Supplementary Material: "Cooperative Autocracies: Leader Survival, Creditworthiness and Bilateral Investment Treaties"

1 Proofs

Lemma 1. *The government's optimal tax rate strategy (when the foreign firm enters) is*

$$\tilde{t} = \begin{cases} 0 & if \quad a > \frac{1}{rB} \\ 1 & otherwise \end{cases}$$

Proof. If $t \leq p \in (0,1), k = K$:

$$\begin{aligned} G &= aR(K(1-t))B + tK \\ G_t &= K - aKR'(K(1-t))B \\ &= K - aKrB \\ \tilde{t} &= \begin{cases} 0 & if \quad a > \frac{1}{rB} \\ p & otherwise \end{cases} \end{aligned}$$

If $t \geq p \in (0,1), k = K$:

$$\begin{aligned} G &= (1-\pi)aR\left(K(1-t)\right)B + \pi aR\left(K(1-p)\right)B + (1-\pi)tK + \pi pK \\ G_t &= (1-\pi)K - (1-\pi)R'(K(1-t))aKB \\ &= (1-\pi)K\left[1 - raB\right] \\ \tilde{t} &= \begin{cases} p & if \quad a > \frac{1}{rB} \\ 1 & otherwise \end{cases} \end{aligned}$$

If $k = 0$, then $G = 0$ for all t and any t is an optimal strategy. □

Proposition 1. *The equilibrium to the domestic protection game is* $\tilde{t} = \begin{cases} 1 & if \quad a \leq \frac{1}{rB} \\ 0 & if \quad a > \frac{1}{rB} \end{cases}$ *and*

$$\tilde{k} = \begin{cases} K & if\ (1-\alpha)F(K) + \alpha\pi F((1-p)K) \geq K(1-\alpha+\alpha\pi(1-p)+\kappa) \\ 0 & otherwise \end{cases}$$

Proof. From Lemma 1 we have the government's optimal strategy. The expected profit of the firm given the host government's equilibrium strategy (Equation 1) is $E\Pi(K) = (1-\alpha)F(K) + \alpha\pi F((1-p)K) - K(1-\alpha+\alpha\pi(1-p)+\kappa)$. Then the firm invests, consistent with its equilibrium strategy, whenever $E\Pi(K) > \Pi(0) = 0$. □

Recall the definition of the investment climate: $\psi(\pi, d) \equiv 1 - \alpha(\frac{1}{rB}; d) + \pi\alpha(\frac{1}{rB}; d)(1-p)$

Lemma 2. *The investment climate rises with improvements in credibility and with democracy. That is* $\psi_\pi = \frac{\partial \psi}{\partial \pi} > 0$ *and* $\psi_d = \frac{\partial \psi}{\partial d} > 0$.

Proof. $\frac{\partial \psi}{\partial \pi} = \alpha\left(\frac{1}{rB}; d\right)(1-p) > 0$. And $\frac{\partial \psi}{\partial d} = \alpha_d\left(\pi(1-p) - 1\right) > 0$ since $\pi, p < 1$ and $\alpha_d < 0$. □

Proposition 2. *BITs improve the investment climate by more in less accountable polities:* $\frac{\partial \psi_\pi}{\partial d} < 0$.

Proof. $\frac{\partial \psi_\pi}{\partial d} = \alpha_d(1-p) < 0$ □

Proposition 3. *Political support (in expectation) is enhanced by BIT signing. That is* $\frac{dER}{d\pi} > 0$.

Proof. Ex ante expected probability of survival before a is revealed is

$$\begin{aligned} ER &= \left(1 - \alpha\left(\frac{1}{rB}; d\right)\right) R(K) + \alpha\left(\frac{1}{rB}; d\right)\left[\pi R\left(K(1-p)\right)\right] \\ \frac{dER}{d\pi} &= \alpha\left(\frac{1}{rB}; d\right)\left[R\left(K(1-p)\right)\right] > 0 \end{aligned}$$

□

Proposition 4. *Political support is enhanced by BIT signing by more in less accountable polities. That is* $\frac{\partial}{\partial d}\frac{dER}{d\pi} < 0$

Proof.

$$\frac{\partial}{\partial d}\frac{dER}{d\pi} = \alpha_d\left(\frac{1}{rB}; d\right)\left[R\left(K(1-p)\right)\right] < 0$$

Since $\alpha_d(\cdot) < 0$ and $R(\cdot) > 0$. □

2 Empirical Appendix

Table B1: **Regime Type & Investor Claims**

	Panel A: Investor Claims			
	(1)	(2)	(3)	(4)
Democracy	0.056**	0.034*	0.023*	0.028*
	(0.019)	(0.015)	(0.012)	(0.013)
R^2	0.01	0.04	0.05	0.07
Outcome mean	0.04	0.04	0.04	0.05
Outcome std. dev.	0.38	0.38	0.38	0.42
	Panel B: At least one claim			
	(1)	(2)	(3)	(4)
Democracy	0.029**	0.015*	0.011	0.014*
	(0.008)	(0.006)	(0.006)	(0.007)
R^2	0.01	0.08	0.10	0.13
Outcome mean	0.03	0.03	0.03	0.03
Outcome std. dev.	0.16	0.16	0.16	0.18
Observations	6,832	6,832	6,784	5,532
Countries	170	170	169	162
Year FE		✓	✓	✓
Region FE			✓	✓
Controls				✓

Unit of analysis: country-year. Controls: GDP, GDP per capita, Trade, Growth and Total BITs signed. Robust standard errors clustered at the country level in parentheses. * $p < 0.05$, ** $p < 0.01$

Figure B1 plots the hazard rate based on estimates from Model 2, Table 1. We calculate the estimated hazard rates for an autocracy (here *Polity2* score of -9) and for a democracy (here *Polity2* score of 9), at different tenures, while keeping all other covariates at their sample means. In both cases, we illustrate the estimated hazard rate when the number of BITs signed is zero, one, and the maximum value in the sample. The evidence confirms our interpretation: autocratic leaders benefit greatly from signing BITs whereas this is not the case for leaders in democratic regimes.

2.1 Term-limits

We implement several robustness checks to make sure that our findings are not spuriously driven by term-limit dynamics.

Table B2: **Summary Statistics**

Variable	Mean	Std. Dev.	Min.	Max.	N
BITs signed (leader tenure)	3.391	8.473	0	95	7,145
BITs signed (leader tenure) (Ln)	0.72	1.033	0	4.564	7,145
Polity2	-0.729	6.933	-10	10	7,145
GDPpc (Ln)	7.195	1.256	3.913	11.314	5,940
Growth (% of GDP)	3.904	8.19	-64.047	189.83	5,996
Trade (% of GDP)	71.232	47.891	0.309	531.737	5,945
Population (Ln)	15.813	1.526	11.689	21.029	7,083
Foreign Aid (Ln)	19.228	1.495	9.904	23.273	6,415
Oil and Gas Prod. (Ln)	10.472	10.592	0	27.012	6,867
PTAs signed (leader tenure)	0.171	0.424	0	2.485	7,145
BITs signed (country, $l-1$) (Ln)	0.905	1.235	0	4.86	7,145

The unit is leader-year. *BITs signed* is the cumulative number of BITs signed by the leader up until that point. The maximal value of 95 *BITs signed* refers to Egypt's Mubarak over his entire tenure.

