Free Trade Agreements as Peace Instruments: The Impact of Accompanying Peace Agreements with a Free Trade Agreement on Interstate Conflict

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Abstract:
In this paper, I examine whether increasing trade interdependence as part of a peace agreement reduces the likelihood of conflict between two countries that share a history of conflict over territory. I develop a game-theoretic model that incorporates the protection-for-sale model and a conflict model to investigate how interest groups affect their government's foreign policy. From the game's subgame perfect equilibrium, I find that signing a free trade agreement minimizes conflict when the welfare of export-oriented groups and the aggregate welfare are maximized under a free-trade agreement with the rival country. I test this result empirically using the Peace Agreements dataset from UCDP, the militarized interstate disputes from the Correlates of War Project, and the gravity dataset from CEPII. I find empirical support to the hypothesis that signing a free trade agreement, along with a peace agreement, minimizes interstate conflicts when export-oriented groups and consumers are in favor of the free trade agreement with the rival country.

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1.   Introduction

Between 1993 and 1995, the Palestinian Liberation Organization and the Israeli government signed two peace agreements, the Oslo Accords I and II, and a trade agreement that created a customs union between the countries, the Paris Agreement. The idea was to sign a combination of peace and trade agreements to end the decades-long conflict over territory and achieve perpetual peace on the premises of the liberal peace theory. This theory states that increasing economic interdependence between countries increases the opportunity cost of waging any future conflicts due to the financial losses that the countries incur when fighting with their trading partners (Polachek, 1980).

Alas, the peace did not last for more than a few years before skirmishes started between Israelis and Palestinians by the end of the 1990s. By September 2000, the second *intifada* (uprising) started, and the two countries were farther from peace than they were a decade earlier (Said, 2000). The failure of the peace process between Israel and the Palestinians does not necessarily debunk the liberal peace theory. Instead, it suggests that using trade as a peace instrument may not necessarily succeed.

Whereas the liberal peace theory suggests that economic interdependence leads to peace, economic realism indicates that the opposite is true. Economic realism states that increasing economic interdependence between countries increases their vulnerability and threatens their national security (Grieco, 1988). In the middle of the spectrum between these two theories lies the

pluralist theory. The pluralist theory proposes that governments are neither social welfare maximizers nor national security maximizers. Pluralists believe that a government's decisions primarily depend on the preferences of the organized interest groups in the country. An increase in economic interdependence could promote peace if it creates politically organized interest groups that will operate as peacekeepers to protect their financial interests (McDonald, 2009; Simmons, 2003).

The consensus on the empirical relationship between economic interdependence and interstate conflict is the same as that on its theoretical relationship; it does not exist. Theoretically, realists believe that economic interdependence leads to more instability (Mearsheimer, 1990; Waltz, 1970), while liberals believe that it can pacify interstate relations (Deutsch, et al., 1957; Doyle, 1997; Keohane, 1990). Empirically, scholars are finding varying results, as well. Some studies find a negative effect of economic interdependence on interstate conflict (Russett & Oneal, 2001; Tanious, 2019), while others find a positive impact (Barbieri, 2002). Still, others find no statistically significant relationship between interdependence and conflict (Kim & Rousseau, 2005).

One explanation for the discrepancy in the results is that the effect of economic interdependence on interstate conflict depends on the countries' polity type. Highly democratic countries are likely to have a larger conflict-reducing effect of interdependence compared to less democratic countries, while autocracies are more likely to initiate conflict as a result of an increase in their economic interdependence with their adversary (Park, 2018). Another explanation is that the variation of the effect depends on the disputed issue. If the disputed issue is a territory or a diplomatic reason, i.e., a *realpolitik* issue, then increasing economic interdependence will lower

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the likelihood of interstate conflict (Bell & Long, 2016). In contrast, if the disputed issue is humanitarian or economic, or an issue related to changing the other country's regime or policies, increasing economic interdependence will lead to an increase in interstate conflict (Bell & Long, 2016).

In this paper, I study whether increasing trade interdependence as part of a peace agreement reduces the likelihood of conflict between two countries that share a history of conflict over a contiguous territory. To be more specific, I study whether signing a free trade agreement along with a peace agreement lowers the likelihood of conflict when at least one of two conditions is met. First, the export-oriented groups from one country would benefit financially from having more peaceful relations with the other country. Second, the consumers in one country are highly dependent on imports from the other country. I start with a game-theoretic model built on the protection-for-sale model and the conflict model to explore the mechanism through which organized interest groups influence their government's foreign policy with the other country. I find the subgame perfect equilibrium, and from the equilibrium, I find the two conditions that would make the combination of a peace agreement and a free trade agreement that best route to minimize the probability of conflict. I test them empirically using a panel of 254 directed dyads from 1995 to 2010 and a linear probability model with fixed effects. The sample of countries used is limited to those that fought over a contiguous territory over the past two centuries, and the territory transferred from one country's homeland to the other.

Sellak (2019) investigates a similar research question to study the effect of economic interdependence on the likelihood of interstate conflicts between countries disputing over unclaimed, external territories rich in natural resources. This paper differs from Sellak (2019) in

several ways. First, I focus on conflict between countries that are disputing over a territory claimed by one of them and is part of its homeland. Second, since the territory is contiguous to both countries, any militarized conflict between the two happens on or near their homeland, eliminating the chance to have a proxy war, which is the type of conflict that one would expect in Sellak's theoretical model. One consequence of not having a proxy war is that the people, businesses, and infrastructure will be affected by the conflict, increasing the overall cost of a militarized conflict. Third, the primary assumption in my model is that the disputed territory has some sort of a sentimental value, it could have natural resources, but that is not necessary; thus, controlling the territory does not necessarily affect any of the countries' factors of production.

There are three main contributions of this paper. Theoretically, I show how the trade preferences of organized interest groups can influence the country's foreign policy with its rival. I also present the different conditions under which various trade agreements can minimize the likelihood of conflict. I find that a free trade agreement reduces the probability of conflict if export-oriented groups are in favor of liberalizing trade with the other country or when the consumers are highly dependent on imports from the other country, and therefore, are in favor of freer trade. Empirically, I show how signing a free trade agreement, along with a peace agreement, can lower the likelihood of conflict. I find empirical support to the hypothesis that signing a free trade agreement along with a peace agreement reduces the probability of conflict when consumers and export-oriented groups stand to benefit from liberalizing trade.

The remainder of the paper is organized as follows. In the second section, I outline the theoretical model, examine three different peace proposals, find the subgame perfect equilibrium. In the third section, I discuss the data sources and outline the empirical model. In the fourth section,

I discuss the results. In the fifth section, I conclude.

2.   Theoretical Framework[1]

Two small countries, $s \in \{A, B\}$, are disputing over a divisible object of value T. The object is a territory with historical importance to both countries but no direct impact on production. Assume that the countries are similar in their political and economic systems but may differ in their tastes, endowments, and political conditions. Due to the current dispute between the countries and sharing a history of conflict between them, no trade exists between countries A and B. The countries have two options to end their dispute: go to war, W, or negotiate, N.[2] If they negotiate, there are three proposed solutions; they can sign a peace treaty, PA, sign a peace treaty and a preferential trade agreement, PTA, or sign a peace treaty and a free trade agreement, FTA[3]. If they fight, the winner gets the territory while the loser gets nothing, and both governments bear a cost, $\mathcal{M}_s^W > 0$; $\mathcal{M}_s^{R-W} = 0$ where $R_{-w} = \{PA, PTA, FTA\}$. Assume that the cost of conflict is less than the value of the territory, $\mathcal{M}_s^W < T$. The peace treaty signed is an agreement to divide the territory among themselves. If the negotiations fail, there is still a possibility to go to war.

