

## ONLINE APPENDIX FOR WHERE IS THE TIPPING POINT?

This is an online appendix where we present more robustness checks for “Where is the Tipping Point? Bilateral Trade and the Diffusion of Human Rights, 1982-2004.” We present results with more control variables — interstate war, leftist regime, military regime, and colonial history — as well as results with Political Terror Scale (PTS) as the new dependent variable to measure human right practices.

**Robustness Checks with More Control Variables.** We introduce more control variables into our models using Physical Integrity Rights as the dependent variable. In addition to the variables that are included in model specifications reported in Table 1 of the paper, we further add 4 variables: interstate war, leftist regime, military regime, and colonial history. Governments have the excuse to violate human rights when the security of the state is threatened by international conflicts. Interstate War indicates whether a international war was ongoing in each of the country-years in the sample.<sup>1</sup> Poe and Tate (1994) and other studies (e.g., Keith (1999) and Keith (2002)) have consistently reported that governments run by the military and ‘leftist’ political authorities are more inclined to use repressive behavior. We use the leftist regime variable from Poe and Tate (1994) and the military regime variable from Geddes (1999).<sup>2</sup> Colonial experience might also affect human rights. We use the variable colonial history (which equals 1 if the country was ever colonized by other countries and 0 otherwise) and the data are CIA World Factbook.

We repeat the same exercise in the main text of the paper: we use different levels of Bilateral Trade Context values, from 5 to 7.4 to be exact, as thresholds to dichotomize the treatment variable, find sub-samples in the data based on matching on the propensity score for receiving the treatment (that is, the possibility of having a Bilateral Trade Context value larger than chosen threshold value), and finally run a regression based on the matched sub samples. Figure A-1 plots the estimated 95% confidence intervals of the treatment effects of the bilateral trade context variable. We find almost identical results as in Figure 5 of the paper: when Bilateral Trade Context takes on values between 6.5 and 7 the treatment effects are consistently statistically significant in the regression analysis on the matched data.

We also provide the estimates of bilateral trade context variable and other control variables based on the full sample without matching (in Model 4 in Table A-1) and based on the sub-samples after matching on the propensity score using 6.1, 6.5, and 6.9 as thresholds to dichotomize the treatment variable (*Bilateral Trade Context*). Note that the estimates of most of the control variables are very similar to those reported in the main text, Table 1: democracy, trade, GDP per capita, and regime durability have positive effects on human rights while civil wars are detrimental to human rights; countries close in geography are close in their human rights practices. Among the four new control variables we added in, only colonial history has consistent and significant effect on human rights and according to our models, the effect is negative (see Table A-1).

**Political Terror Scale (PTS) as the New Dependent Variable.** We have been using the Physical Integrity Rights (PIR) Index as our dependent variable in the main text of paper. One justification for using PIR rather than the Political Terror Scale (PTS) is that even though both scales are compiled from the same underlying data sources, the Physical Integrity Rights Index a more fine-grained measure of physical integrity rights. Moreover, the two measures are highly

<sup>1</sup>Data were obtained from Hafner-Burton and Tsutsui (2007).

<sup>2</sup>She defines a military regime as where a “group of officers decides who rules and influences policy.”

correlated with each other (the correlation coefficient is 0.78). However, we are interested to see whether our theoretical story would be supported if we use the Political Terror Scale (State Department version) as the dependent variable.<sup>3</sup>

The PTS score takes the values of 1, 2, 3, 4, and 5 with higher values indicating worse human rights practices. So the ranking is in the reverse order compared to PIR. In the following, we reverse the PTS scale so that higher values indicating better human rights practices. Figure A-2 (a) presents the density distribution of the new bilateral trade context calculated based on PTS with the vertical line representing the mean value. Figure A-2 (b) shows a non-parametric Lowess line indicating a threshold effect between the Bilateral Trade Context variable and political terror scale (PTS) (note that the vertical positions of the points have been jittered to minimize the degree of overlap).

