

# Power Changes, Alliance Credibility, and Extended Deterrence

## Online Appendix

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# Contents

## 1. Tables A1-A6

Tables A1-A6 present models that utilize the set of observations where the potential target had only one alliance in order to control for alliance age. Alliance age is measured as the number of years since the alliance was formed. We estimate models with a single alliance age variable and models that include its squared and cubed term.

## 2. Tables A7-A9

Tables A7-A9 present models that disaggregate our significant power change measure into separate measures for significant power increases and significant power decreases. This is done for all three measurement strategies and all three significant power change thresholds.

## 3. Tables A10-A15

Tables A10-A15 contain models that split our sample into alliances with and without nuclear weapons. More specifically, the models in Tables A10-A12 are estimated using only the cases where at least one of the alliance members were known to possess nuclear weapons in the observation year. Tables A13-A15 utilize the rest of the cases where none of the alliance members were known to possess nuclear weapons in the observation year.

## 4. Table A16

Table A16 replicates our analysis of asymmetric alliances using the higher significant power change thresholds, 40% and 50%. Similar to Table 6 in the paper, we separate cases where the dominant power in the alliance is the potential target and cases where the dominant power is *not* the potential target.

## 5. Tables A17-A19

Tables A17-A19 present models that employ target clustered standard errors rather than the dyad clustered standard errors used throughout the paper.

Table A1: Probit Regressions of Dispute Initiation Controlling for Alliance Age

	Model A1	Model A2	Model A3	Model A4
Alliance Age	0.005** (0.002)	0.002 (0.002)	0.002 (0.003)	0.001 (0.003)
Any ally 30% power change		0.160** (0.050)		
Any ally 40% power change			0.159** (0.061)	
Any ally 50% power change				0.215** (0.071)
Relative strength of target's side	-0.546** (0.095)	-0.559** (0.094)	-0.562** (0.094)	-0.586** (0.094)
Allies average S score	-0.823** (0.157)	-0.884** (0.154)	-0.921** (0.145)	-0.971** (0.145)
Peacetime coordination in target's alliance	-0.127** (0.046)	-0.130** (0.047)	-0.132** (0.047)	-0.145** (0.049)
Challenger has a relevant offensive alliance	0.168 (0.092)	0.165 (0.093)	0.159 (0.094)	0.138 (0.099)
Challenger has a relevant neutrality pact	0.328* (0.131)	0.327* (0.132)	0.333* (0.132)	0.333* (0.134)
Natural log of distance	-0.464** (0.027)	-0.467** (0.027)	-0.468** (0.028)	-0.469** (0.028)
Joint democracy	-0.103 (0.080)	-0.092 (0.080)	-0.080 (0.080)	-0.073 (0.080)
Challenger-target S score	-0.562** (0.199)	-0.550** (0.202)	-0.541** (0.204)	-0.524* (0.206)
Constant	2.862** (0.356)	2.892** (0.355)	2.941** (0.360)	3.035** (0.368)
Observations	226,411	226,411	225,407	222,164
AIC	5496.060	5485.482	5484.233	5403.766
Log-likelihood	-2735.030	-2728.741	-2728.116	-2687.883

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A2: Probit Regressions of Dispute Initiation Controlling for Alliance Age

	Model A5	Model A6	Model A7	Model A8
Alliance Age	0.005* (0.002)	-0.001 (0.003)	-0.001 (0.003)	0.000 (0.002)
Strongest ally 30% power change		0.238** (0.057)		
Strongest ally 40% power change			0.251** (0.071)	
Strongest ally 50% power change				0.221** (0.065)
Relative strength of target's side	-0.520** (0.095)	-0.511** (0.097)	-0.525** (0.096)	-0.517** (0.096)
Allies average S score	-0.820** (0.157)	-0.799** (0.156)	-0.860** (0.150)	-0.855** (0.152)
Peacetime coordination in target's alliance	-0.138** (0.046)	-0.131** (0.046)	-0.138** (0.046)	-0.132** (0.046)
Challenger has a relevant offensive alliance	0.201* (0.088)	0.219* (0.090)	0.209* (0.087)	0.203* (0.087)
Challenger has a relevant neutrality pact	0.322* (0.131)	0.320* (0.132)	0.326* (0.132)	0.332* (0.130)
Natural log of distance	-0.459** (0.027)	-0.461** (0.026)	-0.461** (0.027)	-0.461** (0.027)
Joint democracy	-0.115 (0.082)	-0.105 (0.081)	-0.090 (0.081)	-0.072 (0.079)
Challenger-target S score	-0.567** (0.197)	-0.593** (0.197)	-0.566** (0.198)	-0.561** (0.196)
Constant	2.840** (0.354)	2.824** (0.355)	2.895** (0.356)	2.878** (0.357)
Observations	227,212	227,212	227,212	227,212
AIC	5541.729	5521.572	5522.141	5526.818
Log-likelihood	-2757.864	-2746.786	-2747.071	-2749.409