I use a four-stage game with incomplete information to study the decision-making process at both the domestic and international levels. The players of this game are the organized interest groups in both countries, L_A and L_B, and the governments of countries A and B. In the first stage, each interest group in each country will offer a contribution schedule, $C_{is}^R (p_s, h_{-s}) \lesseqgtr 0$, to its

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[1] The objective function in the theoretical model is built heavily on the protection-for-sale model that was developed by Grossman and Helpman to study the equilibrium structure of trade protection and the politics of trade agreements (Grossman & Helpman, 1994; 1995a; 1995b).
[2] The option to "go to war" also includes any militarized conflict, and not necessarily an all-out war.
[3] The difference here between the preferential trade agreement and the free trade agreement is that there will still be positive tariffs levied on certain or all products in a preferential trade agreement. On the other hand, no products will be exempted from trade liberalization under a free trade agreement.

government.[4] The contributions of most interest groups will be nonnegative; however, in some instances in which the members of an organized interest group share a political ideology, they could "punish" the government if they deemed its policies to be politically undesirable. Each contribution schedule is a continuous function of the interest group's home country's price vector that will be chosen based on the governments' decisions and the hostility level of the other government. After receiving the offers, the governments simultaneously decide whether to fight or negotiate a peaceful settlement. If at least one country chooses to go to war, both countries will fight. If both countries decide to negotiate, they can negotiate either a peace agreement only or a peace agreement accompanied by a preferential or a free trade agreement. The peace agreement negotiated will be an offer T_B^{R-W} that country A will make in the third stage.[5] In the fourth stage, country B will make its decision. If country B accepts, the dispute will end; B gets T_B^{R-W} of the territory, while A gets $T_A^{R-W} = T - T_B^{R-W}$. If B rejects, the countries will go to war. Figure 1 is the extensive form of this game.

[INSERT Figure 1 HERE]

Assume that individuals in each country s have similar utility functions. Assume that there is a numeraire good x_0 and nonnumeraire goods x_i, where $i = 1, ..., n$.[6] Assume that x_0 is manufactured by labor only, while x_i is manufactured by both labor and a sector-specific input. Furthermore, assume that each individual endures some cost due to war, $c_s^W > 0$.[7] On the other hand, if the government chooses a peaceful solution while the other country is being hostile, each

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[4] The contribution schedules are set noncooperatively. Also, assume that no interest group will make an offer to the foreign country.

[5] Assume that the territory is currently under A's control.

[6] "n" indexes the number of nonnumeraire goods in each country.

[7] For example, this could be due to being traumatized by war. In this case, $c_s^{PA} = c_s^{PTA} = c_s^{FTA} = 0$.

individual will face a cost of diplomatic normalization, $\eta_s^{R-W}(h_{-s}) \geq 0$, which is increasing in the

hostility level of the other country.[8] The utility function for each individual takes the following

form: $u_s = x_{0s} + \sum_{i=1}^{n_s} u_{is}(x_{is}) - c_s^R - \eta_s^R(h_{-s})$. Let the demand for each good be $x_{is} = d_{is}(p_{is})$

where $d_{is}(\cdot)$ is the inverse of $u'_{is}(x_{is})$ and p_{is} is the price of the nonnumeraire good i in country s

where $p_{is} = \tau_{is}\pi_i$; τ_{is} is the ad valorem trade tax or subsidy on good i imposed by country s and

π_i is the offshore price of good i. Let p_s be the price vector of all nonnumeraire goods in country

s; $p_s = (p_{1s}, p_{2s}, \dots, p_{ns})$. Consumer surplus in country s is $S_s(p_s) = \sum_i u_{is}[d_{is}(p_{is})] -$

$\sum_i p_{is}d_{is}(p_{is})$. Let $\Pi_{is}^R(p_{is})$ be the aggregate rent accruing to the specific factor used in producing

good x_i in country s and $y_{is}^R(p_{is}) = \Pi_{is}^{R\prime}(p_{is})$ is the domestic output of good x_i in country s.[9] Let

N_s be the population of country s. The per capita net revenue from all taxes and subsidies is

$r_s^R(p_s) = \sum_i (p_{is} - \pi_i)[d_{is}(p_{is}) - \frac{1}{N_s}y_{is}^R(p_{is})]$.[10]

Assume that in country s, in some exogenous set of sectors, denoted L_s, the specific-factor

owners have been able to overcome the free-riding problem and organize themselves into interest

groups. Also, assume that unorganized factor owners and any individual who does not own any of

the specific factors used in production refrain from making political contributions. Each interest

group $i \in L_s$ makes a campaign contribution, $C_{is}^R(p_s, h_{-s})$, to the incumbent government in their

country to influence their decision to negotiate with the rival country.[11] This can be perceived as

a common agency problem in which the government is an agent, and the interest groups are

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[8] This can be attributed to patriotism, and it increases as normal relations increase between the governments. I.e., holding the hostility level of the other country constant, $\eta_s^{FTA} > \eta_s^{PTA} > \eta_s^{PA} \geq \eta_s^W = 0$. $\eta_s^R(0) = 0$.

[9] For simplicity, let $\Pi_s^R = \sum_{i=1}^n \Pi_{is}^R(p_{is})$, $Y_s^R = \sum_{i=1}^n y_{is}^R(p_{is})$, $S_s^R = S_s^R(p_s)$, and $r_s^R = r_s^R(p_s)$.

[10] The functions in this paragraph were defined by Grossman and Helpman (1994). They are mainly used in this paper to help make the assumptions necessary to solve the model.

[11] For simplicity, let $C_s^R = \sum_i^{L_s} C_{is}^R(p_{is})$.

principals. Bernheim and Whinston (1986) propose a solution to this common agency problem by allowing each principal to offer a menu of bids to win a specific prize or a proportion of it, while each bidder considers the bids of everyone else. I follow the same framework in which I assume that interest groups compete to influence the government to choose their favorite policy to maximize their welfare.[12] Each organized interest group offers a "menu" of campaign contributions contingent on the proposed policies. The proposed policies, in this case, represent a continuum of prices that will be imposed post-negotiations or during the war. The prices will be affected by going to war, and by trade volume and terms of trade, if any trade were to occur, or by signing a free trade agreement. If the governments choose to go to war, a price vector p_s^W will be chosen as a result, and the government will receive any contributions that were offered contingent on choosing p_s^W. Similarly, if the governments decide to sign a free trade agreement, the price vector will be p^{FTA}, and each government will receive the contributions that were offered contingent on the government choosing p^{FTA} as its price vector.

On the other hand, if the governments decide to sign a peace treaty, the tariffs or subsidies will be imposed by each government noncooperatively. Additionally, if they sign a peace treaty and a trade agreement, the tariffs and subsidies will be negotiated and set cooperatively. In either case, each organized interest group in each country offers a contribution schedule to its government, and once the government chooses its preferred policy, it can collect the contributions offered contingent on that chosen policy.[13] Each offer in a contribution schedule cannot exceed

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[12] Grossman and Helpman's "protection-for-sale" model (1994) followed the same framework as in Bernheim and Whinston's "Menu Auction" paper (1986).
[13] Assume that an interest group can only give contribution offers to its own government but not to the government of the other country.

the additional income and profit that the interest group would gain if the government chooses the policy tied to this offer.

An organized interest group, i, wants to maximize the joint welfare of its members, $v_{is}^R = \omega_{is}^R(p_s, h_{-s}) - C_{is}^R(p_s, h_{-s})$. The welfare function of the interest group, i, is:

$$\omega_{is}^R(p_s, h_{-s}) = \ell_{is}^R + \Pi_{is}^R(p_{is}) + \alpha_{is} N_s [r_s^R(p_s) + S_s^R(p_s) - c_s^R - \eta_s^R(h_{-s})] + \mathcal{I}_{is}^R, \quad (1)$$

where ℓ_{is}^R is the labor income earned by members of interest group i and α_{is} is the proportion of the population that are members of group i in country s. $\mathcal{I}_{is}^R$ represents the political ideology of the interest group and their likelihood of supporting or opposing a peaceful resolution. For example, by looking at the political spectrum in Palestine and the government's relations with Israel, an interest group that belongs to the Palestinian National Initiative party is more likely to be pacific and support normal relations with Israel. In contrast, an interest group that belongs to Hamas is more likely to support militarized resistance and oppose normal relations with Israel. If an interest group does not have a shared political ideology, then $\mathcal{I}_{is}^R = 0$.

