Supplemental appendix to: Foreign Policy Appointments

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Contents

6 Notation

The model's primitives are listed in Table A4. We will also introduce the following notation:

- Let $\chi = Pr(x = 1) = \tau\phi + (1-\tau)(1-\phi)$
  - Then $\frac{1}{2} < \chi < \tau$ when $\tau > \frac{1}{2}$, and $\tau < \chi < \frac{1}{2}$ when $\tau < \frac{1}{2}$.
- Let $\eta^{x,s} = Pr(\omega = 1|x, s)$, let $\eta^x = Pr(\omega = 1|x)$, and let $\sigma_A^\omega = Pr(s = 1|\omega)$.
  - Then $\eta^1 = \frac{\phi\tau}{\chi}$ and $\eta^0 = \frac{(1-\phi)\tau}{1-\chi}$. Observe that $\phi > \max\{\tau, 1-\tau\}$ implies $\eta^0 < \frac{1}{2} < \eta^1$.
  - Further, $\eta^{x,1} = \frac{\eta^x \sigma_A^1}{\eta^x \sigma_A^1 + (1-\eta^x)\sigma_A^0}$, and $\eta^{x,0} = \frac{\eta^x(1-\sigma_A^1)}{\eta^x(1-\sigma_A^1)+(1-\eta^x)(1-\sigma_A^0)}$.
- Let $\hat{z}^{s,a,y} = Pr(z = 1|s, a, y)$.
  - Then $\hat{z}^{s,a} = \lambda \hat{z}^{s,a,\underline{y}} + (1-\lambda)\hat{z}^{s,a,\bar{y}}$.
- Let $\hat{r}^{a;s} = Pr(r = 1|s, a)$; and let $\mu^{a,z} = Pr(\theta = 1|a, z)$.
  - Then $\hat{r}^{a;s} = \hat{z}^{s,a}\mu^{a,1} + (1-\hat{z}^{s,a})\mu^{a,0}$.
- Let $\bar{\sigma}_0^s = Pr(a = 1|\theta = 0, s, y = \bar{y})$ and let $\underline{\sigma}_0^s = Pr(a = 1|\theta = 0, s, y = \underline{y})$.
  - Then $\sigma_0^s = Pr(a = 1|\theta = 0, s) = \lambda\underline{\sigma}_0^s + (1-\lambda)\bar{\sigma}_0^s$.

Recall from the main text that a sincere reporting strategy from the agent generates advice that satisfies

$$\left\{\begin{matrix} \sigma_A^0 = Pr(s=1|\omega=0) = 0 \\ \sigma_A^1 = Pr(s=1|\omega=1) = \pi_A \end{matrix}\right\} \text{ if } k = D, \text{ and } \left\{\begin{matrix} \sigma_A^0 = Pr(s=1|\omega=0) = 1-\pi_A \\ \sigma_A^1 = Pr(s=1|\omega=1) = 1 \end{matrix}\right\} \text{ if } k = H$$

Integrating over ω, we can characterize this behavior as

$$\sigma_A = Pr(s = 1) = \begin{cases} \tau\pi_A, & k = D \\ \tau + (1-\tau)(1-\pi_A), & k = H \end{cases} \tag{5}$$

The following definition will be useful in characterizing equilibria:

Definition 4 (Informative appointees) *Define an "informative" appointee as one whose bias is sufficiently small that the leader believes the agent's sincere message over his own signal when the two conflict.*

- *Formally: define $\hat{\pi}_A^{k,info.}$ to be the greatest degree of bias such that $\pi_A^k \geq \hat{\pi}_A^{k,info.}$ implies that both $\eta^{x,0} \leq \frac{1}{2}$ and $\eta^{x,1} \geq \frac{1}{2}$ for $x = 0, 1$, under sincere reporting.*
- *Observe that $\hat{\pi}_A^{H,info} = \frac{\phi-\tau}{\phi(1-\tau)}$, and $\hat{\pi}_A^{D,info} = \frac{\phi-(1-\tau)}{\phi\tau}$.*

Table A4: Notation

$\boldsymbol{j} \in \{D, H\}$	Leader's party, Dove (D) or Hawk (H)
$\theta \in \{0, 1\}$	Leader type, congruent ($\theta = 1$) or incongruent, with prior $Pr(\theta = 1) = \boldsymbol{\pi} \in [\frac{1}{2}, 1)$
$\omega \in \{0, 1\}$	Domestic players' value for conflict, with prior $Pr(\omega = 1) = \boldsymbol{\tau} \in (0, 1)$
$x \in \{0, 1\}$	Leader's signal of ω, with $Pr(x = \omega\|\omega) = \boldsymbol{\phi} \in (\frac{1}{2}, 1)$
$\theta_A \in \{0, 1\}$	Agent's type, congruent ($\theta_A = 1$) or incongruent
$\boldsymbol{k} \in \{D, H\}$	Direction of agent bias, dovish ($k = D$) or hawkish ($k = H$)
$\boldsymbol{\pi_A} \in (0, 1)$	Magnitude of agent bias, prior $Pr(\theta_A = 1) = \pi_A$
$s \in \{0, 1\}$	Agent's private message to L
$\eta^{x,s}$	Leader's belief of $Pr(\omega = 1\|x, s)$
$\boldsymbol{a_F} \in \{0, 1\}$	Foreign government's action, challenge ($a_F = 1$) or not ($a_F = 0$)
ω_F	Foreign government's resolve, distributed $\omega_F \sim \boldsymbol{U}(\underline{\boldsymbol{\omega}}_{\boldsymbol{F}}, \overline{\boldsymbol{\omega}}_{\boldsymbol{F}})$
$\boldsymbol{a} \in \{0, 1\}$	Leader's action, fight ($a = 1$) or not ($a = 0$)
$\boldsymbol{z} \in \{0, 1\}$	Agent's action, protest ($z = 1$) or not ($z = 0$)
$y \in \{\underline{y}, \overline{y}\}$	Agent's outside option, where $Pr(y = \underline{y}) = \boldsymbol{\lambda}$ denotes agent's loyalty
$\mu^{a,z}$	Voter's belief of $Pr(\theta = 1\|a, z)$
$\boldsymbol{\gamma} > 0$	Leader's value for deterring aggression
$\boldsymbol{\beta} > 0$	Leader's value for holding office

Note: Parameters, actions, and distributions in bold are common knowledge.

7 Technical Assumptions

Throughout the analysis, we impose the following restrictions on exogenous parameters, which we discuss below:

Assumption 1 (Parameter restrictions)

- *Lower bound on leader's expertise ϕ: assume $\phi > \max\{\tau, 1 - \tau\}$*
- *Upper bound on the strength of electoral incentives β:*[1]
  - *under a Dove leader: assume $\beta \leq (1 - 2\eta^0)\left(\frac{1-\pi\chi}{1-\pi}\right)$*
  - *under a Hawk leader: assume $\beta \leq (2\eta^1 - 1)\left(\frac{1-\pi(1-\chi)}{1-\pi}\right)$*
- *Lower bound on the deterrence value γ: assume $\gamma > \beta\left(\frac{(1-\pi)^2(1-\tau)}{\pi\tau+(1-\pi)}\right)$*
- *Upper bound on the agent's outside option $\bar{y}$:*
  - *assume $\bar{y} < \min\left\{\frac{\pi(1-\phi)}{1-\pi}, \bar{\mu}_A f_A(1)\right\}$, where $\bar{\mu}_A := \frac{\pi(1-\phi)}{1-\pi\phi}$*

[1] Note that the two conditions are equivalent when $\tau = \frac{1}{2}$

- *Intermediate value for prior on the state* $Pr(\omega = 1) = \tau$*: assume* $\frac{\phi}{1+\phi} \leq \tau \leq \frac{1}{1+\phi}$

The first restriction on ϕ means that the leader's private signal is informative: upon observing $x = 1$, he believes that the state is more likely to be $\omega = 1$ than $\omega = 0$ (and vice-verse for $x = 0$).

The restriction on β ensures that the babbling CRE can be supported: that is it ensures that there exists an equilibrium in which the congruent leader follows his own private signal, absent any informative advice from the appointee. If this restriction is violated, then the congruent leader is too strongly incentivized to signal his moderation by playing the cross-partisan action (fighting for Doves, or conceding for Hawks), even if his private signal x suggests he should take the ideologically-consistent action. This behavior constitutes a form of "pandering"[2]—taking an action that the leader knows to produce inferior policy outcomes, because it is electorally popular—which introduces a set of strategic considerations which are distinct and distracting from the primary objectives of the present analysis. (See Appendix 8.2 for further discussion of pandering.)

The restriction on γ simply ensures that Hawk leaders prefer deterrence success over deterrence failure. Deterrence failure, meaning the initiation of a crisis by the foreign adversary, provides an opportunity for the congruent Hawk leader to signal his moderation and distinguish himself from the incongruent Hawk in the eyes of the voter, at a direct cost γ. This restriction implies that the direct cost of being challenged is large enough that the Hawk leader would not deliberately seek to undermine deterrence.[3]

The first part of the restriction on $\bar{y}$ (that is, $\bar{y} < \frac{\pi(1-\phi)}{1-\pi}$) ensures that when there is no communication between the agent and the leader, the agent cannot have sufficient confidence in her assessment of the leader's incongruence to warrant protesting. The substantive results do not depend on this restriction, but it simplifies the analysis considerably. The second part of the restriction ($\bar{y} < \bar{\mu}_A f_A(1)$) ensures that the agent is willing to provide sincere advice to the leader. If this were violated, it is possible that the agent would be tempted to deviate from sincere reporting, and instead send the cross-partisan advice so as to "test" the leader and elicit better information about his quality.

Finally, the restriction on τ ensures that the congruent leader is better off in expectation with an informatively dovishly biased agent than an uninformatively hawkishly biased agent, and vice

[2] Canes-Wrone, Herron, and Shotts (2001); Maskin and Tirole (2004)

[3] As we will see, the Hawk leader may still optimally choose politically independent appointees that undermine deterrence, relative to politically loyal appointees; in this case, undermining deterrence is not the goal of the appointment, but rather a byproduct of other goals being pursued.

versa (see Lemma 9 below). In other words, it implies that, from an ex ante perspective, the leader prefers an agent whose advice he will be willing to follow fully, over an agent who is so biased as to be only asymmetrically informative (that is, an agent whose advice the leader will have to ignore when the advice is consistent with the agent's own bias).

Assumption 2 (Beliefs following off-path crisis action)

- *If the agent's information set* (ω, s, a) *is off the equilibrium path of play, the agent assigns posterior belief* $\mu_A^{\omega,s,a} = Pr(\theta = 1|\omega, s, a) = 0$.
- *If the voter's information set* $(a, z = 1)$ *is off the equilibrium path of play, the voter assigns posterior belief* $\mu^{a,z=1} = 0$.

This assumption simply reflects the fact that the equilibrium of interest (the Congruent-Responsive Equilibrium, CRE) is defined in terms of the congruent leader's strategy; within this equilibrium, any behavior that deviates from this strategy is attributed to the incongruent leader. Results are unchanged if we instead impose a different assumption, whereby the agent and voter assign posterior belief of 1 upon observing the leader take an off-path action inconsistent with his partisan ideology, and 0 upon observing an off-path action consistent with his partisan ideology (reflecting the intuition that moderate leaders are more willing than extreme leaders to take actions inconsistent with their partisan ideology).

Assumption 3 (Markovian strategies) *Let* $t = (\theta, x, s, y)$. *Restrict attention to equilibria in which, if* $E[U_L(a = 1) - U_L(a = 0)|t] = E[U_L(a = 1) - U_L(a = 0)|t']$ *for some* $t \neq t'$, *then* $Pr(a = 1|t) = Pr(a = 1|t')$.

This restriction follows from Maskin and Tirole (2001). It requires that strategies are conditioned only payoff-relevant information. Intuitively, if the leader has the same expected payoff from each of his actions under two signal realizations, we have no substantive reason to focus on equilibria that rely on him behaving differently under those two signal realizations.