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A3: Probit Regressions of Dispute Initiation Controlling for Alliance Age

	Model A9	Model A10	Model A11	Model A12
Alliance Age	0.005* (0.002)	-0.001 (0.003)	-0.000 (0.003)	-0.001 (0.003)
Percent of allies with 30% power change		0.003** (0.001)		
Percent of allies with 40% power change			0.003** (0.001)	
Percent of allies with 50% power change				0.004** (0.001)
Relative strength of target's side	-0.547** (0.097)	-0.527** (0.098)	-0.544** (0.098)	-0.548** (0.097)
Allies average S score	-0.865** (0.155)	-0.819** (0.155)	-0.893** (0.149)	-0.927** (0.144)
Peacetime coordination in target's alliance	-0.146** (0.049)	-0.129** (0.049)	-0.136** (0.048)	-0.144** (0.049)
Challenger has a relevant offensive alliance	0.162 (0.097)	0.183 (0.100)	0.165 (0.097)	0.156 (0.097)
Challenger has a relevant neutrality pact	0.321* (0.139)	0.318* (0.140)	0.329* (0.141)	0.337* (0.138)
Natural log of distance	-0.465** (0.028)	-0.470** (0.028)	-0.469** (0.029)	-0.470** (0.029)
Joint democracy	-0.226** (0.086)	-0.198* (0.085)	-0.172* (0.084)	-0.160 (0.082)
Challenger-target S score	-0.636** (0.202)	-0.686** (0.205)	-0.650** (0.205)	-0.642** (0.204)
Constant	3.009** (0.360)	2.954** (0.360)	3.032** (0.361)	3.094** (0.365)
Observations	205,153	205,153	205,153	205,153
AIC	5135.328	5103.970	5109.710	5105.894
Log-likelihood	-2554.664	-2537.985	-2540.855	-2538.947

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A4: Probit Regressions of Dispute Initiation Controlling for Alliance Age

	Model A13	Model A14	Model A15	Model A16
Alliance Age	-0.013 (0.010)	-0.026* (0.012)	-0.021 (0.011)	-0.024* (0.012)
Alliance Age <sup>2</sup>	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Alliance Age <sup>3</sup>	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Any ally 30% power change		0.222** (0.058)		
Any ally 40% power change			0.194** (0.067)	
Any ally 50% power change				0.256** (0.081)
Relative strength of target's side	-0.543** (0.095)	-0.553** (0.095)	-0.558** (0.094)	-0.586** (0.094)
Allies average S score	-0.826** (0.156)	-0.909** (0.151)	-0.942** (0.141)	-0.993** (0.139)
Peacetime coordination in target's alliance	-0.125** (0.047)	-0.128** (0.048)	-0.131** (0.049)	-0.146** (0.051)
Challenger has a relevant offensive alliance	0.168 (0.092)	0.165 (0.093)	0.158 (0.093)	0.134 (0.099)
Challenger has a relevant neutrality pact	0.329* (0.131)	0.330* (0.132)	0.337* (0.132)	0.337* (0.133)
Natural log of distance	-0.465** (0.027)	-0.469** (0.027)	-0.470** (0.028)	-0.470** (0.028)
Joint democracy	-0.110 (0.081)	-0.100 (0.080)	-0.087 (0.081)	-0.080 (0.081)
Challenger-target S score	-0.552** (0.197)	-0.528** (0.201)	-0.520** (0.201)	-0.499* (0.204)
Constant	2.920** (0.359)	2.983** (0.361)	3.021** (0.368)	3.128** (0.378)
Observations	226,411	226,411	225,407	222,164
AIC	5494.879	5476.273	5478.941	5397.210
Log-likelihood	-2732.440	-2722.136	-2723.470	-2682.605