Using Political Terror Scale (PTS) as the new dependent variable, we repeat the same exercise as we did using Physical Integrity Rights (PIR): we use different levels of Bilateral Trade Context values as thresholds to dichotomize the treatment variable, find sub-samples in the data based on matching on the propensity score for receiving the treatment (the possibility of having a Bilateral Trade Context value larger than chosen threshold value), and finally run a regression based on the matched sub samples. Figure A-2 (c) reports the estimated effect size of the Bilateral Trade Context variable based on PTS in the regression analysis (after matching) when different thresholds are used to distinguish between “low” and “high” values of Bilateral Trade Context; the 95 % confidence intervals around the coefficient estimates are indicated by the grey vertical lines around each point estimate. Here, we see that after the threshold of 4.0, the estimated treatment effects of the Bilateral Trade Context variable become borderline significant at the 95 % confidence level until the threshold of about 4.4, after which the treatment effects are significantly larger than zero. Therefore, even with a new dependent variable, the political terror scale score which is less fine grained, we still find strong empirical support for our theory.

#### REFERENCES

- Geddes, Barbara. 1999. Authoritarian Breakdown: Empirical Test of a Game-Theoretic Argument. In *the annual meeting of the American Political Science Association*. Atlanta.
- Hafner-Burton, Emilie M. and Kiyoteru Tsutsui. 2007. “Human Rights in a Globalizing World: The Paradox of Empty Promises.” *American Journal of Sociology* 110(5):1373–1411.
- Keith, Linda Camp. 1999. “The United Nations International Covenant on Civil and Political Rights: Does It Make a Difference in Human Rights Behavior?” *Journal of Peace Research* 36(1):95–118.
- Keith, Linda Camp. 2002. “Constitutional Provisions for Individual Human Rights (1977-1996): Are They More Than Mere ”Window Dressing?”.” *Political Research Quarterly* 55(1):111–143.
- Poe, Steven and C. Neal Tate. 1994. “Repression of Human-Rights to Personal Integrity in the 1980s: A Global Analysis.” *American Political Science Review* 88(4):853–872.

<sup>3</sup>The key independent variable, bilateral trade context, is accordingly defined and calculated accordingly using PTS rather than PIR scores.

