.0000* (.0000)
N	843384	560843	282541
Log-likelihood	-6376.5018	-4483.2258	-1798.4231

^p<.1, *p<.05, **p<.01, ***p<.001. Robust standard errors clustered to dyad are in parentheses.

is supportive of the liberal argument that economic interdependence promotes international peace. As a robustness check, the effect of interdependence is reassessed by splitting the entire 1950-2001 sample into the two different periods, Cold War (1950-1989) in Model 2 and post-Cold War (1990-2001) in Model 3. Interdependence has a weakly significant negative effect on conflict initiation at the 10% level in Model 2. After the end of the Cold War, it turns to be insignificant (Model 3). In sum, the pacifying effect of economic interdependence is less than robust, as its estimated coefficient is only reasonably significant with the smallest standard error in Model 1 with the largest n size. In Models 2 and 3, with smaller n sizes, the estimated coefficients for interdependence are hardly significant with the increased standard errors.

This inconsistent result for economic interdependence is not surprising, given the debate and inconsistent evidence in the extant research as reviewed in Section 2 and the possible interactive effect as proposed in Section 3. The models in Table 3 test the interactive effect of interdependence and challenger polity as Hypotheses 1 and 2 suggest that interdependence has different effects on conflict initiation between democratic challengers and autocratic challengers. This may be the reason that interdependence has a little robust effect on conflict initiation in the models of Table 2 that ignore the possible statistical interaction between interdependence and challenger polity. First, Model 4 covers the entire period from 1950 to 2001. The estimated coefficient for the first order (main effect) term, interdependence, refers to the interdependence effect when the value of challenger polity equals 0 from its 21 point index from -10 (most autocratic) to 10 (most democratic). This coefficient estimate is negative and statistically significant at the 5% level, suggesting that interdependence decreases the likelihood of conflict initiation for challenger countries located in the middle of the polity index. The second order (interactive) term (interdependence × challenger polity) is negative and significant at the .1% level, implying that the pacifying effect of interdependence increases as challengers' level of democracy increases.

Table 3. The Interactive Effect of Interdependence on Peace, Conditional on Challenger Polity

Variable	Model 4 (1950-2001)	Model 5 (1950-1989)	Model 6 (1990-2001)
Interdependence	-8.3843* (3.7004)	-15.5164** (5.7211)	-3.8877 (3.2959)
Challenger polity	-.0066** (.0025)	-.0047 (.0030)	-.0050 (.0042)
Interdepend. × Chall. polity	-2.2177*** (.4222)	-2.8389*** (.6462)	-1.8139*** (.5204)
Target polity	.0119*** (.0029)	.0182*** (.0033)	-.0045 (.0044)
Capability ratio	-.0210*** (.0057)	-.0145*** (.0063)	-.0400*** (.0077)
Contiguity	1.1147*** (.0644)	1.1725*** (.0752)	-.9598*** (.0817)
Distance	-.1715*** (.0240)	-.1494*** (.0279)	-.2720*** (.0337)
Major dyad	.6436*** (.0442)	.6600*** (.0516)	.6498*** (.0635)
Peace years	-.0401*** (.0045)	-.0622*** (.0051)	-.0192*** (.0040)
Peace year2	.0007*** (.0001)	.0012*** (.0001)	.0003** (.0001)
Peace year3	.0000*** (.0000)	.0000*** (.0000)	.0000* (.0000)
N	843384	560843	282541
Log-likelihood	-6343.1645	-4457.5164	-1788.3407

^p<.1, *p<.05, **p<.01, ***p<.001. Robust standard errors clustered to dyad are in parentheses.

For a more comprehensive assessment for the interactive results, however, it is necessary to examine and show how the coefficient for the main variable (interdependence) changes across the different values of the conditioning variable (challenger polity) as Braumoeller (2004) makes a convincing case for interactive probit analyses. The lincom command in STATA 15 is utilized for this purpose. Table 4 describes the changing coefficients for interdependence across the 21 different points of challenger polity from -10 (most autocratic) to 10 (most democratic). In the first column for the 1950-2001 sample, interdependence has a significant positive effect on conflict initiation for highly autocratic challengers whose polity scores are lower than -6. This result suggests that for autocratic countries, interdependence is an important trigger of interstate armed conflict. Contrastingly, interdependence has a statistically significant negative impact on conflict initiation for non-autocratic countries whose polity scores are 0 or higher, and this negative coefficient increases as challengers' level of democracy increases. This result suggests that interdependence constrains conflict initiation for countries with some democratic characteristics and this pacifying effect is stronger for moderate democracies and even more for well-established democracies. In sum, the interactive results support Hypotheses 1 and 2, that interdependence increases conflict initiation for autocratic challengers and decreases it for democratic challengers.

