Online Appendix to Conrad & Ritter (2012)
"Treaties, Tenure, and Torture: The Conflicting Domestic Effects of International Law"

1 Proof of Equilibrium Behavior

Equations (1) and (2) present the players' expected utility functions; the Leader's payoffs are:

$$U_L = \begin{cases} -r * \phi + \left(1 - \frac{m}{m+r}\right) * \theta + \left(\frac{m}{m+r}\right) * \frac{\theta}{\kappa} & \text{uncommitted to IHRT} \\ -r * (\phi + \epsilon) + \left(1 - \frac{m}{m+r}\right) * \theta + \left(\frac{m}{m+r}\right) * \frac{\theta}{\kappa} + \mu & \text{committed to IHRT} \end{cases} \tag{1}$$

and the Group's payoffs are:

$$U_G = -m + \left(1 - \frac{m}{m+r}\right) * (1-\theta) + \left(\frac{m}{m+r}\right) * \left(1 - \frac{\theta}{\kappa}\right) \tag{2}$$

In the final stage, L and G simultaneously choose levels of repression and dissent.

When the state is not committed to an IHRT:

The first order conditions (FOC) of the players' respective utility functions are $\frac{\partial U_L(\neg C)}{\partial r} = \frac{m\theta(\kappa-1)}{\kappa(m+r)^2} - \phi = 0$, which ensures r_U will be a maximum because $\frac{\partial^2 U_L(\neg C)}{\partial r^2} = -\frac{m\theta(\kappa-1)}{\kappa(m+r)^3} < 0$ when $\kappa > 1$, which is true by assumption, and $\frac{\partial U_G(\neg C)}{\partial m} = -1 + \frac{r\theta(\kappa-1)}{\kappa(m+r)^2} = 0$, which ensures m_U will be a maximum because $\frac{\partial^2 U_G(\neg C)}{\partial m^2} = \frac{2r\theta(\kappa-1)}{\kappa(m+r)^3} < 0$, in both cases when $\kappa > 1$, or when L is more likely to lose office if he loses the conflict with G, which is true by assumption. Solving simultaneously for m and r yields G's and L's optimal choices to be

$$m_U = \frac{(\kappa-1)\theta\phi}{\kappa(1+\phi)^2} \quad \text{and} \quad r_U = \frac{(\kappa-1)\theta}{\kappa(1+\phi)^2}.$$

When the state is committed to an IHRT:

The FOC of L's utility function is $\frac{\partial U_L(C)}{\partial r} = \frac{(\kappa-1)m\theta}{\kappa(m+r)^2} - \phi - \epsilon = 0$, which ensures r_C will be a maximum because $\frac{\partial^2 U_L(C)}{\partial r^2} = -\frac{2(\kappa-1)m\theta}{\kappa(m+r)^3} < 0$ when $\kappa > 1$, which is true by assumption. The FOC of G's utility function is $\frac{\partial U_G(C)}{\partial m} = -1 + \frac{r\theta(\kappa-1)}{\kappa(m+r)^2} = 0$, which ensures m_C will be a maximum because $\frac{\partial^2 U_G(C)}{\partial m^2} = \frac{2(\kappa-1)r\theta}{\kappa(m+r)^3} < 0$ when $\kappa > 1$. Solving simultaneously for m and r yields G's and L's optimal choices to be

$$m_C = -\frac{\theta(\epsilon+\phi)(\kappa-1)}{\kappa(1+\epsilon+\varphi)^2} \quad \text{and} \quad r_C = \frac{(\kappa-1)\theta}{\kappa(1+\epsilon+\varphi)^2}.$$

The optimal m and r in both committed and uncommitted states are positive given the defined constraints of all parameters.