Assumption 4 (Crisis subgame equilibrium selection) *In the crisis subgame: If there exists a CRE in which the agent reports sincerely, select that equilibrium. Otherwise, select the babbling CRE.*

This selection rule establishes the most intuitive baseline against which to assess the consequences of different appointment strategies: it selects the equilibrium in which the congruent leader, whose policy preferences are perfectly aligned with the representative voter, takes the action that he believes best serves the policy objectives of himself and the voter. Note that this rule still allows for the selection of equilibria in which the congruent leader does not fully follow the agent's sincere advice. However, as we will see in Proposition 1, this behavior lies off the equilibrium path of play in the full model, as the only appointees selected will be those whose advice can be fully followed in the CRE of the crisis subgame.

Assumption 5 (Equilibrium refinement at appointment stage) *Restrict attention to equilibria in pure appointment strategies. Among equilibria in pooling appointment strategies, select the one that yields the highest expected payoff for the congruent leader. If either (i) the leader's choice of appointment α' is off the equilibrium path of play, or (ii) α' differs from the appointment chosen by the congruent leader in a separating equilibrium: assume that after observing α', all other players' posterior beliefs assign probability zero to the leader being congruent.*

8 Extensions

8.1 Second policymaking period

The model presented in the main text makes two central assumptions regarding preferences over leader types:

- The voter prefers retaining a congruent leader over an incongruent leader: $U_V(r) = r\theta + (1-r)(\theta_C + \epsilon)$, with $\epsilon \sim U(\underline{\epsilon}, \overline{\epsilon})$, as per footnote 58 (which implies $Pr(r = 1|h)$ is linearly increasing in $\mu^h = Pr(\theta = 1|h)$ for history h).
- The agent prefers serving under a congruent leader rather than an incongruent leader: $U_A(z) = zy + (1-z)f_A(\theta)$, where $f_A(1) > f_A(0)$.

Preferences along these lines are common throughout the electoral accountability literature. In some models, the voter's preference for "high quality" leaders (typically competent leaders, or leaders with policy preferences congruent with the voters') is assumed into the voter's payoff function;[4] other models derive these preferences as the best response of a prospective voter seeking to attain the best policy outcomes from a post-election period of policymaking.[5]

We can extend the present model to incorporate a second period of policymaking, as a micro-foundation for the assumed preferences of the voter and agent. Suppose that following the election,

[4] See, e.g. Ramsay (2004); Fox and Jordan (2011); Debs and Weiss (2016)

[5] Canes-Wrone et al. (2001); Maskin and Tirole (2004); Schultz (2005); Ashworth and Bueno de Mesquita (2014).

with exogenous probability $\zeta \in (0, 1)$, the leader has the opportunity to replace the appointee from the first period.[6] The leader then retains or replaces the appointee, and the second period of foreign policymaking proceeds the same as the first—with the exception that there is no election at the end of the second period. This setup, which appears commonly throughout the electoral accountability literature,[7] allows us to study the difference in a leader's behavior when facing electoral pressures in the first period, versus when they are relieved of those pressures and allowed to act on their "true" preferences in the second period.

This second period of policymaking is identical to the first period of the benchmark model from Section 3.1 of the main text (with the exception that F enters the second period with a revised belief μ^h of the leader's type, rather than the prior π). With this setup, it is clear to see why the voter prefers moderate leaders of either party rather than extremists: moderates improve deterrence relative to extremists (as shown in Result 1), and they yield better policy outcomes in the event of deterrence failure (and, for a Hawk leader, also in the event of deterrence success).

Likewise, it is clear to see why the appointee prefers serving in the second period under a moderate leader rather than an extremist (that is, why $f_A(1)$ is greater than $f_A(0)$): a moderate leader will follow her advice in the second period, whereas an extremist will not; and insofar as her advice might differ from whatever her would-be replacement would provide, she is able to improve her policy outcomes by continuing to serve under a moderate leader.

Note that the appointee's incentives could be microfounded through an alternative setup, as follows: Rather than allowing for the exogenous $(1 - \zeta)$ probability that the leader is forced to keep the appointee following the election, we could instead assume that in between the first policy period and the election, there is a second policy decision which the appointee and leader value but which the voter may not observe. For instance, suppose the first policy decision (which the voter observes) is the choice to intervene in a conflict or not; the second policy decision (which the voter may not observe) is the decision over the precise number of troops to send, or the kind and quantity weapons to provide to an ally. This second, less observable policy decision provides an opportunity for the leader to act more in line with his true preferences; and if the appointee learns that those preferences are extreme and unresponsiveness to advice, then she sacrifices little by leaving the administration.

[6] With complementary probability, he finds it too costly to replace the appointee, for instance due to the opportunity costs of finding and vetting a new appointee and getting her confirmed by the Senate.

[7] Ashworth (2012)

8.2 Pandering

The analysis in the main text restricted attention to the Congruent-Responsive Equilibrium (CRE) of the crisis subgame, in which the congruent leader plays the action that he believes matches the state of the world (fighting if and only if $\omega = 1$). Proposition 1 shows that the CRE can always be supported under the parameter restrictions of Assumption 1, and in particular the restriction that $\beta \leq (1 - 2\eta^0)\left(\frac{1-\pi\chi}{1-\pi}\right)$ for a Dove leader, or $\beta \leq (2\eta^1 - 1)\left(\frac{1-\pi(1-\chi)}{1-\pi}\right)$ for a Hawk leader.

When β exceeds this upper bound, the CRE may not be supported, and the equilibrium may be characterized by *pandering*. Drawing from the political agency literature,[8] and adapting the concept to the present setting, we say that the leader panders when he plays the cross-partisan action despite believing it to be against the voter's interest: that is, a Dove panders by fighting when $\eta < \frac{1}{2}$, and a Hawk panders by conceding when $\eta > \frac{1}{2}$. In more substantive terms, the concept of pandering captures a situation of a Dove party leader entering into a conflict in which he believes the costs to outweigh the national interests at stake, because he finds it too politically damaging to be seen as having backed down in the face of foreign aggression.

The upper bound on β serves to focus our attention on the CRE as an intuitive and normatively appealing baseline against which to assess the effect of variation in appointee attributes. A more expansive analysis, which would allow for pandering equilibria as well as the CRE, would provide a number of interesting insights. For instance, under a Dove leader, we can see that there exist conditions under which the congruent Dove is forced to pander (fighting despite believing $Pr(\omega = 1) < \frac{1}{2}$) when the appointee is fully loyal, but is willing to play the CRE strategy when the appointee is sufficiently independent; this is because the independent appointee's lack of protest serves to validate the leader's decision not fight in the eyes of the voter, making it politically incentive-compatible for the leader to choose the policy he believes to be in the voter's best interest.

A full analysis of the empirical relevance of pandering in this context will have to be deferred to future research. Here we will briefly consider a few examples of foreign policy decisions that leaders faced in the shadow of electoral incentives, to see how pandering may or may not provide a useful framework for making sense of the leader's behavior.

In the seminal game-theoretic analysis of pandering, Canes-Wrone et al. (2001) consider President Ford's response to a revolutionary threat against the white regime in Rhodesia in April of 1976, in the lead-up to a presidential election that November. Rather than providing military support to parties that would advance the U.S.'s geopolitical interests in the Cold War, Ford in-

[8] Canes-Wrone et al. (2001); Maskin and Tirole (2004)

stead decided to pursue a diplomatic approach that would lead to a transition to majority (black) rule, likely bringing to power a government that was less pro-capitalist and pro-American than the one in place. The authors assert that this choice cannot be characterized as "pandering", because the policy itself was unpopular among the American public and unlikely to produce a successful outcome prior to the election. However, Ford's behavior may be reconciled with the concept of pandering in the present framework. By pursuing the more dovish policy approach, despite the unpopularity of the policy itself (and perhaps despite Ford's own assessment of its effectiveness), Ford may have been attempting to signal that he was a moderate Hawk, rather than an extremist.

Four years later, President Carter faced another foreign policy crisis in the lead-up to the 1980 presidential election, when fifty-two Americans were taken hostage in the American embassy in Tehran following the Iranian Revolution. Carter elected to pursue a military rescue of the hostages, rather than attempting a diplomatic resolution; the effort ultimately failed to rescue the hostages and resulted in the deaths of eight U.S. servicemen. This decision would best be characterized as pandering if Carter believed that the diplomatic solution was more likely to succeed, but nonetheless chose to pursue the military intervention so as to signal that he was not an extreme Dove and was willing to use force when needed. However, records of Carter's internal deliberations with his foreign policy advisory team indicate that the balance of advice was overwhelmingly in favor of the military rescue.[9] This suggests that Carter was attempting to play the CRE strategy, and the policy he believed to serve the national interest also happened to be the policy that would serve to signal his congruence.

It is worth noting that the lone dissenter against the military operation, Secretary of State Cyrus Vance, later resigned in protest over the decision. This resignation does not fit neatly within the theoretical framework of this paper; rather than an indictment of Carter's overall leadership, Vance took pains to communicate that his resignation was an expression of disagreement over one specific policy, and that he still had "the greatest respect and admiration" for the president, and remained loyal to him and "firm. . . in my support on other issues".[10] The logic of the present model would suggest that Vance's resignation was not harmful to Carter's reelection prospects; if anything, it should have led the electorate to update positively on the probability of Carter being a moderate rather than an extreme Dove.[11]

[9] Glad (2009, ch. 25); see also `https://history.state.gov/historicaldocuments/frus1977-80v11p1/d250`

[10] `https://www.presidency.ucsb.edu/documents/department-state-exchange-letters-the-resignation-cyrus-r-vance-secre`

[11] Insofar as it damaged public perceptions of Cater's competence, rather than his congruence, that would be a separate consideration from the incentives incorporated in the present model.

Finally, we can consider the issue of NATO enlargement under President Clinton, as discussed in the main text. This decision seems to be plausibly explained as an instance of pandering: the balance of expert opinion was largely opposed to rapid expansion to full Article 5 guarantees for the post-Soviet states of Eastern Europe;[12] but expansion was clearly understood as the more assertive, hawkish position, which created political pressures for President Clinton not to appear weak on the issue.[13] If we consider Clinton's decision to move forward with expansion as an instance of pandering, this can also inform our interpretation of Secretary Perry's decision not to resign over the issue: rather than viewing Clinton as an extremist who was generally unwilling to listen to expert advice, he instead saw Clinton as being electorally pressured to pander on this issue but willing to incorporate advice in the future.

9 Proofs

It follows directly from the leader's payoff function that, in any equilibrium, the leader fights if and only if

$$\begin{aligned} \theta(1-2\eta^{x,s}) + (1-\theta) &\leq \beta\left(\hat{r}^{1;s} - \hat{r}^{0;s}\right) \qquad \text{for a Dove leader} \\ \theta(2\eta^{x,s}-1) + (1-\theta) &\geq \beta\left(\hat{r}^{0;s} - \hat{r}^{1;s}\right) \qquad \text{for a Hawk leader} \end{aligned} \tag{6}$$

We will first consider the equilibrium of the "non-crisis subgame", following F's decision not to challenge, $a_F = 0$. This subgame is the same as the crisis subgame, with the important exception that $Pr(\omega = 1|a_F = 1) = \tau > Pr(\omega = 1|a_F = 0) = \tau_0 \to 0$.

