

Supplementary appendix for “International Trade, Cooperation, and Conflict: The Role of Institutions and Capabilities”

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1 Introduction

This appendix includes additional information about the models presented in the main paper as well as the results of a variety of robustness check models.

2 Additional information on bilateral linear mixed effects models

Below, we expand on the technical aspects of the linear mixed effects models and present comprehensive coefficient tables and illustrations of random slopes that we use in state-level models.

2.1 Specification

The first-step directed dyad-year linear mixed effects model is specified as following:

$$Y_{ij} = \beta_{0i} + \beta_{0j} + \beta_{1i}dep1_{ij} + \beta_{2j}dep2_{ji} + \boldsymbol{\beta} \mathbf{X} + \epsilon_{ij} \quad (1)$$

where, for initiator:

$$\beta_{0i} = \beta_0 + u_{0i}$$

$$\beta_{1i} = \beta_1 + u_{1i}$$

and for target:

$$\beta_{0j} = \beta_0 + u_{0j}$$

$$\beta_{1j} = \beta_1 + u_{1j}$$

In the equation, i denotes the initiator and j denotes the target. Y_{ij} captures either initiation of dyadic conflict or initiation of dyadic cooperation. β_{0i} and β_{0j} are the state-specific intercepts for the initiator and the target respectively. β_{1i} is the initiator-specific slope for trade as a proportion of the initiator's GDP, while β_{1j} is the target-specific slope for trade as a proportion of the target's GDP. Both state-specific slopes are a combination of the fixed effect β_1 and each state's random slope, u_{1i} and u_{1j} . \mathbf{X} is the vector of our covariates; and $\boldsymbol{\beta}$ is the vector of covariate coefficients. ϵ_{ij} is the error term.

In the state-level models, our dependent variable of interest is u_{1i} , which allows us to compare the variation of the association between trade and politics across states. Notably, we are using this random component of the state-specific slope because we are less interested in the shared, fixed effect of trade/initiator GDP. Given that incorporating the fixed effect would involve adding a constant to each indicator, coefficient estimates would be unchanged even if we did use it. However, our approach allows us to exclude the uncertainty associated with the fixed effect; the uncertainty with regard to the random effect is incorporated in our state-level model error term.

2.2 Coefficient table for pooled bilateral models

Table A.1 presents our pooled, dyadic, linear mixed effects models for conflict and cooperation respectively. We include year-fixed effects in these models (whereas the yearly models by necessity omit such variables). The results show that trade has a positive association with political interactions for both initiator and target after accounting for the variation across countries, though the magnitude of the positive slope is larger with respect to cooperation. We find that the indicators for years (as factors) are consistently statistically significant, justifying their inclusion to avoid omitted variable bias.

2.3 Coefficient tables for yearly bilateral models

Next, we present yearly, dyadic, linear mixed effects models for conflict and cooperation in six tables (A.2 through A.7). The signs of coefficients of trade are positive and statistically significant (though the magnitudes differ slightly over time for some states). These findings are not surprising given that we aggregate all kinds of conflictual and cooperative interactions; trade relationships provide opportunity for political interactions. Again, our use of the random component of the initiator-specific slopes allows us to focus on deviation from this overall opportunity effect to consider how variation in foundational, structural factors conditions associations between trade and politics.

2.4 Plots of random slopes for trade/initiator GDP, yearly models

Next we present the yearly random slopes for the relationship between trade and political interactions. Together, Figure A.1 and Figure A.2 replicate Figure 1 from the main text (which plotted random slopes from the pooled models). From these figures, we observe that there is variation of the effects of trade on political interactions across states and some variation within states over time. Notably, the confidence bounds on estimates of trade-cooperation random slopes tend to be much larger than those for trade-conflict.

Note: graphs are condensed due to space limitations. Zooming in will allow reading of country names.

2.5 Full set of coefficients from state-year models

In the main text, we exclude the year fixed effects coefficients in state-year models. None of these is significant, as shown in the full table A.8 below.

Table A.1: Coefficients and 95 percent confidence bounds examining from pooled bilateral linear mixed effects models.

	Trade-Conflict-pooled	Trade-Cooperation-pooled
Trade/initiator GDP	0.10*** (0.06, 0.14)	0.20*** (0.14, 0.26)
Trade/target GDP	0.09*** (0.05, 0.13)	0.20*** (0.14, 0.26)
log GDP per capita initiator	0.01 (-0.00, 0.01)	0.12*** (0.09, 0.14)
log GDP per capita target	0.01** (0.00, 0.01)	0.11*** (0.09, 0.13)
log Population initiator	-0.00 (-0.01, 0.01)	0.10*** (0.05, 0.15)
log Population target	0.00 (-0.01, 0.01)	0.14*** (0.09, 0.19)
log Land area initiator	0.01 (-0.00, 0.02)	0.07*** (0.03, 0.12)
log Land area target	0.00 (-0.01, 0.01)	0.05** (0.01, 0.10)
Common language	0.08*** (0.07, 0.08)	0.47*** (0.46, 0.49)
Colonial history	0.69*** (0.67, 0.71)	1.11*** (1.05, 1.16)
log Distance	-0.06*** (-0.07, -0.06)	-0.75*** (-0.76, -0.74)
Contiguity	0.81*** (0.79, 0.83)	1.81*** (1.76, 1.86)
Bilateral PTA	0.00 (-0.00, 0.01)	0.29*** (0.27, 0.31)
GATT initiator	-0.04*** (-0.05, -0.03)	-0.02 (-0.06, 0.01)
GATT target	-0.03*** (-0.04, -0.01)	-0.05*** (-0.08, -0.01)
EU initiator	-0.03*** (-0.05, -0.01)	-0.30*** (-0.34, -0.26)
EU target	-0.04*** (-0.06, -0.02)	-0.32*** (-0.37, -0.28)
1994	0.02*** (0.01, 0.04)	0.21*** (0.18, 0.25)
1995	0.03*** (0.01, 0.04)	0.19*** (0.16, 0.23)
1996	0.05*** (0.03, 0.06)	0.32*** (0.28, 0.35)
1997	0.06*** (0.05, 0.08)	0.47*** (0.44, 0.51)
1998	0.09*** (0.08, 0.11)	0.58*** (0.55, 0.62)
1999	0.09*** (0.08, 0.11)	0.67*** (0.63, 0.70)
2000	0.10*** (0.09, 0.12)	0.70*** (0.67, 0.74)
2001	0.11*** (0.09, 0.12)	0.70*** (0.67, 0.74)
2002	0.12*** (0.11, 0.14)	0.72*** (0.68, 0.75)
2003	0.14*** (0.12, 0.15)	0.71*** (0.67, 0.75)
2004	0.15*** (0.13, 0.16)	0.75*** (0.71, 0.79)
2005	0.14*** (0.12, 0.15)	0.72*** (0.68, 0.76)
2006	0.12*** (0.10, 0.14)	0.69*** (0.64, 0.73)
2007	0.12*** (0.11, 0.14)	0.54*** (0.50, 0.59)
2008	0.09*** (0.08, 0.11)	0.47*** (0.42, 0.52)
2009	0.10*** (0.08, 0.12)	0.36*** (0.31, 0.41)
2010	0.08*** (0.06, 0.10)	0.39*** (0.34, 0.44)
2011	0.09*** (0.07, 0.11)	0.38*** (0.33, 0.43)
Constant	-4.23*** (-4.41, -4.06)	-1.48*** (-2.21, -0.76)
Observations	502,200	502,200
Log Likelihood	-628,027.60	-1,040,558.00
Bayesian Inf. Crit.	1,256,620.00	2,081,681.00

*** p less than 0.1, ** p less than 0.05, * p less than 0.01

Table A.2: Yearly Conflict Bilateral Models (1993-1999)