This interactive evidence is reassessed for the two different periods, 1950-1989 and 1990-2001 in the second and third columns of Table 4, corresponding to Models 5 and 6 of Table 3. The interactive pattern generally holds in both samples. For highly autocratic challengers, interdependence positively affects conflict initiation. Contrastingly, interdependence promotes peace for non-autocratic countries and this pacifying effect become stronger as challenger countries become more democratic. Therefore, it can be concluded that economic interdependence affects armed conflict decision differently across different regime types

Table 4. The Interactive Effects of Interdependence Across the 21 Different Values of Challenger Polity

Polity	Interdependence coefficient (Model 4, 1950-2001)	Interdependence coefficient (Model 5 1950-1989)	Interdependence coefficient (Model 6, 1990-2001)	Predicted prob. of conflict initiation
-10	13.7927*** (3.7628)	11.7228** (4.1058)	13.1469* (5.4398)	.3801692
-9	11.5750*** (3.5366)	9.1416* (3.8114)	11.4440* (5.0307)	.1983045
-8	9.3573** (3.3486)	6.5605^ (3.6068)	9.7411* (4.6423)	.0822115
-7	7.1396* (3.2055)	3.9793 (3.5076)	8.0382^ (4.280)	.0266178
-6	4.9219 (3.1135)	1.3981 (3.5227)	6.3353 (3.9519)	.0066495
-5	2.704218 (3.0772)	-1.1830 (3.6508)	4.6324 (3.6661)	.0012709
-4	.4865 (3.0986)	-3.7642 (3.8807)	2.9295 (3.4336)	.0001847
-3	-1.7312 (3.1764)	-6.3454 (4.1957)	1.2266 (3.2658)	.0000203
-2	-3.9489 (3.3067)	-8.9265^ (4.5782)	-.4763 (3.1730)	1.69e-06
-1	-6.1666 (3.4836)	-11.5077* (5.0128)	-2.1792 (3.1617)	1.06e-07
0	-8.3843* (3.7004)	-14.0889** (5.4872)	-3.8821 (3.2330)	4.97e-09
1	-10.6020** (3.9506)	-16.6700** (5.9919)	-5.5850^ (3.3814)	1.76e-10
2	-12.8197** (4.2283)	-19.2512** (6.5199)	-7.2879* (3.5976)	4.65e-12
3	-15.0374*** (4.5283)	-21.8324** (7.0659)	-8.9908* (3.8701)	9.23e-14
4	-17.2551*** (4.8466)	-24.4135*** (7.6261)	-10.6937* (4.1880)	1.37e-15
5	-19.4728*** (5.1798)	-26.9947 (8.1976)	-12.3966** (4.5417)	1.52e-17
6	-21.6905*** (5.5252)	-29.5759*** (8.7782)	-14.0996** (4.9236)	1.26e-19
7	-23.9082*** (5.8806)	-32.1570*** (9.3661)	-15.8025** (5.3276)	7.85e-22
8	-26.1259*** (6.2443)	-34.7382*** (9.9602)	-17.5054 (5.7490)	3.64e-24
9	-28.3436*** (6.6150)	-37.3194*** (10.5592)	-19.2083** (6.1843)	1.26e-26
10	-30.5613*** (6.9915)	-39.9005*** (11.1626)	-20.9112** (6.6307)	3.27e-29

^p<.1, *p<.05, **p<.01, ***p<.001; Robust standard errors clustered to dyad are in parentheses.
#1.69e-07 denotes moving the decimal point seven digits to the left so that 1.69e-07 = 1.69×10^{-07} = 0.000000169.

and that this regime contingent effect of interdependence is robust across the two different interstate systems, Cold War and post-Cold War systems.

