

# Online Appendix

## Formalities of the Baseline Game.

The set of **Players** is  $\{I, O, m, B\}$ , the incumbent, the opposition leader, the median voter, and the blackmailer respectively. The ideological type of the opposition player,  $P = \{E, M\}$ , is unknown to anyone but the  $O$  himself; for others,  $Pr(x_O^M) = \theta$ . In addition,  $O$  may be compromised: let  $k \in \{K, U\}$  represent the presence or absence of kompromat.  $B$  and  $O$  know the value of  $k$ ; for others,  $Pr(k = U) = \mu$ .

Players have ideal points  $x_B, x_O^E, x_O^M, x_m, x_I$  in  $\mathbb{R}$ , the policy space, and we assume that  $x_m = 0$ ,  $x_B < x_O^E < x_O^L < 0 < x_I$  and that  $x_I > |x_O^M|$ .

Players' **strategies** are defined as follows:

$S_I = \{T, N\}$ , where  $T$  refers to a transparency regime and  $N$  refers to a non-transparency regime, is the strategy set of the incumbent;

$S_O = \{P \times K \rightarrow \mathbb{R}\}$  is the strategy set of the opposition challenger;

$S_m^E = \{\{T, N\} \times \{K, U\} \rightarrow \{I, O\}\}$  is the voters' strategy set at the elections stage;

$S_B = \{R \rightarrow \{\text{Kompromat Released, Kompromat Not Released}\}\}$  is the blackmailer's strategy set (which is conditional on the elected opposition leader being compromised);

$S_m^R = \{\mathbb{R} \times \{\text{Kompromat Released, Kompromat Not Released}\} \rightarrow \{\text{Remove, Not Remove}\}\}$  is the voters' strategy at the removal stage, which maps the policy space into removal decisions.

**Preferences** are Euclidean and given by  $u_i(x) = -|x - x_i|$ , where  $i = I, M, B$ . For  $O$ , the utility function is given by  $u_O(x) = -|x - x_O^T| - F \times \mathbb{I}_{\text{removed from office}}$ , where  $F > 0$  is disutility large enough so that the opposition leader prefers to depart from the ideal policy rather than be removed from office. In addition, voters ( $m$ ) suffer disutility of  $C_{RU} > 0$  if  $k = U$  and the politician is removed from office, and disutility of  $C_{KC} > 0$  if  $k = K$  and the politician stays in office.

## The Equilibrium Formalities

Proposition 1 describes the following **perfect Bayesian equilibrium**.

- $s_I^* = N$ ,
- $s_m^{E*} = (\text{Vote for } I \text{ if } s_I^* = N, \text{ Vote for } O \text{ if } s_I^* = T)$ ,

- $x_O^* = \begin{cases} x_O^E & \text{if } k = K \text{ and } P = M, \\ x_O^E & \text{if } P = E, \\ x_O^M & \text{if } P = M \text{ and } k = U, \end{cases}$
- $s_B^* = \text{Release kompromat if and only if } O \text{ is elected, } k = K, \text{ and } x_P^* > x_O^E.$
- $Pr(k = K | x_P^* = x_O^M) = 0,$
- $Pr(k = K | x_P^* \notin \{x_O^E, x_O^M\}) = 1,$
- $Pr(k = K | x_P^* = x_O^E) = \frac{\mu}{(1-\theta)+\mu\theta},$
- $s_m^{R*} = \text{Remove if } Pr(k = K | x_O^*) > \bar{p} = \frac{(1-\theta)(x_O^M - x_O^E) + C_{RU}}{C_{KC} + C_{RU}}; \text{ Not remove, otherwise.}$

## Proofs

Let us prove that the strategy profile described in Proposition 1 with players' beliefs specified above is a perfect Bayesian equilibrium.

We proceed backwards. In any SPNE, the last decision-maker is voters deciding whether or not the politician should be removed following the kompromat release.

If the probability that the elected leader is compromised is  $p > 0$ , the expected payoff of the removal is  $-(1-p)C_{RU} + \theta x_O^M + (1-\theta)x_O^E$ , while the expected payoff of keeping the leader is  $\max\{x_O^M, x_O^E\} - pC_{KC}$ . Thus, the voters remove the leader whenever  $p$  exceeds the threshold  $\bar{p} = \frac{(1-\theta)(x_O^M - x_O^E) + C_{RU}}{C_{KC} + C_{RU}}$ .