	1993	1994	1995	1996	1997	1998	1999
Constant	-4.63*	-4.56*	-4.43*	-4.49*	-4.49*	-4.36*	-4.32*
trade/initiator GDP	[−4.80; −4.46] 0.05*	[−4.74; −4.38] 0.05*	[−4.64; −4.23] 0.08*	[−4.69; −4.28] 0.08*	[−4.71; −4.28] 0.12*	[−4.62; −4.10] 0.11*	[−4.61; −4.04] 0.13*
trade/target GDP	[0.02; 0.08] 0.07*	[0.01; 0.08] 0.08*	[0.04; 0.13] 0.06*	[0.03; 0.13] 0.09*	[0.06; 0.17] 0.11*	[0.06; 0.16] 0.10*	[0.07; 0.19] 0.09*
log GDP per capita initiator	[0.02; 0.13] 0.01*	[0.04; 0.13] 0.01*	[0.02; 0.10] 0.01*	[0.03; 0.14] 0.02*	[0.05; 0.17] 0.02*	[0.05; 0.16] 0.03*	[0.04; 0.14] 0.01*
log GDP per capita target	[0.00; 0.02] 0.01	[0.01; 0.02] 0.01*	[0.00; 0.02] 0.01	[0.01; 0.03] 0.01*	[0.01; 0.03] 0.01*	[0.02; 0.04] 0.01*	[0.00; 0.03] 0.02*
log population initiator	[−0.00; 0.01] 0.01*	[0.00; 0.02] 0.01*	[−0.00; 0.02] 0.00	[0.00; 0.02] 0.01*	[0.00; 0.02] 0.01	[0.00; 0.03] 0.02*	[0.00; 0.03] −0.00
log population target	[0.00; 0.02] 0.00	[0.00; 0.02] 0.01	[−0.01; 0.01] 0.01	[0.00; 0.02] 0.01	[−0.00; 0.02] 0.01	[0.00; 0.03] −0.00	[−0.02; 0.01] 0.01
log land area initiator	[−0.01; 0.01] 0.00	[−0.00; 0.02] 0.00	[−0.00; 0.02] 0.00	[−0.01; 0.02] 0.00	[−0.01; 0.02] 0.00	[−0.02; 0.01] 0.01	[−0.01; 0.02] 0.01
log land area target	[−0.01; 0.01] 0.00	[−0.00; 0.01] 0.00	[−0.01; 0.01] −0.00	[−0.01; 0.01] −0.00	[−0.01; 0.01] −0.00	[−0.01; 0.02] 0.00	[−0.01; 0.02] 0.00
Common language	0.03* [0.01; 0.05]	0.04* [0.02; 0.06]	0.06* [0.03; 0.08]	0.04* [0.02; 0.07]	0.05* [0.03; 0.08]	0.09* [0.06; 0.12]	0.07* [0.04; 0.10]
Colony	0.44* [0.37; 0.51]	0.62* [0.54; 0.70]	0.58* [0.51; 0.66]	0.55* [0.46; 0.63]	0.57* [0.48; 0.66]	0.71* [0.61; 0.81]	0.74* [0.64; 0.83]
log distance	−0.02* [−0.03; −0.00]	−0.03* [−0.05; −0.02]	−0.04* [−0.05; −0.03]	−0.04* [−0.06; −0.03]	−0.04* [−0.06; −0.03]	−0.08* [−0.10; −0.06]	−0.07* [−0.09; −0.05]
Contiguity	0.55* [0.49; 0.60]	0.62* [0.55; 0.68]	0.50* [0.43; 0.56]	0.67* [0.60; 0.74]	0.78* [0.70; 0.86]	0.96* [0.87; 1.05]	0.86* [0.77; 0.94]
Bilateral PTA	0.01 [−0.02; 0.03]	−0.04* [−0.07; −0.01]	−0.00 [−0.03; 0.03]	0.06* [0.03; 0.09]	−0.03 [−0.06; 0.01]	0.04* [0.00; 0.07]	0.01 [−0.03; 0.05]
GATT initiator	−0.00 [−0.03; 0.02]	−0.01 [−0.04; 0.02]	0.02 [−0.00; 0.05]	−0.01 [−0.04; 0.02]	0.01 [−0.02; 0.05]	0.01 [−0.03; 0.05]	0.02 [−0.02; 0.06]
GATT target	0.01 [−0.02; 0.04]	−0.00 [−0.03; 0.02]	0.01 [−0.02; 0.05]	0.02 [−0.01; 0.05]	0.01 [−0.02; 0.04]	0.01 [−0.02; 0.05]	0.01 [−0.04; 0.05]
EU initiator	−0.02 [−0.07; 0.02]	0.01 [−0.04; 0.06]	−0.02 [−0.07; 0.04]	−0.11* [−0.17; −0.06]	−0.03 [−0.09; 0.03]	−0.10* [−0.17; −0.02]	−0.07 [−0.14; 0.00]
EU target	−0.01 [−0.06; 0.04]	−0.04 [−0.09; 0.01]	−0.06* [−0.12; −0.00]	−0.04 [−0.09; 0.01]	−0.01 [−0.06; 0.04]	−0.05 [−0.11; 0.02]	−0.05 [−0.13; 0.03]
AIC	36932.41	44459.23	46587.25	52473.38	55574.75	61580.08	62081.84
BIC	37132.86	44660.23	46789.56	52676.04	55777.60	61783.21	62285.55
Log Likelihood	−18441.20	−22204.61	−23268.63	−26211.69	−27762.38	−30765.04	−31015.92
Num. obs.	22424	22934	24160	24494	24682	24958	25556
Num. groups: Initiator	166	168	171	171	170	170	172
Num. groups: Target	166	168	171	171	170	170	172
Var: Random intercept of initiator	0.00	0.00	0.01	0.01	0.01	0.01	0.02
Var: Random trade/initiator GDP slope	0.04	0.04	0.08	0.09	0.13	0.10	0.14
Cov: Random intercept and trade/initiator GDP slope	0.00	0.00	0.01	0.02	0.02	0.01	0.04
Var: Random intercept of target	0.01	0.00	0.01	0.01	0.01	0.01	0.02
Var: Random trade/target GDP slope	0.12	0.08	0.05	0.12	0.16	0.12	0.08
Cov: Random intercept and trade/target GDP slope	0.02	0.02	0.02	0.03	0.03	0.03	0.03
Var: Residual	0.28	0.38	0.37	0.46	0.51	0.64	0.62

*** p less than 0.01, ** p less than 0.05, * p less than 0.1

Table A.3: Yearly Conflict Bilateral Models (2000-2005)

	2000	2001	2002	2003	2004	2005
Constant	-4.41*	-4.76*	-4.77*	-4.81*	-4.63*	-4.75*
trade/initiator GDP	[−4.71; −4.11]	[−5.07; −4.45]	[−5.12; −4.43]	[−5.13; −4.50]	[−4.97; −4.29]	[−5.11; −4.40]
trade/target GDP	0.11*	0.14*	0.12*	0.13*	0.13*	0.10*
log GDP per capita initiator	[0.06; 0.16]	[0.08; 0.20]	[0.06; 0.17]	[0.07; 0.18]	[0.08; 0.18]	[0.05; 0.14]
log GDP per capita target	[0.05; 0.14]	[0.07; 0.17]	[0.07; 0.17]	[0.08; 0.20]	[0.05; 0.14]	[0.06; 0.16]
log population initiator	0.02*	0.02*	0.03*	0.03*	0.02*	0.04*
log population target	[0.01; 0.04]	[0.01; 0.03]	[0.01; 0.05]	[0.02; 0.05]	[0.01; 0.04]	[0.02; 0.06]
log land area initiator	0.03*	0.03*	0.03*	0.02*	0.03*	0.02*
log land area target	[0.01; 0.04]	[0.01; 0.04]	[0.01; 0.04]	[0.01; 0.04]	[0.02; 0.05]	[0.00; 0.04]
Common language	0.01	−0.00	0.01	0.01	0.00	0.01
Contiguity	[−0.01; 0.02]	[−0.02; 0.02]	[−0.01; 0.03]	[−0.01; 0.03]	[−0.02; 0.02]	[−0.01; 0.03]
Bilateral PTA	−0.01	−0.01	−0.01	−0.01	0.01	−0.00
GATT initiator	[−0.03; 0.01]	[−0.03; 0.01]	[−0.03; 0.02]	[−0.03; 0.01]	[−0.01; 0.03]	[−0.02; 0.02]
GATT target	0.01	0.01	0.01	0.01	0.01	0.01
EU initiator	[−0.00; 0.02]	[−0.01; 0.02]	[−0.01; 0.03]	[−0.00; 0.03]	[−0.01; 0.02]	[−0.01; 0.03]
EU target	0.01	0.01	0.01	0.01	0.01	0.02
AIC	67365.86	68716.14	71444.37	73523.71	77840.88	76006.50
BIC	67571.30	68921.84	71650.07	73729.42	78046.86	76212.48
Log Likelihood	−33657.93	−34333.07	−35697.18	−36736.86	−38895.44	−37978.25
Num. obs.	27380	27668	27668	27668	27974	27974
Num. groups: Initiator	175	176	176	176	177	177
Num. groups: Target	175	176	176	176	177	177
Var: Random intercept of initiator	0.02	0.03	0.03	0.02	0.03	0.03
Var: Random trade/initiator GDP slope	0.12	0.16	0.12	0.13	0.11	0.08
Cov: Random intercept and trade/initiator GDP slope	0.03	0.05	0.03	0.04	0.05	0.03
Var: Random intercept of target	0.04	0.03	0.04	0.04	0.03	0.04
Var: Random trade/target GDP slope	0.09	0.11	0.10	0.15	0.09	0.11
Cov: Random intercept and trade/target GDP slope	0.04	0.04	0.05	0.06	0.04	0.05
Var: Residual	0.64	0.65	0.72	0.77	0.88	0.82

*** p less than 0.01, ** p less than 0.05, * p less than 0.1

Table A.4: Yearly Conflict Bilateral Models (2006-2011)