Figure B1: Estimated Leader Hazard Rates by Year for Different Levels of BITs Signed (Ln)

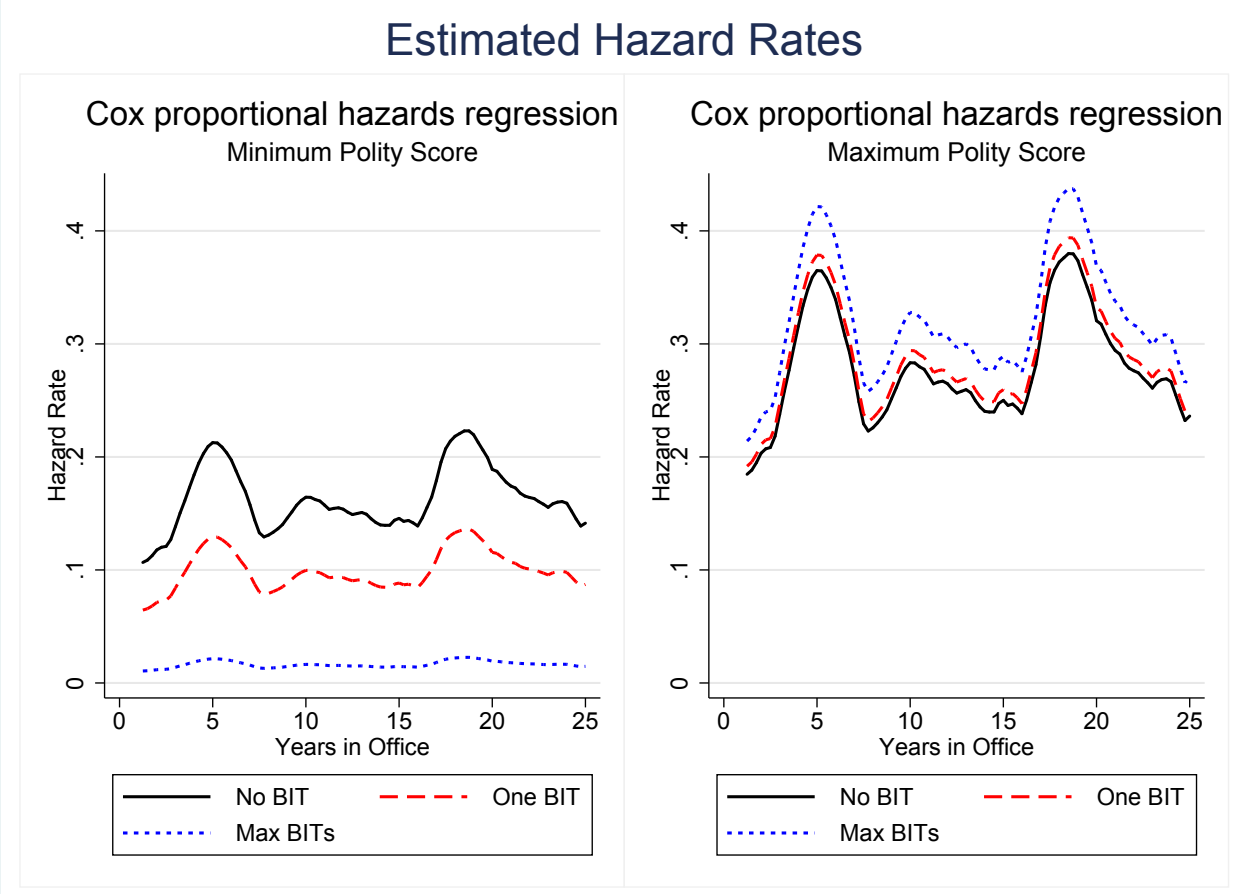

Table B3: **Cox Proportional Hazards Estimates, by regime type as classified by DD**

	Autocracies		Democracies	
	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.26**	-0.19*	-0.09	-0.19
	(0.10)	(0.09)	(0.10)	(0.12)
GDPpc (Ln)		0.16		0.11
		(0.08)		(0.10)
Growth (% of GDP)		-0.04**		-0.02*
		(0.01)		(0.01)
Trade (% of GDP)		-0.00		-0.00
		(0.00)		(0.00)
Population (Ln)		0.11		0.06
		(0.08)		(0.09)
Oil and Gas Prod. (Ln)		-0.02*		0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		-0.13		0.08
		(0.24)		(0.14)
Foreign Aid (Ln)		0.01		-0.04
		(0.06)		(0.07)
BITs signed (country,$l-1$) (Ln)		-0.06		0.08
		(0.08)		(0.06)
Time-interacted variables				
BITs signed (leader tenure) (Ln)	0.01		-0.01	-0.01
	(0.01)		(0.02)	(0.02)
Observations	4,517	3,121	2,030	1,709
Countries	119	108	82	73
# of subjects	672	513	566	495
# of failures	524	376	444	382
Frailty parameter	0.32	0.32	0.32	0.35

Models 3 and 4 include variables interacted with the natural logarithm of time in office.
Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

First, relying on data from the DPI (Cruz, Keefer, and Scartascini 2016) we identified 53 leaders in 17 countries who survived until their end of the term and could not run for office again.[1] We then re-run our analysis, dropping the observations at time of failure –i.e., treating them as if they were right-censored. Table B4 shows that our findings are not affected.

Secondly, we once again rely on data from the DPI to construct variables to be included as controls in our analysis. Specifically, we coded three variables. First, *Finite Term* is an indicator that takes the value of 1 when there is a constitutional limit on the number of years the executive can serve before new elections must be called, 0 otherwise. Second, *Years Left* is a variable that counts the number of years left in the current term, with a -999 value when this is not applicable. Because of that, we introduce each value of this variable as a dummy in our model. Third, *Multiple* is an indicator variable that takes the value of 1 if the executive can serve multiple terms, 0 otherwise. To fully and flexibly control for these institutional features, we include them interactively in our specification. That is, we control for all combinations of the interaction term: (Finite Term$_{it}$ $\times$ Years Left$_{it}$ $\times$ Multiple$_{it}$). Table B5 displays the results, showing that our results hold.

Finally, we made sure that our results were not driven by political dynasties and families avoiding term limits. Here, we re-coded the data such that the new dynastic leader is treated as if there was no leader change. We re-coded 20 leaders in 10 countries, namely Cristina Kirchner as the continuation of Nestor Kirchner in Argentina, Ilham Aliyev as the continuation of Heydar Aliyev in Azerbaijan, Hamad bin Isa Al Khalifa as the continuation of Isa bin Salman Al Khalifa in Bahrain, Jigme Singye Wangchuck as the continuation of Jigme Dorji Wangchuck in Bhutan, Raúl Castro as the continuation of Fidel Castro in Cuba, Rajiv Gandhi as the continuation of Indira Ghandi in India, Abdullah II as the continuation of Hussein in Jordan, Birendra as the continuation of Mahendra in Nepal, Tamim bin Hamad Al Thani as the continuation of Hamad bin Khalifa Al Thani in Qatar, Bashar al-Assad as the continuation of Hafez al-Assad. Monarchies of Kuwait, Morocco, Saudia Arabia, United Arab Emirates are dropped from the analysis (and the findings are also robust to dropped some of the previous leaders who were under a monarchy). Table B6 shows that our findings still hold.

[1] Countries are Bolivia, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Lebanon, Mali, Mexico, Paraguay, Peru, Philippines and Venezuela.