Lemma 1 (Non-Crisis Subgame Equilibrium) *Under a Dove leader, the CRE path of play proceeds as follows:*

- *Both leader types play $a = 0$.*
- *The leader is reelected with probability π.*

Under a Hawk leader, the CRE path of play proceeds as follows:

- *The congruent leader plays $a = 0$.*

[12] Gaddis (2007); see also `https://www.govinfo.gov/content/pkg/CHRG-105shrg46832/html/CHRG-105shrg46832.htm`

[13] Sarotte (2019); `https://www.presidency.ucsb.edu/documents/statement-senator-bob-dole-nato-expansion`

- *The incongruent leader plays*

$$\sigma_0^{a_F=0} = \begin{cases} 1, & \beta \leq 1 \\ \frac{1-\beta\pi}{1-\pi}, & 1 < \beta < \frac{1}{\pi} \\ 0, & \beta \geq \frac{1}{\pi} \end{cases}$$

- *The leader is reelected with probability equal to the voter's posterior belief, which satisfies* $\mu^{1,z} = 0$ *and*

$$\mu^{0;a_F=0} = \begin{cases} 1, & \beta \leq 1 \\ \frac{1}{\beta}, & 1 < \beta < \frac{1}{\pi} \\ \pi, & \beta \geq \frac{1}{\pi} \end{cases}$$

Proof of Lemma 1: Given that $Pr(\omega = 1|a_F = 0) = \tau_0 \to 0$, which implies $\eta^{x,s} \to 0\,\forall x, s$, the CRE dictates that the congruent leader of either party play $a = 0$. From (6) it follows that the incongruent Dove also plays $a = 0$. The incentive-compatibility conditions for both Dove leader types, and for the congruent Hawk leader, are trivially satisfied. The incongruent Hawk is indifferent between fighting and not fighting when $\beta = \frac{1}{\mu^{0;a_F=0}}$, where $\mu^{0;a_F=0} = \frac{\pi}{\pi+(1-\pi)(1-\sigma_0^{a_F=0})}$ and $\sigma_0^{a_F=0} = Pr(a = 1|a_F = 0, \theta = 0)$; when $\beta < 1$ he strictly prefers fighting, and strictly prefers not fighting when $\beta > \frac{1}{\pi}$. ∎

Proof of Proposition 1: We will prove the proposition in the case of a Dove leader; the proof for a Hawk leader is symmetrical.

The proposition makes two claims:

Claim 1 *A Congruent-Responsive Equilibrium (CRE) to the crisis subgame always exists.*

Proof: The simplest case to show existence of the CRE is a babbling equilibrium, in which the agent randomizes her message independently of the state, and the leader ignores the agent's message and takes his action as a function of his type θ and private signal x. In this case, we will suppose that the leader's strategy satisfies

$$\sigma_1^x = x \text{ and } \sigma_0^x = 0, \quad \text{where } \sigma_\theta^x = Pr(a = 1|x, \theta, a_F = 1)$$

and show that this behavior can be supported in equilibrium.

Given these strategies, the agent forms a belief about the leader's type given the leader's action and the agent's knowledge of the state ω. Letting $\mu_A^{\omega,a} = Pr(\theta = 1|\omega, a)$, we have that

$$\mu_A^{\omega,a=1} = 1, \quad \mu_A^{\omega=0,a=0} = \frac{\pi\phi}{\pi\phi + (1-\pi)}, \quad \mu_A^{\omega=1,a=0} = \frac{\pi(1-\phi)}{\pi(1-\phi) + 1 - \pi} \tag{7}$$

The agent's payoff from protesting is y, and her payoff from remaining silent is $f_A(\theta)$ (with $0 = f_A(0) < f_A(1)$), so she protests if and only if

$$\mu_A f_A(1) < \bar{y} \tag{8}$$

which can never be satisfied for any of the beliefs in (7), given the upper bound on $\bar{y}$ imposed by Assumption 1. In words: when the agent is not communicating with the leader, the fact of disagreement between the leader's chosen action and the agent's knowledge of the optimal action does not provide the agent with sufficient evidence of leader incongruence to justify protesting the leader's decision. So in the babbling CRE, the agent never protests. Thus the leader's probability of reelection following action a is simply equal to the voter's posterior belief: $\hat{z}^{s,a} = 0 \, \forall s, a$, so $\hat{r}^{a;s} = \mu^{a,0} = Pr(\theta = 1|a, z = 0)$.

From (6) we then have the following incentive-compatibility conditions that need to be satisfied for the babbling equilibrium to be supported:

$$1 - 2\eta^0 \leq \beta\left(\mu^{10} - \mu^{00}\right) \leq 1 - 2\eta^0 \tag{IC_1^b}$$

$$\beta\left(\mu^{10} - \mu^{00}\right) \leq 1 \tag{IC_0^b}$$

(where IC_θ^b denotes the incentive-compatibility condition for leader type θ in the babbling CRE). Clearly IC_0^b is implied by IC_1^b. Given the equilibrium strategies, the voter's beliefs satisfy $\mu^{10} = 1$ and $\mu^{00} = \frac{\pi(1-\chi)}{\pi(1-\chi)+(1-\pi)}$, where $\chi = Pr(x = 1) = \phi\tau + (1-\phi)(1-\tau)$. Given the assumption that the leader's signal x is informative (meaning $\phi > \max\{\tau, 1-\tau\}$), we have that $\eta^0 < \frac{1}{2}$, so the first inequality of IC_1^b is satisfied. The second inequality is satisfied given the upper bound on β imposed by Assumption 1. ■

Claim 2 *At the appointment stage, the leader always selects an appointee whose sincere advice can be followed in a CRE.*

We will break down the proof of Claim 2 into a series of lemmae. Lemma 2 outlines the set of crisis subgame equilibria that can be supported under different appointees. Lemmae 4, 5, and 6 characterize path-of-play behavior in each equilibrium. Then Claim 2 follows directly from Lemmae 7, 8, and 9: because incongruent leaders will always make appointments that mimic those of their congruent counterparts (Lemma 7), it suffices to show that, from the congruent leader's perspective, any appointment that cannot support a full-advice CRE is dominated by some appointment that can (Lemmae 8 and 9).

Lemma 2 *Under Assumption 4, there are three classes of CRE:*

1. *A full-advice CRE, in which the agent reports sincerely and the congruent leader fully follows her advice. This only exists if the agent is informative,* $\pi_A^k \geq \hat{\pi}_A^{k,info}$.
2. *A partial-advice CRE, in which the agent reports sincerely, and the congruent leader: (i) follows advice contrary to the agent's bias; and (ii) follows his own signal when the agent's advice is consistent with her bias. This only exists if the agent is uninformative,* $\pi_A^k < \hat{\pi}_A^{k,info}$.
3. *A babbling CRE, in which the agent randomizes her message independently of the state, and the congruent leader ignores the message and follow his own signal. This always exists.*

Lemma 3 (Monotonicity) *If the congruent leader plays* $\sigma_1^{x,s,y} = 0$ *for some* x, s, y*, then the incongruent leader likewise plays* $\sigma_0^{x,s,y} = 0$*. If* $\hat{z}^{s,a=0,y} = 0$ *for some* s, y*, then the incongruent leader plays* $\sigma_0^{s,y} = 0$.

Proof of Lemma 3: Follows directly from (6) and from Assumption 3. ■

Lemma 4 (Full-advice CRE) *In the full-advice CRE with sincere reporting:*

- *The congruent leader plays a strategy of* $\sigma_1^{x,s,y} = s$ *for* $s = 0, 1$
- *The extreme leader plays a strategy of* $\sigma_0^{x,s,y} = \begin{cases} 1, & s = 1 \,\&\, y = \bar{y} \,\&\, \lambda \geq \bar{\lambda} \\ \max\{\hat{\sigma}_0^1, 0\}, & s = 1 \,\&\, y = \bar{y} \,\&\, \lambda < \bar{\lambda} \\ 0 & otw \end{cases}$
    - *where* $\hat{\sigma}_0^1 = \frac{\pi(\beta-1)}{(1-\pi)(1-\lambda)}$*, and* $\bar{\lambda} = \frac{1-\beta\pi}{1-\pi}$
- *The agent plays a protest strategy of* $\hat{z}^{s,a,y} = \begin{cases} 1, & s = 1 \,\&\, a = 0 \,\&\, y = \bar{y} \\ 0 & otw \end{cases}$
- *The voter's posterior beliefs satisfy*

$$\mu^{10} \geq \pi \geq \mu^{00} > \mu^{01} = \mu^{11} = 0$$

Lemma 5 (Partial-advice CRE with hawkishly-biased agent) *In the partial-advice CRE with sincere reporting from an uninformatively hawkishly-biased agent, $\tilde{\pi}_A^H < \hat{\pi}_A^{H,info}$:*

- *The congruent leader plays a strategy of* $\sigma_1^{x,s,y} = \begin{cases} 1, & x = s = 1 \\ 0 & otw \end{cases}$
- *The extreme leader plays a strategy of* $\sigma_0^{x,s,y} = 0 \, \forall x, s, y$
- *The agent never protests on the path of play*

Lemma 6 (Partial-advice CRE with dovishly-biased agent) *In the partial-advice CRE with sincere reporting from an uninformatively dovishly-biased agent, $\tilde{\pi}_A^D < \hat{\pi}_A^{D,info}$:*

- *The congruent leader plays a strategy of* $\sigma_1^{x,s,y} = \begin{cases} 0, & x = s = 0 \\ 1 & otw \end{cases}$
- *The extreme leader plays a strategy of* $\tilde{\sigma}_0^{x,s,y} = \begin{cases} 1, & s = 1 \,\&\, y = \bar{y} \,\&\, \lambda \geq \tilde{\lambda} \\ \hat{\tilde{\sigma}}_0^1, & s = 1 \,\&\, y = \bar{y} \,\&\, \lambda < \tilde{\lambda} \,\&\, \beta > 1 \\ 0 & otw \end{cases}$,

  where:
  - $\hat{\tilde{\sigma}}_0^1 = \frac{\pi \tilde{\sigma}_1^D (\beta - 1)}{\tilde{\sigma}_A^D (1-\pi)(1-\lambda)}$
  - $\tilde{\lambda} = 1 - \frac{\tilde{\sigma}_1^D \pi (\beta - 1)}{\tilde{\sigma}_A^D (1-\pi)}$
  - $\tilde{\sigma}_1^D = \tau(\phi + (1-\phi)\tilde{\pi}_A^D) + (1-\tau)(1-\phi)$,
  - $\tilde{\sigma}_A^D = \tau \tilde{\pi}_A^D$
- *The agent plays a protest strategy of* $\hat{z}^{s,a,y} = \begin{cases} 1, & s = 1 \,\&\, a = 0 \,\&\, y = \bar{y} \\ 0 & otw \end{cases}$

Lemma 7 (Pooling appointments) *At the appointment stage, the incongruent leader of either party will fully pool on the preferred appointment of the congruent leader of his party.*

Lemma 8 (Full-advice CRE preferred over babbling CRE) *For the congruent leader of either party, there always exists an appointee such that (i) her sincere reporting can be followed in a full-advice CRE, and (ii) the full-advice CRE with that appointee's sincere reporting is strictly preferred to the babbling CRE.*

Lemma 9 (Full-advice CRE preferred over partial-advice CRE) *For the congruent leader of either party, the selection of any appointee whose bias is too extreme to support a full-advice CRE with sincere reporting is dominated by selection of some less-biased appointee who can support a full-advice CRE with sincere reporting.*

Proof of Lemma 2: First note that the proof of Claim 1 above demonstrated that the babbling CRE always exists.

The CRE is defined as the equilibrium in which the congruent leader attempts to match his action to the state; that is,

$$\sigma_1^{x,s} = \begin{cases} 1, & \eta^{x,s} \geq \frac{1}{2} \\ 0 & otw \end{cases}$$

An informative agent is similarly defined such that her sincere reporting induces a belief in the leader that $\eta^{x,1} \geq \frac{1}{2}$ and $\eta^{x,0} \leq \frac{1}{2}$ for $x = 0, 1$. When the agent is informative ($\pi_A^k \geq \hat{\pi}_A^{k,info}$) and reporting sincerely, the CRE dictates that the congruent leader fully follow her advice, $\sigma_1^{x,s} = s \,\forall x, s$. Either this full-advice CRE is supported, or it is not and we revert to the babbling CRE by Assumption 4.

When the agent is "uninformative" ($\pi_A^k < \hat{\pi}_A^{k,info}$) and reporting sincerely, she is actually informative in one direction: when an uninformatively dovish agent advises $s = 1$, the leader is certain that $\omega = 1$ (that is, $\eta^{x,1} = 1$), and vice-versa when an uninformatively hawkish agent advises $s = 0$. However, by virtue of the agent being uninformative, the leader's posterior belief is characterized by $\eta^{1,0} \geq \frac{1}{2}$ when $\pi_A^D < \hat{\pi}_A^{D,info}$, and by $\eta^{0,1} \leq \frac{1}{2}$ when $\pi_A^H < \hat{\pi}_A^{H,info}$. Thus when the uninformative agent sends a message consistent with her bias, the leader's CRE strategy dictates that he follow his own private signal: $\sigma_1^{x,0} = x$ for an uninformatively dovish agent, and $\sigma_A^{x,1} = x$ for an uninformatively hawkish agent. With an uninformative agent in place, either a partial-advice CRE is supported, or it is not and we revert to the babbling CRE.

