Appendix for Referees Only

This appendix analyzes the extension of our model with s publicly observable. If our paper is accepted, this appendix will be made available online for interested readers. We also will make available the original version of the paper, which includes the solutions for asymmetric policy resolution and no policy resolution, so that readers will have access to all of the variants that we discuss in the subsection on Alternative Assumptions About Voter Information.

The key point of this appendix is to show that when s is publicly observable the region of voter types for which officials have an electoral incentive for information-based moderation is larger than the region of voter types for which moderation occurs in the main model presented in the paper.

In the main model, let V denote the set of all possible voter strategies ν. For any voter preference parameter β_V, let $V_{\beta_V} = \{\nu \in V \text{ s.t. } \nu \text{ can be an equilibrium strategy for a voter at } \beta_V\}$. Let $\beta_{\min} = \min\left\{\beta_V \in [0,1] \text{ s.t. } \exists \nu \in V_{\beta_V} \text{ for which } r_A(A) \geq r_B(A) \text{ and } r_A(B) \leq r_B(B)\right\}$, i.e., $\beta_{\min}$ is the lowest voter type for which moderation can occur in equilibrium in the main model. Similarly let $\beta_{\max} = \max\left\{\beta_V \in [0,1] \text{ s.t. } \exists \nu \in V_{\beta_V} \text{ for which } r_A(A) \geq r_B(A) \text{ and } r_A(B) \leq r_B(B)\right\}$. We claim that there exists some $\check{\beta}_v < \beta_{\min}$ as well as some $\hat{\beta}_v > \beta_{\max}$ for which moderation occurs in equilibrium in a model with publicly observable s. We prove this claim for $\check{\beta}_v$; the argument for $\hat{\beta}_v$ is symmetric.

Step 1. Let $\nu_{\min}$ be the voter strategy in the equilibrium with moderation for a voter at $\beta_{\min}$ in the main model. In the version of the model with observable s, when $s = B$ we can directly set $\check{r}_A(B)$ and $\check{r}_B(B)$ such that $\check{r}_A(B) < \check{r}_B(B)$ and the effect of the incumbent's policy choice on her re-election probability is the same as in the main model. Given this $\check{r}_A(B)$ and $\check{r}_B(B)$, the incumbent's first period behavior after observing $s = B$ is exactly the same in the two models, choose $x = A$ if $\beta_I < \underline{\beta}^1$ and choose $x = B$ if $\beta_I \geq \underline{\beta}^1$, for some $\underline{\beta}^1 \leq \underline{\beta}^2$. In the main version of the model we also have to pay attention to $\bar{\beta}^1$, the cutpoint for official behavior when $s = A$.

Step 2. In the main model, when ω is revealed to be B, the voter at $\beta_{\min}$ must weakly prefer to re-elect the incumbent when $x = B$, since if he were to always remove her then there could be no electoral incentives for moderation. In fact, the voter must be indifferent, since at $\beta_{\min}$ it is either the case that $\beta = \beta_{(2)}$ from the proof of Lemma 9 or the voter is playing a mixed strategy when $\omega = B$. Using the notation from the proof of Lemma 6, the voter's expected utility from re-electing in this information set is $\frac{\Pr(s=B|\omega=B)\Pr\left(\beta\in\left(\underline{\beta}^1,\overline{\beta}^1\right)\right)}{\Pr(s=B|\omega=B)\Pr\left(\beta\in\left(\underline{\beta}^1,\overline{\beta}^1\right)\right)+\Pr\left(\beta>\overline{\beta}^1\right)}U\left(\beta\in\left(\underline{\beta}^1,\overline{\beta}^1\right)\right) + \frac{\Pr\left(\beta>\overline{\beta}^1\right)}{\Pr(s=B|\omega=B)\Pr\left(\beta\in\left(\underline{\beta}^1,\overline{\beta}^1\right)\right)+\Pr\left(\beta>\overline{\beta}^1\right)}U\left(\beta>\overline{\beta}^1\right) = U(new)$. The equality with $U\left(new\right)$ arises from the voter's indifference.

