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Building the Walls of International Trade after War: Can Dispute Resolution Mechanisms (DRMs) Help?

Felix Fosu

Selected presentation for the International Agricultural Trade Research Consortium's (IATRC's) 2023 Annual Meeting: The Future of (Ag-) Trade and Trade Governance in Times of Economic Sanctions and Declining Multilateralism, December 10-12, 2023, Clearwater Beach, FL.

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Building the Walls of International Trade after War: Can Dispute Resolution Mechanisms (DRMs) Help?

Felix Fosu

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2023 IATRC Annual Meeting

War, Tension and Trade

- International trade is important and welfare improving.
- But war and tension reduce trade:
Mansfield and Bronson, 1997; Anderton and Carter, 2001;
Heilmann, 2016; Karlsson and Hedberg, 2021.
- Because they create uncertainty that makes investors
hesitant to invest.

Question

- What can we do to shield international trade during periods of tension or war?
 - ▶ Can dispute resolution mechanisms help?
- DRMs (the WTO, FTA, and Diplomatic Exchanges) provide platforms for:
 - ▶ resolving trade-related disputes.
 - ▶ negotiating compensations and settlements.
 - ▶ and so may reduce uncertainty investors face.

Approach

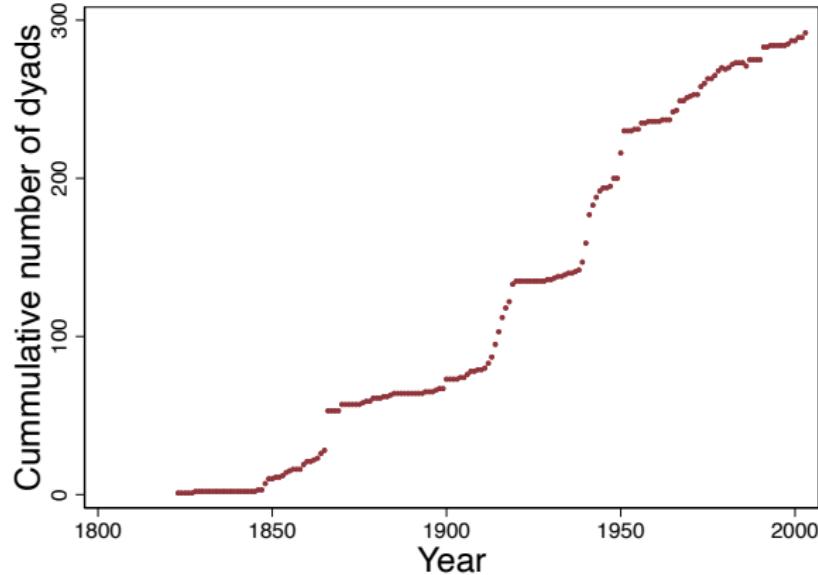


Fig. 1: Cumulative number of wars over 1823-2005

- ▶ Historically warring countries suffered from tensions and uncertainty.
- ▶ Did DRMs make any difference in terms of trade recovery?

Trade Between Historically Warring Countries

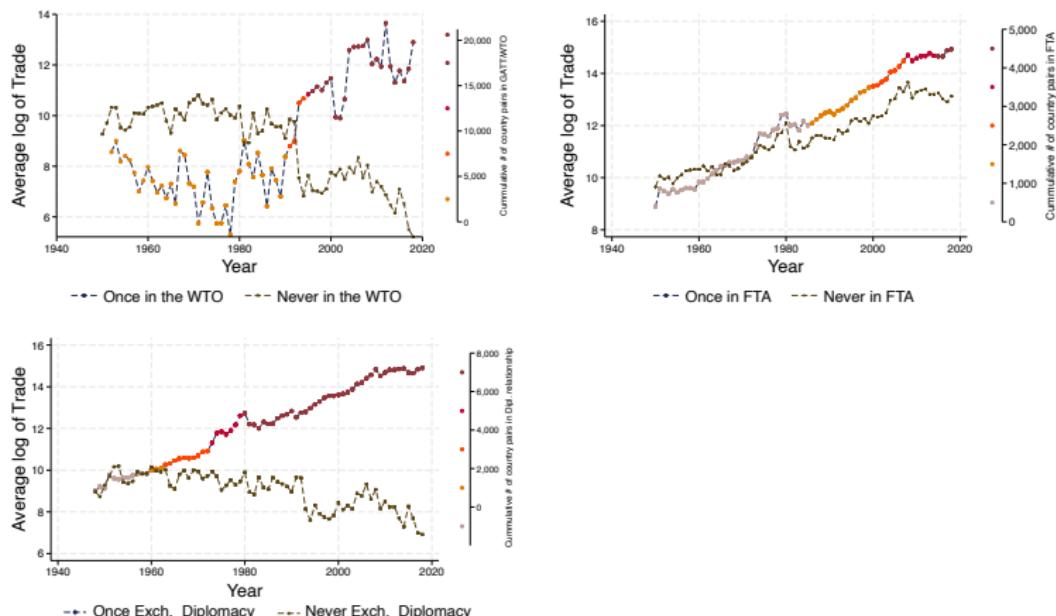


Fig. 2: Trade Trend

Literature & Contribution

- The WTO and Trade:

Rose, 2004; Haudooin, Kucik and Pelc, 2016; Shin and Ahn, 2019; Buthe and Milner, 2008; Carnegie, 2014.

- FTAs and Trade:

Magee, 2008; Eicher and Henn, 2011; Eicher et al., 2012; Ghost and Yamarik, 2004; Anderson and Yotov, 2016; Cheong et al., 2015; Egger and Larch, 2008; Baier and Bergstrand, 2004.

- Diplomacy and Trade:

Pollins', 1989; Reuveny and Kang, 1996; Rose, 2007; Nitsch, 2007; Travis and Chang, 2012; Fuchs and Klann, 2013; Mityakov et al., 2013; Cucu and Panon, 2020; Rose, 2007.

Hypothesis

Among historically warring countries, country pairs that enter the WTO, an FTA, or diplomatic exchanges will transition faster to normal trade relations than those that do not.

Theoretical Perspective

- The model features multiple countries and multiple firms.
- Each country pair belongs to one of these three regimes at any point in time:
 - ▶ has a history of war but no DRM.
 - ▶ has a DRM but no history of War
 - ▶ has a history and a DRM.
- History of war increases uncertainty, but the presence of DRM reduces it.
- To export into the foreign market, firms pay an entry cost that is irrecoverable.

Proposition

History of war reduces trade, but the presence of DRM mitigates trade friction of war and boosts trade.

Empirical Model

A baseline log-linear gravity equation is specified as:

$$\ln(Y_{ijt}) = \alpha_0 + \alpha_1 War_{ijt} + \alpha_2 DRM_{ijt} + \alpha_3 (War_{ijt} \times DRM_{ijt}) + X'_{ijt} \beta + X'_{it} \psi + X'_{jt} \gamma + \theta_t + v_{ij} + \epsilon_{ijt}, \quad (1)$$

Expectations:

$$\alpha_1 < 0; \alpha_2 > 0; \alpha_3 > 0.$$

Data Source

- ▶ Trade Dataset: IMF DoT dataset (1948 - 2020), Fouquin and Hugot dataset (1827 - 2016).
- ▶ Gravity Variables: CEPII (2021)
- ▶ War: Correlates of War Project (COW) (University of Michigan) from 1816-2010.
- ▶ Diplomacy exchanges: Diplomatic Representation Data Codebook of International Future.
- ▶ RTA indicator: Mario Larch's Regional Trade Agreements Database from Egger and Larch (2008).

Data Summary

Table 1 Summary Statistics

	(1) All	(2) All with zeros	(3) War	(4) Dipl. Exch.	(5) FTA	(6) WTO
Number of observations	865,400	1,856,490	13,156	492,257	121,054	393,272
Number of country pairs	19,422	22,837	161	8,112	3,795	12,620
Number of countries	205	215	68	186	197	160
Diff. in mean of log imports			3.2***	1.2***	1.0***	0.4***
Diff. in mean of log GDP			1.6***	-0.9***	-0.1***	-0.0***
Diff. in mean of log population			0.7***	-0.8***	-0.3***	0.1***
Diff. in mean of log bilateral distance			-0.3***	0.1***	-0.5***	0.2***

Notes: Statistical significance * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Reported numbers are based on pair-year observations with non-missing bilateral trade and GDP data. The difference in means for each variable is calculated as the mean for the treated group (countries with history of war and DRM membership) before treatment minus the mean for the non-treated group (non-warring countries).