Each government's objective function is to maximize:

$$G_s^R = C_s^R + a_s \omega_s^R + T_s^R - \mathcal{M}_s^R, \quad (2)$$

where T_s^R is the proportion of the territory that each country s gets to keep after ending the dispute, and might vary with the method chosen to end the dispute. a_s is the weight of the aggregate welfare that the government in country s includes in its objective function, $a \in [0,1]$.[14] ω_s^R is the aggregate welfare in country s,

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[14] Think of a as how much the government values a dollar in the hands of the people as opposed to a dollar in the hands of the government itself (i.e., contributions gained by government, value of the territory that it gets to keep, or the amount of money the government would have to spend in case of war).

$$\omega_s^R = \omega_s^R(p_s, h_{-s}) = \ell_s^R + \Pi_s^R + N_s[r_s^R(p_s) + S_s^R(p_s) - c_s^R - \eta_s^R(h_{-s})], \quad (3)$$

where ℓ_s^R is the total labor income in country s and Π_s^R is the total profit gained by all owners of the factors of production, both organized and unorganized, in country s.

The probability of winning the war primarily depends on how prepared each country is to fight. Assuming that neither country knows how prepared the other country is, and given the assumption that the disputed territory has historical importance to each country, I assume that not doing anything to end the dispute is not an option.[15] Each government has to make a decision in the second stage of this game. If a war were to erupt, one of the countries would win the territory; the probability of A winning the war is $\rho \in [0,1]$. Assume that there is a fixed resource in each country that can be used either to produce civilian goods or military goods. In other words, if the governments decide to fight, they will have to take resources away from the production of consumption goods and use them to prepare for war. For simplicity, assume that this resource is labor. Since, in a state of war, more soldiers are needed, the military will recruit more soldiers either as volunteers or for mandatory service. Labor available for production will decrease. Consequently, total labor income will decline, or at least it will be less than the income if a peace treaty were to be signed; $\ell_s^W < \ell_s^{R-W}$.[16] Furthermore, $Y_s^W < Y_s^{R-W}$. Since there will be no trade between A and B if they fight, there will be less revenue from tariffs, and therefore, $r_s^W < r_s^{R-W}$. Also, since production will be lower, and there will be no trade with the other country, fewer

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[15] If a country elects to neither fight nor negotiate, that could send a signal to the opposing country that it is not prepared for war, and therefore, can be easily targeted and is more likely to lose the war. Also, the tension between the two governments will remain until some action to solve the dispute is taken.

[16] One might argue that in a state of war, more soldiers will be needed which can lower unemployment and increase total income. However, we are assuming that at the aggregate level, financial gains under peace exceed financial gains under war. We can also assume that soldiers, on average, get paid less than civilian laborers, but this depends on the nature of the country; this last assumption is not necessary here.

goods, in quantity and variety, will be available for domestic consumption. Hence, consumer surplus will be lower in a state of war; $S_s^W < S_s^{R-w}$.

Some factor owners might benefit from war; for instance, arms producers tend to make more profit in a state of war. Other interest groups might benefit from either the political instability or from having a relatively closed economy. As a result, if at least one of these groups is organized, then $C_s^W > 0$. On the other hand, many interest groups will lose if war were to break out; $\Pi_s^W <$ Π_s^{R-w}.[17] Thus, $C_s^{R-w} > 0$. Whether $C_s^W < C_s^{R-w}$ depends on which interest groups are organized and the political ideology of these organized interest groups.

By comparing the aggregate welfare if the governments solve the dispute peacefully and aggregate welfare if they fight, we get: $\omega_s^W < \omega_s^{R-w}$,

$$\Leftrightarrow \ell_s^W + \Pi_s^W + N_s[r_s^W(p_s) + S_s^W(p_s) - c_s^W]$$

$$< \ell_s^{R-w} + \Pi_s^{R-w} + N_s[r_s^{R-w}(p_s) + S_s^{R-w}(p_s) - \eta_s^R(h_{-s})]. \qquad (4)$$

The following are the objective functions for the governments of A and B if they fight:

$$G_A^W = C_A^W + a_A \omega_A^W + \rho T - \mathcal{M}_A^W, \qquad (5)$$

$$G_B^W = C_B^W + a_B \omega_B^W + (1-\rho)T - \mathcal{M}_B^W. \qquad (6)$$

Alternatively, if the countries decide to negotiate one of the peaceful proposals, $R_{-W} \in \{PA, PTA, FTA\}$, country A will make the first move and offer T_B^{R-w} to country B. B can accept the offer and end the dispute or reject it and go to war. If the offer is rejected, the countries can go back to negotiate a new offer proposed by B, and A would accept it or reject it. However, since the size of T is fixed, and there is a cost of war that is borne by each country if they fight, A will

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[17] Keep in mind that $\Pi_{is}^W(p_{is}) \geq \Pi_{is}^{R-w}(p_{is})$ for some i. However, $\sum_i^{n_s} \Pi_{is}^W(p_{is}) < \sum_i^{n_s} \Pi_{is}^{R-w}(p_{is})$.

want to avoid fighting. Therefore, A should make an offer such that B's expected payoff from signing the treaty would be at least as much as its expected payoff if it goes to war. If A and B sign the agreement, A's and B's objective functions will be the following:

$$G_A^{R-W} = C_A^{R-W} + a_A \omega_A^{R-W} + T - T_B^{R-W}, \tag{7}$$

$$G_B^{R-W} = C_B^{R-W} + a_B \omega_B^{R-W} + T_B^{R-W}. \tag{8}$$

Given the objectives functions above, B will accept an offer if and only if $G_B^{R-W} \geq G_B^W$:

$$Accept \Leftrightarrow \mathcal{M}_B^W \geq \left[C_B^W - C_B^{R-W}\right] + a_B\left[\omega_B^W - \omega_B^{R-W}\right] + (1-\rho)T - T_B^{R-W}, \tag{9}$$

$$Reject \Leftrightarrow \mathcal{M}_B^W < \left[C_B^W - C_B^{R-W}\right] + a_B\left[\omega_B^W - \omega_B^{R-W}\right] + (1-\rho)T - T_B^{R-W}. \tag{10}$$

The optimal offer, T_B^{R-W}, is calculated by solving the following maximization problem.

$$T_B^{R_*^-W} = argmax\left\{EG_A^{R-W}\right\}$$

$$= argmax\left\{G_A^W \times Pr(B\ rejects) + G_A^{R-W} \times Pr\ (B\ accepts)\right\} \tag{11}$$

The probability of conflict is calculated by plugging the optimal offer in the rejection rule.

$$Pr(conflict)^{R-W} = Pr\left(B\ rejects\ T_B^{R_*^-W}\right). \tag{12}$$

$$Pr(conflict)^{R-W}$$

$$= \frac{1}{2}\left[\left(C_B^W - C_B^{R-W}\right) + a_B\left(\omega_B^W - \omega_B^{R-W}\right) + \left(C_A^W - C_A^{R-W}\right)\right.$$

$$\left. + a_A\left(\omega_A^W - \omega_A^{R-W}\right) + 1 - \mathcal{M}_A^W\right] \tag{13}$$

Despite the similarities in the three peaceful proposals, they are still different in some respects. First, negotiating a peace-only agreement could lead to an increase in trade between the countries; however, the trade policies, in this case, will be set noncooperatively. Per Grossman and Helpman (1995b), when governments set trade policies noncooperatively, they impose an

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avoidable cost on each other; i.e., cooperatively setting tariffs leads to higher joint welfare for both countries. This suggests that negotiating trade policies along with a peace agreement could leave both governments better off. Nonetheless, even if a trade component was added to the peace negotiations, negotiating a free trade agreement will lead to different results than negotiating any other preferential trade agreement. Per the liberal peace theory, the more the countries trade, the less is the likelihood of conflict between them. On the other hand, free trade eliminates bilateral trade barriers between countries and, therefore, increases trade between them. This has two implications. First, with no trade barriers, the people in each nation would be able to buy goods at non-distorted prices; this would increase consumer surplus, $S_s^{FTA} > S_s^{PTA}$, but reduce per capita net tariff revenue, $r_s^{FTA} < r_s^{PTA}$. Free trade also leads to an increase in the variety of goods available for consumers, and it also leads to a rise in the trade volume. If we assume that trade creation caused by the free trade agreement exceeds the trade diversion that will result, then that would lead to an increase in ℓ_s and Π_s. $\omega_s^{FTA} > \omega_s^{PTA}$ if and only if $(\ell_s^{FTA} - \ell_s^{PTA}) + (\Pi_s^{FTA} - \Pi_s^{PTA}) + N_s(S_s^{FTA} - S_s^{PTA}) > N_s(r_s^{PTA} - r_s^{FTA}) - (\eta_s^{PTA} - \eta_s^{FTA})$. Second, because free trade eliminates trade barriers, industries that want to be protected would increase their contributions hoping to influence the government's decision. If sectors in favor of free trade know how strongly other interest groups are willing to lobby to avoid the losses that will be accrued if a free trade agreement is signed, they will also increase their lobbying, and thus their contributions, to influence the government to sign the agreement. Thus, C_s^{FTA} may or may not be larger than C_s^{PTA}.