This exhausts all possibilities for equilibria that be supported under Assumption 4. ■

Proof of Lemma 4: As discussed in the proof of Lemma 2, the congruent leader's CRE strategy of $\sigma_1^{x,s,y} = s \,\forall x, s, y$ follows directly from the fact that the agent is informative and reporting sincerely. Left to show is: (i) the agent's best-response protest strategy; (ii) the incongruent leader's best-response fighting strategy; (iii) the voter's beliefs; and (iv) incentive-compatibility of the agent's sincere reporting.

Agent's protest strategy: Given the congruent leader's strategy and Assumption 2, the agent's beliefs satisfy $\mu_A^{s,a} \geq \pi > \bar{\mu}_A$ for $s = a$, and $\mu_A^{s,a} = 0$ for $s \neq 1$; this implies the best-response protest strategy specified in the lemma.

Incongruent leader's fighting strategy: Existence of the full-advice CRE implies that the following incentive-compatibility conditions are satisfied for the congruent leader:

$$1 - 2\eta^{x,s=1} \leq \beta \left(\hat{r}^{a=1;s=1,y} - \hat{r}^{a=0;s=1,y}\right) \qquad \forall x, y \qquad (IC_1^{s=1})$$

$$1 - 2\eta^{x,s=0} \geq \beta \left(\hat{r}^{a=1;s=0,y} - \hat{r}^{a=0;s=0,y}\right) \qquad \forall x, y \qquad (IC_1^{s=0})$$

where:

$$\hat{r}^{1;1,y} = \mu^{10}, \quad \hat{r}^{0;1,y} = \begin{cases} \mu^{01} = 0, & y = \bar{y} \\ \mu^{00}, & y = \underline{y} \end{cases}, \quad \hat{r}^{0;0,y} = \mu^{0,0}, \quad \hat{r}^{1;0,y} = \begin{cases} \mu^{11} = 0, & y = \bar{y} \\ \mu^{10}, & y = \underline{y} \end{cases}$$

By Lemma 3, $IC_1^{s=0;\underline{y}}$ implies a unique best-response of $\underline{\sigma}_0^s = Pr(a = 1|\theta = 0, s, y = \underline{y}) = 0\,\forall s, x$. Likewise, $IC_1^{s=0;\bar{y}}$ implies a unique best-response of $\bar{\sigma}_0^0 = Pr(a = 1|\theta = 0, s = 0, y = \bar{y}) = 0\,\forall x$. When $y = \bar{y}$ and $s = 1$, the incongruent leader plays $a = 1 \iff \beta\mu^{10} > 1$, where $\mu^{10} = \frac{\pi}{\pi+(1-\pi)(1-\lambda)\bar{\sigma}_0^1}$. Then we have three cases:

- If $\beta \leq 1$, we have $\bar{\sigma}_0^1 = 0$
- In order for $\bar{\sigma}_0^1 \in (0, 1)$, the incongruent leader must be indifferent between fighting and not, meaning $\beta = \frac{1}{\mu^{10}}$. This rearranges to $\bar{\sigma}_0^1 = \hat{\sigma}_0^1 := \frac{\pi(\beta-1)}{(1-\pi)(1-\lambda)}$, and in order for this to be < 1, it must be that $\lambda < \bar{\lambda} := \frac{1-\beta\pi}{1\pi}$.
  - In other words: If $\beta > 1$ and $\lambda < \bar{\lambda}$, then $\bar{\sigma}_0^1 = \hat{\sigma}_0^1 \in (0, 1)$.
- If $\lambda > \bar{\lambda}$ (which requires $\beta > 1$), then $\beta > \frac{1}{\mu^{10}}$ for any $\bar{\sigma}_0^1$, which implies a unique best-response of $\bar{\sigma}_0^1 = 1$.

Voter's beliefs. Given the strategies specified above, the voter's on-path beliefs satisfy:

$$\mu^{10} = \frac{\pi}{\pi + (1-\pi)(1-\lambda)\bar{\sigma}_0^1} \geq \pi$$

$$\mu^{00} = \frac{\pi(1-\sigma_A)}{\pi(1-\sigma_A) + (1-\pi)(1-\sigma_A+\sigma_A\lambda)} \leq \pi$$

with $\mu^{11} = 0$ (off-path, by Assumption 2), and $\mu^{01} = 0$ (on-path if $\lambda < \bar{\lambda}$, and off-path otherwise).

Agent's reporting strategy: Finally, we need to show that sincere reporting is incentive-compatible for the agent. Sending message s strictly increases the probability that the leader takes action $a = s$, and so the agent clearly prefers sending $s = \hat{\omega}_A$ (where $\hat{\omega}_A$ was defined in Definition 1) for policy reasons alone. The potentially countervailing consideration is that, by sending $s \neq \hat{\omega}_A$, the agent may be able to learn more about the leader's type, which can better inform her decision of whether or not to protest. Clearly sending $s = 1$ provides (weakly) better information than $s = 0$, because $s = 0$ induces pooling by both leader types, whereas $s = 1$ may induce separation. Further, given $y = \underline{y}$, the agent will not protest for any belief μ_A, so there is no value in distorting policy in the present period to improve learning. So we only need to show that when $\hat{\omega}_A = 0$ and $y = \bar{y}$, the agent prefers sending $s = 0$ over $s = 1$:

$$E[U_A(s=1)|\hat{\omega}_A = 0, y = \bar{y}] \leq E[U_A(s=0)|\hat{\omega}_A = 0, y = \bar{y}]$$

$$(1-\pi)(1-\bar{\sigma}_0^1)[1+\bar{y}] + (\pi + (1-\pi)\bar{\sigma}_0^1)\mu_A^{1,1} f_A(1) \leq 1 + \pi f_A(1)$$

$$1 + \bar{y} \leq \frac{1}{(1-\pi)(1-\bar{\sigma}_0^1)}$$

This is satisfied for $\bar{y} \leq \frac{\pi}{1-\pi}$, which is satisfied by Assumption 1. ■

Proof of Lemma 5: The congruent leader's strategy follows from the definition of the CRE, and from the fact that the leader's signal x is informative, and that the agent's message is asymmetrically informative (i.e. $s = 0$ implies $\omega = 0$ with certainty). Left to prove is (i) the agent's protest strategy, (ii) the incongruent leader's fighting strategy, and (iii) the incentive-compatibility of the agent's sincere reporting.

Agent's protest strategy: Given the specified strategy by the congruent leader, the agent's beliefs satisfy:

- $\mu_A^{s=0,a=0} = \pi$
- $\mu_A^{s=0,a=1} = 0$ (on- or off-path)
- $\mu_A^{s=1,a,\omega=a} = \frac{\pi\phi}{\pi\phi+(1-\pi)Pr(a|s=1,\omega,\theta=0)} \geq \bar{\mu}_A$
- $\mu_A^{s=1,a,\omega\neq a} = \frac{\pi(1-\phi)}{\pi(1-\phi)+(1-\pi)Pr(a|s=1,\omega,\theta=0)} \geq \bar{\mu}_A$

The only case in which the agent would protest on-path is if the incongruent leader played $a = 1$ following $s = 0$; but in this equilibrium, the congruent leader always plays $a = 0$ following $s = 0$, which implies that the incongruent leader will always do the same by Lemma 3.

Incongruent leader's fighting strategy: Given that the agent never protests following $a = 0$, and given Lemma 3, the incongruent leader plays $\sigma_0^{x,s,y} = 0 \, \forall x, s, y$.

Agent's reporting strategy: Sending message $s = \hat{\omega}$ strictly increases the probability that the agent's preferred policy is chosen. Because the agent will not protest, there is no value in reporting insincerely for the sake of eliciting better information about the leader's type. ■

Proof of Lemma 6: With an uninformatively dovishly-biased agent in place, $\tilde{\pi}_A^D < \hat{\pi}_A^{D,info}$: The congruent leader's strategy follows from the definition of the CRE, and from the fact that the leader's signal x is informative, and that the agent's message is asymmetrically informative (i.e. $s = 1$ implies $\omega = 1$ with certainty). Left to prove is (i) the agent's protest strategy, (ii) the incongruent leader's fighting strategy, and (iii) the incentive-compatibility of the agent's sincere reporting.

Agent's protest strategy: The agent's beliefs satisfy:

- $\mu_A^{1,1} \geq \pi$
- $\mu_A^{1,0} = 0$
- $\mu_A^{0,0,\omega=0} = \frac{\pi\phi}{\pi\phi+(1-\pi)Pr(a=0|\theta=0,\omega=0)} \geq \bar{\mu}_A$
- $\mu_A^{0,0,\omega=1} = \frac{\pi(1-\phi)}{\pi(1-\phi)+(1-\pi)Pr(a=0|\theta=0,\omega=0)} \geq \bar{\mu}_A$
- $\mu_A^{0,1} = 1$

Thus the agent protests if and only if $(s = 1, a = 0, y = \bar{y})$.

Incongruent leader's fighting strategy: By Lemma 3, the incongruent leader plays $a = 0$ whenever $s = 0$ or $y = \underline{y}$. When $s = 1$ and $y = \bar{y}$, the incongruent leader plays $a = 1 \iff \beta\mu^{10} > 1$, where $\mu^{10} = \frac{\pi\tilde{\sigma}_1^D}{\pi\tilde{\sigma}_1^D+(1-\pi)(1-\lambda)\tilde{\sigma}_A^D\tilde{\tilde{\sigma}}_0^1}$, where:

- $\tilde{\sigma}_1^D = Pr(a = 1|\theta = 1, \tilde{\pi}_A^D) = \tau(\phi + (1 - \phi)\tilde{\pi}_A^D) + (1 - \tau)(1 - \phi)$
- $\tilde{\sigma}_A^D = \tau\tilde{\pi}_A^D$
- $\tilde{\tilde{\sigma}}_0^1 = Pr(a = 1|\theta = 0, s = 1, y = \bar{y}, \tilde{\pi}_A^D)$

Then we have three cases, analogously to the full-advice CRE:

- If $\beta \leq 1$, then $\tilde{\tilde{\sigma}}_0^1 = 0$
- If $\beta > 1$ and $\lambda < \tilde{\lambda} := 1 - \frac{\tilde{\sigma}_1^D\pi(\beta-1)}{\tilde{\sigma}_A^D(1-\pi)}$, then $\tilde{\tilde{\sigma}}_0^1 = \hat{\tilde{\sigma}}_0^1 := \frac{\pi\tilde{\sigma}_1^D(\beta-1)}{\tilde{\sigma}_A^D(1-\pi)(1-\lambda)}$
- If $\lambda > \tilde{\lambda}$, then $\tilde{\tilde{\sigma}}_0^1 = 1$.

Agent's reporting strategy: Again, as in the full-advice CRE, the only condition in which the agent faces any incentive to deviate from sincere reporting is when $\hat{\omega}_A = 0$ and $y = \bar{y}$, and there may be value in insincerely sending $s = 1$ so as to better discern the leader's quality. In this case we see that the agent is willing to report sincerely when $\bar{y} \leq \frac{\pi(1-\phi)}{1-\pi}$, which is satisfied by Assumption 1. ■

Proof of Lemma 7: Follows directly from Assumption 5, and from the fact that the incongruent leader separating at the appointment stage yields the worst possible deterrence (as shown in the proof of Result 1 below). ■

Proof of Lemma 8: Let $\hat{a}^b$ denote the level of deterrence in the babbling CRE, and let $\hat{a}(\alpha)$ denote the level of deterrence in a full-advice CRE given appointee α. We will show that there always exists an appointee α such that (i) her sincere reporting can be followed in a full-advice CRE, which yields $\hat{a}(\alpha) = \hat{a}^b$; (ii) the full-advice CRE yields the same electoral prospects as does the babbling CRE; and (iii) the congruent leader's expected policy payoff EW_L is strictly greater in the full-advice CRE than in the babbling CRE.