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A5: Probit Regressions of Dispute Initiation Controlling for Alliance Age

	Model A17	Model A18	Model A19	Model A20
Alliance Age	-0.016 (0.010)	-0.021* (0.011)	-0.014 (0.010)	-0.009 (0.010)
Alliance Age <sup>2</sup>	0.001 (0.001)	0.001 (0.001)	0.000 (0.001)	0.000 (0.001)
Alliance Age <sup>3</sup>	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)
Strongest ally 30% power change		0.290** (0.064)		
Strongest ally 40% power change			0.263** (0.080)	
Strongest ally 50% power change				0.211** (0.073)
Relative strength of target's side	-0.516** (0.095)	-0.499** (0.097)	-0.517** (0.097)	-0.511** (0.096)
Allies average S score	-0.824** (0.156)	-0.802** (0.156)	-0.864** (0.150)	-0.854** (0.152)
Peacetime coordination in target's alliance	-0.136** (0.047)	-0.130** (0.047)	-0.138** (0.048)	-0.132** (0.047)
Challenger has a relevant offensive alliance	0.201* (0.088)	0.222* (0.089)	0.209* (0.087)	0.203* (0.087)
Challenger has a relevant neutrality pact	0.324* (0.131)	0.321* (0.132)	0.327* (0.132)	0.333* (0.130)
Natural log of distance	-0.461** (0.027)	-0.462** (0.026)	-0.461** (0.027)	-0.462** (0.027)
Joint democracy	-0.123 (0.083)	-0.118 (0.082)	-0.101 (0.082)	-0.081 (0.080)
Challenger-target S score	-0.554** (0.194)	-0.573** (0.196)	-0.548** (0.196)	-0.548** (0.194)
Constant	2.905** (0.358)	2.881** (0.361)	2.933** (0.361)	2.903** (0.357)
Observations	227,212	227,212	227,212	227,212
AIC	5538.649	5512.811	5519.784	5527.234
Log-likelihood	-2754.325	-2740.405	-2743.892	-2747.617

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A6: Probit Regressions of Dispute Initiation Controlling for Alliance Age

	Model A21	Model A22	Model A23	Model A24
Alliance Age	-0.013 (0.010)	-0.026* (0.012)	-0.016 (0.011)	-0.010 (0.011)
Alliance Age <sup>2</sup>	0.001 (0.001)	0.001 (0.001)	0.000 (0.001)	0.000 (0.001)
Alliance Age <sup>3</sup>	-0.000 (0.000)	-0.000 (0.000)	-0.000 (0.000)	0.000 (0.000)
Percent of allies with 30% power change		0.004** (0.001)		
Percent of allies with 40% power change			0.004** (0.001)	
Percent of allies with 50% power change				0.004** (0.001)
Relative strength of target's side	-0.546** (0.097)	-0.517** (0.098)	-0.539** (0.098)	-0.544** (0.097)
Allies average S score	-0.874** (0.153)	-0.826** (0.154)	-0.904** (0.147)	-0.932** (0.144)
Peacetime coordination in target's alliance	-0.149** (0.050)	-0.133** (0.051)	-0.141** (0.050)	-0.149** (0.051)
Challenger has a relevant offensive alliance	0.160 (0.097)	0.185 (0.100)	0.163 (0.096)	0.155 (0.097)
Challenger has a relevant neutrality pact	0.323* (0.139)	0.320* (0.141)	0.332* (0.141)	0.339* (0.139)
Natural log of distance	-0.466** (0.028)	-0.471** (0.028)	-0.470** (0.029)	-0.470** (0.029)
Joint democracy	-0.238** (0.086)	-0.215* (0.085)	-0.187* (0.084)	-0.174* (0.083)
Challenger-target S score	-0.613** (0.201)	-0.654** (0.206)	-0.621** (0.204)	-0.619** (0.203)
Constant	3.075** (0.367)	3.033** (0.368)	3.094** (0.369)	3.131** (0.370)
Observations	205,153	205,153	205,153	205,153
AIC	5132.291	5086.849	5102.366	5103.162
Log-likelihood	-2551.146	-2527.424	-2535.183	-2535.581