Commitment stage:

Finally, L commits to the IHRT when $U_L(C) > U_L(\neg C)$. Substituting the optimal levels of repression and mobilization into the original utility functions, L will commit to an IHRT when

$$\frac{\theta + \kappa\mu + \frac{(\kappa-1)\theta}{(1+\epsilon+\phi)^2}}{\kappa} > \frac{\theta(1+2\kappa+\phi(4+\phi))}{2\kappa(1+\phi)^2}$$

which holds true when

$$\mu > \frac{\theta\left(-1+\frac{2(\kappa-1)}{(1+\phi)^2}+\frac{2}{1+\phi}-\frac{2(\kappa-1)}{(1+\epsilon+\phi)^2}\right)}{2\kappa}.$$

2 Comparative Statics

Proof. (Hypothesis 1) A committed state represses less than an uncommitted state when $r_U > r_C$, which is always true given the defined limits of the specified parameters, particularly that $\kappa > 1$, as defined by assumption. The magnitude of the difference between r_U and r_C increases as θ increases: $\frac{\partial r_U - r_C}{\partial \theta} = \frac{\kappa-1}{\kappa(1+\phi)^2} - \frac{\kappa-1}{\kappa(1+\epsilon+\phi)^2} > 0$ as long as all parameters are positive and $\kappa > 1$. Notably, the difference approaches zero as θ approaches zero. □

Figure 1 plots the equilibrium level of repression across the theoretical range of the probability of executive political survival. The solid line represents repression when the state has not committed to an international human rights treaty (r_U), and the dashed line represents repression under commitment (r_C). The other parameters are set at $\kappa = 1.5$, $\phi = 0.2$, and $\epsilon = 0.2$.

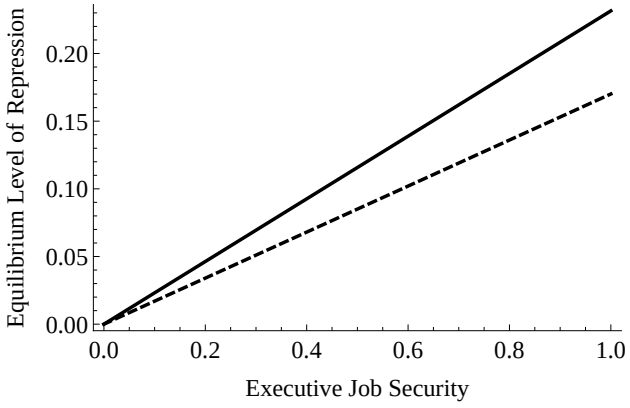

Figure 1: Equilibrium level of repression across the range of the probability of political survival (θ).

3 Descriptive Data

Table 1 provides descriptive statistics of each of the measures used in our analysis.

Table 1: Descriptive Statistics

	Minimum	Maximum	Mean	Frequency
Judicial Effectiveness (*Linzer & Staton*)	0.016	0.989	0.454	–
Executive Job Security (*Original*)	0.347	0.927	0.816	–
Mobilization (*CNTS*)	0	1	–	1,351
CAT Commitment	0	1	–	1,407
IO Membership	0	10	3.7089	–

NOTES: Frequency reports the number of 1s for binary variables.

Figure 2 is a histogram showing the right skew of our data on executive job security using the original measure as reported in the manuscript.

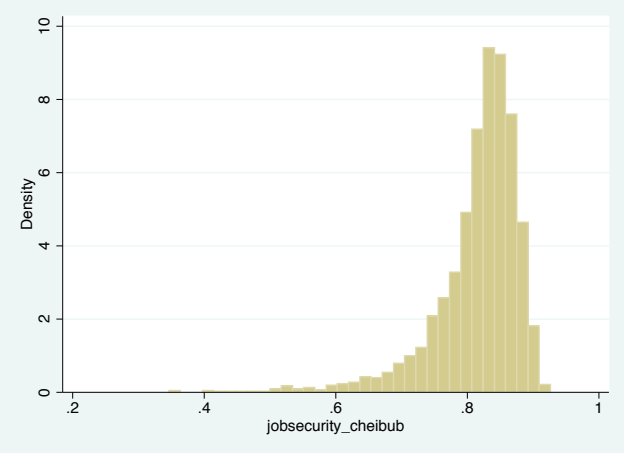

Figure 2: Histogram of Executive Job Security

4 Model Specification & Robustness Checks

Although selection models are notoriously sensitive to model specification (e.g., Sartori 2003), our results are highly robust to a myriad of model specifications as shown below.