Table B4: **Cox Proportional Hazards Estimates: Robustness to drop last year of term-limited incumbents**

	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.19**	-0.32**	-0.28**	-0.45**
	(0.04)	(0.06)	(0.08)	(0.10)
BITs signed × Polity2	0.03**	0.04**	0.03**	0.04**
	(0.01)	(0.01)	(0.01)	(0.01)
Polity2	0.04**	0.03**	-0.00	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
GDPpc (Ln)		0.02		0.06
		(0.06)		(0.07)
Growth (% of GDP)		-0.04**		-0.04**
		(0.01)		(0.01)
Trade (% of GDP)		-0.00		-0.00
		(0.00)		(0.00)
Population (Ln)		0.05		0.03
		(0.06)		(0.06)
Oil and Gas Prod. (Ln)		-0.00		-0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.10		0.08
		(0.11)		(0.11)
Foreign Aid (Ln)		-0.03		-0.02
		(0.04)		(0.04)
BITs signed (country,$l-1$) (Ln)		-0.04		0.00
		(0.04)		(0.04)
Time-interacted variables				
BITs signed (leader tenure) (Ln)			0.00	0.01
			(0.01)	(0.01)
Polity2			0.01**	0.01**
			(0.00)	(0.00)
BITs signed × Polity2			-0.00	0.00
			(0.00)	(0.00)
Observations	7,093	5,032	7,093	5,032
Countries	143	132	143	132
# of subjects	1179	921	1179	921
# of failures	976	725	976	725
Frailty parameter	0.20	0.25	0.26	0.30

Models 3 and 4 include variables interacted with the natural logarithm of time in office. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table B5: **Cox Proportional Hazards Estimates – Robustness to term-related controls**

	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.22**	-0.32**	-0.33**	-0.51**
	(0.05)	(0.07)	(0.09)	(0.11)
BITs signed × Polity2	0.03**	0.04**	0.04**	0.04**
	(0.01)	(0.01)	(0.01)	(0.01)
Polity2	0.05**	0.04**	0.00	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
GDPpc (Ln)		0.03		0.08
		(0.07)		(0.07)
Growth (% of GDP)		-0.03**		-0.04**
		(0.01)		(0.01)
Trade (% of GDP)		-0.00		-0.00
		(0.00)		(0.00)
Population (Ln)		0.10		0.08
		(0.06)		(0.06)
Oil and Gas Prod. (Ln)		0.00		0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.09		0.07
		(0.11)		(0.11)
Foreign Aid (Ln)		-0.00		0.02
		(0.05)		(0.05)
BITs signed (country, $l-1$) (Ln)		-0.03		0.02
		(0.04)		(0.05)
Time-interacted variables				
BITs signed (leader tenure) (Ln)			0.01	0.02*
			(0.01)	(0.01)
BITs signed × Polity2			-0.00	-0.00
			(0.00)	(0.00)
Polity2			0.01**	0.01**
			(0.00)	(0.00)
Observations	5,016	4,008	5,016	4,008
Countries	135	127	135	127
# of subjects	863	728	863	728
# of failures	720	590	720	590
Frailty parameter	0.18	0.22	0.27	0.27
Term-related controls	✓	✓	✓	✓

Models 3 and 4 include variables interacted with the natural logarithm of time in office.
Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table B6: **Cox Proportional Hazards Estimates: Robustness to leaders as family dynasties**

	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.23**	-0.32**	-0.25**	-0.42**
	(0.05)	(0.06)	(0.08)	(0.10)
BITs signed × Polity2	0.04**	0.04**	0.03*	0.03*
	(0.01)	(0.01)	(0.01)	(0.01)
Polity2	0.04**	0.03**	-0.01	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
GDPpc (Ln)		0.05		0.09
		(0.06)		(0.07)
Growth (% of GDP)		-0.04**		-0.04**
		(0.01)		(0.01)
Trade (% of GDP)		-0.00		-0.00
		(0.00)		(0.00)
Population (Ln)		0.07		0.05
		(0.05)		(0.06)
Oil and Gas Prod. (Ln)		-0.00		-0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.03		0.02
		(0.11)		(0.11)
Foreign Aid (Ln)		-0.03		-0.03
		(0.04)		(0.04)
BITs signed (country,$l-1$) (Ln)		-0.04		0.01
		(0.04)		(0.04)
Time-interacted variables				
BITs signed (leader tenure) (Ln)			0.00	0.01
			(0.01)	(0.01)
Polity2			0.01**	0.01**
			(0.00)	(0.00)
BITs signed × Polity2			0.00	0.00
			(0.00)	(0.00)
Observations	6,867	4,971	6,867	4,971
Countries	138	128	138	128
# of subjects	1,150	906	1,150	906
# of failures	1,005	764	1,005	764
Frailty parameter	0.16	0.20	0.24	0.27

Models 3 and 4 include variables interacted with the natural logarithm of time in office. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table B7: **Cox Proportional Hazards Estimates using BITs in force**

	(1)	(2)	(3)	(4)
BITs in force (leader tenure) (Ln)	-0.12	-0.13	-0.30	-0.28**
	(0.10)	(0.13)	(0.18)	(0.06)
BITs in force × Polity2	0.04**	0.05**	0.04	0.04
	(0.01)	(0.02)	(0.02)	(0.03)
Polity2	0.05**	0.04**	0.00	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)
GDPpc (Ln)		0.01		0.08
		(0.06)		(0.07)
Growth (% of GDP)		-0.04**		-0.04**
		(0.01)		(0.01)
Trade (% of GDP)		-0.00**		-0.00**
		(0.00)		(0.00)
Population (Ln)		0.01		0.01
		(0.06)		(0.06)
Oil and Gas Prod. (Ln)		-0.00		-0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		-0.12		0.02
		(0.10)		(0.11)
Foreign Aid (Ln)		-0.05		-0.03
		(0.04)		(0.04)
BITs in force (country,$l-1$) (Ln)		0.11		0.21*
		(0.08)		(0.08)
Time-interacted variables				
BITs in force (leader tenure) (Ln)			0.02	0.03*
			(0.01)	(0.01)
Polity2			0.01**	0.01**
			(0.00)	(0.00)
BITs in force × Polity2			-0.00	0.00
			(0.00)	(0.00)
Observations	7,145	5,083	7,145	5,083
Countries	143	132	143	132
# of subjects	1,179	921	1,179	921
# of failures	1,028	776	1,028	776
Frailty parameter	0.20	0.24	0.27	0.30

Models 3 and 4 include variables interacted with the natural logarithm of time in office. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table B8: **Cox Proportional Hazards Estimates using Weighted BITs**

	(1)	(2)	(3)	(4)
Weighted BITs signed (leader tenure) (Ln)	-0.10**	-0.15**	-0.11**	-0.18**
	(0.02)	(0.02)	(0.03)	(0.04)
Weighted BITs signed × Polity2	0.01**	0.02**	0.01**	0.02**
	(0.00)	(0.00)	(0.00)	(0.00)
Polity2	0.04**	0.03**	0.00	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
GDPpc (Ln)		0.05		0.08
		(0.06)		(0.07)
Growth (% of GDP)		-0.04**		-0.04**
		(0.01)		(0.01)
Trade (% of GDP)		-0.00		-0.00
		(0.00)		(0.00)
Population (Ln)		0.08		0.05
		(0.06)		(0.06)
Oil and Gas Prod. (Ln)		-0.00		-0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.06		0.02
		(0.10)		(0.11)
Foreign Aid (Ln)		-0.02		-0.02
		(0.04)		(0.04)
BITs signed (country, $l-1$) (Ln)		-0.04		0.00
		(0.04)		(0.04)
Time-interacted variables				
Weighted BITs signed (leader tenure) (Ln)			0.00	0.00
			(0.00)	(0.00)
Polity2			0.01**	0.01**
			(0.00)	(0.00)
Observations	7,145	5,083	7,145	5,083
Countries	143	132	143	132
# of subjects	1,179	921	1,179	921
# of failures	1,028	776	1,028	776
Frailty parameter	0.19	0.25	0.26	0.30

Models 3 and 4 include variables interacted with the natural logarithm of time in office. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table B9: **Cox Proportional Hazards Estimates: Excluding China**