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A7: Probit Regressions of Dispute Initiation on Ally Power Increases and Decreases

	Model A25	Model A26	Model A27
Any ally 30% power increase	0.149** (0.047)		
Any ally 30% power decrease	0.188** (0.034)		
Any ally 40% power increase		0.107* (0.044)	
Any ally 40% power decrease		0.256** (0.038)	
Any ally 50% power increase			0.112* (0.045)
Any ally 50% power decrease			0.310** (0.041)
Relative strength of target's side	-0.701** (0.070)	-0.713** (0.067)	-0.730** (0.069)
Allies average S score	-1.132** (0.123)	-1.039** (0.131)	-1.044** (0.133)
Peacetime coordination in target's alliance	-0.093** (0.034)	-0.098** (0.036)	-0.109** (0.036)
Challenger has a relevant offensive alliance	-0.049 (0.077)	-0.044 (0.079)	-0.040 (0.081)
Challenger has a relevant neutrality pact	0.312** (0.084)	0.299** (0.084)	0.276** (0.085)
Natural log of distance	-0.485** (0.019)	-0.487** (0.020)	-0.491** (0.020)
Joint democracy	-0.090 (0.051)	-0.115* (0.051)	-0.153** (0.052)
Challenger-target S score	-0.813** (0.157)	-0.774** (0.169)	-0.754** (0.169)
Constant	3.509** (0.265)	3.473** (0.280)	3.530** (0.283)
Observations	545,971	540,034	529,329
AIC	11464.417	11058.987	10690.526
Log-likelihood	-5718.208	-5515.493	-5331.263

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A8: Probit Regressions of Dispute Initiation on Ally Power Increases and Decreases

	Model A28	Model A29	Model A30
Strongest ally 30% power increase	0.154** (0.047)		
Strongest ally 30% power decrease	0.174** (0.037)		
Strongest ally 40% power increase		0.144** (0.049)	
Strongest ally 40% power decrease		0.195** (0.042)	
Strongest ally 50% power increase			0.161** (0.050)
Strongest ally 50% power decrease			0.193** (0.050)
Relative strength of target's side	-0.624** (0.069)	-0.632** (0.069)	-0.613** (0.069)
Allies average S score	-0.897** (0.123)	-0.931** (0.122)	-0.927** (0.121)
Peacetime coordination in target's alliance	-0.067 (0.035)	-0.071* (0.035)	-0.060 (0.035)
Challenger has a relevant offensive alliance	0.024 (0.070)	0.018 (0.069)	0.014 (0.069)
Challenger has a relevant neutrality pact	0.276** (0.078)	0.276** (0.079)	0.286** (0.079)
Natural log of distance	-0.473** (0.019)	-0.474** (0.019)	-0.472** (0.019)
Joint democracy	-0.079 (0.050)	-0.084 (0.051)	-0.053 (0.051)
Challenger-target S score	-0.775** (0.152)	-0.765** (0.151)	-0.761** (0.150)
Constant	3.153** (0.264)	3.205** (0.265)	3.158** (0.265)
Observations	557,027	557,027	557,027
AIC	11683.449	11683.087	11687.513
Log-likelihood	-5827.725	-5827.543	-5829.757

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A9: Probit Regressions of Dispute Initiation on Ally Power Increases and Decreases