Results from Log-Linear Gravity Model

Table 2 Effect of War and DRM on Trade

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
War	-1.675*** (0.343)	-1.136*** (0.322)	-1.237*** (0.333)	-1.790*** (0.334)	-0.232 (0.339)	-0.041 (0.337)	0.021 (0.338)	-0.216 (0.339)
Diplomacy	0.002 (0.026)	0.013 (0.026)	0.017 (0.026)	0.012 (0.026)	0.164*** (0.024)	0.167*** (0.024)	0.167*** (0.024)	0.166*** (0.024)
FTA	0.369*** (0.021)	0.345*** (0.021)	0.362*** (0.021)	0.354*** (0.021)	0.343*** (0.020)	0.331*** (0.020)	0.340*** (0.020)	0.333*** (0.020)
Both WTO	0.353*** (0.049)	0.350*** (0.049)	0.325*** (0.049)	0.329*** (0.049)	0.143** (0.048)	0.140** (0.048)	0.138** (0.048)	0.138** (0.048)
War × Diplomacy	0.913*** (0.132)			0.564*** (0.127)	0.359*** (0.103)			0.204* (0.106)
War × FTA		0.848*** (0.095)		0.270** (0.115)		0.393*** (0.103)		0.224** (0.110)
War × Both WTO			1.193*** (0.097)	0.986*** (0.109)			0.309*** (0.073)	0.211*** (0.072)
Year FE	Yes	Yes	Yes	Yes	No	No	No	No
Importer-Year FE	No	No	No	No	Yes	Yes	Yes	Yes
Exporter-Year FE	No	No	No	No	Yes	Yes	Yes	Yes
Country-Pair FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Obs.	865400	865400	865400	865400	865400	865400	865400	865400
Adj. R^2	0.847	0.847	0.847	0.847	0.871	0.871	0.871	0.871

Notes: Statistical significance * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. OLS estimation of model (1) using data from 1948 to 2020. Standard errors in brackets are clustered at the country-pair level.

Event Study

$$\begin{aligned} \ln(Y_{ijt}) = & \alpha_0 + \alpha_1 War_{ijt} + \sum_{s=1}^{16} \delta_s DRM_{ijt-s} + \sum_{\rho=1}^{20} \delta_\rho DRM_{ijt+\rho} \\ & + \sum_{s=1}^{16} \vartheta_s (War_{ijt} \times DRM_{ijt-s}) + \sum_{\rho=1}^{20} \vartheta_\rho (War_{ijt} \times DRM_{ijt+\rho}) \\ & + X'_{ijt} \beta + X'_{it} \psi + X'_{jt} \gamma + \theta_t + v_{ij} + \epsilon_{ijt} \quad (2) \end{aligned}$$

Event Study: Results

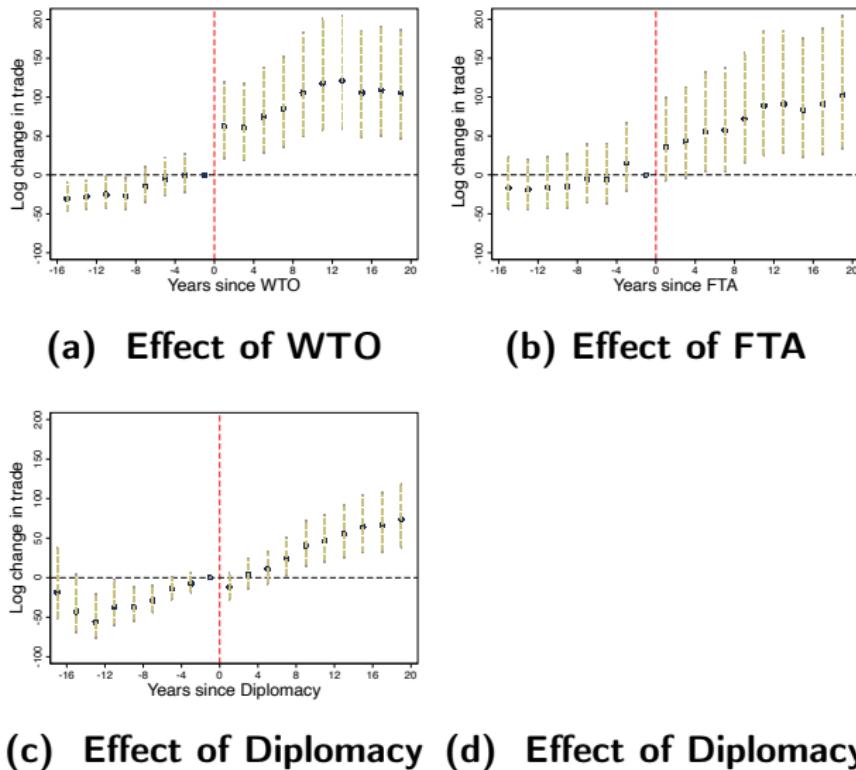


Figure 3. Dynamic effect of DRMs on the trade impact of war

Sensitivity Checks

- Selection of war years
 - ▶ Include only wars after: 1870, 1930, 1960.
- Zero Trade flows
 - ▶ Pseudo Poisson Maximum Likelihood (PPML) estimator.
 - ▶ PPML
- Alternate Mechanism
 - Power Difference
 - ▶ Power
 - Trade sanctions removal.
 - ▶ Sanction
- Continuous war measure
 - ▶ Number of Days
 - ▶ Days
 - ▶ Number of Deaths
 - ▶ Deaths
 - ▶ Level of Hostility
 - ▶ Hostility

Sensitivity Checks

- ▶ Placebo Test
- ▶ Selection on Observables
 - ▶ Matching Estimator - Entropy Balancing. ▶ EB
- Selections on Unobservables
 - ▶ Endogeneity: Generalized Synthetic Control Estimator.