	2006	2007	2008	2009	2010	2011
Constant	-4.58*	-4.71*	-4.68*	-4.68*	-4.45*	-4.61*
trade/initiator GDP	[−4.92; −4.24] 0.09*	[−5.08; −4.34] 0.09*	[−5.00; −4.35] 0.08*	[−4.99; −4.37] 0.09*	[−4.74; −4.16] 0.07*	[−4.89; −4.33] 0.10*
trade/target GDP	[0.05; 0.13] 0.10*	[0.04; 0.13] 0.06*	[0.04; 0.12] 0.06*	[0.04; 0.14] 0.08*	[0.03; 0.11] 0.10*	[0.05; 0.15] 0.10*
log GDP per capita initiator	[0.05; 0.15] 0.02*	[0.03; 0.10] 0.02*	[0.02; 0.09] 0.03*	[0.03; 0.12] 0.02*	[0.06; 0.14] 0.02*	[0.05; 0.14] 0.03*
log GDP per capita target	[0.00; 0.03] 0.02	[0.01; 0.04] 0.03*	[0.01; 0.04] 0.02*	[0.01; 0.04] 0.03*	[0.01; 0.04] 0.02*	[0.01; 0.04] 0.02*
log population initiator	[−0.00; 0.03] 0.01	[0.01; 0.05] −0.00	[0.00; 0.03] 0.01	[0.02; 0.05] −0.00	[0.00; 0.03] −0.00	[0.01; 0.04] 0.01
log population target	[−0.01; 0.03] 0.01	[−0.02; 0.02] 0.00	[−0.01; 0.02] 0.01	[−0.02; 0.01] −0.00	[−0.02; 0.01] 0.00	[−0.00; 0.03] 0.00
log land area initiator	[−0.01; 0.03] 0.01	[−0.02; 0.03] 0.01	[−0.01; 0.03] 0.01	[−0.02; 0.02] 0.01	[−0.01; 0.02] 0.01	[−0.01; 0.02] 0.00
log land area target	[−0.01; 0.02] 0.00	[−0.00; 0.03] 0.01	[−0.01; 0.02] 0.01	[−0.00; 0.02] 0.02*	[−0.00; 0.03] 0.01	[−0.01; 0.02] 0.01*
Common language	0.12* [0.09; 0.16]	0.12* [0.09; 0.16]	0.11* [0.08; 0.15]	0.07* [0.04; 0.10]	0.06* [0.03; 0.09]	0.09* [0.06; 0.12]
Colony	0.73* [0.63; 0.84]	0.78* [0.67; 0.89]	0.42* [0.32; 0.52]	0.68* [0.59; 0.78]	0.58* [0.48; 0.67]	0.62* [0.52; 0.72]
log distance	−0.05* [−0.07; −0.03]	−0.07* [−0.09; −0.05]	−0.05* [−0.07; −0.03]	−0.06* [−0.08; −0.05]	−0.07* [−0.09; −0.05]	−0.06* [−0.08; −0.04]
Contiguity	0.88* [0.79; 0.97]	0.94* [0.85; 1.04]	0.84* [0.75; 0.93]	0.91* [0.83; 1.00]	0.77* [0.68; 0.85]	0.64* [0.55; 0.73]
Bilateral PTA	0.09* [0.05; 0.14]	0.02 [−0.03; 0.07]	0.03 [−0.01; 0.08]	−0.02 [−0.06; 0.01]	−0.05* [−0.09; −0.02]	0.01 [−0.03; 0.05]
GATT initiator	0.00 [−0.05; 0.05]	0.03 [−0.03; 0.09]	−0.02 [−0.08; 0.03]	−0.04 [−0.09; 0.01]	−0.02 [−0.07; 0.03]	−0.05* [−0.10; 0.00]
GATT target	−0.00 [−0.06; 0.06]	−0.02 [−0.09; 0.04]	−0.01 [−0.06; 0.05]	−0.08* [−0.14; −0.02]	−0.04 [−0.09; 0.01]	−0.01 [−0.06; 0.03]
EU initiator	0.00 [−0.07; 0.07]	−0.03 [−0.10; 0.05]	−0.04 [−0.10; 0.03]	0.02 [−0.03; 0.08]	−0.03 [−0.09; 0.02]	−0.01 [−0.07; 0.05]
EU target	−0.01 [−0.09; 0.07]	−0.00 [−0.09; 0.08]	0.00 [−0.06; 0.07]	−0.03 [−0.10; 0.04]	−0.01 [−0.07; 0.05]	−0.01 [−0.07; 0.04]
AIC	74174.80	76419.77	71113.24	69649.79	68396.68	70446.75
BIC	74380.78	76625.75	71318.95	69855.50	68602.39	70652.46
Log Likelihood	−37062.40	−38184.89	−35531.62	−34799.90	−34173.34	−35198.38
Num. obs.	27974	27974	27678	27678	27678	27678
Num. groups: Initiator	177	177	176	176	176	176
Num. groups: Target	177	177	176	176	176	176
Var: Random intercept of initiator	0.02	0.04	0.03	0.02	0.02	0.02
Var: Random trade/initiator GDP slope	0.07	0.07	0.08	0.10	0.06	0.09
Cov: Random intercept and trade/initiator GDP slope	0.03	0.04	0.03	0.04	0.02	0.03
Var: Random intercept of target	0.03	0.04	0.03	0.02	0.02	0.01
Var: Random trade/target GDP slope	0.11	0.05	0.05	0.08	0.07	0.09
Cov: Random intercept and trade/target GDP slope	0.04	0.03	0.03	0.03	0.02	0.03
Var: Residual	0.77	0.84	0.71	0.68	0.65	0.69

*** p less than 0.01, ** p less than 0.05, * p less than 0.1

Table A.5: Yearly Cooperation Bilateral Models (1993-1999)

	1993	1994	1995	1996	1997	1998	1999
Constant	-3.20*	-1.80*	-2.06*	-1.70*	-1.19*	-2.10*	-1.57*
trade/initiator GDP	[−3.85; −2.55] 0.20*	[−2.69; −0.91] 0.15*	[−2.88; −1.24] 0.14*	[−2.68; −0.72] 0.17*	[−2.29; −0.09] 0.18*	[−3.26; −0.94] 0.20*	[−2.73; −0.42] 0.23*
trade/target GDP	[0.13; 0.28] 0.20*	[0.09; 0.22] 0.20*	[0.08; 0.20] 0.14*	[0.11; 0.24] 0.18*	[0.11; 0.25] 0.18*	[0.13; 0.27] 0.19*	[0.15; 0.31] 0.25*
log GDP per capita initiator	0.10* [0.07; 0.13]	0.15* [0.10; 0.19]	0.16* [0.11; 0.20]	0.19* [0.12; 0.25]	0.24* [0.11; 0.25]	0.30* [0.12; 0.26]	0.30* [0.17; 0.33]
log GDP per capita target	0.11* [0.08; 0.14]	0.15* [0.11; 0.20]	0.17* [0.13; 0.22]	0.20* [0.15; 0.25]	0.24* [0.18; 0.30]	0.29* [0.23; 0.34]	0.29* [0.23; 0.35]
log population initiator	0.10* [0.06; 0.14]	0.22* [0.16; 0.27]	0.17* [0.12; 0.22]	0.18* [0.12; 0.24]	0.26* [0.19; 0.33]	0.31* [0.24; 0.39]	0.33* [0.26; 0.40]
log population target	0.12* [0.08; 0.16]	0.22* [0.16; 0.27]	0.18* [0.13; 0.23]	0.20* [0.14; 0.26]	0.26* [0.19; 0.32]	0.30* [0.24; 0.37]	0.32* [0.25; 0.38]
log land area initiator	0.01 [−0.03; 0.04]	−0.02 [−0.06; 0.03]	0.00 [−0.04; 0.04]	0.02 [−0.03; 0.07]	0.00 [−0.05; 0.06]	0.01 [−0.05; 0.07]	−0.01 [−0.07; 0.05]
log land area target	−0.00 [−0.04; 0.03]	−0.02 [−0.06; 0.03]	−0.00 [−0.04; 0.04]	0.00 [−0.04; 0.05]	−0.00 [−0.05; 0.05]	0.01 [−0.05; 0.06]	−0.01 [−0.07; 0.05]
Common language	0.27* [0.21; 0.33]	0.36* [0.30; 0.43]	0.39* [0.32; 0.45]	0.36* [0.29; 0.43]	0.38* [0.30; 0.45]	0.50* [0.42; 0.58]	0.24* [0.16; 0.32]
Colony	0.91* [0.73; 1.09]	1.61* [1.41; 1.82]	1.18* [0.97; 1.39]	1.47* [1.26; 1.69]	1.07* [0.83; 1.30]	1.17* [0.93; 1.42]	1.14* [0.90; 1.39]
log distance	−0.35* [−0.38; −0.31]	−0.54* [−0.58; −0.51]	−0.59* [−0.63; −0.55]	−0.70* [−0.74; −0.66]	−0.80* [−0.84; −0.76]	−0.81* [−0.85; −0.76]	−0.82* [−0.87; −0.78]
Contiguity	1.85* [1.70; 2.01]	1.92* [1.74; 2.09]	1.56* [1.38; 1.74]	2.07* [1.88; 2.25]	2.42* [2.21; 2.62]	1.87* [1.66; 2.08]	1.92* [1.71; 2.13]
Bilateral PTA	−0.20* [−0.28; −0.13]	−0.10* [−0.19; −0.02]	0.13* [0.05; 0.21]	0.23* [0.14; 0.31]	0.23* [0.14; 0.32]	0.46* [0.37; 0.55]	0.58* [0.49; 0.67]
GATT initiator	−0.09 [−0.18; 0.01]	−0.16* [−0.31; −0.01]	−0.03 [−0.16; 0.09]	−0.09 [−0.26; 0.07]	−0.22* [−0.39; −0.04]	−0.31* [−0.50; −0.11]	−0.38* [−0.57; −0.19]
GATT target	−0.09 [−0.20; 0.01]	−0.15* [−0.30; −0.00]	−0.07 [−0.20; 0.06]	−0.10 [−0.26; 0.06]	−0.21* [−0.39; −0.03]	−0.28* [−0.46; −0.10]	−0.34* [−0.52; −0.15]
EU initiator	−0.00 [−0.20; 0.19]	−0.03 [−0.32; 0.25]	−0.24 [−0.47; 0.00]	−0.30* [−0.59; −0.02]	−0.35* [−0.66; −0.03]	−0.59* [−0.94; −0.25]	−0.45* [−0.80; −0.11]
EU target	−0.03 [−0.23; 0.18]	−0.11 [−0.39; 0.17]	−0.25* [−0.48; −0.01]	−0.32* [−0.60; −0.04]	−0.31 [−0.62; 0.00]	−0.53* [−0.85; −0.21]	−0.44* [−0.76; −0.12]
AIC	79711.74	88408.68	94247.50	97770.32	102437.89	105284.44	108553.92
BIC	79912.19	88609.69	94449.82	97972.97	102640.73	105487.56	108757.63
Log Likelihood	−39830.87	−44179.34	−47098.75	−48860.16	−51193.94	−52617.22	−54251.96
Num. obs.	22424	22934	24160	24494	24682	24958	25556
Num. groups: Initiator	166	168	171	171	170	170	172
Num. groups: Target	166	168	171	171	170	170	172
Var: Random intercept of initiator	0.09	0.17	0.17	0.25	0.26	0.28	0.28
Var: Random trade/initiator GDP slope	0.21	0.14	0.12	0.16	0.17	0.19	0.23
Cov: Random intercept and trade/initiator GDP slope	0.08	0.05	0.09	0.11	0.08	0.05	0.05
Var: Random intercept of target	0.09	0.17	0.15	0.22	0.26	0.24	0.25
Var: Random trade/target GDP slope	0.20	0.17	0.13	0.16	0.18	0.18	0.23
Cov: Random intercept and trade/target GDP slope	0.07	0.06	0.08	0.10	0.09	0.06	0.07
Var: Residual	1.89	2.55	2.70	2.94	3.44	3.69	3.79