	Model A31	Model A32	Model A33
Percent of allies with 30% power increase	0.002** (0.001)		
Percent of allies with 30% power decrease	0.003** (0.001)		
Percent of allies with 40% power increase		0.002** (0.001)	
Percent of allies with 40% power decrease		0.004** (0.001)	
Percent of allies with 50% power increase			0.002** (0.001)
Percent of allies with 50% power decrease			0.004** (0.001)
Relative strength of target's side	-0.637** (0.069)	-0.642** (0.069)	-0.641** (0.070)
Allies average S score	-0.792** (0.156)	-0.832** (0.164)	-0.861** (0.157)
Peacetime coordination in target's alliance	-0.090* (0.039)	-0.091* (0.038)	-0.095* (0.038)
Challenger has a relevant offensive alliance	0.011 (0.083)	0.003 (0.081)	-0.000 (0.081)
Challenger has a relevant neutrality pact	0.271** (0.089)	0.277** (0.091)	0.281** (0.090)
Natural log of distance	-0.490** (0.021)	-0.490** (0.021)	-0.490** (0.021)
Joint democracy	-0.064 (0.055)	-0.055 (0.055)	-0.050 (0.055)
Challenger-target S score	-0.749** (0.185)	-0.739** (0.184)	-0.736** (0.184)
Constant	3.163** (0.298)	3.212** (0.298)	3.252** (0.298)
Observations	502,869	502,869	502,869
AIC	9963.043	9961.083	9961.963
Log-likelihood	-4967.522	-4966.542	-4966.981

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A10: Probit Regressions of Dispute Initiation using Nuclear Alliances

	Model A34	Model A35	Model A36
Any ally 30% power change	0.252** (0.058)		
Any ally 40% power change		0.269** (0.056)	
Any ally 50% power change			0.309** (0.058)
Relative strength of target's side	-1.279** (0.173)	-1.333** (0.171)	-1.390** (0.174)
Allies average S score	-1.089** (0.134)	-1.161** (0.133)	-1.210** (0.133)
Peacetime coordination in target's alliance	-0.091 (0.047)	-0.088 (0.047)	-0.098* (0.048)
Challenger has a relevant offensive alliance	-0.391** (0.143)	-0.415** (0.151)	-0.448** (0.173)
Challenger has a relevant neutrality pact	0.440** (0.097)	0.435** (0.100)	0.425** (0.103)
Natural log of distance	-0.510** (0.024)	-0.520** (0.025)	-0.528** (0.026)
Joint democracy	-0.052 (0.055)	-0.054 (0.056)	-0.058 (0.057)
Challenger-target S score	-0.949** (0.178)	-0.947** (0.184)	-0.932** (0.187)
Constant	4.352** (0.384)	4.539** (0.392)	4.696** (0.397)
Observations	379,266	375,107	368,335
AIC	7293.901	7089.171	6809.114
Log-likelihood	-3633.950	-3531.585	-3391.557

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A11: Probit Regressions of Dispute Initiation using Nuclear Alliances

	Model A37	Model A38	Model A39
Strongest ally 30% power change	0.153** (0.040)		
Strongest ally 40% power change		0.184** (0.043)	
Strongest ally 50% power change			0.201** (0.050)
Relative strength of target's side	-1.319** (0.177)	-1.333** (0.177)	-1.306** (0.177)
Allies average S score	-0.881** (0.148)	-0.928** (0.144)	-0.921** (0.143)
Peacetime coordination in target's alliance	-0.094* (0.047)	-0.094* (0.047)	-0.083 (0.047)
Challenger has a relevant offensive alliance	-0.407* (0.159)	-0.412** (0.156)	-0.423** (0.155)
Challenger has a relevant neutrality pact	0.386** (0.096)	0.385** (0.097)	0.401** (0.096)
Natural log of distance	-0.510** (0.025)	-0.512** (0.025)	-0.513** (0.025)
Joint democracy	-0.071 (0.056)	-0.078 (0.057)	-0.056 (0.058)
Challenger-target S score	-0.844** (0.189)	-0.844** (0.188)	-0.848** (0.184)
Constant	4.256** (0.402)	4.327** (0.401)	4.291** (0.401)
Observations	376,216	376,216	376,216
AIC	6853.089	6846.662	6849.114
Log-likelihood	-3413.544	-3410.331	-3411.557

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A12: Probit Regressions of Dispute Initiation using Nuclear Alliances