	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.23**	-0.36**	-0.32**	-0.49**
	(0.05)	(0.06)	(0.08)	(0.10)
BITs signed × Polity2	0.03**	0.05**	0.04**	0.04**
	(0.01)	(0.01)	(0.01)	(0.01)
Polity2	0.04**	0.03**	-0.00	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
GDPpc (Ln)		0.04		0.08
		(0.06)		(0.07)
Growth (% of GDP)		-0.04**		-0.04**
		(0.01)		(0.01)
Trade (% of GDP)		-0.00		-0.00
		(0.00)		(0.00)
Population (Ln)		0.07		0.05
		(0.06)		(0.06)
Oil and Gas Prod. (Ln)		-0.00		-0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.07		0.05
		(0.11)		(0.11)
Foreign Aid (Ln)		-0.03		-0.02
		(0.04)		(0.04)
Time-interacted variables				
BITs signed (leader tenure) (Ln)			0.00	0.01
			(0.01)	(0.01)
BITs signed × Polity2			-0.00	0.00
			(0.00)	(0.00)
Polity2			0.01**	0.01**
			(0.00)	(0.00)
Observations	7,086	5,052	7,086	5,052
Countries	142	131	142	131
# of subjects	1,173	918	1,173	918
# of failures	1,023	774	1,023	774
Frailty parameter	0.19	0.24	0.27	0.29

Models 3 and 4 include variables interacted with the natural logarithm of time in office.
Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

2.2 Non-Democratic Regimes Extension: Personalistic versus Instituionalized

Empirically we can also make use of the observed variation across types of autocratic regimes. Different autocratic regimes face varying constraints and incentives, thus influencing foreign economic policies (Steinberg and Malhtora 2014). Indeed, the political environment and economic uncertainty vary with the degree of institutionalization surrounding the leader, and consequently its inner circle. In more institutionalized regimes, such as those with multiple political parties exercising a role in a legislature, autocratic leaders have less discretion and must rely on a broader

Table B10: **Cox Proportional Hazards Estimates: Robustness to controlling for Judicial Independence**

	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.24**	-0.45**	-0.31**	-0.54**
	(0.07)	(0.10)	(0.12)	(0.15)
BITs signed × Polity2	0.04**	0.06**	0.04**	0.07**
	(0.01)	(0.01)	(0.02)	(0.02)
Polity2	0.09**	0.07**	0.04*	0.02
	(0.01)	(0.02)	(0.02)	(0.02)
Latent Judicial Independence	-1.90**	-1.41**	-1.67**	-1.15*
	(0.41)	(0.53)	(0.41)	(0.52)
GDPpc (Ln)		0.01		0.02
		(0.10)		(0.10)
Growth (% of GDP)		-0.03**		-0.03**
		(0.01)		(0.01)
Trade (% of GDP)		0.00		0.00
		(0.00)		(0.00)
Population (Ln)		-0.04		-0.06
		(0.08)		(0.08)
Oil and Gas Prod. (Ln)		0.00		0.01
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.25		0.24
		(0.17)		(0.17)
Foreign Aid (Ln)		-0.05		-0.03
		(0.06)		(0.06)
BITs signed (country,$l-1$) (Ln)		-0.15*		-0.13*
		(0.06)		(0.06)
Time-interacted variables				
BITs signed (leader tenure) (Ln)			0.00	0.01
			(0.01)	(0.01)
Polity2			0.01**	0.01**
			(0.00)	(0.00)
BITs signed × Polity2			-0.00	-0.00
			(0.00)	(0.00)
Observations	3,130	2,279	3,130	2,279
Countries	63	57	63	57
# of subjects	530	421	530	421
# of failures	466	360	466	360
Frailty parameter	0.23	0.28	0.21	0.22

Models 3 and 4 include variables interacted with the natural logarithm of time in office. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table B11: **Cox Proportional Hazards Estimates: Robustness to Judicial Independence as moderator**

	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.54**	-1.00**	-0.80**	-1.36**
	(0.11)	(0.16)	(0.17)	(0.24)
BITs signed × Latent Judicial Independence	1.04**	1.72**	1.29**	2.22**
	(0.21)	(0.28)	(0.31)	(0.42)
Latent Judicial Independence	-0.09	-2.69**	-0.15	-2.78**
	(0.28)	(0.56)	(0.35)	(0.65)
Polity2		0.11**		0.11**
		(0.02)		(0.02)
GDPpc (Ln)		0.00		-0.01
		(0.10)		(0.10)
Growth (% of GDP)		-0.03**		-0.03**
		(0.01)		(0.01)
Trade (% of GDP)		0.00		0.00
		(0.00)		(0.00)
Population (Ln)		-0.05		-0.05
		(0.08)		(0.08)
Oil and Gas Prod. (Ln)		0.01		0.01
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.23		0.22
		(0.17)		(0.17)
Foreign Aid (Ln)		-0.03		-0.04
		(0.06)		(0.06)
BITs signed (country, $l-1$) (Ln)		-0.16**		-0.16**
		(0.06)		(0.06)
Time-interacted variables				
BITs signed (leader tenure) (Ln)			0.02	0.03*
			(0.01)	(0.02)
BITs signed × Latent Judicial Independence			-0.01	-0.05
			(0.03)	(0.05)
Latent Judicial Independence			0.00	0.01
			(0.06)	(0.08)
Observations	3,171	2,279	3,171	2,279
Countries	63	57	63	57
# of subjects	539	421	539	421
# of failures	478	360	478	360
Frailty parameter	0.28	0.27	0.29	0.25

Models 3 and 4 include variables interacted with the natural logarithm of time in office. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table B12: **Cox Proportional Hazards Estimates: Robustness to controlling for Investor Claims**

	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.26**	-0.35**	-0.35**	-0.46**
	(0.05)	(0.06)	(0.08)	(0.10)
BITs signed × Polity2	0.03**	0.04**	0.03**	0.04**
	(0.01)	(0.01)	(0.01)	(0.01)
Polity2	0.05**	0.04**	0.01	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)
Investor claims (leader tenure)	-0.01	0.16	-0.03	0.03
	(0.13)	(0.16)	(0.14)	(0.16)
GDPpc (Ln)		0.04		0.09
		(0.06)		(0.07)
Growth (% of GDP)		-0.04**		-0.04**
		(0.01)		(0.01)
Trade (% of GDP)		-0.00		-0.00
		(0.00)		(0.00)
Population (Ln)		0.08		0.06
		(0.06)		(0.06)
Oil and Gas Prod. (Ln)		-0.00		-0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.03		0.01
		(0.11)		(0.11)
Foreign Aid (Ln)		-0.04		-0.03
		(0.04)		(0.04)
BITs signed (country, $l-1$) (Ln)		-0.03		0.02
		(0.04)		(0.05)
Time-interacted variables				
BITs signed (leader tenure) (Ln)			0.01	0.01
			(0.01)	(0.01)
Polity2			0.01**	0.01**
			(0.00)	(0.00)
BITs signed × Polity2			-0.00	-0.00
			(0.00)	(0.00)
Observations	6,479	4,869	6,479	4,869
Countries	137	127	137	127
# of subjects	1,078	883	1,078	883
# of failures	934	743	934	743
Frailty parameter	0.25	0.26	0.31	0.31

Models 3 and 4 include variables interacted with the natural logarithm of time in office. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table B13: **Cox Proportional Hazards Estimates – Robustness to leaders with no ISDS claims**