*** p less than 0.01, ** p less than 0.05, * p less than 0.1

Table A.6: Yearly Cooperation Bilateral Models (2000-2005)

	2000	2001	2002	2003	2004	2005
Constant	-1.37*	-1.14*	-1.11	-1.54*	-0.71	-0.73
trade/initiator GDP	[−2.47; −0.28]	[−2.25; −0.03]	[−2.25; 0.03]	[−2.68; −0.39]	[−1.93; 0.51]	[−1.99; 0.54]
trade/target GDP	0.21*	0.21*	0.23*	0.18*	0.19*	0.14*
log GDP per capita initiator	[0.14; 0.28]	[0.14; 0.27]	[0.16; 0.30]	[0.12; 0.24]	[0.12; 0.25]	[0.09; 0.20]
log GDP per capita target	[0.22; 0.34]	[0.21; 0.33]	[0.24; 0.36]	[0.25; 0.37]	[0.24; 0.38]	[0.23; 0.37]
log population initiator	0.28*	0.27*	0.30*	0.31*	0.31*	0.30*
log population target	[0.25; 0.39]	[0.26; 0.41]	[0.28; 0.43]	[0.27; 0.42]	[0.29; 0.45]	[0.27; 0.44]
log land area initiator	0.32*	0.34*	0.36*	0.34*	0.37*	0.36*
log land area target	[0.27; 0.40]	[0.27; 0.40]	[0.29; 0.43]	[0.27; 0.41]	[0.30; 0.46]	[0.29; 0.44]
Common language	0.01	-0.03	-0.02	0.02	-0.03	-0.03
Contiguity	[-0.06; 0.05]	[-0.09; 0.03]	[-0.08; 0.04]	[-0.08; 0.03]	[-0.10; 0.03]	[-0.10; 0.04]
Bilateral PTA	-0.02	-0.03	-0.02	-0.03	-0.03	-0.03
GATT initiator	[0.42; 0.57]	[0.35; 0.50]	[0.46; 0.62]	[0.45; 0.61]	[0.45; 0.61]	[0.54; 0.70]
GATT target	1.05*	1.53*	1.27*	1.50*	0.90*	1.30*
EU initiator	[0.81; 1.28]	[1.29; 1.76]	[1.03; 1.51]	[1.25; 1.74]	[0.66; 1.14]	[1.05; 1.54]
EU target	-0.78*	-0.79*	-0.86*	-0.83*	-0.91*	-0.89*
AIC	115468.44	117151.94	117032.65	118041.70	120599.00	120681.39
BIC	115673.88	117357.64	117238.35	118247.40	120804.97	120887.37
Log Likelihood	-57709.22	-58550.97	-58491.33	-58995.85	-60274.50	-60315.70
Num. obs.	27380	27668	27668	27668	27974	27974
Num. groups: Initiator	175	176	176	176	177	177
Num. groups: Target	175	176	176	176	177	177
Var: Random intercept of initiator	0.27	0.29	0.28	0.31	0.35	0.38
Var: Random trade/initiator GDP slope	0.18	0.16	0.19	0.14	0.17	0.10
Cov: Random intercept and trade/initiator GDP slope	0.06	0.08	0.05	0.08	0.07	0.06
Var: Random intercept of target	0.24	0.25	0.25	0.28	0.30	0.34
Var: Random trade/target GDP slope	0.17	0.17	0.18	0.15	0.16	0.11
Cov: Random intercept and trade/target GDP slope	0.05	0.07	0.04	0.08	0.06	0.06
Var: Residual	3.69	3.76	3.74	3.89	4.06	4.08

*** p less than 0.01, ** p less than 0.05, * p less than 0.1

Table A.7: Yearly Cooperation Bilateral Models (2006-2011)

	2006	2007	2008	2009	2010	2011
Constant	-2.18*	-2.20*	-2.67*	-3.10*	-3.02*	-2.91*
trade/initiator GDP	[−3.45; −0.92]	[−3.40; −1.00]	[−3.89; −1.45]	[−4.22; −1.97]	[−4.14; −1.89]	[−4.09; −1.73]
trade/target GDP	0.14*	0.15*	0.13*	0.22*	0.20*	0.18*
log GDP per capita initiator	[0.09; 0.19]	[0.09; 0.20]	[0.08; 0.18]	[0.15; 0.28]	[0.15; 0.26]	[0.13; 0.23]
log GDP per capita target	[0.08; 0.19]	[0.10; 0.21]	[0.09; 0.19]	[0.16; 0.29]	[0.14; 0.25]	[0.12; 0.23]
log population initiator	0.31*	0.29*	0.28*	0.23*	0.24*	0.24*
log population target	[0.24; 0.38]	[0.23; 0.36]	[0.21; 0.34]	[0.17; 0.29]	[0.18; 0.30]	[0.17; 0.30]
log land area initiator	0.30*	0.30*	0.27*	0.23*	0.24*	0.22*
log land area target	[0.23; 0.36]	[0.24; 0.36]	[0.21; 0.33]	[0.17; 0.29]	[0.19; 0.30]	[0.16; 0.28]
Common language	0.35*	0.30*	0.31*	0.23*	0.28*	0.26*
Colony	[0.27; 0.43]	[0.22; 0.37]	[0.23; 0.39]	[0.16; 0.30]	[0.20; 0.35]	[0.18; 0.33]
log distance	0.34*	0.30*	0.32*	0.22*	0.28*	0.24*
Contiguity	[0.26; 0.42]	[0.22; 0.37]	[0.24; 0.39]	[0.16; 0.29]	[0.22; 0.35]	[0.17; 0.31]
Bilateral PTA	-0.02	-0.02	-0.02	0.00	-0.02	-0.01
GATT initiator	[−0.08; 0.05]	[−0.08; 0.04]	[−0.09; 0.04]	[−0.06; 0.06]	[−0.08; 0.04]	[−0.07; 0.05]
GATT target	-0.01	-0.02	-0.03	0.01	-0.02	0.01
EU initiator	[−0.08; 0.05]	[−0.08; 0.04]	[−0.09; 0.03]	[−0.05; 0.06]	[−0.07; 0.04]	[−0.05; 0.06]
EU target	[−0.08; 0.05]	[−0.08; 0.04]	[−0.09; 0.03]	[−0.05; 0.06]	[−0.07; 0.04]	[−0.05; 0.06]
AIC	119716.14	118129.18	115130.33	112736.28	113920.76	114852.14
BIC	119922.12	118335.16	115336.04	112941.99	114126.47	115057.85
Log Likelihood	-59833.07	-59039.59	-57540.17	-56343.14	-56935.38	-57401.07
Num. obs.	27974	27974	27678	27678	27678	27678
Num. groups: Initiator	177	177	176	176	176	176
Num. groups: Target	177	177	176	176	176	176
Var: Random intercept of initiator	0.37	0.33	0.34	0.27	0.29	0.32
Var: Random trade/initiator GDP slope	0.11	0.11	0.09	0.16	0.12	0.11
Cov: Random intercept and trade/initiator GDP slope	0.06	0.08	0.05	0.06	0.06	0.06
Var: Random intercept of target	0.34	0.31	0.29	0.24	0.23	0.27
Var: Random trade/target GDP slope	0.10	0.11	0.08	0.16	0.12	0.11
Cov: Random intercept and trade/target GDP slope	0.06	0.07	0.04	0.06	0.04	0.07
Var: Residual	3.94	3.72	3.49	3.20	3.34	3.45