Generalized Synthetic Control Method (GSCM)

The GSCM estimates the equation:

$$Y_{ijt} = \delta_{ijt} D_{ijt} + X'_{jt} \beta + X'_{it} \psi + \gamma'_{ijt} f_t + \theta_t + v_{ij} + \epsilon_{ijt}, \quad (3)$$

- ▶ Y_{ijt} is the dependent variable.
- ▶ D_{ijt} treatment indicator.
- ▶ X_{it} & X_{jt} includes time varying independent controls in the gravity model.
- ▶ f_t is a vector of unobserved common factors.

The average treatment effect is given by:

$$ATT_{t,t>T_0} = \frac{1}{N_{tr}} \sum_{ij \in \tau} [Y_{ijt}(1) - Y_{ijt}(0)] = \frac{1}{N_{tr}} \sum_{ij \in \tau} \delta_{ijt} \quad (4)$$

Results from GSCM Estimation

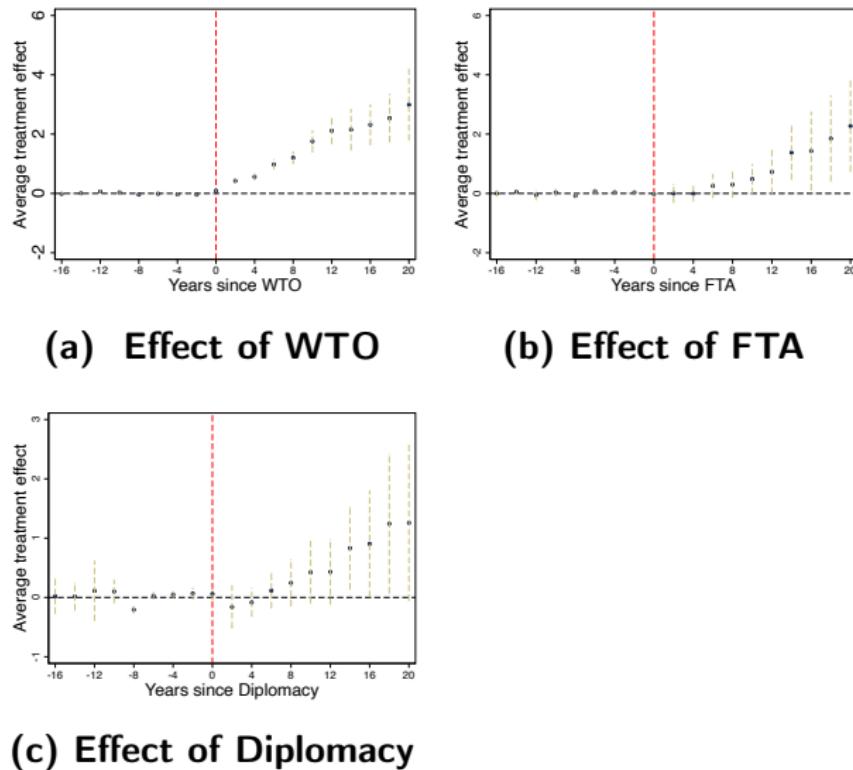
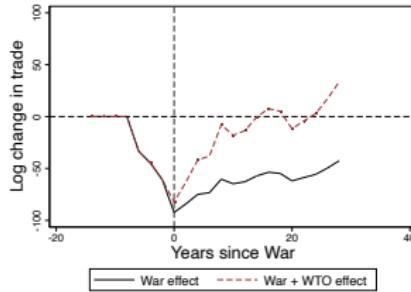
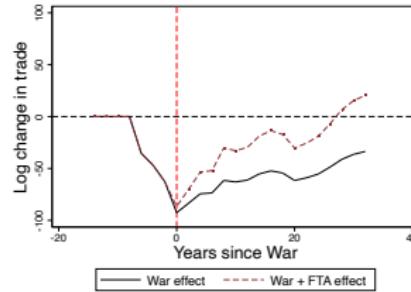