2.1.   Subgame Perfect Equilibrium

To get the subgame perfect equilibrium (SPE), I reduce the game in Figure 1 to a three-stage game

by using the probability of B rejecting the optimal offer to find the expected payoff conditional on each offer. In this reduced game, the interest groups will offer contribution schedules contingent on the price vectors that would maximize the joint welfare of the group and the government's expected payoff if one of the optimal offers is chosen. Then, each government decides whether to fight or to negotiate one of these optimal offers. Finally, country A makes an offer if both countries decide to negotiate. Using backward induction, I find the SPE of this game. Starting from the last stage, A knows that they would maximize their expected payoff and induce B to accept the offer if they offer exactly $T_B^{R^*-W}$ when they negotiate any of the peaceful solutions. If they offer less than that, they increase the probability of B rejecting the offer. On the other hand, they do not have an incentive to offer anything larger than $T_B^{R^*-W}$, since this is the argmax of their expected payoff. Based on that, A chooses between three proposals; it can negotiate a peace agreement and offer T_B^{PA*}, or accompany that with a preferential trade agreement and offer T_B^{PTA*}, or a free trade agreement and offer T_B^{FTA*}. To determine which offer to make, A would have to compare its expected payoff across these three offers. Regardless of which offer A makes, B will always choose to negotiate this offer since B's preferences are considered when the optimal offers are chosen. Furthermore, A prefers negotiating over fighting whenever the joint gain in contributions and welfare for both countries under the peaceful resolution exceeds the military cost imposed on A if a war erupts.

The first part of the equilibrium is that each interest group $i \in L_S$ would offer a contribution schedule contingent on price vectors that would jointly maximize their governments' expected payoff, EG_S^R, and their welfare, which is affected by the hostility level of the foreign country. The second part is that B will always negotiate an optimal offer while A will only negotiate if the joint

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net gain in contributions and welfare exceeds the military cost of war. Table 1 summarizes the third part of the subgame perfect equilibrium under various scenarios and its effect on the probability of conflict.

The SPE under each one of these scenarios suggests that the size of the contribution schedules offered by the organized interest groups is critical if one is interested in minimizing the probability of conflict. The size of the contributions depends on the structure and organization of the industries in each country. Nonetheless, the preferences of these organized interest groups will determine the relative size of each contribution offered under each proposed agreement. The preferences depend on the orientation of the industries to which the interest groups belong.

[INSERT Table 1 HERE]

Based on the results of Table 1, a peace agreement accompanied by a free trade agreement minimizes the probability of interstate conflict, as opposed to a peace agreement only or a peace agreement with a non-reciprocal preferential trade agreement, if one of these three conditions is met. First, if consumers in country A are heavily dependent on imports from country B; thus, signing a free trade agreement would maximize aggregate welfare in country A. Second, if export-oriented groups in country A are major trading partners with country B, the welfare of A's export-oriented groups will be maximized under a free trade agreement and, therefore, their contributions will be maximized under this scenario. Third, A's export-oriented groups are major trading partners with B and aggregate welfare in A is maximized under a free trade agreement. The following three hypotheses are derived from these conditions:

Hypothesis 1: *If A's export-oriented groups are major trading partners with B, then signing a free trade agreement along with the peace agreement will minimize the probability of interstate conflict*

between countries A and B.

$$\lim_{FTA \to 1, PA \to 1} \frac{\partial \Pr(conflict)}{\partial C_{Ex_A}^{FTA}}$$

$$< \min\left\{ \lim_{FTA \to 0, PA \to 1} \frac{\partial Pr(conflict)}{\partial C_{Ex_A}^{PA}}, \lim_{PTA \to 1, PA \to 1} \frac{\partial Pr(conflict)}{\partial C_{Ex_A}^{PTA}} \right\}, \tag{14}$$

where $C_{Ex_A}^{R}$ is the sum of the campaign contributions offered by A's export-oriented groups.

Hypothesis 2: *If A's main imports of goods in which they do not have a comparative advantage producing are mainly imported from B, then signing a free-trade agreement along with the peace agreement minimizes the probability of interstate conflict between countries A and B.*

$$\lim_{FTA \to 1, PA \to 1} \frac{\partial \Pr(conflict)}{\partial \omega_A^{FTA}}$$

$$< \min\left\{ \lim_{FTA \to 0, PA \to 1} \frac{\partial Pr(conflict)}{\partial \omega_A^{PA}}, \lim_{PTA \to 1, PA \to 1} \frac{\partial Pr(conflict)}{\partial \omega_A^{PTA}} \right\}. \tag{15}$$

Hypothesis 3: *If A's export-oriented groups are main trade partners with B and A's consumers are heavily dependent on imports from B, then signing a free-trade agreement with B would minimize the probability of interstate conflict between A and B.*

$$\lim_{FTA \to 1, PA \to 1} \frac{\partial^2 \Pr(conflict)}{\partial \omega_A^{FTA} \partial C_{Ex_A}^{FTA}}$$

$$< \min\left\{ \lim_{FTA \to 0, PA \to 1} \frac{\partial^2 Pr(conflict)}{\partial \omega_A^{PA} \partial C_{Ex_A}^{PA}}, \lim_{PTA \to 1, PA \to 1} \frac{\partial^2 Pr(conflict)}{\partial \omega_A^{PTA} \partial C_{Ex_A}^{PTA}} \right\}. \tag{16}$$

3.   Empirical Model

3.1.   Data

The main assumption in the theoretical model is that *A* and *B* have had a militarized conflict over

a territory that both countries wanted to be part of their homeland. To ensure that I only include dyads that meet this requirement, I use version 6 of the Territorial Change dataset form the Correlates of War Project (Tir, et al., 1998). The dataset covers the period 1816 to 2018 and include all territorial changes between two political entities in which at least one of them is a recognized nation-state. I only include in my sample territorial changes between two recognized nation-states. Furthermore, I only include dyads in which the territorial change was done by force, either through conquest, annexation, or cession. I also limit the analysis to territories that are contiguous to both countries and, at some point, were part of the homeland of the gainer and loser. I exclude dyads whose territorial change was a result of gaining independence from a colonizer.

Using the directed-dyad sample of countries with a violent change in their territories since 1816, I use version 3.0 of the dyadic Militarized Interstate Dispute (MID) dataset from the Correlates of War Project, which covers 1816 to 2010 (Maoz, et al., 2018). The dataset includes incidents of interstate conflicts in which one country threatens, displays, or uses force against the other country in the dyad. The sample that I use in the analysis includes 254 directed-dyads.

The core question of this paper is whether signing a trade agreement along with a peace agreement would lower the likelihood of conflict between the countries. Therefore, I use version 19.1 of the Peace Agreement Dataset from the Uppsala Conflict Data Program (Pettersson & Öberg, 2020). The dataset contains a list of peace agreements for armed conflict that have been active between 1975 and 2018. From this dataset, I create a directed-dyadic dataset to identify dyads in my sample that are both signatories of at least one peace agreement in a given year. The peace agreement does not necessarily have to be signed in that year, but it has to be an active one. The peace agreement must include a provision for at least one of the following: territorial

provision, border demarcation, ceasefire, or withdrawal of foreign forces.