We will consider two cases, $\tau \geq \frac{1}{2}$ and $\tau \leq \frac{1}{2}$. First note that $\hat{a}^b = \pi\chi$, where $\chi = \tau\phi + (1-\tau)(1-\phi)$. We will prove the lemma by restricting attention to fully loyal appointees, $\lambda = 1$, such that $\hat{a}(\alpha) = \pi\sigma_A$.

Case 1. $\tau \geq \frac{1}{2}$. In this case, $\frac{1}{2} \leq \chi \leq \tau$, so an agent whose sincere reporting satisfies $\sigma_A = \chi$ must be (weakly) dovishly biased, $\pi_A^D \leq 1$. We find this π_A^D by setting $\hat{a}^b = \hat{a}(\alpha)$:

$$\begin{aligned}
\pi\sigma_A &= \pi\chi \\
\tau\pi_A^D &= \tau\phi + (1-\tau)(1-\phi) \\
\pi_A^D &= \phi + \frac{(1-\tau)}{\tau}(1-\phi) \\
&\geq \phi + \phi(1-\phi)
\end{aligned}$$

where the last inequality follows from the fact that $\tau \leq \frac{1}{1+\phi}$ by Assumption 1.

This appointee's sincere reporting can be followed in a full-advice CRE if $\beta(\mu^{10} - \mu^{00}) \leq 1 - 2\eta^{x=1,y=0}$. Because $\chi = \sigma_A$ the values of μ^{10} and μ^{00} are the same in the babbling CRE and in the full advice CRE (which tells us that the congruent leader's electoral prospects are the same across the two equilibria). Because the babbling CRE is supported, to prove existence of the full-advice CRE, it suffices to show that $1 - 2\eta^0 \leq 1 - 2\eta^{1,0}$. Plugging in the value of π_A^D into the expression for η^{10} and rearranging, we find that this is satisfied. Finally, the congruent leader's expected policy payoffs in this full-advice CRE are given by

$$E[W_L(\pi_A^D)|a_F = 1] = \tau\pi_A^D + (1-\tau) = \tau\phi + (1-\tau)(1-\phi) + (1-\tau)$$

which we can see exceeds the expected policy payoff of ϕ in the babbling CRE.

Case 2. $\tau \leq \frac{1}{2}$. In this case, $\tau \leq \chi \leq \frac{1}{2}$, so an agent whose sincere reporting satisfies $\sigma_A = \chi$

must be (weakly) hawkishly biased, $\pi_A^H \leq 1$. The value of π_A^H that satisfies $\sigma_A = \chi$ is

$$\pi_A^H = \phi + (1-\phi)\frac{\tau}{1-\tau}$$

As in the preceding case, we know that the electoral prospects are the same given $\sigma_A = \chi$. Given that the babbling CRE is supported, to show that this full-advice CRE is supported, it suffices to show that $1 - 2\eta^0 \leq 1 - 2\eta^{10}$, which is clearly satisfied because $\eta^{10} = 0$. Finally, policy payoffs in the full-advice CRE are given by

$$E[W_L(\pi_A^H)|a_F = 1] = \tau + (1-\tau)\pi_A^H = \tau + (1-\tau)\phi + (1-\phi)\tau$$

which is $> \phi$. ■

Proof of Lemma 9: The proof will consider multiple cases, and in each case we will show that when an appointee α of directional bias k cannot support a full-advice CRE, there exists an appointee α' of directional bias $k' \neq k$ for which:

(i) deterrence is the same, $\hat{a}(\alpha) = \hat{a}(\alpha')$,

(iii) the congruent leader's electoral prospects are the same, $E[r|\theta = 1, a_F = 1, \alpha'] = E[r|\theta = 1, a_F = 1, \alpha]$, and

(ii) the congruent leader's expected policy payoff is better, $E[W_L(\alpha')|a_F = 1] > E[W_L(\alpha)|a_F = 1]$.

Uninformatively hawkish agent, $\tilde{\pi}_A^H < \hat{\pi}_A^{H,info}$

Let $\tilde{\pi}_A^H$ denote the bias of the uninformatively-hawkish appointee, $\tilde{\pi}_A^H < \hat{\pi}_A^{H,info}$. (Path-of-play behavior in the partial-advice CRE with this appointee was characterized in Lemma 5.) Alternatively, consider an informatively dovishly-biased appointee $\bar{\pi}_A^D \geq \hat{\pi}_A^{D,info}$ whose advice yields the same aggregate fighting probability as $\tilde{\sigma}_1$ above:

$$\hat{a}(\bar{\pi}_A^H) = \pi\tau\bar{\pi}_A^H = \hat{a}(\tilde{\pi}_A^H) = \pi\tilde{\sigma}_1 = \pi\left[\tau\phi + (1-\tau)(1-\phi)(1-\tilde{\pi}_A^H)\right]$$
$$\bar{\pi}_A^D = \phi + \frac{1-\tau}{\tau}(1-\phi)(1-\tilde{\pi}_A^H) > \phi \geq \hat{\pi}_A^{D,info}$$

Because $\tilde{\sigma}_1(\tilde{\pi}_A^H) = \sigma_1(\bar{\pi}_A^D)$, the level of deterrence is equivalent, and the reelection prospects are equivalent. Further, the expected policy payoffs are strictly better under $\bar{\pi}_A^D$:

$$EW_L(\tilde{\pi}_A^H) = \tau\phi + (1-\tau)(\phi + (1-\phi)\pi_A^H)$$
$$EW_L(\bar{\pi}_A^D) = \tau\pi_A^D + (1-\tau) > \tau\phi + (1-\tau)$$

Thus for the congruent leader, the appointment of $\bar{\pi}_A^D$ strictly dominates the appointment of $\tilde{\pi}_A^H$.

Uninformatively dovish agent, $\tilde{\pi}_A^D < \hat{\pi}_A^{D,info}$

Let $\tilde{\pi}_A^D$ denote the bias of the uninformatively-hawkish appointee, $\tilde{\pi}_A^D < \hat{\pi}_A^{D,info}$. Path-of-play behavior in the partial-advice CRE with this appointee was characterized in Lemma 6.

We will analyze three separate cases of the the partial-advice CRE with an uninformatively dovish appointee, $\tilde{\pi}_A^D < \hat{\pi}_A^{D,info}$:

1. $\beta \leq 1$ or $\lambda = 1$
2. $\beta > 1$ and $\lambda \leq \tilde{\lambda}$
3. $\beta > 1$ and $\tilde{\lambda} < \lambda$

where the value of $\tilde{\lambda}$ was derived in the proof of Lemma 6.

Note that the voter's beliefs in this partial-advice CRE are given by

$$\tilde{\mu}^{10} = \frac{\pi\tilde{\sigma}_1}{\pi\tilde{\sigma}_1 + (1-\pi)(1-\lambda)\tilde{\sigma}_A^D\tilde{\tilde{\sigma}}_0^1}, \quad \tilde{\mu}^{00} = \frac{\pi(1-\tilde{\sigma}_1)}{\pi(1-\tilde{\sigma}_1) + (1-\pi)(1-\tilde{\sigma}_A^D + \tilde{\sigma}_A^D\lambda)} \tag{9}$$

Analogously to the proof above, here we will show that in each of the three cases, there exists an informatively hawkish agent $\bar{\pi}_A^H$ that yields the same deterrence and electoral prospects as does $\tilde{\pi}_A^D$, but with improvement in policy outcomes.

Case 1. $\beta \leq 1$ or $\lambda = 1$

If either $\beta \leq 1$ or $\lambda = 1$, then the incongruent leader never fights, so we have:

$$\hat{a}(\tilde{\pi}_A^D) = \pi\tilde{\sigma}_1 = \pi\left[\tau(\phi + (1-\phi)\tilde{\pi}_A^D) + (1-\tau)(1-\phi)\right]$$
$$\hat{a}(\bar{\pi}_A^H) = \pi\sigma_A^H = \pi\left[\tau + (1-\tau)(1-\bar{\pi}_A^H)\right]$$

setting the two equal and rearranging gives

$$\bar{\pi}_A^H = \phi + (1-\phi)\frac{\tau}{1-\tau}(1-\tilde{\pi}_A^D) > \phi \geq \hat{\pi}_A^{H,info}$$

Because $\tilde{\sigma}_1 = \sigma_A^H$, we have that $\mu^{01}(\bar{\pi}_A^H) = \tilde{\mu}^{01}(\tilde{\pi}_A^D)$ and $\mu^{00}(\bar{\pi}_A^H) = \tilde{\mu}^{01}(\tilde{\pi}_A^D)$, so $E[r|\theta = 1]$ is unchanged. But policy is improved:

$$EW_L(\bar{\pi}_A^H) = \tau + (1-\tau)\bar{\pi}_A^H > \tau + (1-\tau)\phi > EW_L(\tilde{\pi}_A^D) = \tau(\phi + (1-\phi)\tilde{\pi}_A^D) + (1-\tau)\phi$$

Case 2. $\beta > 1$ **and** $\lambda < \tilde{\lambda}$

Given $\lambda < \tilde{\lambda}$ (and because we know $\tilde{\lambda} < \bar{\lambda}$), we have that $\tilde{\bar{\sigma}}_0^1 = \frac{\tilde{\sigma}_1 \pi(\beta-1)}{\tilde{\sigma}_A^D(1-\pi)(1-\lambda)}$ for $\tilde{\pi}_A^D$, and $\bar{\sigma}_0^1 = \frac{\pi(\beta-1)}{(1-\pi)(1-\lambda)}$ for $\bar{\pi}_A^H$ (where both $\tilde{\bar{\sigma}}_0^1$ and $\bar{\sigma}_0^1$ are chosen so as to set $\mu^{10} = \tilde{\mu}^{10} = \frac{1}{\beta}$, to maintain the incongruent leader's indifference). We want to find $\hat{a}(\tilde{\pi}_A^D, \lambda)$ and $\hat{a}(\bar{\pi}_A^H, \lambda)$ and choose $\bar{\pi}_A^H$ to make them equal to each other:

$$\begin{aligned}
\hat{a}(\tilde{\pi}_A^D) &= \pi\tilde{\sigma}_1 + (1-\pi)(1-\lambda)\tilde{\sigma}_A^D \tilde{\bar{\sigma}}_0^1 \\
&= \pi\tilde{\sigma}_1 + \pi\tilde{\sigma}_1(\beta - 1) = \pi\tilde{\sigma}_1\beta \\
\hat{a}(\bar{\pi}_A^H) &= \sigma_A^H(\pi + (1-\pi)(1-\lambda)\bar{\sigma}_0^1) \\
&= \sigma_A^H(\pi + \pi(\beta-1)) = \sigma_A^H \beta\pi
\end{aligned}$$

As in the previous case, this is satisfied by $\sigma_A^H = \tilde{\sigma}_1$, which rearranges to $\bar{\pi}_A^H = \phi + (1-\phi)\frac{\tau}{1-\tau}(1-\tilde{\pi}_A^D)$, which we saw above implies that $EW_L(\bar{\pi}_A^H) > EW_L(\tilde{\pi}_A^D)$. Finally, from (9) we can see that electoral prospects are unchanged.