Fig. 4: Dynamic effect of DRMs, GSC method

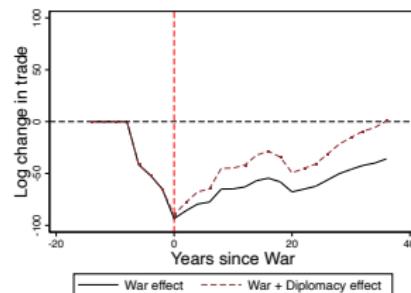
Recovery from Impact of War



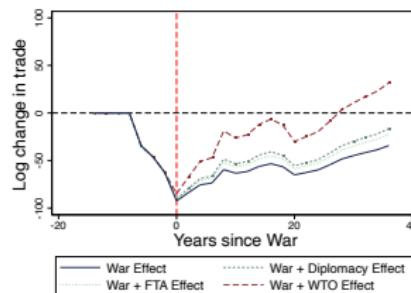
(a) Effect of War and the WTO



(b) Effect of War and FTA



(c) Effect of War and Diplomacy



(d) Effect of War and DRMs

Takeaway

- ▶ Trade is important, but war and tensions depress it.
- ▶ Mechanisms that reduce investors' uncertainty, such as DRMs, may help trade (as they have done so in the past).
- ▶ But that may require a DRM that is viewed as fair, non-discriminatory and trustworthy.

Thank you

Event Study

Return to Normal Trade Relation:

$$\ln(Y_{ijt}) = \alpha_0 + \alpha DRM_{ijt} + \sum_{\rho} \beta_w^{\rho} War_{ij,t-\rho} + \beta_{dw} War_{ijt} * DRM_{ijt} \\ + \beta X_{ijt} + \theta_t + \varphi_i + \varepsilon_j + v_{ij} + \epsilon_{ijt} \quad (5)$$

▶ Return

Entropy Balancing

The Entropy Balancing Technique

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
War	-1.670*** (0.492)	-1.680*** (0.324)	-1.888** (0.624)	-2.487*** (0.355)	-0.741*** (0.223)	-0.687*** (0.262)	-0.564** (0.286)	-0.953*** (0.221)
Diplomacy	-0.145 (0.179)	-0.099 (0.130)	-0.446 (0.445)	-0.094 (0.172)	-0.110 (0.161)	0.0497 (0.0856)	-0.326* (0.196)	-0.0180 (0.169)
FTA	0.147 (0.076)	0.204** (0.068)	0.261* (0.108)	0.205*** (0.058)	0.160*** (0.0471)	0.148*** (0.0359)	0.260*** (0.0548)	0.206*** (0.0394)
Both WTO	0.394*** (0.097)	0.282*** (0.069)	0.137 (0.113)	0.086 (0.069)	0.272** (0.112)	0.427*** (0.100)	0.148 (0.200)	0.241* (0.132)
War × Diplomacy	0.254 (0.251)			0.570*** (0.170)	0.147 (0.125)			0.0465 (0.118)
War × FTA		0.391*** (0.114)		0.211 (0.123)		0.293*** (0.0701)		0.164 (0.1163)
War × Both WTO			0.500*** (0.138)	0.425*** (0.115)			0.273*** (0.0770)	0.178*** (0.0505)
Year FE	Yes	Yes	Yes	Yes	No	No	No	No
Importer-Year FE	No	No	No	No	Yes	Yes	Yes	Yes
Exporter-Year FE	No	No	No	No	Yes	Yes	Yes	Yes
Country-Pair FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Obs.	865400	865400	865400	865400	865400	865400	865400	865400
Adj. R^2	0.935	0.920	0.869	0.908	0.968	0.963	0.932	0.947

Notes: Statistical significance * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. OLS estimation using data from 1948 to 2020. Standard errors in brackets are clustered at the country-pair level.

Poisson Pseudo-Maximum Likelihood Estimation

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
War	-0.976** (0.311)	-0.223 (0.147)	-0.276* (0.152)	-1.143*** (0.337)	-0.405** (0.188)	-0.0856 (0.0590)	-0.0357 (0.0503)	-0.508*** (0.0993)
Diplomacy	0.236*** (0.071)	0.342*** (0.102)	0.338*** (0.095)	0.255*** (0.072)	0.218*** (0.0610)	0.242*** (0.0234)	0.243*** (0.0238)	0.224*** (0.0224)
FTA	0.133** (0.043)	0.090 (0.048)	0.135*** (0.040)	0.105* (0.045)	0.0495 (0.0464)	0.0183 (0.0119)	0.0554*** (0.0103)	0.0185* (0.0109)
Both WTO	0.130 (0.100)	0.123 (0.100)	0.022 (0.090)	0.034 (0.091)	0.124** (0.0622)	0.118*** (0.0261)	0.0886*** (0.0273)	0.116*** (0.0272)
War×Diplomacy	0.922*** (0.284)			0.781** (0.275)	0.483*** (0.160)			0.350** (0.131)
War×FTA		0.285*** (0.089)		0.215** (0.085)		0.272*** (0.059)		0.230*** (0.051)
War×Both WTO			0.305*** (0.088)	0.261*** (0.085)			0.154*** (0.0517)	0.127** (0.049)
Year FE	Yes	Yes	Yes	Yes	No	No	No	No
Importer-Year FE	No	No	No	No	Yes	Yes	Yes	Yes
Exporter-Year FE	No	No	No	No	Yes	Yes	Yes	Yes
Country-Pair FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Obs.	1090902	1090902	1090902	1090902	1090902	1090902	1090902	1090902