To identify whether the dyad is part of a bilateral trade agreement, I use the Gravity dataset from CEPII database (Head & Mayer, 2014; Head, et al., 2010). This is a directed-dyad dataset that covers the years 1948 to 2015. The dataset includes a binary variable that indicates the two countries are part of an active free-trade agreement (Head, et al., 2010) and one that indicates that the countries are part of a non-reciprocal preferential trade agreement (Baier & Bergstrand, 2009).

To test the aforementioned hypotheses, I need data on campaign contributions by export-oriented interest groups and aggregate welfare at the country level. Since I do not have data on either one, I opt for using the revealed comparative advantage index to identify export-oriented industries in the country as a proxy for their campaign contributions and create an index for import-dependency on the rival country as a proxy for aggregate welfare. To calculate the revealed comparative advantage, I use bilateral trade flows between the dyad and each country's trade volume with the rest of the world. I use disaggregated data on bilateral trade flows for more than 5000 products at the HS-6 Harmonized System classification. The data is derived from BACI dataset from CEPII database (Gaulier & Zignago, 2010).

[INSERT Table 2 HERE]

I include several political control variables in the analysis that can potentially affect interstate conflict. To measure the relative military power, I use the Composite Index of National Capabilities (CINC), which is based on urban and total population, iron and steel production, energy consumption, and military personnel and expenditure. CINC data are available on version 5.0 of the National Material Capabilities from the Correlates of War Project (Singer, 1987; Singer, et al., 1972). I control for any formal alliance between the countries; that includes defense pacts,

neutrality or non-aggression agreements, or entente agreements. I use version 4.1 of the Formal Alliance dataset from the Correlates of War Project (Gibler, 2009). I also control for the countries' democracy level, which is derived from the Polity IV dataset (Marshall, et al., 2017). I also control for several economic factors, such as GDP per capita, trade as a percentage of GDP, and the unemployment level. The economic indicators data are derived from the World Development Indicators database (World Bank, 2017). The summary statistics of all the variables are shown in Table 2.

3.2. Identification Strategy

Before testing the three hypotheses listed in Section 3.2.1 to find whether signing a free trade agreement along with a peace agreement minimizes the likelihood of conflict, it is worth looking at a baseline scenario where we can see the marginal effect of signing each agreement individually on interstate conflict. I estimate the following three equations using a linear probability model (LPM) with fixed effects.

$$\Pr\left(conflict_{ijt}|PA_{ijt}\right) = \alpha_0 + \alpha_1 PA_{ijt} + \lambda_{ij} + \lambda_t + \epsilon_1, \tag{17}$$

$$\Pr\left(conflict_{ijt}|PTA_{ijt}\right) = \beta_0 + \beta_1 PTA_{ijt} + \lambda_{ij} + \lambda_t + \epsilon_2, \tag{18}$$

$$\Pr\left(conflict_{ijt}|FTA_{ijt}\right) = \gamma_0 + \gamma_1 FTA_{ijt} + \lambda_{ij} + \lambda_t + \epsilon_3, \tag{19}$$

where $conflict_{ijt}$ is a binary variable that equals one if countries i and j are involved in a militarized interstate dispute against each other in year t. PA_{ijt} is an indicator variable that equals one if i and j are signatories of an active peace agreement in year t. PTA_{ijt} is an indicator variable that equals one if i and j have an active non-reciprocal preferential trade agreement in year t. FTA_{ijt} is an indicator variable that equals one if the countries are part of a free trade agreement in

year t. λ_{ij} and λ_t are dyad and year fixed effects.

Recall that Hypothesis 1 states that if the export-oriented groups in one country are the main trade partners with its rival, then signing a free trade agreement will minimize the probability of an interstate conflict. In order to test this hypothesis, first, I need to identify export-oriented groups. One way to do that is by calculating the revealed comparative advantage. I use the trade flow from BACI (Gaulier & Zignago, 2010), and I calculate the revealed comparative advantage at the product level following Cotterlaz et al. (2020):

$$RCA_{pi} = \frac{1000}{X_i^{total} + M_i^{total}}$$

$$\times \left[\left(X_i^p - M_i^p \right) - \left(X_i^{total} - M_i^{total} \right) \times \left(\frac{\left(X_i^p + M_i^p \right)}{X_i^{total} + M_i^{total}} \right) \right], \quad (20)$$

where X_i^{total} and M_i^{total} are country i's total value of exports and imports, respectively. X_i^p is country i's value of exports of product p to all of its trading partners and M_i^p is country i's value of imports of product p from all of its trading partners.

To find out whether, at the country level, export-oriented groups in A are major trading partners with B, I use the export data from the bilateral trade flow between A and B to weight the revealed comparative advantage of exports calculated in equation (20).

$$RCA_{ij}^{Ex} = \sum_p \tau_{pij}^{Ex} \times RCA_{pi}, \forall\, RCA_{pi} > 0, \quad (21)$$

where τ_{pij}^{Ex} is the value of p exported from country i to country j divided by country i's total exports of p to all of its trade partners. I only include $RCA_{pi} > 0$ when calculating RCA_{ij}^{Ex} to ensure that I am only using the products in which the country has revealed comparative advantage. I also exclude any arms or weaponry products or any of their complementary products from the analysis

since their producers will benefit financially from a militarized conflict between the countries.[18]

Using the export-oriented revealed comparative advantage index, I estimate the following equations using LPM to test Hypothesis 1:

$$\Pr\left(conflict_{ijt}|PA_{ijt}, RCA_{ijt}^{Ex}\right)$$

$$= \delta_0 + \delta_1 PA_{ijt} + \delta_2 RCA_{ijt}^{Ex} + \delta_3 PA_{ijt} RCA_{ijt}^{Ex} + \lambda_{ij} + \lambda_t + \epsilon_4, \tag{22}$$

$$\Pr\left(conflict_{ijt}|PA_{ijt}, PTA_{ijt}, RCA_{ijt}^{Ex}\right)$$

$$= \zeta_0 + \zeta_1 PA_{ijt} + \zeta_2 PTA_{ijt} + \zeta_3 RCA_{ijt}^{Ex} + \zeta_4 PA_{ijt} PTA_{ijt}$$

$$+ \zeta_5 PA_{ijt} PTA_{ijt} RCA_{ijt}^{Ex} + \lambda_{ij} + \lambda_t + \epsilon_5, \tag{23}$$

$$\Pr\left(conflict_{ijt}|PA_{ijt}, FTA_{ijt}, RCA_{ijt}^{Ex}\right)$$

$$= \theta_0 + \theta_1 PA_{ijt} + \theta_2 FTA_{ijt} + \theta_3 RCA_{ijt}^{Ex} + \theta_4 PA_{ijt} FTA_{ijt} + \theta_5 PA_{ijt} FTA_{ijt} RCA_{ijt}^{Ex} \tag{24}$$

$$+ \lambda_{ij} + \lambda_t + \epsilon_6.$$

If Hypothesis 1 is true, then:

$$\left(\theta_1 + \theta_4 + \theta_5 RCA_{ijt}^{Ex}\right) < \min\left\{\left(\delta_1 + \delta_3 RCA_{ijt}^{Ex}\right), \left(\zeta_1 + \zeta_4 + \zeta_5 RCA_{ijt}^{Ex}\right)\right\}. \tag{25}$$

Hypothesis 2 states that if A's main imports in which they have a comparative disadvantage producing are imported mainly from B, then signing a free-trade agreement, along with a peace agreement, minimizes the probability of interstate conflict. To test this hypothesis, I use the value of imports from the bilateral trade flow between A and B to weigh the revealed comparative advantage of imports calculated in equation (20).