	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.12*	-0.26**	-0.15	-0.35**
	(0.05)	(0.07)	(0.08)	(0.10)
BITs signed × Polity2	0.03**	0.04**	0.03**	0.03*
	(0.01)	(0.01)	(0.01)	(0.01)
Polity2	0.04**	0.03**	0.00	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
GDPpc (Ln)		0.01		0.05
		(0.06)		(0.07)
Growth (% of GDP)		-0.04**		-0.04**
		(0.01)		(0.01)
Trade (% of GDP)		-0.00		-0.00
		(0.00)		(0.00)
Population (Ln)		0.07		0.05
		(0.06)		(0.06)
Oil and Gas Prod. (Ln)		0.00		0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.08		0.06
		(0.13)		(0.13)
Foreign Aid (Ln)		-0.03		-0.03
		(0.04)		(0.04)
BITs signed (country,$l-1$) (Ln)		0.04		0.08
		(0.05)		(0.05)
Time-interacted variables				
BITs signed (leader tenure) (Ln)			-0.00	0.01
			(0.01)	(0.02)
BITs signed × Polity2			-0.00	0.00
			(0.00)	(0.00)
Polity2			0.01**	0.01**
			(0.00)	(0.00)
Observations	6,166	4,274	6,166	4,274
Countries	141	129	141	129
# of subjects	1,061	809	1,061	809
# of failures	937	703	937	703
Frailty parameter	0.20	0.22	0.28	0.28

Models 3 and 4 include variables interacted with the natural logarithm of time in office. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table B14: **Cox Proportional Hazards Estimates – Robustness to ISDS claims**

	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.27**	-0.36**	-0.35**	-0.45**
	(0.05)	(0.07)	(0.09)	(0.10)
BITs signed × Polity2	0.03**	0.04**	0.03**	0.04**
	(0.01)	(0.01)	(0.01)	(0.01)
Polity2	0.05**	0.04**	0.01	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Investor claims (leader tenure)	-0.39	-0.26	-0.32	-0.29
	(0.47)	(0.49)	(0.49)	(0.51)
BITs signed × ISDS claims	0.19	0.18	0.12	0.08
	(0.19)	(0.19)	(0.20)	(0.21)
Polity2 × ISDS claims	0.03	0.06	0.01	0.05
	(0.06)	(0.07)	(0.08)	(0.08)
BITs signed × Polity2 × ISDS claims	-0.01	-0.02	-0.02	-0.01
	(0.03)	(0.03)	(0.04)	(0.04)
GDPpc (Ln)		0.04		0.09
		(0.06)		(0.07)
Growth (% of GDP)		-0.04**		-0.04**
		(0.01)		(0.01)
Trade (% of GDP)		-0.00		-0.00
		(0.00)		(0.00)
Population (Ln)		0.08		0.06
		(0.06)		(0.06)
Oil and Gas Prod. (Ln)		-0.00		-0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.03		0.01
		(0.11)		(0.11)
Foreign Aid (Ln)		-0.04		-0.03
		(0.04)		(0.04)
BITs signed (country, $l-1$) (Ln)		-0.03		0.02
		(0.04)		(0.05)
Time-interacted variables				
BITs signed (leader tenure) (Ln)			0.01	0.01
			(0.01)	(0.01)
Polity2			0.01**	0.01**
			(0.00)	(0.00)
BITs signed × Polity2			-0.00	0.00
			(0.00)	(0.00)
BITs signed × ISDS claims			0.01	0.01
			(0.01)	(0.01)
BITs signed × Polity2 × ISDS claims			-0.00	-0.00
			(0.00)	(0.00)
Observations	6,479	4,869	6,479	4,869
Countries	137	127	137	127
# of subjects	1,078	883	1,078	883
# of failures	934	743	934	743
Frailty parameter	0.25	0.25	0.31	0.30

Models 3 and 4 include variables interacted with the natural logarithm of time in office. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table B15: **Cox Proportional Hazards Estimates – Robustness to multiple imputation**

	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.22**	-0.21**	-0.28**	-0.27**
	(0.04)	(0.05)	(0.08)	(0.08)
BITs signed × Polity2	0.03**	0.03**	0.03**	0.03**
	(0.01)	(0.01)	(0.01)	(0.01)
Polity2	0.04**	0.04**	0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)
GDPpc (Ln)		0.01		0.03
		(0.04)		(0.05)
Growth (% of GDP)		-0.03**		-0.03**
		(0.00)		(0.00)
Trade (% of GDP)		-0.00		-0.00
		(0.00)		(0.00)
Population (Ln)		0.03		0.03
		(0.04)		(0.05)
Oil and Gas Prod. (Ln)		-0.00		-0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.03		0.03
		(0.09)		(0.09)
Foreign Aid (Ln)		0.03		0.03
		(0.03)		(0.03)
BITs signed (country, $l-1$) (Ln)		-0.06*		-0.03
		(0.03)		(0.03)
Time-interacted variables				
BITs signed (leader tenure) (Ln)			0.00	0.00
			(0.01)	(0.01)
BITs signed × Polity2			-0.00	-0.00
			(0.00)	(0.00)
Polity2			0.01**	0.01**
			(0.00)	(0.00)
Observations	7,456	7,456	7,456	7,456
Countries	143	143	143	143
# of subjects	1,207	1,207	1,207	1,207
# of failures	1,063	1,063	1,063	1,063

Models 3 and 4 include variables interacted with the natural logarithm of time in office.
Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

Table B16: **Parametric Weibull Regressions**

	Full Sample		Matched Sample	
	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.11**	-0.20**	-0.10	-0.22**
	(0.04)	(0.06)	(0.06)	(0.07)
BITs signed × Polity2	0.02**	0.03**	0.02*	0.03**
	(0.01)	(0.01)	(0.01)	(0.01)
Polity2	-0.01	-0.02	-0.01	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)
GDPpc (Ln)		0.05		0.01
		(0.05)		(0.06)
Growth (% of GDP)		-0.04**		-0.03*
		(0.00)		(0.01)
Trade (% of GDP)		-0.00*		-0.00
		(0.00)		(0.00)
Population (Ln)		0.03		0.04
		(0.05)		(0.06)
Oil and Gas Prod. (Ln)		0.00		0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.13		0.10
		(0.10)		(0.12)
Foreign Aid (Ln)		0.01		-0.01
		(0.04)		(0.05)
BITs signed (country, $l-1$) (Ln)		-0.04		0.01
		(0.04)		(0.04)
Constant	-1.21**	-1.83	-1.43**	-1.83
	(0.08)	(1.11)	(0.12)	(1.32)
Ancillary parameter				
Polity2	0.03**	0.03**	0.03**	0.03**
	(0.00)	(0.01)	(0.01)	(0.01)
Constant	-0.26**	-0.19**	-0.23**	-0.18**
	(0.03)	(0.04)	(0.05)	(0.05)
Observations	7,145	5,083	4,610	4,122
Countries	143	132	129	126
# of subjects	1,179	921	735	695
# of failures	1,028	776	630	578

Clustered standard errors at the country level in parentheses. * $p < 0.05$, ** $p < 0.01$

coalition than other autocratic leaders in more personalistic regimes, where those (potential) checks are absent.

We have argued above that democracies, by virtue of the larger and more dispersed support coalition, are more likely to see property rights protected. There is also variation in the size of the underlying support coalition across autocratic types. As a further robustness test of our argument, we explore whether those autocrats in more institutionalized regimes will see smaller gains from BIT signings, and whether more personalization autocrats leaders, who are the arguably least credible, experience the greatest benefit from BITs in terms of survival.

To operationalize the institutionalization level of autocratic leaders we rely on the *de facto* existence of political parties. Institutionalized autocratic leaders are characterized by a larger core of supporters and the presence of multiple political parties, and we predict that among autocratic types, the survival benefits of BITs is smallest for these institutionalized leaders. In contrast, personalistic regimes are characterized by small inner circles and core support bases, and the complete absence of political parties; there are few constraints to expropriation. Survival however relies on the continued and repeated care and feeding of the core support base, and expropriation cuts off the resources necessary to reward those supporters (investment dries up).[2] These autocratic variants are in the direst need of credible commitments to protect property rights; leaders in personalistic autocracies, we predict, have the most to gain in terms of survival by signing BITs.