By assumption, the cost of removing an elected leader who is known to be uncompromised is large enough to guarantee that  $\frac{\mu}{\theta\mu + (1-\theta)} < \bar{p}$  (as  $\bar{p}$  is approaching one when  $C_{RU}$  approaches infinity; in other words, there exists a certain threshold  $\overline{C_{RU}}$  such that the result is true for any  $C_{RU} > \overline{C_{RU}}$ ). This guarantees that the elected official is not removed from office when  $p = \frac{\mu}{\theta\mu + 1 - \theta}$ , i.e., when the kompromat is *not* released and the voters' posterior is equal to their prior (conditional on the event that the elected is either extreme or compromised moderate).

At the same time, the leader is removed if  $p = 1$  as  $\bar{p} < 1$ . In the equilibrium described in Proposition 1, when the kompromat is published,  $p = 1$ , so the leader is removed.

Also, this equilibrium specifies voters' beliefs in such a way that when the elected leader chooses  $x_P^* \notin \{x_O^E, x_O^M\}$ , the voters know ( $p = 1$ ) that the politician is compromised, and remove him from the office. Thus, we have checked that the strategy set coupled with beliefs as specified in Proposition 1 is a perfect Bayesian equilibrium.

Next, we demonstrate that the equilibrium is a unique PBE that satisfies the Intuitive Criterion (Cho and Kreps, 1987). We start with a straightforward observation that in any perfect Bayesian equilibrium, the compromised politician must pool with (some type of) an uncompromised one. Otherwise, the posterior probability that the politician is compromised is 1 because of sequential rationality; as demonstrated above, if  $p = 1$ , voters remove the politician from office. Thus, separating from an equilibrium strategies of uncompromised types cannot be a best response by a compromised type. This is stated formally as follows.

**Lemma A1** *In any PBE, the equilibrium policy choice of any compromised politician coincides with an equilibrium choice of an uncompromised one.*

An equilibrium of a signaling game satisfies the Intuitive Criterion (Cho and Kreps, 1987) if for any message  $\pi$  never sent on the equilibrium path, and if  $\pi$  is equilibrium-dominated for some types of the sender, but not others, the equilibrium beliefs must place zero weight on senders for whom the message is equilibrium-dominated. To see this, consider an equilibrium in which some types of the sender pool on a message,  $m$ . If there exists another message,  $m'$ , such that some of the types that pool would never send it regardless of the beliefs that would follow from their action, while other pooling types would send  $m'$  if the beliefs are appropriately favorable to them, then an equilibrium involving such strategies fails the intuitive criterion. In our game, the choice of the policy serves as a signal, so the elected leader is the sender and voters are the receiver in the signaling game.

The application of the intuitive criterion allows to rule out the equilibria in which the uncompromised politicians refrain from choosing their optimal policies, because the equilibrium beliefs are such that if they do, they are believed to be compromised. By Lemma A1, any such equilibrium would feature pooling of a compromised and uncompromised politician on a certain policy  $x^*$ . Let us start with the case that both the moderate and extreme uncompromised politicians pool with a compromised one on  $x^*$ ,  $x^* \notin \{x_O^E, x_O^M\}$ , and  $x_O^E < x^* < x_O^M$ . Then, for the uncompromised extreme politician switching to  $x_O^E$  is preferable, provided that he is believed to be the uncompromised type. At the same time, for the uncompromised politician,  $x_O^E$  is equilibrium-dominated. Therefore, any such equilibrium fails the intuitive criterion. Similarly, one could consider cases of any  $x^* \in \mathbb{R} \setminus \{x_O^E, x_O^M\}$ . Therefore, we proved the following lemma.

**Lemma A2** *In any PBE that satisfies the intuitive criterion, the set of equilibrium outcomes is  $\{x_O^E, x_O^M\}$ .*

This leaves us, hypothetically, with a possibility of an equilibrium, in which the compromised and uncompromised extreme leaders pool on  $x_O^E$ , while the compromised and uncompromised moderate leaders pool on  $x_O^M$ . The intuitive criterion would not help to refine it away. However, such choices cannot be a part of a perfect equilibrium in the whole game as releasing the kompromat after the compromised moderate chose  $x_O^M$  is optimal for the blackmailer, provided that voters remove the compromised politician as they do in any subgame perfect equilibrium. Then, for the compromised moderate, it cannot be an equilibrium strategy to choose  $x_O^M$ . This observation, together with Lemma A2 shows that the PBE of Proposition 1 is unique.