	Model A40	Model A41	Model A42
Percent of allies with 30% power change	0.002* (0.001)		
Percent of allies with 40% power change		0.002** (0.001)	
Percent of allies with 50% power change			0.003** (0.001)
Relative strength of target's side	-1.422** (0.188)	-1.422** (0.187)	-1.422** (0.187)
Allies average S score	-0.810** (0.180)	-0.850** (0.175)	-0.872** (0.171)
Peacetime coordination in target's alliance	-0.135* (0.053)	-0.132* (0.052)	-0.135** (0.051)
Challenger has a relevant offensive alliance	-0.473* (0.222)	-0.473* (0.216)	-0.476* (0.216)
Challenger has a relevant neutrality pact	0.400** (0.119)	0.403** (0.120)	0.408** (0.119)
Natural log of distance	-0.536** (0.029)	-0.539** (0.030)	-0.541** (0.030)
Joint democracy	-0.035 (0.063)	-0.035 (0.063)	-0.035 (0.063)
Challenger-target S score	-0.776** (0.238)	-0.790** (0.238)	-0.796** (0.238)
Constant	4.468** (0.468)	4.526** (0.468)	4.577** (0.468)
Observations	324,031	324,031	324,031
AIC	5380.727	5374.639	5373.438
Log-likelihood	-2677.364	-2674.319	-2673.719

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A13: Probit Regressions of Dispute Initiation using Non-Nuclear Alliances

	Model A43	Model A44	Model A45
Any ally 30% power change	0.118* (0.059)		
Any ally 40% power change		0.120 <sup>†</sup> (0.062)	
Any ally 50% power change			0.156* (0.064)
Relative strength of target's side	-0.536** (0.087)	-0.543** (0.089)	-0.573** (0.092)
Allies average S score	-0.114 (0.257)	-0.143 (0.259)	-0.186 (0.256)
Peacetime coordination in target's alliance	-0.140** (0.050)	-0.147** (0.052)	-0.150** (0.053)
Challenger has a relevant offensive alliance	0.189* (0.085)	0.180* (0.087)	0.175* (0.087)
Challenger has a relevant neutrality pact	-0.046 (0.086)	-0.041 (0.086)	-0.046 (0.086)
Natural log of distance	-0.491** (0.029)	-0.490** (0.030)	-0.491** (0.030)
Joint democracy	-0.383* (0.158)	-0.372* (0.158)	-0.360* (0.156)
Challenger-target S score	-0.790** (0.213)	-0.788** (0.214)	-0.783** (0.214)
Constant	2.549** (0.397)	2.591** (0.411)	2.652** (0.415)
Observations	179,898	179,720	179,306
AIC	4504.610	4491.468	4483.407
Log-likelihood	-2239.305	-2232.734	-2228.704

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

<sup>†</sup>  $p < .1$ , \*  $p < .05$ , \*\*  $p < .01$

Table A14: Probit Regressions of Dispute Initiation using Non-Nuclear Alliances

	Model A46	Model A47	Model A48
Strongest ally 30% power change	0.155** (0.055)		
Strongest ally 40% power change		0.156** (0.059)	
Strongest ally 50% power change			0.180** (0.059)
Relative strength of target's side	-0.514** (0.090)	-0.521** (0.092)	-0.527** (0.092)
Allies average S score	-0.209 (0.223)	-0.209 (0.223)	-0.217 (0.222)
Peacetime coordination in target's alliance	-0.115* (0.050)	-0.122* (0.050)	-0.124* (0.050)
Challenger has a relevant offensive alliance	0.256** (0.081)	0.253** (0.081)	0.252** (0.081)
Challenger has a relevant neutrality pact	-0.053 (0.085)	-0.053 (0.085)	-0.054 (0.085)
Natural log of distance	-0.474** (0.029)	-0.474** (0.029)	-0.474** (0.029)
Joint democracy	-0.332* (0.149)	-0.326* (0.148)	-0.317* (0.148)
Challenger-target S score	-0.839** (0.199)	-0.825** (0.198)	-0.820** (0.197)
Constant	2.511** (0.369)	2.533** (0.375)	2.547** (0.377)
Observations	180,811	180,811	180,811
AIC	4666.793	4667.517	4663.160
Log-likelihood	-2320.397	-2320.759	-2318.580