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[18] The excluded arms and weaponry products are:
1. Arms and ammunition and their parts and accessories (chapter 93 of the HS products);
2. Percussion caps, detonators, and signaling flares (chapter 36 of the HS products);
3. Armored fighting vehicles (heading 8710 of the HS products);
4. Telescopic sights and optical devices suitable for use with arms (chapter 90 of the HS products).

$$RCA_{ij}^{Im} = \sum_{p} \tau_{pij}^{Im} \times RCA_{pi}, \forall\ RCA_{pi} < 0, \tag{26}$$

where τ_{pij}^{Im} is the value of p imported by country i from country j divided by country i's total imports of p from all of its trade partners. I only include products with $RCA_{pi} < 0$ as these are the heavily imported products that country i does not have a comparative advantage in producing. Therefore, these products' consumers will be better off under a free trade agreement with the exporter country. Using the weighted index calculated in equation (26), I estimate the following equations using LPM to test Hypothesis 2:

$$\Pr(conflict_{ijt}|PA_{ijt}, RCA_{ijt}^{Im})$$
$$= \iota_0 + \iota_1 PA_{ijt} + \iota_2 RCA_{ijt}^{Im} + \iota_3 PA_{ijt}RCA_{ijt}^{Im} + \lambda_{ij} + \lambda_t + \epsilon_7, \tag{27}$$

$$\Pr(conflict_{ijt}|PA_{ijt}, PTA_{ijt}, RCA_{ijt}^{Im})$$
$$= \kappa_0 + \kappa_1 PA_{ijt} + \kappa_2 PTA_{ijt} + \kappa_3 RCA_{ijt}^{Im} + \kappa_4 PA_{ijt}PTA_{ijt} \tag{28}$$
$$+ \kappa_5 PA_{ijt}PTA_{ijt}RCA_{ijt}^{Im} + \lambda_{ij} + \lambda_t + \epsilon_8,$$

$$\Pr(conflict_{ijt}|PA_{ijt}, FTA_{ijt}, RCA_{ijt}^{Im})$$
$$= \mu_0 + \mu_1 PA_{ijt} + \mu_2 FTA_{ijt} + \mu_3 RCA_{ijt}^{Im} + \mu_4 PA_{ijt}FTA_{ijt} \tag{29}$$
$$+ \mu_5 PA_{ijt}FTA_{ijt}RCA_{ijt}^{Im} + \lambda_{ij} + \lambda_t + \epsilon_9.$$

If Hypothesis 2 is true, then

$$(\mu_1 + \mu_4 + \mu_5 RCA_{ijt}^{Ex}) < \min\{(\iota_1 + \iota_3 RCA_{ijt}^{Ex}), (\kappa_1 + \kappa_4 + \kappa_5 RCA_{ijt}^{Ex})\}. \tag{30}$$

Hypothesis 3 states that if A's export-oriented groups are main trade partners with B, and A's goods are heavily dependent on imports from B, then signing the free trade agreement with B minimizes the likelihood of interstate conflict. To test this hypothesis, I estimate the following

equations using LPM:

$$\Pr\left(conflict_{ijt} | PA_{ijt}, RCA_{ijt}^{Ex}, RCA_{ijt}^{Im}\right)$$

$$= \xi_0 + \xi_1 PA_{ijt} + \xi_2 RCA_{ijt}^{Ex} + \xi_3 RCA_{ijt}^{Im} + \xi_3 PA_{ijt} RCA_{ijt}^{Ex} RCA_{ijt}^{Im} \tag{31}$$

$$+ \lambda_{ij} + \lambda_t + \epsilon_{10},$$

$$\Pr\left(conflict_{ijt} | PA_{ijt}, PTA_{ijt}, RCA_{ijt}^{Ex}, RCA_{ijt}^{Im}\right)$$

$$= \sigma_0 + \sigma_1 PA_{ijt} + \sigma_2 PTA_{ijt} + \sigma_3 RCA_{ijt}^{Ex} + \sigma_4 RCA_{ijt}^{Im} + \sigma_5 PA_{ijt} PTA_{ijt} \tag{32}$$

$$+ \sigma_6 PA_{ijt} PTA_{ijt} RCA_{ijt}^{Ex} RCA_{ijt}^{Im} + \lambda_{ij} + \lambda_t + \epsilon_{11},$$

$$\Pr\left(conflict_{ijt} | PA_{ijt}, FTA_{ijt}, RCA_{ijt}^{Ex}, RCA_{ijt}^{Im}\right)$$

$$= \psi_0 + \psi\theta_1 PA_{ijt} + \psi_2 FTA_{ijt} + \psi_3 RCA_{ijt}^{Ex} + \psi_4 RCA_{ijt}^{Im} + \psi_5 PA_{ijt} FTA_{ijt} \tag{33}$$

$$+ \psi_6 PA_{ijt} FTA_{ijt} RCA_{ijt}^{Ex} RCA_{ijt}^{Im} + \lambda_{ij} + \lambda_t + \epsilon_{12}.$$

If hypothesis 3 is true, then

$$\left(\psi_1 + \psi_5 + \psi_6 RCA_{ijt}^{Ex} RCA_{ijt}^{Im}\right)$$

$$< \min\left\{\left(\xi_1 + \xi_3 RCA_{ijt}^{Ex} RCA_{ijt}^{Im}\right), \left(\sigma_1 + \sigma_5 + \sigma_6 RCA_{ijt}^{Ex} RCA_{ijt}^{Im}\right)\right\}. \tag{34}$$

4.   Results

Table 3 shows the results of the baseline regressions – equations (17) to (19). It shows that signing a peace agreement lowers the likelihood of conflict between countries disputing over a contiguous territory by at least 21 percent, significant at the 5 percent level. Signing a free trade agreement also lowers the likelihood of conflict by up to 5 percent, significant at the 5 percent significance level; the effect becomes statistically insignificant when controlling for the political and economic indicators, such as relative military power, formal alliance, democracy level, GDP per capita, trade as a percentage of GDP, and the unemployment level. Signing a non-reciprocal preferential trade

agreement has no statistically significant effect on interstate conflict between the countries.

[INSERT Table 3 HERE]

The results support Hypothesis 1, which states that if A's export-oriented groups are major trading partners with country B, the likelihood of conflict between the two countries will be minimized under a free trade agreement. As predicted in the inequality (25), signing a free trade agreement along with the peace agreement lowers the likelihood of conflict by up to 23 percent, while signing the peace agreement alone lowers the likelihood of conflict by 21 percent. Signing a non-reciprocal preferential trade agreement along with the peace agreement does not have a statistically significant effect on conflict. Table 4 shows the results of Hypothesis 1.

[INSERT Table 4 HERE]

The results also support Hypothesis 2 that if consumers in A are highly dependent on imports from B, then signing a free trade agreement with B will minimize the probability of conflict. As the inequality in (30) predicts, signing a free trade agreement and a peace agreement minimizes the likelihood of conflict when the country is heavily dependent on imports from its rival. The probability of a militarized conflict declines by up to 18 percent, significant at the 5 percent level. In contrast, there is no statistically significant effect of signing a peace agreement and a preferential trade agreement, or only a peace agreement while the country is highly dependent on imports from its rival. The results of Hypothesis 2 are shown in Table 5.

[INSERT Table 5 HERE]

The results in Table 6 support Hypothesis 3, which states that signing a free-trade agreement along with a peace agreement minimizes interstate conflict when the country's export-oriented groups are main trade partners with the rival and when it is heavily dependent on imports

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from the other country. Columns 5 and 6 of Table 6 show that under these two conditions, signing a free trade agreement lower the probability of conflict by up to 21 percent. In contrast, signing a peace agreement alone lowers it by up to 16 percent. Accompanying the peace agreement with a non-reciprocal preferential trade agreement does not have a statistically significant effect on interstate conflict.

[INSERT Table 6 HERE]

The overall results show that when the export-oriented industries and consumers benefit the most from a free-trade agreement, then signing a combination of a free-trade agreement and a peace agreement minimizes the likelihood of interstate conflict.

5.   Summary and Conclusion

In this paper, I investigate whether signing a free-trade agreement along with a peace agreement, as opposed to a non-reciprocal preferential trade agreement along with a peace agreement or only a peace agreement, lowers the likelihood of conflict between two countries disputing over a territory that was once part of each country's homeland. I develop a game-theoretic model built on the protection-for-sale and conflict models. The model incorporates the decision-making process at the domestic and interstate levels. Based on the model's subgame perfect equilibrium, I test empirically whether the combination of a free-trade and a peace agreement is the most effective in lowering the probability of conflict when one country's export-oriented groups are the main trade partners of the other, or if one country is heavily dependent on imports from the other country. I find support to the hypotheses that, under these aforementioned conditions, signing a free trade agreement in addition to the peace agreement will lower the likelihood of a militarized conflict between the countries by up to 23 percent.