Notes: Statistical significance * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in brackets are clustered at the country-pair level. PPML estimation of model (1).

▶ Return

Controlling for Power Difference

[Return](#)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Large Power	-0.139** (0.0687)	-0.104* (0.0540)	-0.161*** (0.0560)	-0.182*** (0.0691)	-0.0751 (0.0624)	-0.0458 (0.0447)	-0.0109 (0.0471)	-0.0599 (0.0638)
War	-1.512*** (0.391)	-1.123*** (0.366)	-1.148*** (0.366)	-1.707*** (0.365)	-0.262 (0.362)	-0.0293 (0.361)	0.0409 (0.359)	-0.252 (0.363)
Diplomacy	-0.0289 (0.0310)	-0.000570 (0.0302)	0.00243 (0.0302)	0.00234 (0.0309)	0.104*** (0.0285)	0.110*** (0.0277)	0.110*** (0.0277)	0.102*** (0.0285)
FTA	0.357*** (0.0214)	0.295*** (0.0226)	0.355*** (0.0213)	0.322*** (0.0227)	0.280*** (0.0205)	0.268*** (0.0216)	0.277*** (0.0205)	0.266*** (0.0216)
Both WTO	0.349*** (0.0234)	0.344*** (0.0233)	0.283*** (0.0241)	0.289*** (0.0241)	0.214*** (0.0533)	0.212*** (0.0534)	0.224*** (0.0539)	0.225*** (0.0538)
Large Power × Diplomacy	0.115** (0.0531)			-0.00170 (0.0525)	0.0366 (0.0529)			0.0576 (0.0528)
Large Power × FTA		0.300*** (0.0550)		0.169*** (0.0558)		-0.00123 (0.0497)		0.0271 (0.0502)
Large Power × WTO			0.281*** (0.0346)	0.257*** (0.0351)			-0.0850** (0.0357)	-0.0930** (0.0361)
War × Diplomacy	0.813*** (0.112)			0.483*** (0.105)	0.431*** (0.103)			0.247** (0.107)
War × FTA		0.849*** (0.106)		0.394*** (0.116)		0.434*** (0.109)		0.230** (0.117)
War × WTO			1.008*** (0.0988)	0.788*** (0.107)			0.339*** (0.0713)	0.247*** (0.0698)
Country-Pair FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Obsr.	723120	723120	723120	723120	723120	723120	723120	723120
Adj. R^2	0.853	0.853	0.853	0.853	0.876	0.876	0.876	0.876

Notes: Statistical significance * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. OLS estimation using data from 1948 to 2020. Standard errors in

Controlling for Hostility

▶ Return

	(1)	(2)	(3)	(4)
Hostility (Exporter)	-0.0364 (0.0450)	-0.0104 (0.0426)	-0.0607*** (0.0210)	-0.0333 (0.0216)
Hostility (Importer)	-0.0848 (0.0572)	-0.0828* (0.0469)	-0.0357* (0.0202)	-0.0319* (0.0191)
Diplomacy	-0.0108 (0.0262)	0.110*** (0.0244)	-0.0111 (0.0262)	0.110*** (0.0244)
FTA	0.434*** (0.0240)	0.482*** (0.0239)	0.437*** (0.0241)	0.482*** (0.0239)
Both WTO	0.333*** (0.0237)	0.117** (0.0513)	0.334*** (0.0237)	0.117** (0.0513)
Both GATT	0.131*** (0.0198)	0.0683* (0.0390)	0.131*** (0.0198)	0.0682* (0.0390)
Hostility (Exporter) × Diplomacy	-0.0512 (0.0511)	-0.00768 (0.0489)		
Hostility (Exporter) × FTA	0.00582 (0.0446)	-0.0309 (0.0452)		
Hostility (Exporter) × WTO	0.140*** (0.0484)	0.0176 (0.0512)		
Hostility (Importer) × Diplomacy	0.0386 (0.0614)	0.0610 (0.0508)		
Hostility (Importer) × FTA	0.0152 (0.0422)	-0.00765 (0.0420)		
Hostility (Importer) × WTO	0.110** (0.0471)	0.0766* (0.0455)		
Hostility Difference		-0.0250 (0.0541)	0.0263 (0.0444)	
Hostility Diff. × Diplomacy		0.0291 (0.0588)	0.0302 (0.0472)	
Hostility Diff. × FTA		0.0446 (0.0437)	-0.0306 (0.0416)	
Hostility Diff. × WTO		0.266*** (0.0501)	0.107** (0.0492)	
Year FE	Yes	No	Yes	No
Importer-Year FE	No	Yes	No	Yes
Exporter- Year FE	No	Yes	No	Yes
Country-Pair FE	Yes	Yes	Yes	Yes