Case 3. $\beta > 1$ **and** $\tilde{\lambda} < \lambda$

Here we have $\tilde{\bar{\sigma}}_0^1 = 1$, $\tilde{\sigma}_0 = (1-\lambda)\tilde{\sigma}_A^D$, and $\hat{a}(\tilde{\pi}_A^D) = \pi\tilde{\sigma}_1 + (1-\pi)(1-\lambda)\tilde{\sigma}_A^D$. We want to find $\bar{\pi}_A^H \geq \phi$ and $\lambda' \geq \bar{\lambda}$ such that $\sigma_1 = \tilde{\sigma}_1$ and $\sigma_0 = \tilde{\sigma}_0$. To set $\sigma_A^H = \tilde{\sigma}_1$, we select the same $\bar{\pi}_A^H$ as in the previous two cases, which was shown to yield improvements in EW_L relative to $\tilde{\pi}_A^D$. Given that value of $\bar{\pi}_A^H$, we then need to set λ' such that $\sigma_0 = \tilde{\sigma}_0$:

$$\begin{aligned}
\sigma_0 = \sigma_A^H(1-\lambda') &= \tilde{\sigma}_A^D(1-\lambda) = \tilde{\sigma}_0 \\
\lambda' &= 1 - (1-\lambda)\frac{\tilde{\sigma}_A^D}{\tilde{\sigma}_1}
\end{aligned}$$

Note that it is possible that $\tilde{\lambda} < \lambda < \bar{\lambda}$, in which case we need to verify that $\lambda' > \bar{\lambda}$. Because

$\lambda > \tilde{\lambda} = 1 - \frac{\tilde{\sigma}_1 \pi(\beta-1)}{\sigma_A^D(1-\pi)}$, we have that

$$\lambda' > 1 - \left(\frac{\tilde{\sigma}_1 \pi(\beta-1)}{\sigma_A^D(1-\pi)}\right)\frac{\tilde{\sigma}_A^D}{\tilde{\sigma}_1} = 1 - \frac{\pi(\beta-1)}{1-\pi} = \bar{\lambda}$$

This exhausts all cases of the proof of Lemma 9. ■

This completes the proof of Proposition 1. ■

Proof of Result 1: Given common knowledge of L's type θ, the voter's unique best response is to retain the leader if and only if he is congruent. This means that the leader's reelection prospects are unaffected by his action, so his unique best response is to take the action he prefers for policy reasons alone: extreme Doves always concede, extreme Hawks always fight, and moderates of either party follow the CRE strategy of $a = 1$ if and only if $\eta^{x,s} \geq \frac{1}{2}$.

The fact that A is informative means that, when she reports sincerely, L's belief satisfies $\eta^{x,s} \geq \frac{1}{2} \iff s = 1$. Thus the congruent L's CRE strategy dictates that he follow A's advice, $\sigma_1^{x,s} = s$.

To calculate the appointee's influence, first observe that in a babbling equilibrium, the congruent L's best response is to follow his own private signal, $\sigma_1^x = x$.

The leader's CRE action under sincere reporting differs from what it would be under babbling in the following events: (i) the leader is congruent, and (ii.a) L's signal x is wrong, and A would have reported truthfully, $s = \omega$ or (ii.b) L's signal x is correct, and A would have reported untruthfully, $s \neq \omega$. The joint probability of these events is given by:

$$\begin{cases} \pi\left[(1-\tau)(1-\phi) + \tau\left((1-\phi)\pi_A + \phi(1-\pi_A)\right)\right], & k = D \\ \pi\left[(1-\tau)\left((1-\phi)\pi_A + \phi(1-\pi_A)\right) + \tau(1-\phi)\right], & k = H \end{cases}$$

When $\tau = \frac{1}{2}$, this reduces to $\frac{\pi}{2}(1 - \pi_A(2\phi - 1))$.

Finally, considering F's decision to challenge: based on A and L's equilibrium strategies, F forms expectation $\hat{a}_{a_F}(\alpha;\theta) = Pr(a = 1|\alpha, \theta, a_F)$ where $\alpha = (\pi_A^k, \lambda)$. It follows directly from F's utility function that F challenges if and only if $\omega_F \geq \hat{a}_1(\alpha;\theta) - \hat{a}_0(\alpha;\theta)$. Because the strategies for extreme leaders of both parties are not responsive to ω, and thus not responsive to a_F, we have $\hat{a}_1(\alpha; 0) = \hat{a}_0(\alpha; 0)$. In contrast, because congruent leaders' strategies are responsive to the agent's (informative) advice, they are also responsive to the state and thus to F's action: $\hat{a}_1(\alpha;1) > \hat{a}_0(\alpha;1)$. This responsiveness provides F with a greater incentive to refrain from challenging. The appointee's hawkishness only increases $\hat{a}_1(\alpha;1)$, and does not affect $\hat{a}_0(\alpha;1)$; increasing the difference between these two values serves to further disincentivize F from challenging.

■

Proof of Result 2: The first three bullet points follow directly from Lemma 4. To derive the value of influence, observe that the probability that the leader's babbling CRE action differs from his full-advice CRE action is given by:

$$\pi \left\{ \begin{array}{l} \Pr(\omega=1)\left[Pr(x=0\&s=1|\omega=1)+Pr(x=1\&s=0.|\omega=1)\right] \\ +Pr(\omega=0)\left[Pr(x=0\&s=1|\omega=0)+Pr(x=1\&s=0.|\omega=0)\right] \end{array} \right\} + (1-\pi)Pr(s=1)Pr(y=\bar{y})\bar{\sigma}_0^1$$

When $\pi_A^H \leq 1$, this equals

$$\pi\left\{\tau(1-\phi)+(1-\tau)\left[(1-\pi_A^H)\phi+\pi_A^H(1-\phi)\right]\right\}+(1-\pi)\sigma_A(1-\lambda)\bar{\sigma}_0^1$$

When $\pi_A^D \leq 1$, this equals

$$\pi\left\{\tau\left[(1-\pi_A^H)\phi+\pi_A^H(1-\phi)\right]+(1-\tau)(1-\phi)\right\}+(1-\pi)\sigma_A(1-\lambda)\bar{\sigma}_0^1$$

When $\tau=\frac{1}{2}$, for either $k=D,H$, this simplifies to

$$\frac{\pi}{2}\left[1-\pi_A(2\phi-1)\right]+(1-\pi)\sigma_A(1-\lambda)\bar{\sigma}_0^1$$

as stated in the proposition. The final bullet point follows simply from differentiating the expression above with respect to ϕ, λ, and π_A^H, respectively. ■

Proof of Result 3: Let $\hat{a}_{a_F}(\alpha)=Pr(a=1|a_F,\alpha)$ denote the equilibrium probability that L will fight given appointment α and given F's action a_F. (For shorthand, let $\hat{a}(\alpha)=\hat{a}_1(\alpha)$.) It follows directly from F's payoff function that F will challenge if and only if $\omega_F \geq \hat{a}(\alpha)-\hat{a}_0(\alpha)$ which occurs with probability $\frac{\overline{\omega}_F-(\hat{a}(\alpha)-\hat{a}_0(\alpha))}{\overline{\omega}_F-\underline{\omega}_F}$.

Lemma 1 tells us that $\hat{a}_0(\alpha)$ is constant in α. From Lemma 4, we know that under a Dove leader,

$$\hat{a}(\alpha) = \sigma_A\left[\pi + (1-\pi)\sigma_0^1\right], \quad \text{where } \sigma_0^1 = (1-\lambda)\bar{\sigma}_0^1 = \begin{cases} 0, & \beta \leq 1 \\ 1-\lambda, & \beta > 1 \,\&\, \lambda > \bar{\lambda} \\ \frac{\pi(\beta-1)}{1-\pi}, & \beta > 1 \,\&\, \lambda \leq \bar{\lambda} \end{cases}$$

and σ_A is given by (5). Likewise, under a Hawk leader,

$$\hat{a}(\alpha) = \sigma_A + (1-\pi)(1-\sigma_A)\sigma_0^0, \quad \text{where } \sigma_0^0 = \lambda + (1-\lambda)\bar{\sigma}_0^0 = \begin{cases} 1, & \beta \leq 1 \\ \lambda, & \beta > 1 \,\&\, \lambda > \bar{\lambda} \\ \frac{1-\beta\pi}{1-\pi}, & \beta > 1 \,\&\, \lambda \leq \bar{\lambda} \end{cases}$$

The comparative statics in Result 3 follow simply from differentiating the two expressions above with respect to λ and π_A. ■

Proof of Result 4: To prove this result regarding citizen welfare, we will demonstrate the following:

- Under a Dove leader:
  - Following Result 3, we know that deterrence can be improved (relative to a baseline of $\pi_A = \lambda = 1$) by increasing either appointee hawkishness, or appointee loyalty (or both).
  - Increasing appointee hawkishness undermines policy responsiveness.
  - Increasing appointee loyalty (insofar as it improves deterrence) undermines electoral selection.
- Under a Hawk leader:
  - Deterrence can only be improved by increasing appointee hawkishness.
  - Increasing appointee hawkishness undermines both policy responsiveness and electoral selection.

Consider first the case of a Dove leader with a weakly hawkish appointee, $\pi_A^H \leq 1$. Policy responsiveness is given by

$$EW_V = Pr(a = \omega | a_F = 1) = \pi \left[\tau + (1-\tau)\pi_A^H\right] + (1-\pi)\left[(1-\tau) + (\tau - (1-\tau)(1-\pi_A^H))(1-\lambda)\bar{\sigma}_0^1\right]$$

It is straightforward to see that this is increasing in π_A^H, meaning it is decreasing in appointee hawkishness.

Electoral selection is given by

$$\begin{aligned}
\Delta_r &= Pr(r = 1|\theta = 1, a_F = 1) - Pr(r = 1|\theta = 0, a_F = 1) \\
&= \left[\sigma_A \mu^{10} + (1-\sigma_A)\mu^{00}\right] - \left[\sigma_A(1-\lambda)\bar{\sigma}_0^1 \mu^{10} + \sigma_A \lambda \mu^{00}(1-\sigma_A)\mu^{00}\right] \\
&= \sigma_A \left[\mu^{10}\left(1 - (1-\lambda)\bar{\sigma}_0^1\right) - \lambda \mu^{00}\right]
\end{aligned}$$

As λ decreases from 1 down to $\bar{\lambda}$, we have $\bar{\sigma}_0^1 = 1$, which means

$$\Delta_r = \sigma_A \lambda \left[\mu^{10} - \mu^{00}\right] = \sigma_A \lambda \left[\frac{\pi}{\pi + (1-\pi)(1-\lambda)} - \frac{\pi(1-\sigma_A)}{1 - \sigma_A + \sigma_A(1-\pi)\lambda}\right]$$

Differentiating with respect to λ gives

$$\Delta_r' = \sigma_A \left[\mu^{10} - \mu^{00}\right] + \sigma_A \lambda \left[\frac{d\mu^{10}}{d\lambda} - \frac{d\mu^{00}}{d\lambda}\right]$$

We know that $\mu^{10} \geq \mu^{00}$, and that $\frac{d\mu^{10}}{d\lambda} > 0 > \frac{d\mu^{00}}{d\lambda}$, so the whole expression is positive. That is, electoral selection decreases with appointee independence, as λ decreases from 1 to $\bar{\lambda}$.

Next consider the case of a Hawk leader with a weakly hawkish appointee, $\pi_A^H \leq 1$. Policy responsiveness is given by

$$EW_V = \pi \left[\tau + (1-\tau)\pi_A^H\right] + (1-\pi)\left[\tau + (1-\tau)\pi_A^H(1-\lambda)(1-\bar{\sigma}_0^1)\right]$$

which is clearly increasing in π_A^H, or decreasing in the appointee's hawkishness.

Electoral selection is given by

$$\Delta_r = (1-\sigma_A)\left[\mu^{00} - (1-\lambda)(1-\bar{\sigma}_0^0)\mu^{10} - \lambda\mu^{10}\right]$$

Differentiating with respect to the appointee's hawkishness σ_A gives us

$$\Delta_r' = -\left[\mu^{00} - (1-\lambda)(1-\bar{\sigma}_0^0)\mu^{10} - \lambda\mu^{10}\right] + (1-\sigma_A)\left[-(1-\lambda)(1-\bar{\sigma}_0^0) - \lambda\right]\frac{d\mu^{10}}{d\sigma_A}$$

Since $\mu^{10} = \frac{\pi\sigma_A}{\sigma_A+(1-\sigma_A)(1-\pi)\lambda}$, we can see that $\frac{d\mu^{10}}{d\sigma_A} > 0$, and thus that the whole expression is negative.

This completes the proof of Result 4. ■

Proof of Results 5 and 6: These results invoke a series of claims, which we will enumerate and prove separately.