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The results do not suggest that a free-trade agreement by itself is enough to reduce conflict. A peace agreement is still essential to reduce future conflicts, although a peace agreement by itself may not have a significant effect on reducing conflict either. To minimize the likelihood of conflict, it is optimal to sign both agreements. This, however, would be the optimal solution when aggregate welfare and the welfare of the export-oriented groups is maximized under the free-trade agreement. The theoretical results suggest that this may not be the case when import-competing interest groups are organized and powerful enough to influence the country's foreign policy. It would be interesting to explore this hypothesis empirically to see if signing a free trade agreement would still have a negative effect on interstate conflict even when the import-competing groups are politically powerful. Or, if having politically powerful interest groups that oppose the free trade agreement would distort the relations with the country's rival in an attempt to sabotage the free-trade agreement that hurts them financially; thus, signing the free trade agreement would backfire.
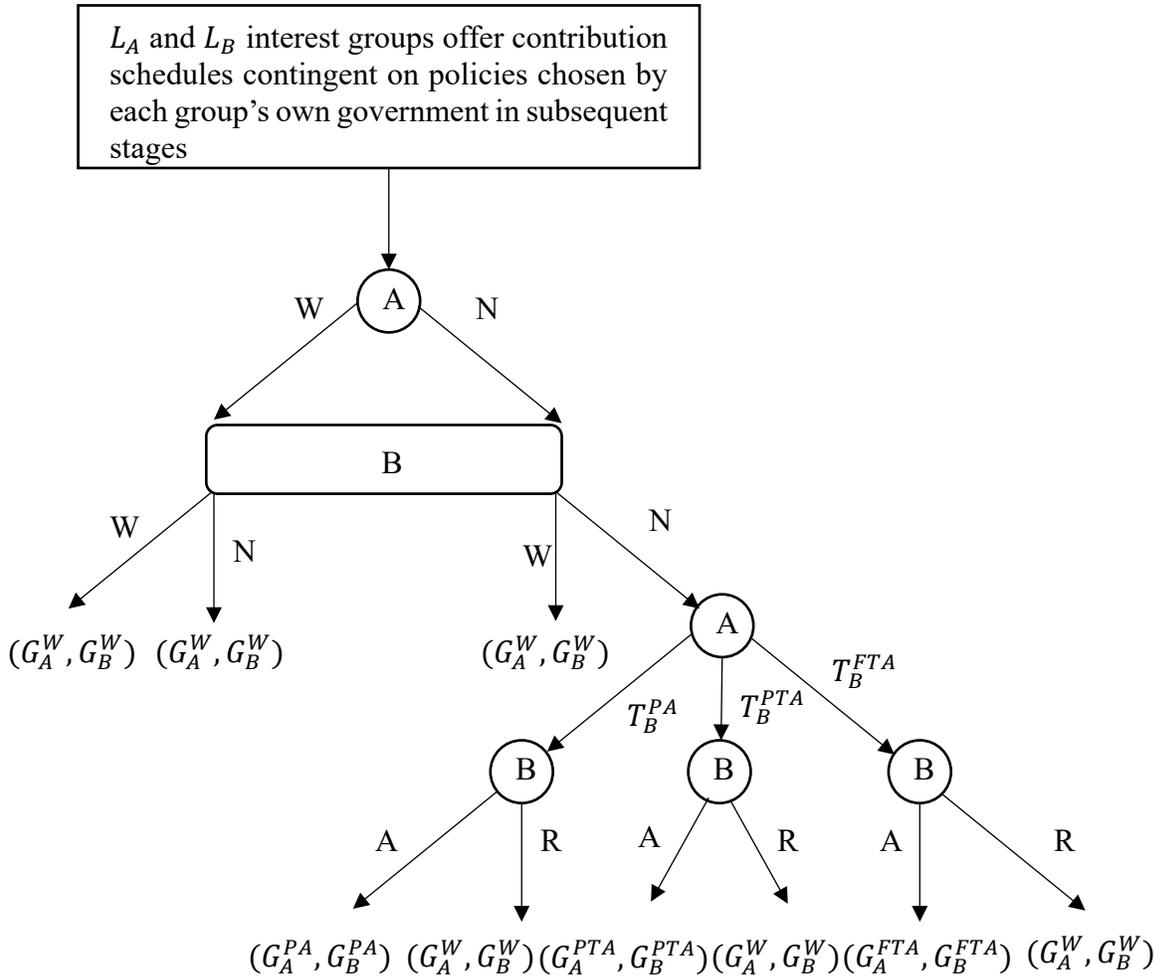
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Figures

Figure 1. Extensive-Form of the Noncooperative Bargaining Game

L_A and L_B interest groups offer contribution schedules contingent on policies chosen by each group's own government in subsequent stages

A

W   N

B

W   N   W   N

(G_A^W, G_B^W) (G_A^W, G_B^W) (G_A^W, G_B^W) A

T_B^{PA} T_B^{PTA} T_B^{FTA}

B   B   B

A   R   A   R   A   R

(G_A^{PA}, G_B^{PA}) (G_A^W, G_B^W) (G_A^{PTA}, G_B^{PTA}) (G_A^W, G_B^W) (G_A^{FTA}, G_B^{FTA}) (G_A^W, G_B^W)

Tables

Table 1. Preferred Peace Proposal Under Different Scenarios

Preferred proposal	Scenario	Impact on the probability of conflict
Free Trade Agreement (FTA)	Welfare and contributions are maximized under the FTA	$\Pr(conflict)^{FTA}$ $< \min \{\Pr(conflict)^{PTA}, \Pr(conflict)^{PA}\}$
	Welfare is maximized under the FTA, but interest groups are in favor of the PTA	$\Pr(conflict)^{FTA} < \Pr(conflict)^{PA}$ $\Pr(conflict)^{FTA} < \Pr(conflict)^{PTA}$ if the gain in welfare is significantly larger than the loss in contributions
	Contributions are maximized, but aggregate welfare is not	$\Pr(conflict)^{FTA} <$ $\min\{\Pr(conflict)^{PTA}, \Pr(conflict)^{PA}\}$ if $\omega_s^{FTA} > \omega_s^{PA}$ and if the gain in contributions is significantly larger than the loss in welfare
Preferential Trade Agreement (PTA)	Welfare and contributions are maximized under a PTA	$\Pr(conflict)^{PTA}$ $< \min\{\Pr(conflict)^{FTA}, \Pr(conflict)^{PA}\}$
	Welfare is maximized, but interest groups are in favor of the FTA	$\Pr(conflict)^{PTA} < \Pr(conflict)^{PA}$ $\Pr(conflict)^{PTA} < \Pr(conflict)^{FTA}$ if the gain in welfare is significantly larger than the loss in contributions
Peace Agreement (PA)	Contributions are maximized, but aggregate welfare is not	$\Pr(conflict)^{PA} <$ $\min\{\Pr(conflict)^{FTA}, \Pr(conflict)^{PTA}\}$ if the gain in contributions is significantly larger than the loss in welfare

Table 2. Summary Statistics

VARIABLES	(1) N	(2) Mean	(3) Std. Dev.	(4) Min	(5) Max
Panel A. Interstate Conflict					
1 = Incident of interstate conflict	4,224	0.112	0.315	0	1
Panel B. Peace and Trade Agreements					
1 = Peace agreement signed	4,224	0.0227	0.149	0	1
1 = Free-trade agreement signed	4,224	0.271	0.445	0	1
1 = Non-reciprocal preferential trade agreement	4,224	0.0571	0.232	0	1
Panel C. Revealed Comparative Advantage					
Relative comparative advantage, imports	3,615	-6.539	13.24	-199.3	0
Relative comparative advantage, exports	3,628	12.97	31.33	0	448.6
Panel D. Control Variables					
Country A's CINC	3,513	0.0163	0.0329	0.00004	0.208
Country B's CINC	3,514	0.0163	0.0329	0.00004	0.208
Relative military power index	3,387	-0.0001	2.270	-7.411	7.411
Number of defense agreements signed	4,224	0.326	0.510	0	2
Number of neutrality treaties	4,224	0.0848	0.279	0	1
Number of nonaggression treaties	4,224	0.402	0.634	0	3
Number of entente agreements	4,224	0.431	0.612	0	2
Number of formal alliance treaties	4,224	1.243	1.626	0	6
1 = Formal alliance between A and B	4,224	0.431	0.495	0	1
Country A's Polity IV score	3,050	5.631	5.947	-10	10
Country B's Polity IV score	3,046	5.659	5.922	-10	10
1 = A is a democracy	3,050	0.748	0.434	0	1
1 = B is a democracy	3,046	0.750	0.433	0	1
A's GDP per capita [in thousands]	3,424	11.63	13.25	0.112	64.18
A's trade as a percentage of its GDP	3,472	71.17	34.35	0.167	343.6
A's unemployment level	3,558	9.231	6.030	0.398	37.25

