

## ***Web Appendix to “Political Trade Dependence and North-South Trade Agreements”***

In this appendix we present several robustness checks in Table 9, data sources in Table 10, and descriptive statistics in Table 11. In the next section we discuss the use of the interaction terms in the specification using Political Trade Dependence/GDP.

### ***Robustness checks***

Table 9 shows several robustness checks. Consider first column A1. In our specification in the paper that uses *Political Trade Dependence/GDP*<sub>JMA3</sub> as independent variable, we do not include the constituent terms preferential and non-preferential imports as a share of GDP because the three required conditions are met (Brambor, Clark, and Golder 2006:66–70). As column A1 shows, we have no theoretical expectation that their coefficients will be different from zero, because the measure has a natural zero by definition, and because we indeed find no statistical evidence that the constituent terms' coefficients. We do however include the (logged) GDP of the developing country because we presume that larger developing countries will be relatively less trade-dependent, so this coefficient is highly unlikely to be zero.

Column A2 displays the estimated coefficients when we replace the 3-year average with the 5-year average prior to formation of the RTA. The substantive size of the coefficient changes minimally and the conclusions are unchanged.

For the results in column A3, we use the “standard procedure” in IR and include cubic splines (Beck, Katz, and Tucker 1998). Although the substantive effect is slightly weaker, the general result is unchanged. We cannot include time dummies because of separation problems, as some time dummies perfectly predict “failure,” i.e. in several years neither the US nor the EU form an RTA. See Carter and Signorino (2010:275).

For the results in column A4, we substitute the date of signature of the RTA for the date of entry into force. The effect remains significant comparable in size, although the sample is slightly smaller—some RTAs are signed but not yet ratified in our sample period, so that a greater number of post-event observations is dropped.

Column A5 shows the results when we exclude the Middle Eastern and North African countries (Egypt, Iraq, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Saudi Arabia, Tunisia and Yemen) from our sample. There are important foreign policy reasons why these countries are preferred RTA partners for the US and the EU, so that their inclusion may bias the results.<sup>1</sup> Moreover, for several of these countries, the primary export good is petroleum, which features importantly in the US GSP program, but which should not have any of the effects on RTA formation that we predict in the paper. Again, the results are virtually unchanged, except for a slightly bigger coefficient size.

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<sup>1</sup> We thank an anonymous reviewer for this suggestion.

In column A6, we include a set of region dummies (Africa, Asia and Europe, with the Americas as omitted reference category; we do not have sufficient observations to include an Oceania category). Both the African and Asian region dummies are significant and have a negative sign, but the effect is either smaller (for Asia) or only minimally larger (for Africa) than the effect of the independent variable at the sample mean. Hence again our conclusions are unchanged, but we prefer not to include these dummies in our main results because we have no theoretical reason to believe that there are systematic differences between regions. While some GSP+ agreements cover sub-regions, the GSP and other general programs are in principle available to all developing countries.

In column A7, we replace the Freedom House democracy measure with the binary democracy/dictatorship score developed by Cheibub et al. (2010). The binary measure narrowly misses statistical significance at the 5% level, but our other results hardly change.

For column A8, we replace the date of signature with the date when negotiations that led to the RTA officially started. We have gathered this data from the same sources as the data on the original RTAs. The results are minimally stronger without affecting our conclusion.

Finally, in column A9 we use a different estimation approach and estimate our coefficients with a Cox proportional hazard model. Our replication materials show a test that the proportional hazards assumption is not violated. Again the results are virtually identical.

BECK, NATHANIEL, JONATHAN N. KATZ, AND RICHARD TUCKER. (1998) Taking Time Seriously: Time-series-cross-section Analysis with a Binary Dependent Variable. *American Journal of Political Science* 42: 1260–1288.

BRAMBOR, THOMAS, WILLIAM ROBERTS CLARK, AND MATT GOLDER. (2006) Understanding Interaction Models: Improving Empirical Analyses. *Political Analysis* 14: 63–82.

CARTER, DAVID B, AND CURTIS S SIGNORINO. (2010) Back to the Future: Modeling Time Dependence in Binary Data. *Political Analysis* 18: 271–292.

CHEIBUB, JOSÉ ANTONIO, JENNIFER GANDHI, AND JAMES R. VREELAND. (2010) Democracy and Dictatorship Revisited. *Public Choice* 143: 67–101.