Hypothesis 1 (Regime Type: Across Autocratic Types)**.** *The effect on leader survival of BIT signing will be greater among more personalistic autocratic leaders than among more institutionalized autocratic leaders.*

To proxy for the degree of institutionalization we rely on the *de facto* existence of political parties, drawn from the Democracy and Dictatorship dataset (Cheibub, Gandhi, and Vreeland 2010). As before, results from survival analysis strongly support our arguments. Using different proxies such as *de jure* status of political parties, parties within the legislature, or the status of the legislature itself provide similar results.

[2]See Pepinsky (2009) on the effects of lost investment on autocratic survival and the variation of these effects based on coalition composition.

To analyze our hypotheses about different autocratic regime types, we re-estimate a Cox proportional hazards model from the previous section but restrict our attention to non-democratic regimes.[3] Instead of focusing on the level of democracy, we focus on the moderating role of the degree of institutionalization of the regime. To do so, we construct two variables. Our first measure of *Institutionalization* ranges from 0 to 2, 0 being the case where there are de facto no political parties, 1 where there exist one party, and 2 where multiple parties exist. For robustness, we use a second measure, *Institutionalization dummy*, which takes the value of 1 where there exists at least one party, and 0 where there are no parties.

As before, the main estimand of interest corresponds to the interaction of the institutionalization and BITs variables. Here, personalistic regimes represent the baseline category (i.e., Institutionalization = 0), and thus, as before, we expect a negative coefficient on the BITs signed variable and a positive coefficient on the interaction term. Results are reported in Table B17.

The evidence follows our expectations. Signing BITs is negatively and significantly correlated with leader survival for personalistic leaders. In contrast, as the interaction terms show, BITs offer fewer gains to more institutionalized leaders.

2.3 Cox Frailty Model: Matching Estimates

Endogenous selection into BIT signings is likely to create an imbalance in covariates between "treated" leaders (signatories) and "non-treated" leaders (non-signatories). Regression methods can address this imbalance only under restrictive assumptions regarding the functional form of the selection process. Matching relaxes these functional form assumptions.

The logic behind propensity score matching is straightforward. It pairs units that enter into the so called 'treatment condition' – in our case, BIT signing – with similar units that remain in the so-called 'control' condition. This process is done in two steps. First, the probability that a given unit enters into treatment is estimated. Then, treated and control units are matched according to these estimated probabilities. While there has been a burgeoning literature on matching algorithms, research on panel matching techniques is still in its early stages. The key complication is that

[3] Specifically, we restrict our sample to cases where *Polity2* is lower than 5. Nonetheless, we get similar results on the full sample, or using different cutoffs.

Table B17: **Cox Proportional Hazards Estimates: Leader Survival & Institutionalized Politics in Non-Democratic Regimes**

	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.51**	-0.82**	-0.62**	-1.13**
	(0.18)	(0.25)	(0.21)	(0.31)
BITs signed × Institutionalization	0.19	0.30*		
	(0.11)	(0.14)		
BITs signed × Institutionalization Dummy			0.49*	0.91**
			(0.23)	(0.32)
Institutionalization	0.10	0.02		
	(0.08)	(0.11)		
Institutionalization dummy			-0.13	-0.22
			(0.16)	(0.20)
Polity2		-0.01		-0.00
		(0.02)		(0.02)
GDPpc (Ln)		0.12		0.12
		(0.09)		(0.09)
Growth (% of GDP)		-0.04**		-0.04**
		(0.01)		(0.01)
Trade (% of GDP)		-0.01*		-0.01*
		(0.00)		(0.00)
Population (Ln)		-0.01		-0.00
		(0.08)		(0.08)
Oil and Gas Prod. (Ln)		-0.00		-0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.10		0.02
		(0.26)		(0.26)
Foreign Aid (Ln)		-0.02		-0.02
		(0.06)		(0.06)
BITs signed (country, $l-1$) (Ln)		-0.11		-0.12
		(0.09)		(0.09)
Time-interacted regressors				
Institutionalization	-0.02*	-0.07**		
	(0.01)	(0.01)		
Institutionalization dummy			-0.07**	-0.14**
			(0.02)	(0.03)
Polity2		0.02**		0.02**
		(0.00)		(0.00)
Observations	4,328	2,975	4,328	2,975
Countries	119	105	119	105
# of subjects	653	494	653	494
# of failures	506	366	506	366
Frailty parameter	0.30	0.24	0.41	0.27

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$

we need to match on leaders (a single country for multiple years - time series), not leader-years (individual observations). To address this, we follow the approaches taken by Simmons and Hopkins (2005) and Hollyer and Rosendorff (2012). For any given leader l who did not sign a BIT, we take

the mean of our set of covariates for every period under observation. For all leaders who signed a BIT in a given year t, we take the mean of the set of covariates for all years prior to t. Hence, the unit of analysis in this new data is the leader – and not leader-year. We then implement our matching strategy, to later 'decompress' our matched data, into the leader-year format once again.

To create our matched data set, we employ a nearest-neighbor matching algorithm with a caliper of .5 standard deviations, and without replacement. The full final matched data contains 369 BIT signatories that are paired with 369 non-signatories. Below we show additional details about the improvement in covariate balance and other diagnostics.

Results for this new data are reported in Table B18. The information in Models 1 through 4 is analog to the corresponding Models 1–4 in Table 1.

The result of these matched estimations in all models follows closely the evidence from the unmatched estimates. As expected, BIT signing is associated with a lower risk of removal from office, and this effect decreases over time in office. Furthermore, the interaction between BITs and democracy is always positive. As before, instead of relying simply on the estimated coefficients, we estimate the hazard rates for the set of covariates of interest. Estimates from Model 2 are presented graphically in Figure B2.

Again we estimate the hazard for democratic and autocratic leaders, for different cases of BIT signing. Again, the evidence strongly supports our theory. While BIT signing is associated with a lower risk of removal from office, this benefit is only accrued by autocratic leaders.

We also present propensity score matching estimates for the non-democratic regimes analysis (i.e., analyzing the level of personalism and institutionalization of non-democratic leaders). Here, we follow a similar procedure as delineated before, but instead of matching on the mean of democracy variable, we matched on the median of our institutionalization dummy.[4] Results for these estimations are reported in the Table B19. The estimation using the matched data follows closely the evidence from the full data. As expected, the interaction between BITs and non-democratic institutionalization is positive.

[4]Results do not change if we matched on *Polity2* as in the previous section.

Table B18: **Cox Frailty Proportional Hazards Estimates: Leader Survival – Matched Data**

	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.26**	-0.40**	-0.28**	-0.44**
	(0.06)	(0.07)	(0.10)	(0.11)
BITs signed × Polity2	0.04**	0.05**	0.04**	0.05**
	(0.01)	(0.01)	(0.01)	(0.01)
Polity2	0.05**	0.04**	0.00	-0.00
	(0.01)	(0.01)	(0.01)	(0.01)
GDPpc (Ln)		0.03		0.06
		(0.07)		(0.08)
Growth (% of GDP)		-0.04**		-0.04**
		(0.01)		(0.01)
Trade (% of GDP)		-0.00		-0.00
		(0.00)		(0.00)
Population (Ln)		0.12		0.10
		(0.07)		(0.07)
Oil and Gas Prod. (Ln)		-0.00		-0.00
		(0.01)		(0.01)
PTAs signed (leader tenure)		0.06		0.04
		(0.12)		(0.12)
Foreign Aid (Ln)		-0.07		-0.07
		(0.05)		(0.05)
BITs signed (country, $l-1$) (Ln)		0.01		0.03
		(0.04)		(0.04)
Time-interacted variables				
BITs signed			0.00	0.00
			(0.01)	(0.01)
BITs signed × Polity2			-0.00	-0.00
			(0.00)	(0.00)
Polity2			0.01**	0.01**
			(0.00)	(0.00)
Observations	4,610	4,122	4,610	4,122
Countries	129	126	129	126
# of subjects	735	695	735	695
# of failures	630	578	630	578
Frailty parameter	0.32	0.30	0.35	0.34

Models 3 and 4 include variables interacted with the natural logarithm of time in office. Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$.