Simmons and Hopkins (2005) cite a number of critiques of Von Stein's (2005) model to which we made sure our estimates are robust. They argue that Von Stein (2005) does not justify the independent

variables in her selection equation. We explicitly justify our specification choices and our exclusion restriction in our manuscript. Furthermore, Von Stein (2005) includes in her selection equation a binary indicator coded "1" in all years following the year of the initial commitment. The indicator is included so that states do not drop out of the outcome equation and is argued to violate the non-quasi complete separation assumption (e.g., Christmann and Rousseeuw 2001, Simmons and Hopkins 2005). Because we are interested in the effect of being party to the CAT, rather than the effect of initial commitment, states in our models do not drop out of the outcome equation in the year following initial ratification. As such, we do not include an *additional* binary indicator in outcome equation.

Table 2 shows the results reported in our manuscript.

Table 2: Effect of CAT Commitment on Systemic Torture (Reported Model)

Outcome DV: Systemic Torture	Signatories	Non-Signatories
$Judicial\ Effectiveness_t$	-3.461*	-4.719*
	(1.969)	(2.387)
$Job\ Security_t$	-2.898	-4.503*
	(1.556)	(1.491)
$Judicial\ Effectiveness_t\ x\ Job\ Security_t$	1.259	4.987
	(2.372)	(2.827)
$Mobilization_t$	0.606*	0.565*
	(0.082)	(0.072)
$Constant$	3.004*	4.089*
	(1.321)	(1.235)
Selection DV: CAT Commitment		
$Judicial\ Effectiveness_t$	4.597*	
	(1.426)	
$Job\ Security_t$	0.432	
	(1.080)	
$Judicial\ Effectiveness_t\ x\ Job\ Security_t$	-4.699*	
	(1.745)	
$Mobilization_t$	0.071	
	(0.052)	
$IO\ Membership_t$	0.124*	
	(0.013)	
$Constant$	-1.296*	
	(0.892)	
ρ	0.324	0.900*
	(0.203)	(0.269)
$Log-pseudo\ likelihood$	-3127.412	
N	2644	

NOTES: * Significant within 95% CI. Sample size: 148 countries from 1984 to 2004. ρ ranges from -1 to 1 and estimates correlation between the error terms of the selection and outcome equations.

Table 3 shows the robustness of our reported results to the inclusion of a measure of democracy in the selection and outcome equations.

Table 3: Controlling for Democracy

Outcome DV: Systemic Torture	Signatories	Non-Signatories
$Judicial\ Effectiveness_t$	-3.031	-5.200*
	(1.999)	(2.497)
$Job\ Security_t$	-2.162	-4.239*
	(1.617)	(1.562)
$Judicial\ Effectiveness_t\ x\ Job\ Security_t$	0.408	5.156
	(2.443)	(2.961)
$Mobilization_t$	0.583*	0.560*
	(0.084)	(0.078)
$Democracy_t$	0.216	0.221*
	(0.116)	(0.087)
$Constant$	2.428	3.899*
	(1.379)	(1.288)
Selection DV: CAT Commitment		
$Judicial\ Effectiveness_t$	4.894*	
	(1.427)	
$Job\ Security_t$	1.476	
	(1.100)	
$Judicial\ Effectiveness_t\ x\ Job\ Security_t$	-5.654*	
	(1.753)	
$Mobilization_t$	0.024	
	(0.053)	
$IO\ Membership_t$	0.129*	
	(0.013)	
$Democracy_t$	0.402*	
	(0.073)	
$Constant$	-2.124*	
	(0.909)	
ρ	0.314	0.869*
	(0.201)	(0.262)
$Log-pseudo\ likelihood$	-3111.158	
N	2644	

NOTES: * Significant within 95% CI. Sample size: 148 countries from 1984 to 2004. ρ ranges from -1 to 1 and estimates correlation between the error terms of the selection and outcome equations.

Table 4 shows the robustness of our reported results to the inclusion of covariates measuring the global and regional rate of CAT ratification in the selection stage of the model, as suggested by Powell and Staton (2009).