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A15: Probit Regressions of Dispute Initiation using Non-Nuclear Alliances

	Model A49	Model A50	Model A51
Percent of allies with 30% power change	0.003** (0.001)		
Percent of allies with 40% power change		0.003** (0.001)	
Percent of allies with 50% power change			0.003** (0.001)
Relative strength of target's side	-0.580** (0.089)	-0.591** (0.093)	-0.598** (0.095)
Allies average S score	-0.208 (0.237)	-0.207 (0.241)	-0.201 (0.240)
Peacetime coordination in target's alliance	-0.146** (0.052)	-0.156** (0.052)	-0.156** (0.052)
Challenger has a relevant offensive alliance	0.196* (0.086)	0.188* (0.086)	0.186* (0.086)
Challenger has a relevant neutrality pact	-0.051 (0.087)	-0.050 (0.087)	-0.053 (0.087)
Natural log of distance	-0.486** (0.030)	-0.485** (0.030)	-0.485** (0.030)
Joint democracy	-0.384* (0.161)	-0.359* (0.158)	-0.345* (0.158)
Challenger-target S score	-0.837** (0.217)	-0.813** (0.214)	-0.810** (0.214)
Constant	2.645** (0.398)	2.667** (0.407)	2.672** (0.410)
Observations	178,838	178,838	178,838
AIC	4414.022	4416.326	4414.844
Log-likelihood	-2194.011	-2195.163	-2194.422

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A16: Probit Regressions of Dispute Initiation using only Asymmetric Alliances

	Dominant Power is the Target		Dominant Power is <i>not</i> the Target	
	Model A52	Model A53	Model A54	Model A55
Any ally 40% power increase	-0.313 (0.327)			
Any ally 40% power decrease	-0.041 (0.167)			
Any ally 50% power increase		-0.502 (0.280)		
Any ally 50% power decrease		-0.041 (0.164)		
Strongest ally 40% power increase			-3.041** (0.095)	
Strongest ally 40% power decrease			0.254** (0.085)	
Strongest ally 50% power increase				-2.897** (0.145)
Strongest ally 50% power decrease				0.225* (0.100)
Relative strength of target's side	-0.505 (0.412)	-0.387 (0.374)	-1.022** (0.185)	-0.985** (0.184)
Allies average S score	-0.936 (1.668)	-0.496 (1.684)	-0.963** (0.201)	-0.930** (0.203)
Peacetime coordination in target's alliance	-1.322** (0.439)	-1.355** (0.440)	-0.015 (0.069)	-0.012 (0.068)
Challenger has a relevant offensive alliance	0.290 (0.291)	0.283 (0.292)	0.023 (0.194)	0.009 (0.193)
Challenger has a relevant neutrality pact	0.361 (0.192)	0.332 (0.187)	0.524* (0.208)	0.551** (0.202)
Natural log of distance	-0.497** (0.149)	-0.497** (0.146)	-0.476** (0.037)	-0.478** (0.037)
Joint democracy	-4.269** (0.491)	-4.999** (0.504)	0.082 (0.089)	0.115 (0.089)
Challenger-target S score	-0.169 (0.766)	-0.019 (0.750)	-0.224 (0.395)	-0.213 (0.391)
Constant	5.277** (1.878)	4.794** (1.695)	2.908** (0.605)	2.872** (0.602)
Observations	4,366	4,366	112,683	112,683
AIC	381.315	378.081	2153.413	2160.347
Log-likelihood	-176.657	-175.041	-1062.706	-1066.173

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by dyad in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A17: Probit Regressions of Dispute Initiation with Target Clustered Standard Errors