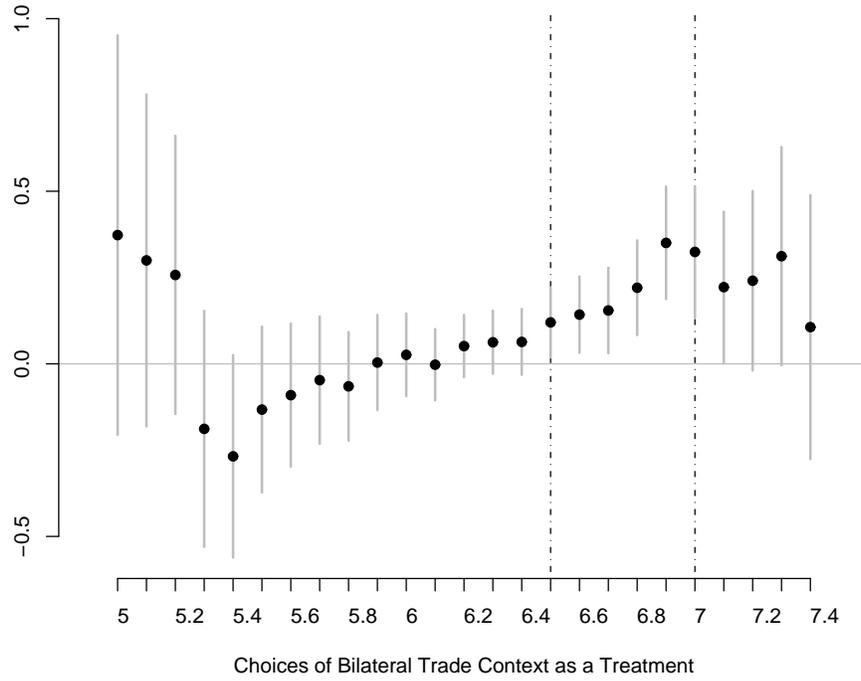
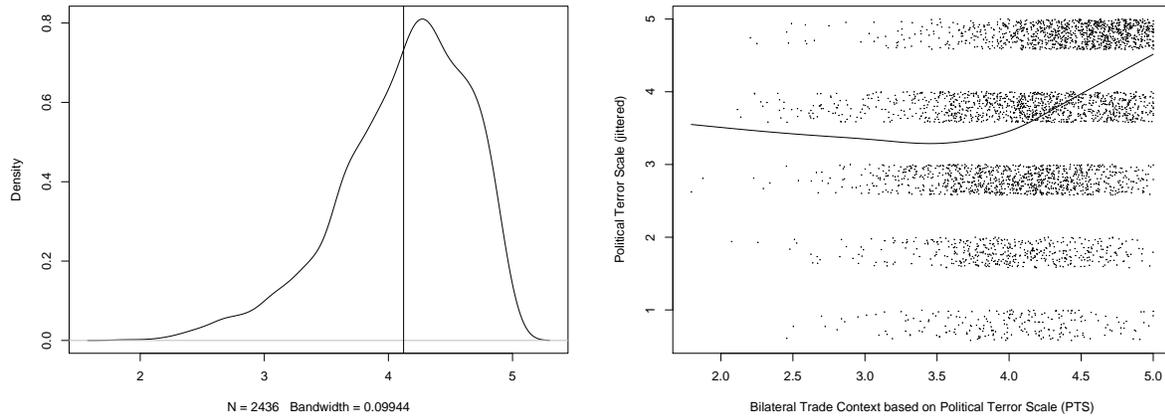


FIGURE A-1. Threshold Effects Estimated with Further Control Variables: Estimated effect size of the Bilateral Trade Context variable in the regression analysis (after matching) when different thresholds are used to distinguish between “low” and “high” values of Bilateral Trade Context. 95% confidence intervals around the coefficient estimates are indicated by the grey vertical lines around each point estimate.

TABLE A-1. With more control variables: ordered probit regression estimates based full sample without matching (M4) and on subsamples after matching (M5-7). For M5 to M7, each column represents the results obtained when a different choice of threshold is used to dichotomize the Bilateral Trade Context variable.