Table 4: Alternative Selection Stage Specification

Outcome DV: Systemic Torture	Signatories	Non-Signatories
$Judicial\ Effectiveness_t$	-4.654*	-13.951*
	(1.952)	(3.161)
$Job\ Security_t$	-2.900	-8.012*
	(1.588)	(2.000)
$Judicial\ Effectiveness_t\ x\ Job\ Security_t$	2.279	14.929*
	(2.402)	(3.823)
$Mobilization_t$	0.638*	0.798*
	(0.080)	(0.086)
$Constant$	3.594*	6.605*
	(1.314)	(1.653)
Selection DV: CAT Commitment		
$Judicial\ Effectiveness_t$	5.392*	
	(1.619)	
$Job\ Security_t$	1.904	
	(1.212)	
$Judicial\ Effectiveness_t\ x\ Job\ Security_t$	-5.518*	
	(1.986)	
$Mobilization_t$	0.136*	
	(0.058)	
$IO\ Membership_t$	0.101*	
	(0.017)	
$Regional\ Ratification\ Rate_t$	0.771*	
	(0.228)	
$Global\ Ratification\ Rate_t$	2.777*	
	(0.329)	
$Constant$	-3.607*	
	(1.008)	
ρ	-0.232	-0.120
	(0.152)	(0.155)
$Log-pseudo\ likelihood$	-2605.881	
N	2312	

NOTES: * Significant within 95% CI. Sample size: 148 countries from 1984 to 2004. ρ ranges from -1 to 1 and estimates correlation between the error terms of the selection and outcome equations.

Table 5 shows the robustness of our results to an alternative measure of torture, coded 1 if there is any report of torture in a given country-year according to Cingranelli and Richards (2010).

Table 5: Alternative Dependent Variable

Outcome DV: Systemic Torture	Signatories	Non-Signatories
$Judicial\ Effectiveness_t$	-2.658	-0.838
	(2.642)	(2.349)
$Job\ Security_t$	-2.928	-3.448
	(2.431)	(1.942)
$Judicial\ Effectiveness_t\ x\ Job\ Security_t$	1.035	-0.219
	(3.090)	(2.843)
$Mobilization_t$	0.329*	0.469*
	(0.098)	(0.080)
$Constant$	3.842	4.500*
	(2.110)	(1.618)
Selection DV: CAT Commitment		
$Judicial\ Effectiveness_t$	4.754*	
	(1.425)	
$Job\ Security_t$	0.627	
	(1.082)	
$Judicial\ Effectiveness_t\ x\ Job\ Security_t$	-4.866*	
	(1.743)	
$Mobilization_t$	0.093	
	(0.052)	
$IO\ Membership_t$	0.130*	
	(0.013)	
$Constant$	-1.496	
	(0.894)	
ρ	0.712*	0.931*
	(0.283)	(0.286)
$Log-pseudo\ likelihood$	-2605.497	
N	2644	

NOTES: * Significant within 95% CI. Sample size: 148 countries from 1984 to 2004. ρ ranges from -1 to 1 and estimates correlation between the error terms of the selection and outcome equations.

Tables 6, 7, and 8 show the robustness of our reported results to alternative measures of judicial effectiveness (Cingranelli and Richards 2010, Gwartney and Lawson 2006, Tate and Keith 2007), job security (as noted in the manuscript), and social mobilization (Banks 2010, Bhasin and Murdie 2011), respectively.