Notes: Statistical significance * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. OLS estimation of model

Controlling for Trade Sanctions

▶ Return

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trade Sanction	0.00530 (0.278)	-0.385*** (0.0893)	-0.555*** (0.111)	-0.165 (0.281)	0.103 (0.189)	-0.219*** (0.0815)	-0.346*** (0.111)	0.0104 (0.196)
War	-1.474*** (0.363)	-0.941*** (0.341)	-1.045*** (0.341)	-1.620*** (0.343)	-0.264 (0.337)	-0.0507 (0.340)	0.0356 (0.332)	-0.217 (0.334)
War × Trade Sanction	-1.096 (0.988)	0.268 (0.258)	-0.189 (0.389)	-0.909 (0.924)	-0.776 (0.741)	-0.00778 (0.191)	-0.140 (0.319)	-0.693 (0.716)
War × Diplomacy	0.840*** (0.143)			0.464*** (0.140)	0.430*** (0.129)			0.219 (0.135)
Trade Sanction × Diplomacy	-0.361 (0.289)			-0.418 (0.274)	-0.357* (0.206)			-0.375* (0.198)
Ever Trade Sanction × Diplomacy	-0.0258 (0.120)			-0.0613 (0.118)	-0.0381 (0.102)			0.0132 (0.104)
War × Trade Sanction × Diplomacy	1.364 (1.086)			0.795 (1.072)	0.867 (0.766)			0.620 (0.786)
War × Ever Trade Sanction × Diplomacy	0.381 (0.361)			0.579 (0.385)	-0.180 (0.357)			0.0929 (0.382)
War × FTA	0.862*** (0.100)			0.336*** (0.120)	0.462*** (0.105)			0.228** (0.114)
Trade Sanction × FTA	0.267* (0.151)			0.142 (0.151)	-0.0809 (0.134)			-0.201 (0.133)
Ever Trade Sanction × FTA	0.174 (0.116)			0.105 (0.130)	-0.0564 (0.116)			0.0288 (0.124)
War × Trade Sanction × FTA	0.0208 (0.319)			-0.271 (0.343)	0.511* (0.280)			0.372 (0.279)
War × Ever Trade Sanction × FTA	-0.271 (0.332)			-0.491 (0.350)	-0.505 (0.312)			-0.304 (0.340)
War × WTO		1.167*** (0.0985)	0.945*** (0.115)			0.412*** (0.0798)	0.305*** (0.0801)	
Trade Sanction × WTO		0.420*** (0.150)	0.382** (0.152)			0.310** (0.146)	0.347** (0.149)	
Ever Trade Sanction × WTO		0.0798 (0.0837)	0.0815 (0.0843)			-0.180** (0.0764)	-0.184** (0.0784)	
War × Trade Sanction × wto		0.605 (0.498)	0.619 (0.541)			0.344 (0.379)	0.230 (0.400)	
War × Ever Trade Sanction × WTO		-0.184 (0.181)	-0.204 (0.172)			-0.450*** (0.173)	-0.376** (0.169)	

Notes: Statistical significance * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. OLS estimation using data from 1948 to 2020. Standard errors in brackets are clustered at the country-pair level.