*** p less than 0.01, ** p less than 0.05, * p less than 0.1

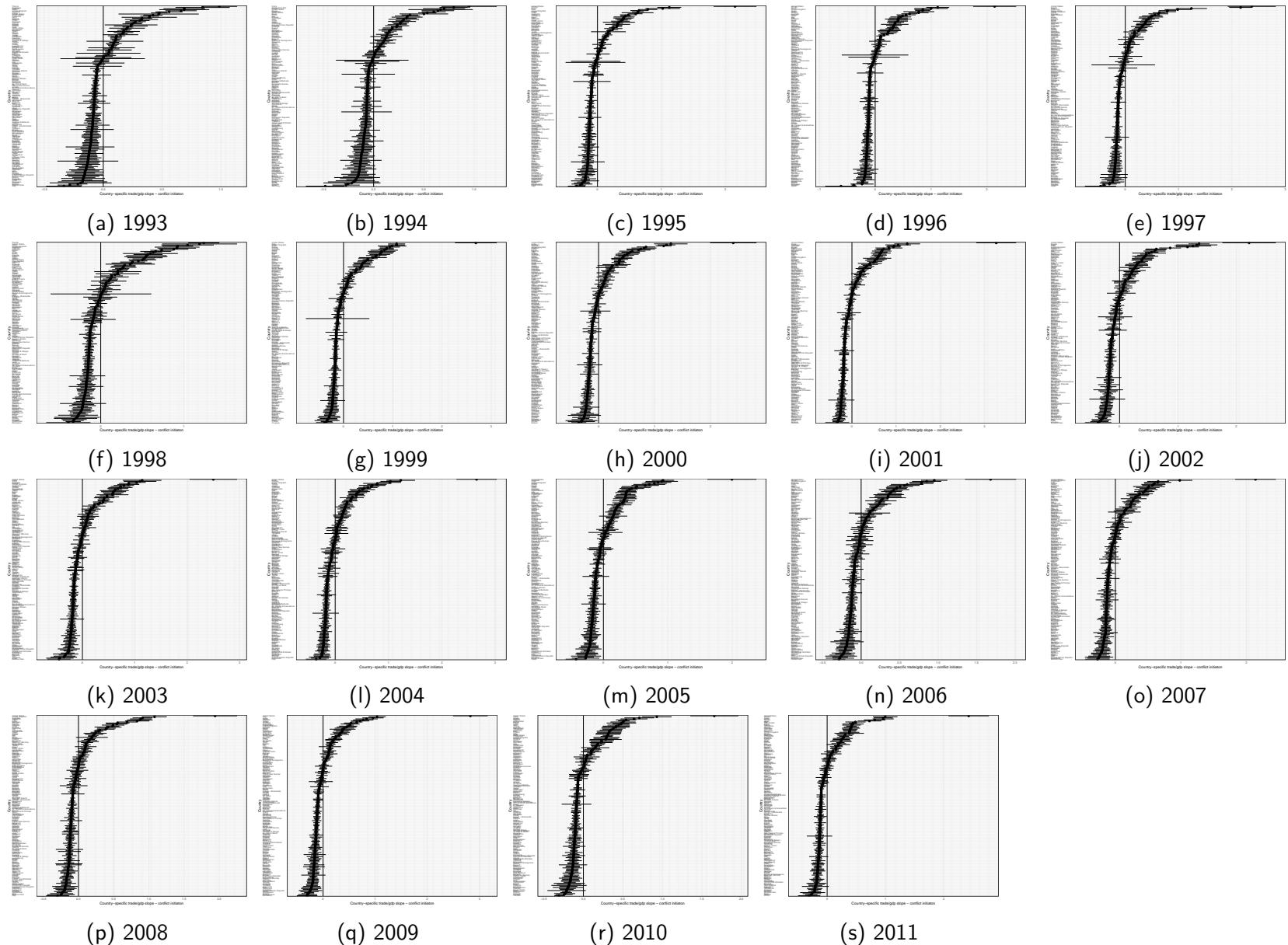


Figure A.1: Yearly random trade/initiator gdp slope - conflict initiation

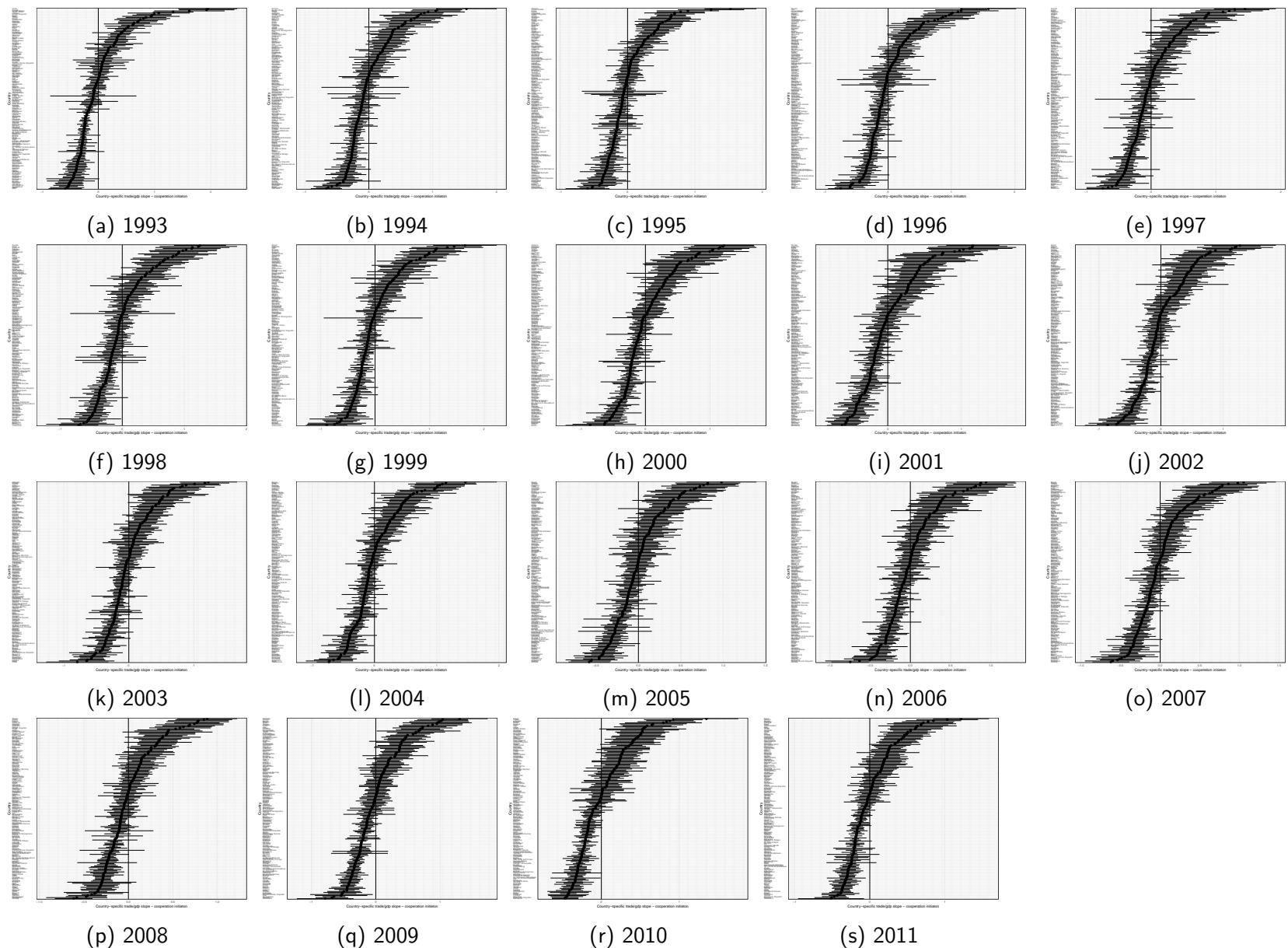


Figure A.2: Yearly random trade/initiator gdp slope - cooperation initiation

3 Summary statistics

3.1 Bilateral data summary stats

Table A.9 includes all summary statistics for bilateral lmer models. Given that we used directed dyads, most country-level explanatory variables show identical summary stats for initiator vs. target, reflecting the fact that each state is represented in both roles. The key distinction is that our DVs are not symmetric.

3.2 State data summary stats for models using pooled random slopes

Table A.10 includes all summary statistics for the state-level models (using random intercepts from pooled bilateral models). Notably, we have far fewer observations for institutionalized popular inclusion, as this variable is coded only for the most stable democratic states in the system. We also present a correlation matrix in table Table A.11.

Table A.8: Coefficients and 95 percent confidence bounds examining structural determinants of the relationship between trade on politics, yearly models. Note: all models include year fixed effects (coefficients not presented).