Table 6: Alternative Measures of Judicial Effectiveness

Outcome DV: Systemic Torture	Sig.	Non-Sig.	Sig.	Non-Sig.	Sig.	Non-Sig.
$CIRI_t$	-1.565	1.028	–	–	–	–
	(0.851)	(1.034)				
$Law\ \&\ Order_t$	–	–	-0.982*	-0.188	–	–
			(0.360)	(0.358)		
$Tate\ \&\ Keith_t$	–	–	–	–	1.719	0.188
					(1.024)	(1.486)
$Job\ Security_t$	-0.914	-1.616*	-2.901*	-2.205	1.360	-0.239
	(0.669)	(0.675)	(1.741)	(1.632)	(1.096)	(1.327)
$JE_t * JS_t$	0.396	-1.799	0.838	0.210	-3.093*	-0.741
	(1.049)	(1.241)	(0.446)	(0.438)	(1.232)	(1.782)
$Mobilization_t$	0.563*	0.506*	0.500*	0.480*	0.564*	0.710*
	(0.082)	(0.074)	(0.083)	(0.084)	(0.086)	(0.115)
$Constant$	0.496	1.640*	2.952*	2.239	-1.287	0.427
	(0.522)	(0.567)	(1.383)	(1.330)	(0.916)	(1.124)
Selection DV: CAT Commitment						
$CIRI_t$	1.467*		–		–	
	(0.720)					
$Law\ \&\ Order_t$	–		-0.078		–	
			(0.288)			
$Tate\ \&\ Keith_t$	–		–		3.253*	
					(0.863)	
$Job\ Security_t$	-2.394*		-3.780*		0.153	
	(0.529)		(1.370)		(0.874)	
$JE_t * JS_t$	-1.809*		0.281		-3.935*	
	(0.880)		(0.355)		(1.049)	
$Mobilization_t$	0.047		0.107		-0.017	
	(0.051)		(0.063)		(0.061)	
$IO\ Membership_t$	0.144*		0.151*		0.159*	
	(0.014)		(0.017)		(0.016)	
$Constant$	1.318*		2.040		-0.556	
	(0.440)		(1.102)		(0.727)	
ρ	0.445*	0.883*	0.425*	0.917*	0.627*	0.530
	(0.190)	(0.278)	(0.207)	(0.326)	(0.196)	(0.283)
$Log-pseudo\ likelihood$	-3211.077		-2302.964		-2401.440	
N	2643		1908		1949	

NOTES: * Significant within 95% CI. Sample size varies slightly across measures. ρ ranges from -1 to 1 and estimates correlation between the error terms of the selection and outcome equations.

Table 7: Alternative Measures of Executive Job Security

Outcome DV: Systemic Torture	Signatories	Non-Signatories	Signatories	Non-Signatories
$Judicial\ Effectiveness_t$	-5.022*	-5.688*	-4.075*	-4.987*
	(1.461)	(2.081)	(1.416)	(1.717)
$Full\ Job\ Security_t$	-3.820*	-4.997*	–	–
	(1.181)	(1.307)		
$Irregular\ Job\ Security_t$	–	–	-3.023*	-4.699*
			(1.147)	(1.078)
$JE_t * JS_t$	3.021	5.873*	1.854	4.771*
	(1.800)	(2.435)	(1.746)	(2.007)
$Mobilization_t$	0.599*	0.578*	0.589*	0.544*
	(0.083)	(0.074)	(0.082)	(0.068)
$Constant$	3.794*	4.622*	3.162*	4.488*
	(0.977)	(1.106)	(0.944)	(0.923)
Selection DV: CAT Commitment				
$Judicial\ Effectiveness_t$	0.493		-0.178*	
	(1.118)		(1.052)	
$Full\ Job\ Security_t$	-2.699*		–	
	(0.870)			
$Irregular\ Job\ Security_t$	–		-3.279*	
			(0.789)	
$JE_t * JS_t$	-0.057		0.745	
	(1.370)		(1.284)	
$Mobilization_t$	0.056		0.019	
	(0.052)		(0.050)	
$IO\ Membership_t$	0.126*		0.134*	
	(0.014)		(0.013)	
$Constant$	1.402*		1.876*	
	(0.729)		(0.664)	
ρ	0.355	0.889*	0.338	0.885*
	(0.211)	(0.273)	(0.193)	(0.239)
$Log-pseudo\ likelihood$	-3117.747		-3315.579	
N	2644		2827	

NOTES: * Significant within 95% CI. Sample size: 148 countries from 1984 to 2004. ρ ranges from -1 to 1 and estimates correlation between the error terms of the selection and outcome equations.