## The Case of Uncertain Median

In the baseline model, we assumed that the position of the median voter is known *ex ante*. In this section, we relax this assumption and define the ideal point of the median voter,  $x_m$ , by a random variable distributed uniformly over  $[-\frac{1}{2\delta}, \frac{1}{2\delta}]$ .

We start by calculating the probability that the opposition wins, given the parameters of the model, for both transparency and non-transparency regimes. In the model with uncertainty, the consequences of a transparency regime on the incumbent's re-election prospects are probabilistic. However, for a range of parameters, the incumbent still prefers non-transparency. This model can hence be interpreted as a robustness check on our main result that uncompromised incumbents protect compromised politicians by shielding them from transparency legislation that would expose skeletons in their closet.

Assume, as before, that  $x_B < x_O^E < x_O^M < 0 < x_I$ ; assume also that  $x_m \sim U[-\frac{1}{2\delta}, \frac{1}{2\delta}]$ , which implies that for any given  $x$ , the probability that  $x_m < x$  is given by  $F(x) = \delta x + \frac{1}{2}$ . We will assume that  $\delta$  is large enough that  $x_O^M < -\frac{1}{2\delta} < 0 < \frac{1}{2\delta} < x_I$ .

Since the order of play is the same as before, the analysis of the median voter's and blackmailer's decisions will be the same as in the previous section. That is, the voters upon observing that kompromat has been released remove the elected leader; otherwise, they base their decision on the elected leader's policy choice. The blackmailer in turn, does not reveal kompromat if  $x_O^* = x_O^E$ , but reveals it whenever it is in his possession and  $x_O^* = x_O^M$ .

Recall, as before, that for the uncompromised politician, choosing anything but his ideal point is dominated by choosing his ideal point. Given this, in the equilibrium we construct, the compromised politician must select a policy from the set  $\{x_O^E, x_O^M\}$ . For any other values and beliefs, other policy choices can never be a part of an equilibrium that satisfies the intuitive criterion. Because his ideal point would cost the moderate compromised politician his office, he

chooses  $x_O^* = x_O^E$ . The extreme compromised opposition leader is free to choose his ideal point. Hence, all compromised politicians choose  $x_O^* = x_O^E$  regardless of type.

Under a non-transparency regime, the median voter votes for the opposition if and only if

$$x_m < \frac{x_I + x_O^M \theta (1 - \mu) + x_O^E (1 - \theta + \theta \mu)}{2}.$$

Thus, the probability that the opposition wins under the non-transparency regime is

$$P^{NT} = \frac{1}{2} + \frac{x_I + x_O^M \theta (1 - \mu) + x_O^E (1 - \theta + \theta \mu)}{2} \delta.$$

To find how the median votes under the transparency regime, we simply set  $\mu = 0$  in the above expression, which implies a probability of defeating the incumbent under transparency of

$$P^T = \frac{1}{2} + \frac{x_I + x_O^M \theta + x_O^E (1 - \theta)}{2} \delta.$$

The probability of losing under transparency is higher:  $P^{NT} > P^T$  whenever  $\mu > 0$ .

If the incumbent wins, her utility is equal to zero. Hence, the remaining task is to calculate her expected utility conditional on losing under the transparency and non-transparency regimes:

$$\begin{aligned} EU_I(x_O^*|NT) &= -(x_I - x_O^M)\theta(1 - \mu) - (x_I - x_O^E)(1 - \theta + \theta\mu), \\ EU_I(x_O^*|T) &= -(x_I - x_O^M)\theta - (x_I - x_O^E)(1 - \theta) \end{aligned}$$

(here, the expectation is taken with respect to the opposition politician's type). Clearly, the incumbent would prefer losing under transparency to losing under non-transparency, as under the transparency regime, she is more likely to lose to the moderate opposition.