Number of Deaths in Wars and DRM Effect [Return](#)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
War	-0.192 (0.280)	-0.173 (0.133)	-0.262* (0.139)	-0.454* (0.261)	-0.163 (0.229)	-0.0668 (0.139)	-0.109 (0.107)	-0.182 (0.224)
War × Log(Deaths)	-0.152*** (0.0445)	-0.104** (0.0403)	-0.0937** (0.0406)	-0.123*** (0.0444)	0.0233 (0.0440)	0.0326 (0.0407)	0.0424 (0.0409)	0.0293 (0.0438)
Diplomacy	0.00200 (0.0264)	0.0134 (0.0264)	0.0170 (0.0264)	0.0119 (0.0264)	0.165*** (0.0243)	0.167*** (0.0243)	0.168*** (0.0243)	0.167*** (0.0243)
FTA	0.368*** (0.0206)	0.346*** (0.0209)	0.362*** (0.0206)	0.355*** (0.0209)	0.343*** (0.0201)	0.330*** (0.0203)	0.340*** (0.0200)	0.332*** (0.0203)
Both WTO	0.346*** (0.0213)	0.343*** (0.0213)	0.326*** (0.0214)	0.330*** (0.0214)	0.142*** (0.0477)	0.140*** (0.0478)	0.136*** (0.0478)	0.137*** (0.0478)
War × Diplomacy	0.271 (0.293)		0.118 (0.280)	0.0346 (0.235)			0.131 (0.243)	
War × Log(Deaths) × Diplomacy	0.0505** (0.0207)		0.0356* (0.0195)	0.0258* (0.0155)			0.00541 (0.0157)	
War × FTA		0.462** (0.200)	0.235 (0.222)		-0.158 (0.200)		-0.140 (0.222)	
War × Log(Deaths) × FTA		0.0289** (0.0138)	0.000762 (0.0144)		0.0445*** (0.0145)		0.0293* (0.0158)	
War × WTO			0.461** (0.184)	0.389* (0.202)			-0.0861 (0.181)	-0.0424 (0.186)
War × Log(Deaths) × WTO			0.0601*** (0.0144)	0.0496*** (0.0151)			0.0319** (0.0127)	0.0206 * (0.0109)
Year FE	Yes	Yes	Yes	Yes	No	No	No	No
Importer-Year FE	No	No	No	No	Yes	Yes	Yes	Yes
Exporter-Year FE	No	No	No	No	Yes	Yes	Yes	Yes
Country-Pair FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Obs.	865400	865400	865400	865400	865400	865400	865400	865400
Adjusted R^2	0.847	0.847	0.847	0.847	0.871	0.871	0.871	0.871

Notes: Statistical significance * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. OLS estimation using data from 1948 to 2020. Standard errors in brackets are clustered at the country-pair level.

Number of Days War Lasted and DRM Effect

▶ Return

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
War	-0.621*** (0.232)	-0.284** (0.137)	-0.553*** (0.181)	-0.899*** (0.257)	-0.478*** (0.170)	-0.179 (0.143)	-0.359* (0.186)	-0.640*** (0.201)
War × Log(Days)	-0.248** (0.114)	-0.187* (0.105)	-0.163 (0.109)	-0.192* (0.114)	0.103 (0.118)	0.0910 (0.115)	0.122 (0.120)	0.139 (0.120)
Diplomacy	0.00220 (0.0264)	0.0136 (0.0264)	0.0167 (0.0264)	0.0119 (0.0264)	0.165*** (0.0243)	0.167*** (0.0243)	0.167*** (0.0243)	0.167*** (0.0243)
FTA	0.368*** (0.0207)	0.345*** (0.0209)	0.362*** (0.0206)	0.354*** (0.0209)	0.342*** (0.0201)	0.332*** (0.0203)	0.340*** (0.0200)	0.334*** (0.0203)
Both WTO	0.347*** (0.0213)	0.344*** (0.0213)	0.327*** (0.0214)	0.330*** (0.0214)	0.142*** (0.0477)	0.140*** (0.0477)	0.138*** (0.0478)	0.139*** (0.0478)
War × Diplomacy	0.601*** (0.230)			0.402** (0.203)	0.474*** (0.153)			0.333** (0.145)
War × Log(Days) × Diplomacy	0.0535 (0.0400)			0.0307 (0.0361)	-0.0282 (0.0235)			-0.0228 (0.0222)
War × FTA		0.409** (0.185)		-0.0464 (0.215)		0.263 (0.178)		-0.0210 (0.229)
War × Log(Days) × FTA		0.0730*** (0.0272)		0.0516 (0.0321)		0.0132 (0.0280)		0.0423 (0.0335)
War × WTO			0.856*** (0.235)	0.816*** (0.252)			0.559** (0.226)	0.511** (0.257)
War × Log(Days) × WTO			0.0574 (0.0367)	0.0311 (0.0383)			-0.0447 (0.0340)	-0.0562 (0.0365)
Year FE	Yes	Yes	Yes	Yes	No	No	No	No
Importer-Year FE	No	No	No	No	Yes	Yes	Yes	Yes
Exporter-Year FE	No	No	No	No	Yes	Yes	Yes	Yes
Country-Pair FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Obs.	865400	865400	865400	865400	865400	865400	865400	865400
Adjusted R^2	0.847	0.847	0.847	0.847	0.871	0.871	0.871	0.871

Notes: Statistical significance * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. OLS estimation using data from 1948 to 2020. Standard errors in brackets are clustered at the country-pair level.