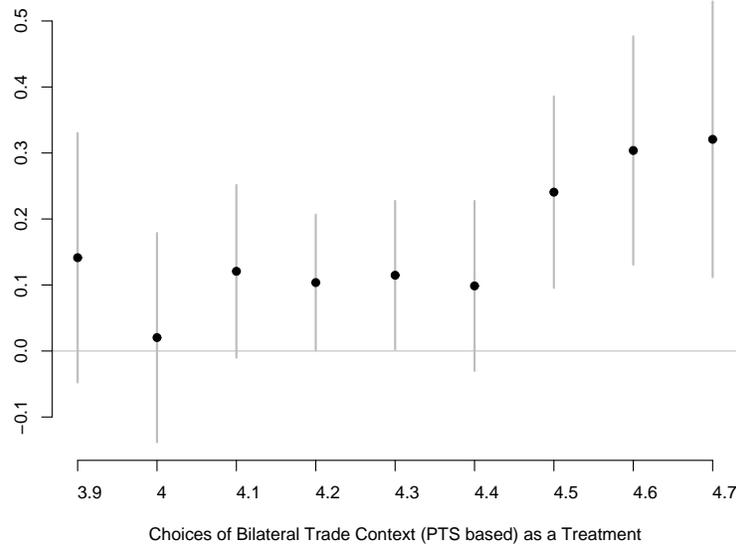
|                           | M4: without matching |            | M5: 6.1 as threshold |            | M6: 6.5 as threshold |            | M7: 6.9 as threshold |            |
|---------------------------|----------------------|------------|----------------------|------------|----------------------|------------|----------------------|------------|
|                           | Coef.                | Std. Error |
| Bilateral Trade Context   | 0.018                | 0.025      | -0.003               | 0.053      | 0.120                | 0.052**    | 0.350                | 0.083***   |
| Democracy                 | 0.018                | 0.004***   | 0.018                | 0.004***   | 0.019                | 0.005***   | 0.026                | 0.008***   |
| Total Trade (% of GDP)    | 0.004                | 0.001***   | 0.003                | 0.001***   | 0.004                | 0.001***   | 0.004                | 0.001***   |
| Inward FDI (% of GDP)     | -0.006               | 0.006      | -0.011               | 0.007      | -0.004               | 0.007      | -0.008               | 0.018      |
| GDP per capita (log)      | 0.085                | 0.022***   | 0.077                | 0.023***   | 0.119                | 0.027***   | 0.071                | 0.042 *    |
| Civil War                 | -0.463               | 0.090***   | -0.466               | 0.093***   | -0.452               | 0.101***   | -0.573               | 0.156***   |
| Interstate War            | -0.484               | 0.001***   | -0.535               | 0.001***   | -0.391               | 0.729      | 0.095                | 0.004***   |
| Leftist Regime            | 0.175                | 0.109      | 0.156                | 0.112      | 0.107                | 0.127      | 0.006                | 0.181      |
| Military Regime           | -0.112               | 0.128      | -0.107               | 0.130      | -0.101               | 0.133      | -0.372               | 0.195*     |
| Colonial History          | -0.287               | 0.081***   | -0.294               | 0.084***   | -0.305               | 0.095***   | -0.572               | 0.173***   |
| Regime Durability         | 0.002                | 0.001***   | 0.003                | 0.001***   | 0.003                | 0.001**    | 0.005                | 0.002***   |
| Population Density        | -0.000               | 0.000      | 0.000                | 0.000      | -0.000               | 0.000      | 0.000                | 0.000      |
| “Hard” PTA membership     | -0.085               | 0.086      | -0.037               | 0.090      | -0.163               | 0.105      | -0.254               | 0.191      |
| “Soft” PTA membership     | 0.054                | 0.065      | -0.009               | 0.073      | 0.071                | 0.081      | 0.224                | 0.146      |
| Common Language           | 0.027                | 0.010***   | 0.024                | 0.011**    | 0.032                | 0.012***   | 0.018                | 0.020      |
| Neighborhood Effect       | 0.079                | 0.015***   | 0.091                | 0.017***   | 0.078                | 0.017***   | 0.066                | 0.026**    |
| Lagged dependent variable | 0.554                | 0.015***   | 0.563                | 0.016***   | 0.526                | 0.018***   | 0.516                | 0.028***   |
| N. of Obs.                |                      | 2404       |                      | 2178       |                      | 1716       |                      | 698        |

\*\*\*, \*\*, \* show significance levels 99%, 95%, and 90% respectively.



(a) Bilateral Trade Context based on PTS

(b) Non-parametric Lowess Line



(c) Estimated Effect of Bilateral Trade Context based on PTS

FIGURE A-2. (a): distribution of the Bilateral Trade Context variable using political terror scale (PTS), with the vertical line representing the mean value. (b): a non-parametric Lowess line showing the relationship between Bilateral Trade Context based on PTS and political terror scale (PTS); note that the vertical positions of the points have been jittered to minimize the degree of overlap. (c): estimated effect size of the Bilateral Trade Context variable based on PTS in the regression analysis (after matching) when different thresholds are used to distinguish between “low” and “high” values of Bilateral Trade Context; 95% confidence intervals around the coefficient estimates are indicated by the grey vertical lines around each point estimate.