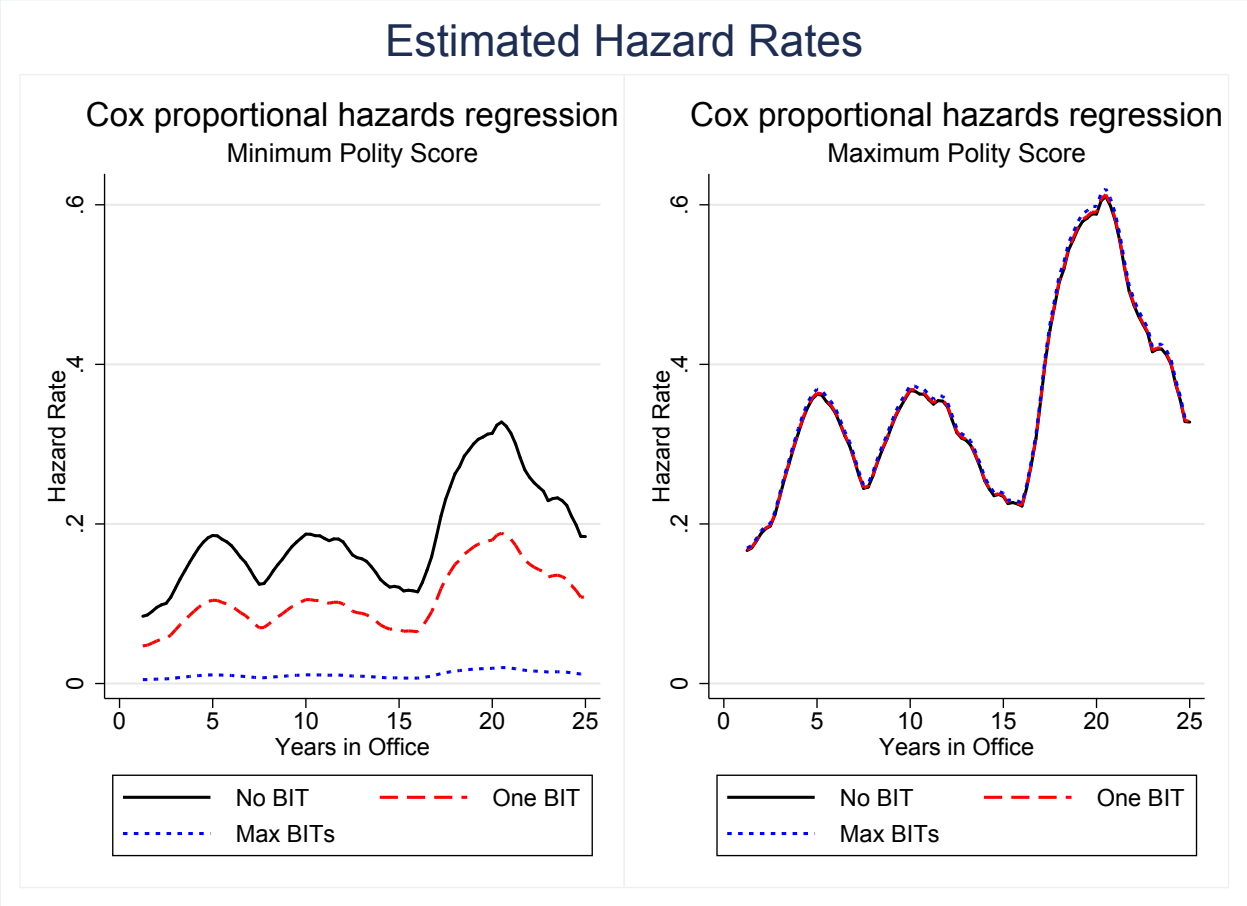

Figure B2: Estimated Leader Failure Rates by Year for Different Levels of BITs Signed (Ln) - Matched sample

Table B19: **Cox Proportional Hazards Estimates: Leader Survival & Institutionalized Politics in Non-Democratic Regimes – Matched Data**

	(1)	(2)	(3)	(4)
BITs signed (leader tenure) (Ln)	-0.79*	-1.13**	-1.54**	-1.83**
	(0.31)	(0.35)	(0.48)	(0.50)
BITs signed × Institutionalization	0.37*	0.41*		
	(0.17)	(0.19)		
BITs signed × Institutionalization dummy			1.53**	1.52**
			(0.49)	(0.51)
Institutionalization	0.11	0.06		
	(0.12)	(0.15)		
Institutionalization dummy			-0.10	-0.18
			(0.24)	(0.27)
Polity2		-0.02		-0.01
		(0.03)		(0.03)
GDPpc (Ln)		0.08		0.10
		(0.13)		(0.14)
Growth (% of GDP)		-0.04*		-0.04*
		(0.02)		(0.02)
Trade (% of GDP)		-0.00		-0.00
		(0.00)		(0.00)
Population (Ln)		0.04		0.06
		(0.11)		(0.12)
Oil and Gas Prod. (Ln)		-0.01		-0.02
		(0.02)		(0.02)
PTAs signed (leader tenure)		0.31		0.33
		(0.35)		(0.35)
Foreign Aid (Ln)		-0.06		-0.05
		(0.09)		(0.09)
BITs signed (country, $l-1$) (Ln)		0.09		0.08
		(0.12)		(0.12)
Time-interacted variables				
Institutionalization	-0.04*	-0.08**		
	(0.02)	(0.02)		
Institutionalization dummy			-0.14**	-0.17**
			(0.04)	(0.04)
Polity2		0.02**		0.02**
		(0.00)		(0.00)
Observations	2,422	2,120	2,422	2,120
Countries	100	96	100	96
# of subjects	353	332	353	332
# of failures	240	224	240	224
Frailty parameter	0.80	0.68	1.07	0.77

Standard errors in parentheses. * $p < 0.05$, ** $p < 0.01$

2.4 Instrumental Variable Estimates

We implement an instrumental variable probit model, which estimates two equations simultaneously via maximum likelihood: first, a selection equation estimates a leader's likelihood of signing a BIT for any given leader-year, and then, the outcome equation estimates the effect of BIT signing on the probability that the leader is removed from office.[5]

To do so, we borrow from the extant literature. Gray (2009) uses the number of UNESCO World Heritage sites as an instrument for the effects of EU accession on spreads on government bonds. Following Rosendorff and Shin (2012) we use the cumulative number of non-economic UNESCO conventions the leader is party to instrument for BIT accession.[6]

The unit of analysis remains leader-year. The outcome variable is an indicator of whether the leader was removed from office that year, or not. To account for time-dependence, we include cubic polynomial of the years the leader has been in office. The key variable of interest is *BITs signed* which is (the log of) the number of BITs signed between the time a given leader takes office and year t. In the selection equation, the main variable is the logarithm of the cumulative number of UNESCO conventions a leader has signed over her tenure. The economic controls are the same from the main analysis. We include both region and year fixed effects, and cluster the standard errors at the leader level.