Now, the expected utility of the incumbent under the non-transparency regime is

$$\begin{aligned} EU_I(NT) &= P^{NT} \times EU_I(x_O^*|NT) \\ &= \left( \frac{1}{2} + \delta \frac{x_I + x_O^M \theta (1 - \mu) + x_O^E (1 - \theta + \theta \mu)}{2} \right) (-(x_I - x_O^M)\theta(1 - \mu) - (x_I - x_O^E)(1 - \theta + \theta \mu)). \end{aligned}$$

and under the transparency regime is

$$\begin{aligned} EU_I(T) &= P^T \times EU_I(x_O^*|T) \\ &= \left( \frac{1}{2} + \delta \frac{x_I + x_O^M \theta + x_O^E (1 - \theta)}{2} \right) (-(x_I - x_O^M)\theta - (x_I - x_O^E)(1 - \theta)). \end{aligned}$$

When does the incumbent choose transparency? There is a trade-off because while the probability of winning is higher under non-transparency, the incumbent prefers losing under transparency to losing under non-transparency.

The incumbent's preference for non-transparency,  $EU_I(NT) \geq EU_I(T)$ , boils down, after simplification, to a condition on the probability that the opposition leader is compromised:

$$\mu \geq \bar{\mu} = 2 - 2 \frac{-x_O^E + \frac{1}{2\delta}}{\theta(x_O^M - x_O^E)}. \quad (\text{A1})$$

Proposition A3 states formally the existence and comparative statics results for the case of an uncertain position of the median voter.

**Proposition A3** (i) *For any incumbent's ideal point  $x_I$ , opposition ideal points  $x_O^M$  and  $x_O^E$ , and the probability of the opposition being moderate  $\theta$ , there exists a critical probability that the opposition leader is compromised,  $\bar{\mu} \geq 0$ , defined in (A1) such that for any  $\mu \geq \bar{\mu}$ , the incumbent will prefer to refrain from a transparency regime.*

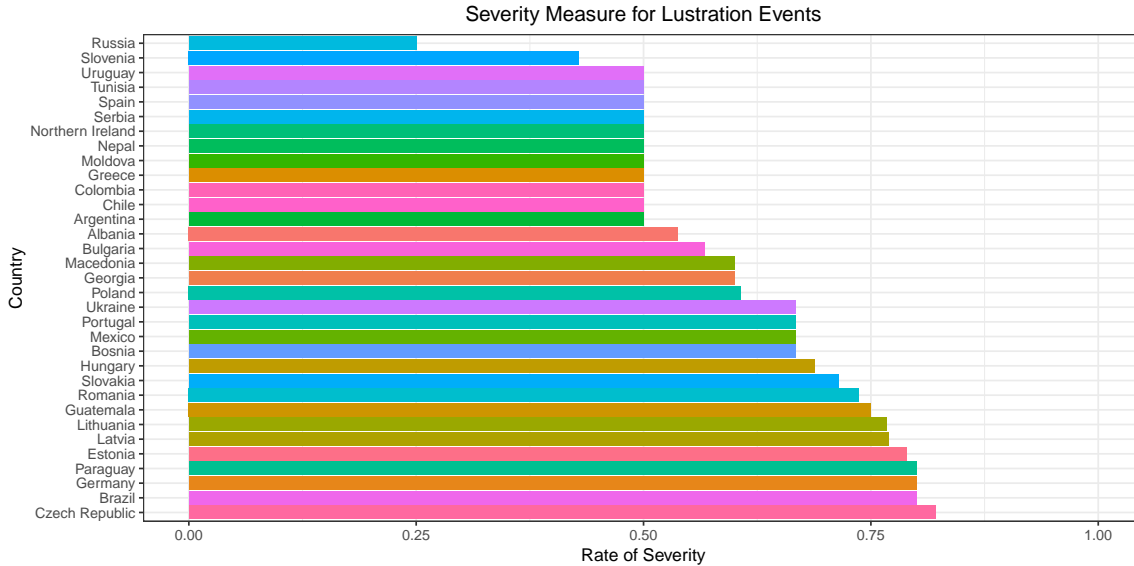
(ii) *The threshold  $\bar{\mu}$  is increasing, making the range for transparency regime parameters wider, with the probability that the challenger is moderate,  $\theta$ , and the uncertainty regarding the median voters' ideal point ( $\delta$ ). As the distance between  $x_O^M$  and  $x_O^E$  increases, the range for transparency regimes becomes narrower.*