Table 8: Alternative Measures of Mobilization

Outcome DV: Systemic Torture	Signatories	Non-Signatories	Signatories	Non-Signatories
$Judicial\ Effectiveness_t$	-2.693	-4.047*	-3.550	-2.310
	(2.056)	(2.769)	(1.956)	(2.124)
$Job\ Security_t$	-2.511*	-3.538	-3.129*	-3.773*
	(1.725)	(1.963)	(1.561)	(1.378)
$JE_t * JS_t$	0.169*	4.240	1.341*	2.225
	(2.522)	(3.378)	(2.360)	(2.534)
$Murdie\ NGO\ Mobilization_t$	-0.002	0.002	–	–
	(0.006)	(0.007)		
$CNTS\ Count\ Mobilization_t$	–	–	0.117*	0.059*
			(0.019)	(0.010)
$Constant$	3.111*	3.983*	3.342*	3.624*
	(1.433)	(1.610)	(1.319)	(1.147)
Selection DV: CAT Commitment				
$Judicial\ Effectiveness_t$		2.759		4.505*
		(1.774)		(1.426)
$Job\ Security_t$		-0.253		0.254
		(1.390)		(1.077)
$JE_t * JS_t$		-2.125		-4.580*
		(2.198)		(1.744)
$Murdie\ NGO\ Mobilization_t$		-0.014*		–
		(0.005)		
$CNTS\ Count\ Mobilization_t$		–		-0.005
				(0.008)
$IO\ Membership_t$		0.155*		0.114*
		(0.017)		(0.013)
$Constant$		-0.551		-1.079
		(1.129		(0.889)
ρ	0.423*	0.963*	0.290	0.950*
	(0.215)	(0.425)	(0.207)	(0.313)
$Log-pseudo\ likelihood$		-1810.802		-3149.056
N		1582		2639

NOTES: * Significant within 95% CI. Sample size varies slightly across measures. ρ ranges from -1 to 1 and estimates correlation between the error terms of the selection and outcome equations.

Table 9 shows the robustness of our reported results to the inclusion of polynomial time counters and cubic splines to account for temporal dependence.

Table 9: Controlling for Temporal Dependence

	Polynomial Timecounter		Cubic Splines	
Outcome DV: Systemic Torture	Signatories	Non-Signatories	Signatories	Non-Signatories
$Judicial\ Effectiveness_t$	-0.275	-5.805*	-0.465	-7.150*
	(2.184)	(2.962)	(2.173)	(3.059)
$Job\ Security_t$	-0.502	-4.088*	-0.626	-4.750*
	(1.725)	(1.819)	(1.719)	(1.874)
$JE_t * JS_t$	-1.549	5.918	-1.324	7.445*
	(2.669)	(3.571)	(2.656)	(3.690)
$Mobilization_t$	0.438*	0.537*	0.441*	0.558*
	(0.087)	(0.077)	(0.087)	(0.078)
t	-0.575*	-0.590*	–	–
	(0.069)	(0.058)		
t^2	0.068*	0.072*	–	–
	(0.014)	(0.012)		
t^3	-0.003*	-0.003*	–	–
	(0.001)	(0.001)		
$Spline\ 1$	–	–	0.007	-0.109*
			(0.031)	(0.027)
$Spline\ 2$	–	–	-0.019	0.033*
			(0.016)	(0.014)
$Spline\ 3$	–	–	0.011*	-0.004
			(0.005)	(0.005)
$Peace\ Years$	–	–	-0.432*	-0.826*
			(0.116)	(0.099)
Selection DV: CAT Commitment				
$Judicial\ Effectiveness_t$	4.147*		4.365*	
	(1.978)		(2.142)	
$Job\ Security_t$	1.131		1.303	
	(1.482)		(1.588)	
$JE_t * JS_t$	-4.460		-4.693	
	(2.408)		(2.611)	
$Mobilization_t$	0.092		0.031	
	(0.069)		(0.073)	
$IO\ Membership_t$	0.090*		0.080*	
	(0.018)		(0.019)	
t	-1.063*		–	
	(0.046)			
t^2	0.109*		–	
	(0.007)			
t^3	-0.003*		–	
	(0.000)			
$Spline\ 1$	–		-0.377*	
			(0.031)	
$Spline\ 2$	–		0.132*	
			(0.013)	
$Spline\ 3$	–		-0.023*	
			(0.004)	
$Non-Ratification\ Years$	–		-2.375*	
			0.130	
ρ	-0.118	0.643*	-0.140	0.527*
	(0.092)	(0.107)	(0.089)	(0.099)
$Log-pseudo\ likelihood$	-2072.706		-1983.580	
N	2644		2	644

NOTES: * Significant within 95% CI. Sample size: 148 countries from 1984 to 2004. Constants omitted. ρ ranges from -1 to 1 and estimates correlation between the error terms of the selection and outcome equations.

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