	Model A56	Model A57	Model A58
Any ally 30% power change	0.238** (0.072)		
Any ally 40% power change		0.230** (0.079)	
Any ally 50% power change			0.259** (0.079)
Relative strength of target's side	-0.645** (0.092)	-0.657** (0.087)	-0.689** (0.088)
Allies average S score	-1.095** (0.212)	-1.141** (0.208)	-1.177** (0.208)
Peacetime coordination in target's alliance	-0.070 (0.071)	-0.067 (0.073)	-0.073 (0.075)
Challenger has a relevant offensive alliance	-0.022 (0.068)	-0.028 (0.069)	-0.035 (0.074)
Challenger has a relevant neutrality pact	0.327** (0.079)	0.326** (0.080)	0.318** (0.082)
Natural log of distance	-0.481** (0.032)	-0.485** (0.034)	-0.489** (0.034)
Joint democracy	-0.052 (0.059)	-0.045 (0.060)	-0.044 (0.060)
Challenger-target S score	-0.844** (0.198)	-0.839** (0.198)	-0.826** (0.199)
Constant	3.365** (0.371)	3.452** (0.386)	3.538** (0.391)
Observations	559,164	554,827	547,641
AIC	11968.063	11758.881	11472.529
Log-likelihood	-5971.032	-5866.441	-5723.264

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by target in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A18: Probit Regressions of Dispute Initiation with Target Clustered Standard Errors

	Model A59	Model A60	Model A61
Strongest ally 30% power change	0.164** (0.050)		
Strongest ally 40% power change		0.169** (0.055)	
Strongest ally 50% power change			0.175** (0.055)
Relative strength of target's side	-0.620** (0.084)	-0.625** (0.084)	-0.610** (0.084)
Allies average S score	-0.903** (0.197)	-0.940** (0.190)	-0.931** (0.189)
Peacetime coordination in target's alliance	-0.065 (0.068)	-0.067 (0.068)	-0.060 (0.068)
Challenger has a relevant offensive alliance	0.025 (0.067)	0.021 (0.064)	0.015 (0.064)
Challenger has a relevant neutrality pact	0.276** (0.071)	0.278** (0.072)	0.286** (0.071)
Natural log of distance	-0.473** (0.033)	-0.472** (0.033)	-0.472** (0.033)
Joint democracy	-0.073 (0.060)	-0.070 (0.060)	-0.047 (0.061)
Challenger-target S score	-0.773** (0.174)	-0.762** (0.175)	-0.759** (0.173)
Constant	3.146** (0.344)	3.185** (0.350)	3.150** (0.350)
Observations	557,027	557,027	557,027
AIC	11681.754	11682.762	11686.001
Log-likelihood	-5827.877	-5828.381	-5830.001

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by target in parentheses

\*  $p < .05$ , \*\*  $p < .01$

Table A19: Probit Regressions of Dispute Initiation with Target Clustered Standard Errors

	Model A62	Model A63	Model A64
Percent of allies with 30% power change	0.002** (0.001)		
Percent of allies with 40% power change		0.003** (0.001)	
Percent of allies with 50% power change			0.003** (0.001)
Relative strength of target's side	-0.641** (0.083)	-0.646** (0.083)	-0.648** (0.083)
Allies average S score	-0.840** (0.223)	-0.892** (0.215)	-0.911** (0.209)
Peacetime coordination in target's alliance	-0.090 (0.081)	-0.092 (0.080)	-0.096 (0.080)
Challenger has a relevant offensive alliance	0.011 (0.086)	0.004 (0.082)	0.000 (0.083)
Challenger has a relevant neutrality pact	0.272** (0.080)	0.276** (0.082)	0.279** (0.081)
Natural log of distance	-0.489** (0.033)	-0.489** (0.034)	-0.489** (0.034)
Joint democracy	-0.053 (0.063)	-0.041 (0.063)	-0.036 (0.063)
Challenger-target S score	-0.743** (0.192)	-0.731** (0.195)	-0.728** (0.194)
Constant	3.196** (0.335)	3.250** (0.342)	3.281** (0.348)
Observations	502,869	502,869	502,869
AIC	9962.505	9962.415	9963.265
Log-likelihood	-4968.252	-4968.207	-4968.632

Peace years, peace years<sup>2</sup>, and peace years<sup>3</sup> included in estimation

Standard errors clustered by target in parentheses

\*  $p < .05$ , \*\*  $p < .01$