**Table 9: Robustness Checks**

	(A1)	(A2)	(A3)	(A4)	(A5)	(A6)	(A7)	(A8)	(A9)
Political Trade Dependence /GDP <sub>jMA3</sub>	11.673** (3.160)								
Non-Preferential Exports /GDP <sub>jMA3</sub>	5.213** (1.865)								
Preferential Exports <sub>jMA3</sub>	-0.000 (0.000)								
Non-Preferential Exports <sub>jMA3</sub>	-0.000 (0.000)								
Political Trade Dependence /Exports to Partner <sub>jMA5</sub>		1.513* (0.623)							
Political Trade Dependence /Exports to Partner <sub>jMA3</sub>			1.348* (0.574)	1.408* (0.593)	1.506* (0.631)	1.647** (0.620)	1.694** (0.602)	1.668** (0.642)	1.415* (0.603)
Democracy South <sub>t-1</sub>	0.275** (0.106)	0.236* (0.111)	0.271* (0.108)	0.308** (0.115)	0.295* (0.119)	0.056 (0.106)		0.247* (0.112)	0.272** (0.103)
Cheibub et al. Score <sub>t-1</sub>							0.826 (0.462)		
ln Distance <sub>ij</sub>	-1.041** (0.339)	-0.227 (0.369)	-0.407 (0.346)	-0.340 (0.375)	-0.501 (0.365)	-0.078 (0.364)	-0.508 (0.417)	-0.089 (0.319)	-0.099 (0.331)
ln Total Trade <sub>ij, t-1</sub>		0.514* (0.212)	0.563** (0.198)	0.340 (0.210)	0.732** (0.189)	0.698** (0.237)	0.494* (0.227)	0.667** (0.215)	0.648** (0.187)
ln GDP per capita <sub>j, t-1</sub>	0.401** (0.151)	0.457** (0.148)	0.437** (0.137)	0.447** (0.140)	0.449** (0.154)	0.430** (0.151)	0.553** (0.134)	0.417** (0.144)	0.383** (0.132)
ln GDP <sub>i, t-1</sub>	0.106 (0.105)	-0.489* (0.217)	-0.478* (0.197)	-0.252 (0.207)	-0.615** (0.185)	-0.550* (0.226)	-0.506* (0.230)	-0.566** (0.208)	-0.538** (0.184)
Asia dummy						-1.549** (0.549)			
Europe dummy						-0.306 (0.611)			
Africa dummy						-1.771** (0.667)			
Constant	-1.178 (3.628)	7.410 (12.949)	-4.868 (3.588)	-9.610* (3.939)	-1.967 (3.868)	-5.116 (3.591)	-5.271 (4.790)		
Observations	4176	2986	4211	4196	3916	4211	3688	4077	3651
Clusters	291	285	290	290	268	290	288	285	288
log-likelihood	-167.83	-140.90	-166.20	-161.15	-144.77	-159.75	-131.528	-140.25	-166.77
$\chi^2$		70.256	68.118	129.810	87.236	72.028	76.239	47.062	46.099

Robust standard errors clustered by country pair in parentheses. Cubed time coefficients/cubic spline coefficients not shown. \* significant at 5%; \*\* significant at 1%.

**Table 10: Data Sources**

Variable	Source
RTA	EU DG Trade, US Department of State, cross-checked against the WTO RTA database
Political Trade Dependence	Calculated from Eurostat, US BEA, USITC, and COMTRADE
GDP	World Development Indicators
GDP per capita	World Development Indicators
Democracy South	Freedom House index of political and civil rights (2011)
Distance	CEPII
Total trade	UN COMTRADE

**Table 11: Descriptive Statistics**

Variable	Obs.	Mean	Std. Dev.	Min.	Max.
Political Trade Dependence/Exports to Partner $\Gamma_{jMA3}$	4211	0.194	0.226	0	0.964
Political Trade Dependence/Exports to Partner $\Gamma_{jMA5}$	2986	0.190	0.215	0	0.959
$\Delta$ Political Trade Dependence/Exports to Partner $\Gamma_{jt, t-1}$	4099	0.198	0.240	0	0.989
Political Trade Dependence/Total Exports $S_{jMA3}$	4103	0.055	0.109	0	0.957
Political Trade Dependence/GDP $jMA3$	4176	0.018	0.046	0	0.596
Non-Preferential Exports/GDP $jMA3$	4176	-0.012	0.056	-0.596	0.975
Democracy South $t-1$	4211	4.157	1.803	1	7
ln Distance $_{ij}$	4211	8.911	0.514	6.931	9.725
ln Total Trade $_{ij, t-1}$	4211	13.129	2.431	4.078	19.783
ln GDP per capita $_{j, t-1}$	4211	7.198	1.324	4.131	10.570
ln GDP $_{j, t-1}$	4211	22.667	2.065	17.646	28.709
Cheibub et al. Binary Score $t-1$	3688	1	1	0	1