Step 3. In the model with s publicly observable, we show that the voter at $\beta_{\min}$ must strictly prefer to re-elect the incumbent when $x = B$ and $s = B$ given that the incumbent behavior is determined by the cutpoint $\underline{\beta}^1$. The reason for this is as follows. The voter's expected utility from re-electing is $\frac{\Pr\left(\beta\in\left(\underline{\beta}^1,\overline{\beta}^1\right)\right)}{\Pr\left(\beta\in\left(\underline{\beta}^1,\overline{\beta}^1\right)\right)+\Pr\left(\beta>\overline{\beta}^1\right)}U\left(\beta\in\left(\underline{\beta}^1,\overline{\beta}^1\right)\right) + \frac{\Pr\left(\beta>\overline{\beta}^1\right)}{\Pr\left(\beta\in\left(\underline{\beta}^1,\overline{\beta}^1\right)\right)+\Pr\left(\beta>\overline{\beta}^1\right)}U\left(\beta>\overline{\beta}^1\right)$, which by comparison with the equation in step 2 will be strictly greater than $U(new)$ as long as $U\left(\beta\in\left(\underline{\beta}^1,\overline{\beta}^1\right)\right) \geq U(new)$. To see that this is the case, note that if $U\left(\beta\in\left(\underline{\beta}^1,\overline{\beta}^1\right)\right) < U(new)$ then since any incumbent not in $\left(\underline{\beta}^1,\overline{\beta}^1\right)$ must be either type A or type B (and not type R, since this is an equilibrium with moderation in the main model) it must be the case that either $U\left(\beta>\overline{\beta}^1\right) > U(new)$ or $U\left(\beta>\overline{\beta}^1\right) > U(new)$. In the former case the voter at $\beta_{\min}$ in the main model would strictly prefer to remove the incumbent when $x = B$ and $\omega = B$ and in the latter case he would strictly prefer to retain her, either of which would be a contradiction.

Step 4. In the model with s publicly observable, since the voter at $\beta_{\min}$ strictly prefers to re-elect the incumbent when $x = B$ and $s = B$, there must exist some voter with $\check{\beta}_v < \beta_{\min}$ who is indifferent between re-electing and removing when $x = B$ and $s = B$ and thus is willing to mix and play the $\check{r}_A(B)$ and $\check{r}_B\left(B\right)$ that will generate the same electoral incentives generated by $\nu_{\min}$.

Step 5. Finally, we need to address equilibrium behavior for the voter at $\check{\beta}_v$ when the publicly observed signal is $s = A$. It is not possible to replicate the exact electoral incentives that an incumbent in the main model faced from a voter at $\beta_{\min}$. However, we can actually do better – the voter at $\check{\beta}_v$ will in equilibrium play $\check{r}_A(A) = 1$ and $\check{r}_A(B) = 0$, i.e., when the publicly observable signal is $s = A$ the voter plays the strategy that maximizes the incumbent's incentive to follow this signal. A voter at $\beta_{\min}$ in the main model is indifferent between re-electing and removing the incumbent when $x = A$ and $\omega = B$. By reasoning similar to Step 3, he must strictly prefer to re-elect the incumbent after she chooses $x = A$ if s is publicly observable and the incumbent uses a cutpoint $\overline{\beta}^1$ for her behavior when $s = A$. Since $\check{\beta}_v < \beta_{\min}$ the voter at $\check{\beta}_v$ has this same strict preference. The final part of the argument is to show that if rather than $\overline{\beta}^1$ the incumbent's policy choice when $s = A$ is determined by some $\overline{\beta}^{1'} \geq \overline{\beta}^1$, due to the fact that $\check{r}_A(A) = 1$ and $\check{r}_A(B) = 0$ provide the maximal incentive to choose $x = A$ when $s = A$, then the voter at $\check{\beta}_v$ strictly prefers to re-elect when $x = A$ and $s = A$. Since $\overline{\beta}^1 > \overline{\beta}^2$ (recall, this is for an equilibrium with moderation in the main model) the fact that the voter prefers to re-elect when $x = A$ and $s = A$ means that $U\left(\beta < \overline{\beta}^2\right) > U\left(\beta > \overline{\beta}^2\right)$, which in turn implies that the voter will prefer to re-elect when $x = A$ and $s = A$ when the incumbent acts according to the new cutpoint $\overline{\beta}^{1'}$.