	Trade-Conflict		Trade-Cooperation	
	Model 5	Model 6	Model 7	Model 8
Democracy-PR	-0.13*** (-0.16, -0.10)		-0.05*** (-0.08, -0.02)	
Authoritarian	-0.09*** (-0.12, -0.06)		-0.04* (-0.08, -0.01)	
Institutional popular inclusion		-0.06*** (-0.07, -0.04)		0.03*** (0.02, 0.05)
log CINC	0.07*** (0.06, 0.08)	0.14*** (0.12, 0.16)	0.10*** (0.09, 0.10)	0.14*** (0.12, 0.15)
Unitarism	-0.12*** (-0.15, -0.08)	0.14 (-0.00, 0.28)	-0.02 (-0.06, 0.02)	0.14* (0.03, 0.25)
Public goods index	-0.01 (-0.02, 0.00)	-0.06*** (-0.10, -0.03)	-0.03*** (-0.04, -0.02)	-0.17*** (-0.20, -0.14)
Active rivalry	0.12*** (0.10, 0.15)	0.17*** (0.11, 0.23)	0.16*** (0.14, 0.19)	0.15*** (0.09, 0.20)
GDP growth	-0.00 (-0.00, 0.00)	0.00 (-0.00, 0.01)	0.00 (-0.00, 0.00)	0.01** (0.00, 0.02)
Count of contiguous states	-0.01* (-0.01, -0.00)	-0.01* (-0.03, -0.00)	-0.00 (-0.01, 0.00)	-0.01 (-0.02, 0.00)
1994	-0.00 (-0.07, 0.06)	-0.09 (-0.23, 0.05)	-0.01 (-0.08, 0.06)	-0.05 (-0.17, 0.06)
1995	0.01 (-0.05, 0.08)	-0.01 (-0.15, 0.13)	-0.01 (-0.08, 0.06)	0.00 (-0.12, 0.12)
1996	0.01 (-0.05, 0.08)	0.02 (-0.12, 0.16)	-0.00 (-0.07, 0.07)	0.02 (-0.10, 0.13)
1997	0.02 (-0.05, 0.08)	0.01 (-0.13, 0.16)	0.00 (-0.07, 0.07)	-0.04 (-0.16, 0.08)
1998	0.02 (-0.05, 0.08)	0.00 (-0.14, 0.14)	0.01 (-0.06, 0.08)	-0.02 (-0.14, 0.10)
1999	0.02 (-0.04, 0.09)	0.08 (-0.06, 0.22)	0.02 (-0.05, 0.09)	-0.02 (-0.13, 0.10)
2000	0.02 (-0.04, 0.08)	0.04 (-0.10, 0.18)	0.02 (-0.05, 0.09)	-0.01 (-0.13, 0.10)
2001	0.03 (-0.04, 0.09)	0.11 (-0.03, 0.25)	0.02 (-0.05, 0.09)	0.00 (-0.11, 0.12)
2002	0.02 (-0.04, 0.09)	0.05 (-0.09, 0.19)	0.03 (-0.04, 0.10)	0.03 (-0.09, 0.14)
2003	0.03 (-0.03, 0.09)	0.09 (-0.05, 0.23)	0.02 (-0.04, 0.09)	0.01 (-0.11, 0.12)
2004	0.03 (-0.03, 0.09)	0.06 (-0.09, 0.20)	0.03 (-0.05, 0.09)	0.02 (-0.10, 0.13)
2005	0.03 (-0.04, 0.09)	0.04 (-0.10, 0.19)	0.03 (-0.05, 0.08)	-0.02 (-0.14, 0.10)
2006	0.03 (-0.03, 0.09)	0.06 (-0.08, 0.21)	0.02 (-0.05, 0.09)	-0.05 (-0.17, 0.07)
2007	0.03 (-0.03, 0.09)	0.06 (-0.08, 0.20)	0.02 (-0.05, 0.09)	-0.04 (-0.16, 0.08)
2008	0.03 (-0.04, 0.09)	0.09 (-0.05, 0.23)	0.02 (-0.05, 0.08)	0.01 (-0.10, 0.13)
2009	0.03 (-0.04, 0.09)	0.07 (-0.08, 0.21)	0.04 (-0.03, 0.11)	0.09 (-0.03, 0.21)
2010	0.02 (-0.04, 0.08)	0.01 (-0.13, 0.15)	0.03 (-0.04, 0.10)	-0.01 (-0.12, 0.11)
2011	0.03 (-0.03, 0.09)		0.02 (-0.04, 0.09)	
Constant	0.48*** (0.40, 0.56)	1.07*** (0.83, 1.31)	0.67*** (0.58, 0.76)	1.25*** (1.05, 1.45)
Observations	2,835	822	2,835	822
Adjusted R ²	0.31	0.44	0.36	0.49
Residual Std. Error	0.27	0.34	0.30	0.28
F Statistic	49.97***	28.37***	61.82***	34.22***

*** p less than 0.05, ** p less than 0.01, * p less than 0.001
the reference group is SMDP-democracy

Table A.9: Summary Statistics for Pooled Bilateral Models

Statistic	N	Mean	St. Dev.	Min	Max
log conflict	502,200	-4.459	0.980	-4.605	8.037
log cooperation	502,200	-3.518	2.584	-4.605	8.753
Trade/initiator GDP	502,200	0.506	6.409	0.000	1,696.846
Trade/target GDP	502,200	0.506	6.409	0.000	1,696.846
log GDP per capita initiator	502,200	8.017	1.623	4.171	11.642
log GDP per capita target	502,200	8.017	1.623	4.171	11.642
log population initiator	502,200	1.935	1.927	-4.665	7.204
log population target	502,200	1.935	1.927	-4.665	7.204
log land area initiator	502,200	11.687	2.381	3.258	16.653
log land area target	502,200	11.687	2.381	3.258	16.653
log distance	502,200	8.709	0.774	4.546	9.892
Common language	502,200	0.179	0.383	0	1
Colony	502,200	0.014	0.116	0	1
Contiguity	502,200	0.019	0.136	0	1
Bilateral PTA	502,200	0.144	0.351	0	1
GATT initiator	502,200	0.795	0.404	0	1
GATT target	502,200	0.795	0.404	0	1
EU initiator	502,200	0.125	0.331	0	1
EU target	502,200	0.125	0.331	0	1

Table A.10: Summary Statistics for State-level Models (1993)

Statistic	N	Mean	St. Dev.	Min	Max
Trade-conflict random slope	166	0.002	0.266	-0.235	1.789
Trade-cooperation random slope	166	0.007	0.399	-0.529	1.604
Authoritarian	153	0.542	0.500	0.000	1.000
Majoritarian	153	0.229	0.421	0.000	1.000
Proportional	153	0.229	0.421	0.000	1.000
Institutional popular inclusion	46	0.044	1.656	-4.798	5.730
log CINC	166	-7.141	2.252	-13.097	-1.874
Unitarism	146	-0.408	0.344	-0.996	0.000
Public goods index	155	0.534	1.161	-2.705	3.230
Count of contiguous states	166	2.759	2.312	0	12

3.3 State-year data summary stats for models using yearly random slopes

Table A.12 includes all summary statistics for the state-year-level models (using random intercepts from yearly bilateral models). Again, we have fewer observations for institutionalized popular inclusion, as this variable is coded only for the most stable democratic states in the system—and is unavailable after 2010, reducing by one the number of years included in the data for these models. We also present a correlation matrix in Table A.13.

Table A.11: Correlation Matrix for State-level Models (1993)

	Trade-conf RS	Trade-coop RS	Authoritarian	Majoritarian	Proportional	IPI	log CINC	Unitarism	Public goods	Contig. states
Trade-conf RS	1	0.744	-0.230	0.341	-0.069	-0.429	0.579	-0.282	0.049	0.238
Trade-coop RS	0.744	1	-0.054	0.140	-0.076	-0.212	0.577	-0.070	-0.099	0.287
Authoritarian	-0.230	-0.054	1	-0.533	-0.593	-0.020	-0.113	0.644	-0.479	0.026
Majoritarian	0.341	0.140	-0.593	1	-0.297	-0.585	0.117	-0.376	0.227	-0.029
Proportional	-0.069	-0.076	-0.593	-0.297	1	0.587	0.018	-0.382	0.341	-0.002
IPI	-0.429	-0.212	-0.020	-0.585	0.587	1	-0.296	0.117	0.174	0.134
log CINC	0.579	0.577	-0.113	0.117	0.018	-0.296	1	-0.281	0.143	0.503
Unitarism	-0.282	-0.070	0.644	-0.376	-0.382	0.117	-0.281	1	-0.355	0.061
Public goods	0.049	-0.099	-0.479	0.227	0.341	0.174	0.143	-0.355	1	-0.020
Contig. states	0.238	0.287	0.026	-0.029	-0.002	0.134	0.503	0.061	-0.020	1

Table A.12: Summary Statistics for State-year Models

Statistic	N	Mean	St. Dev.	Min	Max
trade-conflict random slope	3,303	-0.000	0.302	-0.612	3.263
trade-cooperation random slope	3,303	-0.000	0.365	-0.887	1.942
Authoritarian	3,036	0.470	0.499	0.000	1.000
Majoritarian	3,036	0.245	0.430	0.000	1.000
Proportional	3,036	0.285	0.451	0.000	1.000
Institutional popular inclusion	863	0.089	1.619	-4.798	5.777
log CINC	3,303	-7.263	2.382	-15.218	-1.550
Unitarism	2,891	-0.463	0.356	-0.996	0.000
Public goods index	3,038	0.626	1.092	-2.705	3.230
Active rivalry	3,303	0.358	0.480	0	1
GDP growth	3,238	4.037	6.565	-62.076	149.973
Count of contiguous states	3,303	2.845	2.384	0	13

4 Robustness check models

We present tables of coefficients for several robustness check models below. As these models demonstrate, all results are robust.

4.1 Democracy subsample using PR vs. SMDP variable

We include authoritarian states in our main models in order to provide a point of comparison and to maximize utilization of available data. However, given that our theoretical argument regarding representation does not apply to authoritarian states (where leaders could see a more direct benefit from trade), and due to possible omitted variable bias in combined models, we replicate PR vs. SMDP models with democracies only. Table A.14 presents results, which look very similar to those in our main models. In both pooled (columns 1 and 2) and yearly (columns 3 and 4) models.