Results are presented in Table B20. The first two columns display the estimation for Autocracies, while the last two do so for Democracies. Evidence from the selection equation is consistent with the literature finding that UNESCO conventions predict BIT signings. The outcome equation provides support for our arguments. BIT signings have a strong and negative effect on leader failure – i.e., increase leader survival – of autocratic leaders. On the other hand, BIT signing has no discernible effect on the survival of democratic leaders.

[5]Similar to other types of selection models, the estimate ρ represents the correlation between the error terms of the two equations, effectively accounting for selection, and facilitating the unbiased estimations of the effect of BITs on leader survival.

[6]The UNESCO reports the list of conventions each state is party to and their date of signing and ratification. These include, for instance, The Protocol to the Convention for the Protection of Cultural Property in the Event of Armed Conflict, and Convention on Wetlands of International Importance Especially as Waterfowl Habitat. A full list can be found in Table B21.

Table B20: **IV Probit Estimates**

	Autocracies		Democracies	
	(1)	(2)	(3)	(4)
Outcome Equation				
BITs signed (leader tenure) (Ln)	-1.11**	-1.13**	-0.13	-0.28
	(0.30)	(0.37)	(0.19)	(0.22)
GDPpc (Ln)	0.23*	0.22	0.01	0.03
	(0.11)	(0.12)	(0.06)	(0.06)
Growth (% of GDP)	-0.02**	-0.03**	-0.02**	-0.02**
	(0.01)	(0.01)	(0.01)	(0.01)
Trade (% of GDP)	-0.00	-0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Population (Ln)	0.06	0.04	0.06	0.06
	(0.07)	(0.07)	(0.06)	(0.05)
Oil and Gas Prod. (Ln)	0.00	0.00	-0.00	0.00
	(0.01)	(0.01)	(0.01)	(0.01)
PTAs signed (leader tenure)	1.13**	0.64	-0.15	-0.18
	(0.40)	(0.36)	(0.11)	(0.10)
Foreign Aid (Ln)	0.03	0.07	0.02	0.04
	(0.06)	(0.07)	(0.04)	(0.04)
BITs signed (country, $l-1$) (Ln)	0.13	-0.04	0.03	0.07
	(0.10)	(0.09)	(0.04)	(0.05)
Cubic time pol.	✓	✓	✓	✓
Region FE	✓	✓	✓	✓
Year FE		✓		✓
Selection Equation				
UNESCO Sign (Ln)	0.16*	0.16*	0.30**	0.28**
	(0.07)	(0.07)	(0.08)	(0.07)
GDPpc (Ln)	0.17*	0.17*	0.11*	0.14**
	(0.08)	(0.08)	(0.06)	(0.05)
Growth (% of GDP)	-0.00	-0.00	-0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Trade (% of GDP)	-0.00	-0.00	0.00	-0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Population (Ln)	0.03	0.03	0.12**	0.07
	(0.05)	(0.04)	(0.05)	(0.04)
Oil and Gas Prod. (Ln)	0.00	0.00	-0.01	-0.00
	(0.01)	(0.01)	(0.00)	(0.00)
PTAs signed (leader tenure)	1.06**	0.72**	0.40**	0.27**
	(0.15)	(0.13)	(0.10)	(0.09)
Foreign Aid (Ln)	0.05	0.08**	0.01	0.02
	(0.03)	(0.03)	(0.03)	(0.03)
BITs signed (country, $l-1$) (Ln)	0.20**	0.07	0.13**	0.01
	(0.05)	(0.06)	(0.03)	(0.04)
Cubic time pol.	✓	✓	✓	✓
Region FE	✓	✓	✓	✓
Year FE		✓		✓
ρ	0.83*	0.69*	0.03	0.07
	(0.35)	(0.34)	(0.14)	(0.15)
Observations	2,012	1,929	2,051	1,993
Clusters	317	317	534	534
Log-Likelihood	-2,538.98	-2,268.19	-3,218.34	-2,938.44

Robust standard errors clustered at the leader level in parentheses.
Autocracies: *polity2* score ≤ -5. Democracies: *polity2* score ≥ 5.
* $p < 0.05$, ** $p < 0.01$

Table B21: UNESCO Conventions, by Year

Conventions	Year
Revised Convention on the Recognition of Studies, Certificates, Diplomas, Degrees and Other Academic Qualifications in Higher Education in African States	2014
Asia-Pacific Regional Convention on the Recognition of Qualifications in Higher Education	2011
Convention on the Protection and Promotion of the Diversity of Cultural Expressions	2005
International Convention against Doping in Sport	2005
Convention for the Safeguarding of the Intangible Cultural Heritage	2003
Convention on the Protection of the Underwater Cultural Heritage	2001
Convention on the Recognition of Qualifications concerning Higher Education in the European Region	1997
Convention on Technical and Vocational Education	1989
Regional Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in Asia and the Pacific	1983
Regional Convention on the Recognition of Studies, Certificates, Diplomas, Degrees and other Academic Qualifications in Higher Education in the African States	1981
Convention on the Recognition of Studies, Diplomas and Degrees concerning Higher Education in the States belonging to the Europe Region	1979
Multilateral Convention for the Avoidance of Double Taxation of Copyright Royalties, with model bilateral agreement and additional Protocol.	1979
Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in the Arab States	1978
Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in the Arab and European States Bordering on the Mediterranean	1976
Regional Convention on the Recognition of Studies, Diplomas and Degrees in Higher Education in Latin America and the Caribbean	1974
Convention relating to the Distribution of Programme-Carrying Signals Transmitted by Satellite	1974
Convention concerning the Protection of the World Cultural and Natural Heritage	1972
Universal Copyright Convention as revised at Paris on 24 July 1971, with Appendix Declaration relating to Article XVII and Resolution concerning Article XI	1971
Convention on Wetlands of International Importance especially as Waterfowl Habitat	1971
Convention for the Protection of Producers of Phonograms against Unauthorized Duplication of their Phonograms	1971
Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property	1970
Protocol Instituting a Conciliation and Good offices Commission to be Responsible for Seeking the settlement of any Disputes which may Arise between States Parties to the Convention against Discrimination in Education.	1962
International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations	1961
Convention against Discrimination in Education	1960
Convention concerning the Exchange of Official Publications and Government Documents between States	1958
Convention concerning the International Exchange of Publications	1958
Convention for the Protection of Cultural Property in the Event of Armed Conflict with Regulations for the Execution of the Convention	1954
Universal Copyright Convention, with Appendix Declaration relating to Articles XVII and Resolution concerning Article XI	1952
Agreement on the Importation of Educational, Scientific and Cultural Materials, with Annexes A to E and Protocol annexed	1950
Agreement For Facilitating the International Circulation of Visual and Auditory Materials of an Educational, Scientific and Cultural character with Protocol of Signature and model form of certificate provided for in Article IV of the above-mentioned Agreement	1948

Table B22: **Summary statistics: Credit Ratings & Economic Risks**

Variable	Mean	Std. Dev.	Min.	Max.	N
S&P Rating	6.308	3.879	0	16	1,111
Institutional Investor (II) Rating	31.516	17.445	4.05	91.5	2,215
Contract intensive money (CIM, %)	73.851	16.805	17.504	100	4,617
BITs signed (Ln)	0.261	0.515	0	2.89	6,300
Polity2	-1.09	6.927	-10	10	6,191
GDPpc (Ln)	7.213	1.251	3.913	11.314	5,218
GDP (Ln)	23.08	1.792	18.461	29.213	5,228
ISDS Claims	0.046	0.316	0	12	6,300
PTA (without Inv. clause)	0.063	0.292	0	5	6,300
Trade (% of GDP)	72.476	48.9	0.309	531.737	5,214

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