Claim 3 *Leaders of either party will appoint a hawkishly biased agent if the value of deterrence is sufficiently high.*

Claim 4 *Leaders of either party will never appoint a dovishly biased agent.*

Claim 5 *More experienced leaders are less likely to appoint biased agents.*

Claim 6 *A Dove leader will appoint an independent agent if the value of deterrence is sufficiently high.*

Claim 7 *A Hawk leader may appoint an independent agent, even when doing so will undermine deterrence.*

Claim 8 *Under otherwise symmetrical conditions (specifically, $\tau = \frac{1}{2}$ and $\pi_A = 1$), Hawk leader is strictly less likely than a Dove leader to appoint an independent agent.*

Claim 9 *A leader of either party will appoint an independent agent if and only if electoral incentives are low.*

To prove these claims, it will first be useful to establish a number of intermediate lemmae:

Lemma 10 *For both parties, the leader will always select an appointee characterized by either $\lambda = 0$ or $\lambda = 1$.*

Lemma 11 *When $\beta \leq 1$, leaders of both parties will always select $\lambda = 0$.*

Lemma 12 *Let $\hat{\pi}_A^H$ denote the most hawkish agent whose sincere reporting can be followed in a full-advice CRE, as per Proposition 1. For the leader of either party, the appointment of any $\pi_A^H \in \left(\hat{\pi}_A^H, 1\right)$ is dominated by an appointment of either $\hat{\pi}_A^H$ or $\pi_A = 1$.*

Lemmae 10 and 12, along with Claim 4, imply that while the full appointment space is characterized by $\alpha = [0,1]^2 \times \{D, H\}$, the optimal appointment will be one of four choices, selected from $\{\lambda = 0, \lambda = 1\} \times \{\pi_A^H = 1, \pi_A^H = \hat{\pi}_A^H\}$.

The following briefly summarizes some previously derived results, for reference. In general, the leader's expected payoff from appointment α (given that α can support a full-advice CRE, as per Proposition 1) is given by

$$EU_L(\alpha) = \hat{a}_F(\alpha)\left[-\gamma + EW_L + \beta\left(\sigma_A \mu^{10} + (1-\sigma_A)\mu^{00}\right)\right] + (1 - \hat{a}_F(\alpha))\left[1 + \beta \mu^{0;a_F=0}\right] \tag{10}$$

where:

- $\hat{a}_F(\alpha) = Pr(a_F = 1|\alpha) = \frac{\overline{\omega}_F - \hat{a}(\alpha) + \hat{a}_0}{\overline{\omega}_F - \underline{\omega}_F}$
- $EW_L = \begin{cases} \tau + (1-\tau)\pi_A, & k = H \\ \tau\pi_A + (1-\tau), & k = D \end{cases}$
- $\mu^{10} = Pr(\theta = 1|a = 1, z = 0) = \begin{cases} \frac{\pi}{\pi + (1-\pi)(1-\lambda)\bar{\sigma}_0^1}, & j = D \\ \frac{\pi\sigma_A}{\pi\sigma_A + (1-\pi)(\sigma_A + (1-\sigma_A)\lambda)}, & j = H \end{cases}$
- $\mu^{00} = Pr(\theta = 1|a = 0, z = 0) = \begin{cases} \frac{\pi(1-\sigma_A)}{\pi(1-\sigma_A) + (1-\pi)(1-\sigma_A+\sigma_A\lambda)}, & j = D \\ \frac{\pi}{\pi + (1-\pi)(1-\lambda)(1-\bar{\sigma}_0^0)}, & j = H \end{cases}$
- $\sigma_A = Pr(s = 1) = \begin{cases} \tau + (1-\tau)(1-\pi_A), & k = H \\ \tau\pi_A, & k = D \end{cases}$
- $\bar{\sigma}_0^0 = Pr(a = 1|\theta = 0, j = H, y = \bar{y}, s = 0) = \begin{cases} 1, & \beta \leq 1 \\ 1 - \frac{\pi(\beta-1)}{(1-\pi)(1-\lambda)}, & \beta > 1 \,\&\, \lambda \leq \bar{\lambda} \\ 0, & \beta > 1 \,\&\, \lambda > \bar{\lambda} \end{cases}$
- $\bar{\sigma}_0^1 = Pr(a = 1|\theta = 0, j = D, y = \bar{y}, s = 1) = \begin{cases} 0, & \beta \leq 1 \\ \frac{\pi(\beta-1)}{(1-\pi)(1-\lambda)}, & \beta > 1 \,\&\, \lambda \leq \bar{\lambda} \\ 1, & \beta > 1 \,\&\, \lambda > \bar{\lambda} \end{cases}$

- $\mu^{0;a_F=0} = Pr(\theta = 1|a_F = 0, a = 0) = \begin{cases} 1, & k = H \,\&\, \beta \leq 1 \\ \frac{1}{\beta}, & k = H \,\&\, 1 < \beta < \frac{1}{\pi} \\ \pi, & k = D \text{ or } \beta > \frac{1}{\pi} \end{cases}$

Proof of Lemma 10: We will prove the lemma separately for the case of the Dove leader and the Hawk leader.

Case 1. Dove leader. First observe the following:

- When $\lambda \leq \bar{\lambda}$, we have $\frac{d\mu^{10}}{d\lambda} = 0$
- When $\lambda > \bar{\lambda}$, we have:

$$\begin{aligned} \mu^{10} &= \frac{\pi}{1 - \lambda(1-\pi)} \\ \frac{d\mu^{10}}{d\lambda} &= \frac{\pi(1-\pi)}{[1 - \lambda(1-\pi)^2]} > 0 \\ \frac{d^2\mu^{10}}{d\lambda^2} &= \frac{2\pi(1-\pi)^2}{[1 - \lambda(1-\pi)^3]} > 0 \end{aligned}$$

- For any λ, we have:

$$\begin{aligned} \mu^{00} &= \frac{\pi(1-\sigma_A)}{\pi(1-\sigma_A) + (1-\pi)(1-\sigma_A+\sigma_A\lambda)} \\ \frac{d\mu^{00}}{d\lambda} &= \frac{-\pi(1-\pi)\sigma_A(1-\sigma_A)}{[\pi(1-\sigma_A) + (1-\pi)(1-\sigma_A+\sigma_A\lambda)]^2} < 0 \\ \frac{d^2\mu^{00}}{d\lambda^2} &= \frac{2\pi(1-\pi)^2\sigma_A^2(1-\sigma_A)}{[\pi(1-\sigma_A) + (1-\pi)(1-\sigma_A+\sigma_A\lambda)]^3} > 0 \end{aligned}$$

Differentiating (10) with respect to λ gives us:

$$\frac{dEU_L(\alpha)}{d\lambda} = \frac{d\hat{a}_F(\alpha)}{d\lambda}\left[-\gamma - 1 + EW_L + \beta\left(\sigma_A\mu^{10} + (1-\sigma_A)\mu^{00} - \pi\right)\right] + \hat{a}_F(\alpha)\beta\left(\sigma_A\frac{d\mu^{10}}{d\lambda} + (1-\sigma_A)\frac{d\mu^{00}}{d\lambda}\right)$$

When $\lambda \leq \bar{\lambda}$, we have that $\frac{d\hat{a}_F(\alpha)}{d\lambda} = 0$ and $\frac{d\mu^{10}}{d\lambda} = 0$, so the whole expression $\frac{dEU_L(\alpha)}{d\lambda} < 0$. Thus $\lambda = 0$ dominates any $\lambda \in (0, \bar{\lambda}]$.

When $\lambda > \bar{\lambda}$, we have

$$\frac{d^2 EU_L(\alpha)}{d\lambda^2} = 2\left(\frac{d\hat{a}_F(\alpha)}{d\lambda}\right)\beta\left(\sigma_A \frac{d\mu^{10}}{d\lambda} + (1-\sigma_A)\frac{d\mu^{00}}{d\lambda}\right) + \hat{a}_F(\alpha)\beta\left(\sigma_A \frac{d^2\mu^{10}}{d\lambda^2} + (1-\sigma_A)\frac{d^2\mu^{00}}{d\lambda^2}\right)$$

The second term is positive, and the first term is positive iff

$$\sigma_A \frac{d\mu^{10}}{d\lambda} + (1-\sigma_A)\frac{d\mu^{00}}{d\lambda} > 0$$

Plugging in terms and simplifying, we see that this is always satisfied. Thus altogether we have that $\lambda = 0$ dominates any $\lambda \in (0, \bar{\lambda}]$, and that $\frac{d^2 EU_L(\alpha)}{d\lambda^2} > 0$ for $\lambda \in \left[\bar{\lambda}, 1\right]$, which means that the optimal λ will either be $\lambda = 0$ or $\lambda = 1$.

Case 2. Hawk leader. First observe the following:

- When $\lambda \leq \bar{\lambda}$, we have $\frac{d\mu^{00}}{d\lambda} = 0$
- When $\lambda > \bar{\lambda}$, we have:

$$\begin{aligned}
\mu^{00} &= \frac{\pi}{1-\lambda(1-\pi)} \\
\frac{d\mu^{00}}{d\lambda} &= \frac{\pi(1-\pi)}{[1-\lambda(1-\pi)]^2} = \left(\frac{1-\pi}{[1-\lambda(1-\pi)]}\right)\mu^{00} > 0 \\
\frac{d^2\mu^{00}}{d\lambda^2} &= \frac{2\pi(1-\pi)^2}{[1-\lambda(1-\pi)]^3} = \left(\frac{2(1-\pi)^2}{[1-\lambda(1-\pi)]^2}\right)\mu^{00} > 0
\end{aligned}$$

- For any λ, we have:

$$\begin{aligned}
\mu^{10} &= \frac{\pi\sigma_A}{\sigma_A + (1-\pi)(1-\sigma_A)\lambda} \\
\frac{d\mu^{10}}{d\lambda} &= \frac{-\pi\sigma_A(1-\pi)(1-\sigma_A)}{[\sigma_A + (1-\pi)(1-\sigma_A)\lambda]^2} = \left(\frac{-(1-\pi)(1-\sigma_A)}{[\sigma_A + (1-\pi)(1-\sigma_A)\lambda]}\right)\mu^{10} < 0 \\
\frac{d^2\mu^{10}}{d\lambda^2} &= \frac{2\pi\sigma_A(1-\pi)^2(1-\sigma_A)^2}{[\sigma_A + (1-\pi)(1-\sigma_A)\lambda]^3} = \left(\frac{2(1-\pi)^2(1-\sigma_A)^2}{[\sigma_A + (1-\pi)(1-\sigma_A)\lambda]^2}\right)\mu^{10} > 0
\end{aligned}$$

Differentiating (10) with respect to λ gives us:

$$\frac{dEU_L(\alpha)}{d\lambda} = \frac{d\hat{a}_F(\alpha)}{d\lambda}\left[-\gamma - 1 + EW_L + \beta\left(\sigma_A\mu^{10} + (1-\sigma_A)\mu^{00} - \mu^{0;a_F=0}\right)\right] + \hat{a}_F(\alpha)\beta\left(\sigma_A\frac{d\mu^{10}}{d\lambda} + (1-\sigma_A)\frac{d\mu^{00}}{d\lambda}\right)$$

When $\lambda \leq \bar{\lambda}$, we have that $\frac{d\hat{a}_F(\alpha)}{d\lambda} = 0$ and $\frac{d\mu^{10}}{d\lambda} = 0$, so the whole expression $\frac{dEU_L(\alpha)}{d\lambda} < 0$. Thus $\lambda = 0$ dominates any $\lambda \in (0, \bar{\lambda}]$.