4.2 Yearly models omitting year-FE and adding an AR1 residual structure

In these models, we remove the year-FE and use gls to estimate an AR1 auto-regressive error structure.¹ Table A.15 presents the results (naturally for yearly models only). All results are consistent.

¹We use the nlme package version 3.1-137 in R version 2.5.2 to estimate these models.

Table A.13: Correlation Matrix for State-year Models

	trade-conf RS	trade-coop RS	Authoritarian	Majoritarian	Proportional	IPI	log CINC	Unitarism	Public goods index	Active rivalry	GDP growth	Contig.
trade-conf RS	1	0.590	-0.101	0.197	-0.077	-0.384	0.459	-0.212	0.301	-0.014	0.197	
trade-coop RS	0.590	1	0.011	0.055	-0.066	-0.217	0.574	-0.084	0.392	-0.078	0.316	
Authoritarian	-0.101	0.011	1	-0.537	-0.594	-0.0003	-0.624	0.192	0.111	0.027	0.065	
Majoritarian	0.197	0.055	-0.537	1	-0.360	-0.605	0.084	-0.477	-0.094	-0.058	-0.088	
Proportional	-0.077	-0.066	-0.594	-0.360	1	0.603	-0.305	0.225	0.313	-0.122	-0.068	0.013
IPI	-0.217	-0.0003	-0.217	-0.605	0.603	-0.003	-0.395	0.160	0.207	-0.228	0.005	0.160
log CINC	0.459	0.574	-0.069	0.084	-0.003	-0.332	1	-0.252	0.099	0.347	0.021	0.533
Unitarism	-0.212	-0.084	0.624	-0.305	-0.395	0.160	-0.252	1	-0.375	0.138	0.101	0.065
Public goods index	0.033	-0.078	-0.477	0.225	0.313	0.207	0.099	-0.375	1	-0.216	-0.080	-0.053
Active rivalry	0.301	0.392	0.192	-0.094	-0.122	-0.228	0.347	0.138	-0.216	1	0.076	0.185
GDP growth	-0.014	0.027	0.111	-0.058	-0.068	0.005	0.021	0.101	-0.080	0.076	1	0.038
Contig.	0.197	0.316	0.065	-0.088	0.013	0.160	0.533	-0.065	0.185	0.038	1	

Table A.14: Coefficients and 95 percent confidence bounds examining democracy subsample using PR vs. SMDP variable

	Conflict	Cooperation	Conflict	Cooperation
Democracy-PR	-0.14** (-0.27, -0.02)	-0.08 (-0.25, 0.08)	-0.12*** (-0.16, -0.09)	-0.05*** (-0.08, -0.02)
Unitarism	0.01 (-0.23, 0.26)	0.19 (-0.13, 0.52)	-0.08*** (-0.14, -0.02)	0.03 (-0.03, 0.09)
Public goods index	-0.06* (-0.13, -0.00)	-0.12*** (-0.21, -0.04)	-0.02** (-0.04, -0.00)	-0.06*** (-0.07, -0.04)
log CINC	0.12*** (0.08, 0.16)	0.14*** (0.09, 0.19)	0.09*** (0.08, 0.10)	0.10*** (0.09, 0.11)
Count of rivals			0.18*** (0.15, 0.22)	0.16*** (0.12, 0.19)
GDP growth			0.00 (-0.00, 0.01)	0.01** (0.00, 0.01)
count of contiguous states	-0.01 (-0.03, 0.02)	0.01 (-0.03, 0.05)	-0.01* (-0.01, 0.00)	0.01** (0.00, 0.01)
1994			-0.04 (-0.14, 0.07)	-0.05 (-0.15, 0.04)
1995			-0.01 (-0.11, 0.09)	-0.02 (-0.11, 0.08)
1996			-0.01 (-0.11, 0.09)	-0.01 (-0.10, 0.09)
1997			-0.02 (-0.12, 0.08)	-0.06 (-0.15, 0.04)
1998			-0.01 (-0.11, 0.09)	-0.03 (-0.12, 0.07)
1999			0.01 (-0.09, 0.11)	-0.02 (-0.12, 0.07)
2000			0.00 (-0.10, 0.10)	-0.03 (-0.13, 0.06)
2001			0.03 (-0.07, 0.13)	-0.01 (-0.10, 0.08)
2002			0.01 (-0.08, 0.11)	-0.00 (-0.10, 0.09)
2003			0.04 (-0.06, 0.14)	0.01 (-0.09, 0.10)
2004			0.02 (-0.08, 0.12)	0.01 (-0.08, 0.11)
2005			0.01 (-0.09, 0.11)	0.00 (-0.09, 0.09)
2006			0.03 (-0.07, 0.13)	-0.01 (-0.10, 0.09)
2007			0.02 (-0.08, 0.12)	-0.01 (-0.10, 0.09)
2008			0.03 (-0.07, 0.13)	0.02 (-0.07, 0.11)
2009			0.02 (-0.07, 0.12)	0.04 (-0.06, 0.13)
2010			0.01 (-0.09, 0.11)	0.01 (-0.08, 0.10)
2011			0.03 (-0.07, 0.13)	0.02 (-0.07, 0.11)
Constant	1.04*** (0.66, 1.43)	1.24*** (0.73, 1.75)	0.61*** (0.48, 0.74)	0.72*** (0.60, 0.84)
Observations	68	68	1,527	1,527
Adjusted R ²	0.50	0.43	0.37	0.41
Residual Std. Error	0.26	0.35	0.30	0.29
F Statistic	14.48***	11.16***	36.18***	43.38***

*** p less than 0.01, ** p less than 0.05, * p less than 0.1
the reference group is SMDP-democracy

Table A.15: Coefficients and 95 percent confidence bounds for robustness check (AR(1) errors)

	Conflict	Cooperation	Conflict	Cooperation
Democracy-PR	-0.08*** (-0.12, -0.03)	-0.02 (-0.07, 0.03)		
Authoritarian	-0.05** (-0.09, -0.01)	0.02 (-0.02, 0.06)		
Institutional popular inclusion			-0.05** (-0.09, -0.01)	0.01 (-0.03, 0.05)
Unitarism	-0.09*** (-0.16, -0.03)	-0.01 (-0.08, 0.07)	0.17 (-0.06, 0.41)	0.09 (-0.11, 0.28)
Public goods index	-0.01 (-0.02, 0.01)	-0.01 (-0.03, 0.01)	-0.08** (-0.14, -0.02)	-0.13*** (-0.19, -0.07)
log CINC	0.07*** (0.06, 0.08)	0.10*** (0.09, 0.12)	0.13*** (0.10, 0.17)	0.12*** (0.09, 0.16)
Count of rivals	0.08*** (0.04, 0.12)	0.09*** (0.05, 0.14)	0.08 (-0.03, 0.19)	0.14*** (0.05, 0.23)
GDP growth	-0.00 (-0.00, 0.00)	0.00 (-0.00, 0.00)	-0.00 (-0.01, 0.00)	-0.00 (-0.00, 0.00)
count of contiguous states	-0.01 (-0.02, 0.00)	-0.00 (-0.01, 0.01)	-0.02 (-0.04, 0.01)	-0.00 (-0.03, 0.02)
Constant	0.50*** (0.37, 0.63)	0.70*** (0.55, 0.86)	1.21*** (0.81, 1.62)	1.06*** (0.71, 1.42)
Observations	2,835	2,835	822	822
Log Likelihood	558.52	622.59	-33.87	212.53
Bayesian Inf. Crit.	-1,029.63	-1,157.77	134.76	-358.03

*** p less than 0.01, ** p less than 0.05, * p less than 0.1
the reference group is SMDP-democracy

4.3 Interacting domestic institutions and national capabilities

Our theoretical argument does not specify that domestic institutions and state capabilities condition each other in their association with trade-conflict and trade-cooperation slopes. However, we did test this possibility. Table A.16 presents results for pooled models, which support our arguments. Indeed, we find that interaction terms for PR X CINC and institutionalized popular inclusion X CINC in trade-conflict models tend to be negative and significant, suggesting that more representative institutions have a stronger pacifying impact as state capabilities increase—and that the positive impact of capabilities is lessened under more representative institutions. Similarly, Table A.17 presents results for yearly models, which again support expectations, with interaction results mirroring those in Table A.16. The major takeaway of these models is that representative state institutions—a willingness factor—blunt the positive impact of capabilities—an opportunity factor—with respect to the trade-conflict relationship (Most and Starr, 1989). There is less support that representative institutions actually reinforce the opportunity effect of capabilities with respect to the trade-cooperation relationship. Alternatively, one could see capabilities as enhancing both the conflict-dampening and cooperation-promoting (the former more consistently/robustly) conditioning role of representative institutions on trade-politics relationships.