The first part of Proposition A3 states that for higher levels of compromised opposition challengers, the incumbent will prefer non-transparency. Hence, relaxing the assumption that the median voter's position is known does not weaken the result demonstrated earlier: the more compromised politicians there are, the less likely we are to see a transparency regime put in place. The fact that the more likely it is that the opposition is compromised, the higher the chances that moderate leaders will behave like extreme leaders and make themselves unattractive to the median, preserving the incumbency advantage is theoretically intuitive. Yet the robustness of this result is disturbing from a normative point of view. When there is a greater number of compromised politicians in the political system, the need for transparency is greater, but it is under these precise circumstances when compromised politicians are left unexposed.

The second part of the proposition describes what affects the critical level of kompromat above which the incumbent will choose non-transparency. What increases the threshold is the proportion of moderate opposition challengers; what decreases the threshold is uncertainty around the median. These comparative statics results are also intuitive. When there is a higher

proportion of moderate opposition challengers, the median voter sacrifices more by reelecting the incumbent (recall that he prefers by assumption a moderate opposition challenger to the incumbent as long as he is not compromised). At the same time, an increase in the distance between the two opposition challengers decreases the threshold, which makes non-transparency more prevalent. This is intuitive as the fall out from compromised politicians is more dramatic when the swing to mimic the extreme opposition challenger is greater. The incumbent exploits the median voter's fear that voting for the opposition might place policy considerably further away from the median voter's ideal point.

Figure A-1: Severity of lustration



## Quantitative Appendix

This Appendix explains how the severity score in figures A-1 and 7 is used for testing our hypotheses. Our severity scores were originally developed by Ang and Nalepa (2019) as a measure of TJ intensity. This variable provides a transparency score between 0 and 1 for each of the 61 post-authoritarian countries presented above in figure A-1. Figure A-1 shows that there is considerable variation among transparency regimes across Post-Communist cases, from low values of severity in Slovenia and Croatia (the latter is not even listed, as it had zero lustration events, and cases with severity of zero have been omitted from the figure) to high values in Estonia and Latvia, which have some of the most extreme severity scores of all post-authoritarian states.

Additionally, Figure A-1 illustrates why collecting transparency regime data as a time series is justified. Transparency regimes may be implemented in the immediate aftermath of transition (Elster, 2004), but they may also be significantly delayed. Indeed, the presence of countries with delayed TJ in the figure indicates just how much information would be sacrificed by ignoring transparency regimes implemented decades following the transition.<sup>28</sup>

<sup>28</sup>Among the countries where one had to wait long for transparency regimes to be implemented are Spain, where the 1977 Amnesty Law prevented any attempts to uncover atrocities committed by the Franco regime (Aguilar, Balcells and Cebolla-Boado, 2011), and Colombia, where human rights violations associated with the civil war were not prosecuted and were kept secret long enough to warrant an open letter published in daily newspapers by the Office of the Prosecutor of the ICC. (Urueña, 2017). Similarly, in Northern Ireland, skeletons in the closet from the time of the so-called “Troubles” were sealed to remain secret as part of the peace process known as the Good Friday Agreements. Even more interestingly, these promises remained enforced even following the



To arrive at the severity scores used in figure 7 and reported below in table A1, calculated term-level severity scores for each of the fourteen (twenty) country-terms using only the positive and negative events in that term. That allows us to assign an independent lustration intensity score for each term and compare the ones with a post-communist successor incumbent to ones without a post-communist successor incumbent. Our expectation is that the severity score will always be lower under successor post-communist incumbents.

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demobilization of the rebels and the withdrawal of paramilitaries ([Rolston, 2006](#)).