Table 3. Baseline: Marginal Effect on the Probability of Interstate Conflict

VARIABLES	(1) PA	(2) PA	(3) PA + PTA	(4) PA + PTA	(5) PA + FTA	(6) PA + FTA
1 = Peace agreement signed	-0.2**	-0.224*				
	(0.103)	(0.115)				
1 = Non-reciprocal preferential trade agreement			0.0524	-0.00455		
			(0.0402)	(0.0373)		
1 = Free-trade agreement signed					-0.04**	-0.0142
					(0.0171)	(0.0267)
Relative military power index		-0.00721		-0.00480		-0.00461
		(0.0629)		(0.0631)		(0.0626)
1 = Formal alliance between A and B		-0.0830		-0.0826		-0.0831
		(0.0532)		(0.0529)		(0.0533)
1 = A is a democracy		-0.088**		-0.099**		-0.098**
		(0.0363)		(0.0400)		(0.0399)
1 = B is a democracy		-0.10***		-0.09**		-0.089**
		(0.0370)		(0.0393)		(0.0392)
A's GDP per capita [in thousands]		-0.00269		-0.00267		-0.00308
		(0.00200)		(0.00198)		(0.00256)
A's trade as a percentage of its GDP		0.000583		0.000522		0.000495
		(0.00076)		(0.00078)		(0.00074)
A's unemployment level		-0.008**		-0.007**		-0.007**
		(0.00330)		(0.00336)		(0.00326)
Observations	4,224	2,274	4,224	2,274	4,224	2,274
Dyad Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 4. Hypothesis 1: Marginal Effect on the Probability of Interstate Conflict

VARIABLES	(1) PA	(2) PA	(3) PA + PTA	(4) PA + PTA	(5) PA + FTA	(6) PA + FTA
1 = Peace agreement signed	-0.206** (0.105)	-0.206** (0.100)	-0.0298 (0.105)	-0.0762 (0.102)	-0.234** (0.108)	-0.221** (0.104)
1 = Non-reciprocal preferential trade agreement			0.0526 (0.0427)	-0.0128 (0.0370)		
1 = Free-trade agreement signed					-0.051*** (0.0173)	-0.0185 (0.0266)
Relative comparative advantage, exports	0.00001 (0.00029)	-0.00004 (0.0003)	0.000327 (0.00032)	0.000287 (0.000333)	0.000134 (0.000391)	-8.86e-05 (0.000268)
Relative military power index		-0.00767 (0.0630)		-0.00893 (0.0640)		-0.00675 (0.0626)
1 = Formal alliance between A and B		-0.0840 (0.0532)		-0.0827 (0.0524)		-0.0835 (0.0536)
1 = A is a democracy		-0.087** (0.0362)		-0.0842** (0.0355)		-0.0858** (0.0354)
1 = B is a democracy		-0.10*** (0.0371)		-0.0983** (0.0383)		-0.0952** (0.0396)
A's GDP per capita [in thousands]		-0.00259 (0.002)		-0.00264 (0.00196)		-0.00302 (0.00259)
A's trade as a percentage of its GDP		0.000565 (0.0008)		0.000512 (0.000775)		0.000501 (0.000735)
A's unemployment		-0.007** (0.0033)		-0.0073** (0.00329)		-0.0071** (0.00325)
Observations	3,628	2,268	3,628	2,268	3,628	2,268
Dyad Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Table 5. Hypothesis 2: Marginal Effect on the Probability of Interstate Conflict

VARIABLES	(1) PA	(2) PA	(3) PA + PTA	(4) PA + PTA	(5) PA + FTA	(6) PA + FTA
1 = Peace agreement signed	-0.131 (0.0997)	-0.0865 (0.0897)	0.0596 (0.146)	0.0397 (0.123)	-0.182** (0.0869)	-0.129* (0.0783)
1 = Non-reciprocal preferential trade agreement			0.0798* (0.0412)	0.0125 (0.0335)		
1 = Free-trade agreement signed					-0.0508*** (0.0174)	-0.0200 (0.0270)
Relative comparative advantage, imports	-0.000388 (0.00055)	-0.00122** (0.000554)	-0.00220** (0.000987)	-0.00266*** (0.00101)	-0.000750 (0.000834)	-0.00190** (0.000785)
Relative military power index		-0.00386 (0.0639)		-0.00608 (0.0659)		0.00138 (0.0639)
1 = Formal alliance between A and B		-0.0876 (0.0548)		-0.0856 (0.0539)		-0.0922* (0.0541)
1 = A is a democracy		-0.0903** (0.0358)		-0.0875** (0.0348)		-0.0876** (0.0342)
1 = B is a democracy		-0.104*** (0.0367)		-0.102*** (0.0378)		-0.0971** (0.0389)
A's GDP per capita [in thousands]		-0.00270 (0.00202)		-0.00275 (0.00199)		-0.00324 (0.00260)
A's trade as a percentage of its GDP		0.000607 (0.000792)		0.000532 (0.000800)		0.000529 (0.000753)
A's unemployment level		-0.00759** (0.00331)		-0.00776** (0.00330)		-0.00704** (0.00326)
Observations	3,615	2,259	3,615	2,259	3,615	2,259
Dyad Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 6. Hypothesis 3: Marginal Effect on the Probability of Interstate Conflict

VARIABLES	(1) PA	(2) PA	(3) PA + PTA	(4) PA + PTA	(5) PA + FTA	(6) PA + FTA
1 = Peace agreement signed	-0.165* (0.0907)	-0.141* (0.0797)	0.0954 (0.0857)	0.0396 (0.0910)	-0.208** (0.0841)	-0.175** (0.0705)
1 = Non-reciprocal PTA			0.0720* (0.0412)	0.00341 (0.0341)		
1 = Free-trade agreement signed					-0.050*** (0.0176)	-0.0194 (0.0264)
Relative comparative advantage, exports	-0.0002 (0.0004)	-0.0006* (0.0004)	0.00005 (0.00039)	-0.00032 (0.00041)	-0.00005 (0.00039)	-0.00048 (0.00038)
Relative comparative advantage, imports	-0.0005 (0.0007)	-0.002*** (0.0006)	-0.0016* (0.00097)	-0.002*** (0.00091)	-0.000797 (0.000863)	-0.0022** (0.000872)
Relative military power index		-0.00591 (0.0640)		-0.00835 (0.0663)		0.00148 (0.0636)
1 = Formal alliance between A & B		-0.0892 (0.0549)		-0.0878 (0.0540)		-0.0930* (0.0542)
1 = A is a democracy		-0.093*** (0.0354)		-0.09*** (0.0344)		-0.091*** (0.0332)
1 = B is a democracy		-0.104*** (0.0371)		-0.102*** (0.0383)		-0.0961** (0.0398)
A's GDP per capita [in thousands]		-0.00261 (0.00201)		-0.00267 (0.00198)		-0.00346 (0.00266)
A's trade as a percentage of its GDP		0.000549 (0.0008)		0.000496 (0.0008)		0.000502 (0.000753)
A's unemployment		-0.0073** (0.00334)		-0.0075** (0.00333)		-0.0070** (0.00327)
Observations	3,603	2,253	3,603	2,253	3,603	2,253
Dyad Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1