4.4 Models with minimal controls

Finally, we present minimal specifications that show the robustness of our results without controls for unitary government, public goods provision, rivalry, and GDP growth. To varying degrees,

Table A.16: State-level model robustness check (Interactions between domestic institutions and national capabilities)

	Conflict	Cooperation
Democracy-PR	-0.65*** (-0.98, -0.33)	-0.18 (-0.74, 0.39)
Authoritarian	-0.83*** (-1.10, -0.56)	-0.44* (-0.90, 0.03)
Institutional popular inclusion		-0.29*** (-0.43, -0.15)
log CINC	0.14 *** (0.11, 0.17)	0.12*** (0.06, 0.17)
Democracy-PR X log CINC	-0.08*** (-0.12, -0.03)	-0.01 (-0.10, 0.07)
Authoritarian X log CINC	-0.09*** (-0.13, -0.06)	-0.04 (-0.10, 0.03)
Institutional popular inclusion X log CINC		-0.04*** (-0.07, -0.02)
Unitarism	-0.00 (-0.13, 0.13)	0.09 (-0.26, 0.44)
Public goods index	-0.03** (-0.06, -0.00)	-0.09* (-0.18, 0.00)
Count of contiguous states	-0.00 (-0.02, 0.01)	-0.01 (-0.04, 0.03)
Constant	1.12*** (0.89, 1.36)	1.00*** (0.46, 1.53)
Observations	145	45
Adjusted R ²	0.53	0.63
Residual Std. Error	0.19	0.25
F Statistic	21.38***	13.32***
		10.37***
		6.69***

*** p less than 0.01, ** p less than 0.05, * p less than 0.1
the reference group is SMDP-democracy

there could be some concern for post-treatment bias given that our main explanatory variables could affect these variables, which in turn might affect political interactions. All results in Tables A-18 and A-19 are robust.

Table A.17: State-year model robustness check (Interactions between domestic institutions and national capabilities)

	Conflict		Cooperation	
Democracy-PR	-0.43*** (-0.52, -0.33)		0.06 (-0.05, 0.17)	
Authoritarian	-0.53*** (-0.62, -0.44)		-0.03 (-0.13, 0.08)	
Institutional popular inclusion		-0.30*** (-0.34, -0.25)		-0.01 (-0.04, 0.03)
log CINC	0.10*** (0.10, 0.11)	0.12*** (0.10, 0.13)	0.09*** (0.08, 0.10)	0.13*** (0.12, 0.15)
Democracy-PR X log CINC	-0.05*** (-0.06, -0.03)		0.02** (0.00, 0.03)	
Authoritarian X log CINC	-0.06*** (-0.07, -0.05)		0.00 (-0.01, 0.02)	
Institutional popular inclusion X log CINC		-0.05*** (-0.05, -0.04)		-0.01** (-0.01, -0.00)
Unitarism	-0.08*** (-0.12, -0.04)	0.08 (-0.04, 0.21)	-0.02 (-0.06, 0.02)	0.13** (0.02, 0.25)
Public goods index	-0.01* (-0.02, 0.00)	-0.09*** (-0.13, -0.06)	-0.03*** (-0.05, -0.02)	-0.18*** (-0.21, -0.15)
Active rivalry	0.12*** (0.10, 0.14)	0.09*** (0.03, 0.15)	0.17*** (0.14, 0.20)	0.13*** (0.08, 0.19)
GDP growth	0.00 (-0.00, 0.00)	-0.00 (-0.01, 0.01)	0.00 (-0.00, 0.00)	0.01*** (0.00, 0.02)
Count of contiguous states	-0.00 (-0.01, 0.00)	-0.01** (-0.02, -0.00)	-0.00 (-0.01, 0.00)	-0.01* (-0.02, 0.00)
1994	-0.01 (-0.07, 0.05)	-0.08 (-0.21, 0.05)	-0.01 (-0.08, 0.06)	-0.05 (-0.17, 0.06)
1995	0.01 (-0.05, 0.07)	-0.00 (-0.13, 0.13)	-0.01 (-0.08, 0.06)	0.00 (-0.11, 0.12)
1996	0.01 (-0.05, 0.07)	0.01 (-0.12, 0.14)	-0.00 (-0.07, 0.07)	0.02 (-0.10, 0.13)
1997	0.01 (-0.05, 0.07)	0.02 (-0.11, 0.15)	0.00 (-0.07, 0.07)	-0.04 (-0.15, 0.08)
1998	0.02 (-0.05, 0.08)	0.00 (-0.13, 0.13)	0.01 (-0.06, 0.08)	-0.02 (-0.14, 0.10)
1999	0.02 (-0.04, 0.08)	0.07 (-0.05, 0.20)	0.02 (-0.05, 0.09)	-0.02 (-0.13, 0.10)
2000	0.02 (-0.04, 0.08)	0.04 (-0.09, 0.17)	0.02 (-0.04, 0.09)	-0.01 (-0.13, 0.10)
2001	0.02 (-0.04, 0.08)	0.10 (-0.03, 0.23)	0.02 (-0.05, 0.09)	-0.00 (-0.12, 0.11)
2002	0.03 (-0.04, 0.09)	0.04 (-0.09, 0.17)	0.03 (-0.04, 0.10)	0.02 (-0.09, 0.14)
2003	0.03 (-0.03, 0.09)	0.09 (-0.04, 0.22)	0.03 (-0.04, 0.09)	0.01 (-0.11, 0.12)
2004	0.03 (-0.03, 0.09)	0.06 (-0.03, 0.19)	0.03 (-0.04, 0.10)	0.02 (-0.10, 0.14)
2005	0.03 (-0.03, 0.09)	0.04 (-0.09, 0.17)	0.01 (-0.05, 0.08)	-0.02 (-0.14, 0.10)
2006	0.03 (-0.03, 0.09)	0.07 (-0.06, 0.20)	0.02 (-0.05, 0.09)	-0.05 (-0.17, 0.07)
2007	0.03 (-0.03, 0.09)	0.06 (-0.07, 0.20)	0.02 (-0.05, 0.09)	-0.04 (-0.16, 0.08)
2008	0.03 (-0.03, 0.09)	0.08 (-0.05, 0.20)	0.02 (-0.05, 0.09)	0.01 (-0.10, 0.13)
2009	0.04 (-0.03, 0.09)	0.03 (-0.05, 0.20)	0.04 (-0.05, 0.09)	0.08 (-0.04, 0.20)
2010	0.03 (-0.02, 0.10)	0.00 (-0.11, 0.16)	0.03 (-0.03, 0.11)	-0.01 (-0.04, 0.20)
2011	0.03 (-0.03, 0.09)	0.13 (-0.13, 0.13)	0.02 (-0.04, 0.10)	(-0.13, 0.11)
Constant	0.71*** (0.62, 0.81)	0.96*** (0.74, 1.18)	0.63*** (0.53, 0.73)	1.24*** (1.03, 1.44)
Observations	2,835	822	2,835	822
Adjusted R ²	0.33	0.53	0.36	0.49
Residual Std. Error	0.26	0.31	0.30	0.28
F Statistic	51.98***	38.24***	57.64***	33.18***

*** p less than 0.01, ** p less than 0.05, * p less than 0.1
the reference group is SMDP-democracy

Table A.18: Replication models with minimal controls, pooled models.

	Trade-Conflict Model 1	Trade-Conflict Model 2	Trade-Cooperation Model 3	Trade-Cooperation Model 4
Democracy-PR	-0.18*** (-0.27, -0.08)		-0.12 (-0.28, 0.04)	
Authoritarian	-0.18*** (-0.26, -0.09)		-0.05 (-0.18, 0.08)	
Institutional popular inclusion		-0.06* (-0.11, -0.00)		-0.02 (-0.10, 0.06)
log CINC	0.09*** (0.07, 0.10)	0.13*** (0.08, 0.18)	0.12*** (0.09, 0.15)	0.11*** (0.04, 0.19)
Count of contiguous states	-0.00 (-0.02, 0.01)	-0.01 (-0.05, 0.03)	-0.00 (-0.03, 0.02)	0.02 (-0.04, 0.08)
Constant	0.74*** (0.58, 0.91)	0.94*** (0.55, 1.33)	0.89*** (0.63, 1.16)	0.76*** (0.21, 1.30)
Observations	153	46	153	46
Adjusted R ²	0.44	0.49	0.32	0.25
Residual Std. Error	0.21	0.29	0.33	0.40
F Statistic	30.96***	15.51***	18.65***	6.07***

*** p less than 0.1, ** p less than 0.05, * p less than 0.01

Table A.19: Replication models with minimal controls, yearly models. Note: all models include year fixed effects (coefficients not presented).

	Trade-Conflict Model 5	Trade-Conflict Model 6	Trade-Cooperation Model 7	Trade-Cooperation Model 8
Democracy-PR	-0.12*** (-0.15, -0.09)		-0.04** (-0.07, -0.01)	
Authoritarian	-0.10*** (-0.13, -0.08)		0.01 (-0.01, 0.04)	
Institutional popular inclusion		-0.05*** (-0.07, -0.03)		-0.01 (-0.02, 0.01)
log CINC	0.08*** (0.08, 0.09)	0.14*** (0.12, 0.15)	0.11*** (0.10, 0.11)	0.12*** (0.10, 0.13)
Count of contiguous states	-0.01** (-0.01, -0.00)	-0.02*** (-0.03, -0.01)	-0.00 (-0.01, 0.00)	-0.00 (-0.01, 0.01)
Constant	0.67*** (0.61, 0.74)	0.97*** (0.82, 1.12)	0.74*** (0.67, 0.82)	0.81*** (0.67, 0.95)
Observations	3,036	863	3,036	863
Adjusted R ²	0.27	0.38	0.31	0.30
Residual Std. Error	0.27	0.35	0.30	0.32
F Statistic	51.76***	27.75***	62.05***	19.72***

*** p less than 0.05, ** p less than 0.01, * p less than 0.001

References

Most, Benjamin and Harvey Starr. 1989. *Inquiry, Logic, and International Politics*. Columbia: University of South Carolina Press.