Table A-1: Severity of Transparency Regimes under Successor and non-Successor Incumbents

country	rom	pol	hun	cro	lith	rom	pol	hun	cro	lith
el. term	1992	1996	1996	2002	2002	2002	2002	2002	2006	2006
opposition position ( $x_O^M$ )	5.09	4.38	6.43	7.33	8.00	6.64	6.88	7.64	4.00	3.86
opposition party	PDL	PSL	MDF	HDZ	TS-LK	PNL	PO	Fidesz-M	HNS	DP
median ( $x_M$ )	5.77	6.04	6.04	5.62	5.51	5.77	6.04	6.04	5.62	5.10
opp vote share	10.20	15.40	11.70	24.40	8.60	6.90	12.70	35.11	8.00	28.40
succ. position ( $x_I$ )	3.00	4.13	3.39	3.56	2.60	3.00	4.13	3.39	3.56	4.00
successor party	PSD	SLD	MSzP	SDP	LSDP	PSD	SLD	MSzP	SDP	LSDP
succ. voteshare	27.70	20.40	33.00	26.50	11.50	36.60	38.10	42.10	17.90	13.36
right position ( $x_O^E$ )	6.29	8.29	7.64	9.25	8.20	8.55	7.75	9.71	7.33	8.29
right party	CDR 2000	SP	Fidesz-M	HSP	LS	PRM	AWSP	MIEP	HDZ	TS
right vote share	5.77	7.30	7.00	5.30	17.30	19.50	5.60	4.40	33.90	14.70
$\theta$	0.64	0.68	0.63	0.82	0.33	0.26	0.69	0.89	0.19	0.66
opposition - median	-0.68	-1.66	0.40	1.71	2.49	0.87	0.84	1.61	-1.62	-1.24
median - successor	2.77	1.91	2.65	2.06	2.91	2.77	1.91	2.65	2.06	1.10
lustration severity	0.50	0.63	0.60	0.00	0.80	0.50	0.33	0.60	0.00	0.50
avg non succ. sev.	0.52	0.42	0.36	0.00	0.22	0.52	0.42	0.36		0.22
difference	-0.02	0.21	0.24	0.00	0.58	-0.02	-0.08	0.24	0.00	0.28
model assumptions	yes	yes	probably not	yes	yes	yes	yes	yes	yes	no
model predictions	yes	no	no	yes	no	yes	yes	no	yes	no

Table A-2: Severity of Transparency Regimes under Successor and non-Successor Incumbents (Continued)

country	bul	hun	rom	sle	cro	lith	rom	slo	bul	slo
el. term	2006	2006	2010	2010	2014	2014	2014	2014	2014	2017
opp. position ( $x_O^M$ )	6.08	6.67	3.67	3.92	4.00	4.40	4.36	6.50	4.69	6.89
opposition party	NDSV	fidesz-M	SD	Zares	HNS	DP	PP-DD	OLaNO	DPS	OLaNO-NOVA
median ( $x_M$ )	5.74	5.61	5.36	5.77	5.62	5.67	5.55	6.68	5.78	6.91
opp. vote share	22.90	36.13	30.50	9.40	6.70	19.80	14.00	8.80	14.80	11.00
succ. position ( $x_I$ )	3.31	3.67	3.00	3.67	3.56	3.20	4.12	3.69	3.69	3.84
successor party	KzB	MSzP	PSD	SD	SDP	LSDP	PSD	Smer-SD	BSP	Smer
successor vote share	31.00	43.20	31.77	30.50	31.30	18.40	32.20	44.40	14.60	28.30
right position ( $x_O^E$ )	7.85	7.50	6.55	6.92	7.33	7.64	6.65	6.93	6.50	7.42
right	DSB	KDNP	PDL	SDS	HDZ	TS-LKD	PNL	KDH	GERB	SaS
right vote share	6.40	5.90	32.40	29.30	21.90	15.10	21.50	8.60	32.70	12.10
theta	0.78	0.86	0.48	0.24	0.23	0.57	0.39	0.51	0.31	0.48
opposition-median	0.34	1.06	-1.70	-1.85	-1.62	-1.27	-1.20	-0.18	-1.09	-0.02
median-successor	2.43	1.94	2.36	2.10	2.06	2.47	1.44	2.98	2.09	3.07
lustration severity	0.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
avg. non succ. severity	0.17	0.36	0.52	0.29	0.00	0.22	0.52	0.55	0.17	0.55
difference	0.50	-0.36	-0.52	-0.29	0.00	-0.22	-0.52	-0.55	-0.17	-0.55
model assumptions	probably not	yes	yes	yes	yes	yes	yes	yes	yes	probably not
model predictions	no	yes	yes	yes	yes	yes	yes	yes	yes	yes