Based on the results of the main model (Model 4), the fourth column provides predicted probabilities of conflict initiation changing across the 21 different points of challenger polity from -10 to 10 while interdependence is set at its maximum value and other variables at their median (continuous) or mode (categorical).[6] The maximum degree of economic

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[6] I owe this to an anonymous reviewer who suggested that I show how predicted probabilities of conflict differ across the different values of challenger polity while setting the interdependence level at its maximum. I utilized the "margins" command in STATA 15 to calculate 21 different predicted probabilities of conflict initiation for each value of challenger polity and that of challenger polity × interdependence. For an example of the margins command for the maximum level of interdependence and the minimum level challenger polity, one can type as follows:

interdependence is estimated to produce a substantively high level of probability of conflict initiation, 0.38, for a fully autocratic challenger. In other words, a fully autocratic country has a 38% chance of initiating conflict against its trading partner with the highest interdependence level. The probability of conflict initiation with the maximum interdependence level substantially decreases as the challenger's level of democracy increases, getting closer and closer to 0. A democratic challenger seems to have a virtually zero chance of conflict initiation against a highly interdependent trading partner.

6. CONCLUSION

This study examines the relationship between economic interdependence and peace, contingent upon democracy. Whereas liberals have argued for trade integration as an important promoter of international peace, realists have seen it as a destabilizing factor of international relations. Empirical evidence has been as mixed as the theoretical debate. This study helps address the debate in the literature by proposing a conditional theory that interdependence promotes peace among democracies but it induces conflict among autocracies. This interactive effect of interdependence and democracy on peace is tested against the directed dyad year data from 1950 to 2001. A set of probit analyses in this study reveal that the effect of interdependence varies by potential aggressors' regime type. The evidence shows that autocratic aggressors tend to attack foreign countries with thick (network of?) trade exchanges. Contrastingly, democracies are found to maintain peaceful relations with their important trading partners. This interactive relationship holds true for both the Cold War period (1950-1989) and the post-Cold War period (1990-2001) when the probit analysis is conducted by bisecting the entire sample (1950-2001) into the two different historical interstate systems.

The significant finding for the interaction of interdependence and democracy has an important implication for the current world. The best word to characterize the current world may be globalization. In this increasingly globalized world, trade integration and democratization are two of the most important defining forces. The volume of trade across the globe has increased exponentially over the last several decades. The number of democracies has also increased dramatically. Now that about 60% of all countries in the world can be defined as electoral democracies (Diamond, 2015; Park, 2017a). Vis-a-vis this study's finding, the global ascendency of trade and democracy is a good thing, as we may expect a more peaceful world.

This study's finding of an interactive effect may have implications for South-North Korean relations. As of June, 2018, the political mood for reconciliation on the Korean Peninsula seems to promise the revitalization of nongovernmental exchanges between South Korea and North Korea in various fields, including economic trade and financial investment. However, if North Korea's economic liberalization and trade integration come arrives too quickly, it could be accompanied by some external hostilities, as Pyongyang might feel vulnerable from too much dependence on external markets. Therefore, at least some level of political liberalization may need to coincide with economic liberalization in the North

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margins, at((median) _all interdependence=*[maximum value]* chall_polity=*[minimum value, -10]* chall_polity×interdependence=*[the product of chall_polity minimum and interdependence maximum values]*)

Korean case.

Nevertheless, the anticipated North Korean economic liberalization can still bring about a somewhat different path to the South-North Korean relations without escalated military hostilities. While this study's theory and findings are based on the causation from economic relations to political relations, the latest reconciliation mood surrounding the Korean Peninsula is expected to cause economic integration. Therefore, how interstate economic integration that is propelled by political reconciliation between two former rival states will affect their political relations in return is less than clear. This uncertainty offers an important agenda for future research. It will be productive to look at the triadic relationship among economic interdependence, interstate rivalry, and international peace. How trade affects interstate relations between rival states with intense competitions and distrusts should constitute an interesting research question.

It will be also theoretically and empirically fruitful for future research to conduct some in-depth case studies that trace and illustrate the causal mechanisms through which interstate economic integration affects interstate conflict for democracies in a decreasing trend, but increases it for autocracies. Such case studies will help us better understand whether/how trade interdependence for democracies dampens interstate conflict due to increased material and normative costs for the use of force against trading partners. They also allow us to gain some understanding of whether/how extended economic integration makes authoritarian regime hawkish internationally due to their perception of economic vulnerabilities and resulting political discords.

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