When $\lambda > \bar{\lambda}$, we have

$$\frac{d^2EU_L(\alpha)}{d\lambda^2} = 2\left(\frac{d\hat{a}_F(\alpha)}{d\lambda}\right)\beta\left[\sigma_A\frac{d\mu^{10}}{d\lambda} + (1-\sigma_A)\frac{d\mu^{00}}{d\lambda}\right] + \hat{a}_F(\alpha)\beta\left[\sigma_A\frac{d^2\mu^{10}}{d\lambda^2} + (1-\sigma_A)\frac{d^2\mu^{00}}{d\lambda^2}\right]$$

$$= \frac{2\beta}{\overline{\omega}_F - \underline{\omega}_F}\left\{\begin{array}{c} -(1-\pi)(1-\sigma_A)\left[\sigma_A\left(\frac{-(1-\pi)(1-\sigma_A)}{[\sigma_A+(1-\pi)(1-\sigma_A)\lambda]}\right)\mu^{10} + (1-\sigma_A)\left(\frac{1-\pi}{[1-\lambda(1-\pi)]}\right)\mu^{00}\right] \\ +(\overline{\omega}_F - \hat{a}(\alpha) + \hat{a}_0)\left[\sigma_A\left(\frac{(1-\pi)^2(1-\sigma_A)^2}{[\sigma_A+(1-\pi)(1-\sigma_A)\lambda]^2}\right)\mu^{10} + (1-\sigma_A)\left(\frac{(1-\pi)^2}{[1-\lambda(1-\pi)]^2}\right)\mu^{00}\right]\end{array}\right\}$$

Observe that $(\overline{\omega}_F - \hat{a}(\alpha) + \hat{a}_0) \geq 1 - \hat{a}(\alpha) = (1-\sigma_A)(1-\lambda(1-\pi))$, and that the term in the square brackets multiplying this term is positive. So the quantity above is

$$\geq \frac{2\beta(1-\pi)^2(1-\sigma_A)^2}{\overline{\omega}_F - \underline{\omega}_F}\left\{\begin{array}{c} -\left[\sigma_A\left(\frac{-1}{[\sigma_A+(1-\pi)(1-\sigma_A)\lambda]}\right)\mu^{10} + \left(\frac{1}{[1-\lambda(1-\pi)]}\right)\mu^{00}\right] \\ +(1-\lambda(1-\pi))\left[\sigma_A\left(\frac{(1-\sigma_A)}{[\sigma_A+(1-\pi)(1-\sigma_A)\lambda]^2}\right)\mu^{10} + \left(\frac{1}{[1-\lambda(1-\pi)]^2}\right)\mu^{00}\right]\end{array}\right\}$$

which we can see is always positive.

Altogether, as in the case of the Dove leader, we have that $\lambda = 0$ dominates any $\lambda \in (0, \bar{\lambda}]$; and that for $\lambda > \bar{\lambda}$, the second derivative of $EU_L(\alpha)$ with respect to λ is positive; which together imply that the optimal λ is either $\lambda = 0$ or $\lambda = 1$.

This completes the proof of Lemma 10. ■

Proof of Lemma 11: As was shown in Lemma 4, when $\beta \leq 1$, the incongruent leader's strategy is unaffected by appointee independence: regardless of what information the appointee reveals to the voter, the policy gains that the incongruent leader enjoys from taking his ideologically-preferred policy always outweigh the electoral costs. But we can see that the congruent voter's electoral prospects,

$$E[r|\theta = 1, a_F = 1] = \begin{cases} \sigma_A + (1-\sigma_A)\frac{\pi(1-\sigma_A)}{1-\sigma_A+\sigma_A(1-\pi)\lambda}, & k = D \\ (1-\sigma_A) + \sigma_A\frac{\pi\sigma_A}{\sigma_A+(1-\sigma_A)(1-\pi)\lambda}, & k = H \end{cases}$$

are strictly decreasing in λ. So when $\beta \leq 1$, a fully independent appointee is unambiguously in the congruent leader's best interest. ■

Proof of Lemma 12: The proof proceeds in twelve cases: $\left\{\beta \leq 1, 1 < \beta < \frac{1}{\pi}, \beta \geq \frac{1}{\pi}\right\} \times \{\lambda = 0, \lambda = 1\} \times \{j = D, j = H\}$. The math is tedious, but in each case it is straightforward to show that among (weakly) hawkish appointees ($\pi_A^H \in [\hat{\pi}_A^H, 1]$), the second derivative of EU_L (from

Equation 10) with respect to π_A^H is positive. ■

Proof of Claim 3: The proof proceeds in the same twelve cases as the preceding proof. In each case it is straightforward to show that $E[U_L(\lambda, \hat{\pi}_A^H)] - E[U_L(\lambda, \pi_A = 1)]$ is increasing in γ, with a limit of $+\infty$ as $\gamma \to +\infty$. Thus there exists γ large enough that EU_L is decreasing in π_A^H, meaning that the hawkishly-biased appointee is preferred over the unbiased agent. (Claim 4 shows that the unbiased agent is strictly preferred to any dovishly biased agent.) ■

Proof of Claim 4: We analyze the same twelve cases as above, $\{\beta \leq 1, 1 < \beta < \frac{1}{\pi}, \beta \geq \frac{1}{\pi}\} \times \{\lambda = 0, \lambda = 1\} \times \{j = D, j = H\}$. In each case it is straightforward to show that the second derivative of (10) with respect to π_A^D is negative, and that the first derivative evaluated at $\pi_A^D = 1$ is positive, meaning that $\pi_A = 1$ strictly dominates any $\pi_A^D < 1$.[14] ■

Proof of Claim 5: Lemma 12 demonstrated that the leader of either party will select either a fully unbiased appointee ($\pi_A = 1$), or the most hawkishly-biased appointee ($\hat{\pi}_A^H$) that can be supported in a full-advice CRE. The only way that the leader's expertise ϕ may factor into this decision is in determining the value of $\hat{\pi}_A^H$. Specifically, $\hat{\pi}_A^H$ will either be $\hat{\pi}_A^{H,info}$ (as per Definition 4), or some larger value which is determined by the leader's full-advice CRE incentive-compatibility condition $IC_1^{s=0}$ (see the proof of Lemma 4, within the proof of Proposition 1). In the latter case, the bound on $\hat{\pi}_A^H$ does not depend on ϕ. In the former case, $\hat{\pi}_A^{H,info}$ is increasing in ϕ. Because the second derivative of EU_L with respect to π_A^H is positive, we know that if the leader prefers some π_A^H over $\pi_A = 1$, then he will also prefer a lower π_A^H over $\pi_A = 1$. Thus the range of conditions under which the leader will prefer the hawkishly-biased appointee over the neutral appointee is decreasing in ϕ. ■

Proof of Claim 6: Lemma 11 showed that this result holds for any γ when $\beta \leq 1$. When $\beta > 1$, the result follows simply from taking the difference $E[U_L(\lambda = 0, \pi_A^H)] - E[U_L(\lambda = 1, \pi_A^H)]$ for a Dove leader for some $\pi_A^H \in [\hat{\pi}_A^H, 1]$, and showing that the difference is increasing in γ, with a

[14] Note that this result relies on the lower bound on the deterrence value γ imposed by Assumption 1. Absent that restriction, if we allow $\gamma \to 0$, then a Hawk leader selecting a politically loyal appointee ($\lambda = 1$) may prefer that the appointee be dovishly biased: this would would be the case if the leader prefers to undermine deterrence, because the crisis provides the opportunity to signal his moderation by not fighting. This seems to be a substantively unappealing result, and is ruled out by the modest restriction on γ imposed by Assumption 1. Note also that Dove leaders, and Hawk leaders choosing independent appointees, will never prefer a dovishly-biased appointee (even for $\gamma \to 0$).

limit of $+\infty$ as $\gamma \to +\infty$. ■

Proof of Claim 7: To prove Claim 7, we will consider the case of $\beta \in (1, \frac{1}{\pi})$: in this case, $\lambda = 0$ does undermine deterrence relative to $\lambda = 1$, because the appointee's threat of protest disciplines the incongruent leader to sometimes follow her advice of $s = 0$, whereas he would otherwise ignore that advice. From (10) it follows directly that

$$\begin{aligned} EU_L(\lambda=0) - EU_L(\lambda=1) &= (\hat{a}_F(\lambda=0) - \hat{a}_F(\lambda=1))[-\gamma - 2 + EW_L] \\ &\quad + \beta\left\{\hat{a}_F(\lambda=0)\left[\sigma_A\pi + (1-\sigma_A)\frac{1}{\beta}\right] - \hat{a}_F(\lambda=1)\left[\sigma_A\mu^{10} + (1-\sigma_A)\right]\right\} \\ &= \frac{\hat{a}(\lambda=0) - \hat{a}(\lambda=1)}{\overline{\omega}_F - \underline{\omega}_F}[-\gamma - 2 + EW_L] \\ &\quad + \frac{\beta}{\overline{\omega}_F - \underline{\omega}_F}\left\{\begin{array}{c} (\overline{\omega}_F - \hat{a}_{a_F=0})\left[\sigma_A\pi + (1-\sigma_A)\frac{1}{\beta} - \sigma_A\mu^{10} - (1-\sigma_A)\right] \\ -\hat{a}(\lambda=0)\left[\sigma_A\pi + (1-\sigma_A)\frac{1}{\beta}\right] + \hat{a}(\lambda=1)\left[\sigma_A\mu^{10} + (1-\sigma_A)\right] \end{array}\right\} \end{aligned}$$

For sufficiently large $\overline{\omega}_F$, this quantity is positive whenever

$$\sigma_A\pi + (1-\sigma_A)\frac{1}{\beta} - \sigma_A\mu^{10} - (1-\sigma_A) > 0$$

where $\mu^{10} = \frac{\pi\sigma_A}{\pi\sigma_A + 1 - \pi} < \pi$. LHS of this expression is decreasing in β, and crosses zero for some $\beta > 1$. This means that there exist conditions under which the Hawk leader will select $\lambda = 0$ over $\lambda = 1$, despite the fact that $\lambda = 0$ undermines deterrence. ■

Proof of Claim 8: As shown in Lemma 11, when $\beta \leq 1$, both the Hawk and Dove leaders will always prefer $\lambda = 1$ over $\lambda = 0$. Next, it is straightforward to show that when $\beta \geq \frac{1}{\pi}$, the Hawk leader will never prefer $\lambda = 0$ over $\lambda = 1$, whereas the Dove leader will if γ is sufficiently high.[15] Finally, to consider the case of $\beta \in (1, \frac{1}{\pi})$: we will derive $\text{Diff}^D = EU_L^D(\lambda = 0) - EU_L^D(\lambda = 1)$, the Dove leader's expected payoff from selecting an independent agent over a loyal one (given $\tau = \frac{1}{2}$ and $\pi_A = 1$, which give us the "otherwise symmetrical conditions" stated in the result), and likewise Diff^H; then we will show that $\text{Diff}^H \leq \text{Diff}^D$, meaning that whenever the congruent Hawk prefers an independent agent, the congruent Dove does as well.

[15] For the Hawk leader, when $\beta \geq \frac{1}{\pi}$, the independent appointee induces full pooling by the incongruent leader; this both undermines deterrence, and eliminates any electoral advantage that the congruent Hawk might otherwise enjoy in the event of deterrence failure.

First note the following, when $\tau = \frac{1}{2}$ and $\pi_A = 1$:

- $\mu^{00} = Pr(\theta = 1 | a = 0, z = 0) = \begin{cases} \pi, & j = D \& \lambda = 0 \\ \hat{\mu} = \frac{\pi}{2-\pi}, & j = D \& \lambda = 1 \\ \frac{1}{\beta}, & j = H \& \lambda = 0 \\ 1, & j = H \& \lambda = 1 \end{cases}$
- $\mu^{10} = Pr(\theta = 1 | a = 1, z = 0) = \begin{cases} \frac{1}{\beta}, & j = D \& \lambda = 0 \\ 1, & j = D \& \lambda = 1 \\ \pi, & j = H \& \lambda = 0 \\ \hat{\mu}, & j = H \& \lambda = 1 \end{cases}$
- $\hat{a}_F = \frac{\overline{\omega}_F - \hat{a}(\alpha) - \hat{a}_0}{\overline{\omega}_F - \underline{\omega}_F}$, where $\hat{a}(\alpha) = \begin{cases} \beta\pi\sigma_A, & j = D \& \lambda = 0 \\ \pi\sigma_A, & j = D \& \lambda = 1 \\ 1 - \beta\pi(1-\sigma_A), & j = H \& \lambda = 0 \\ 1 - \pi(1-\sigma_A), & j = H \& \lambda = 1 \end{cases}$ and $\hat{a}_0 = \begin{cases} 1 - \beta\pi, & j = H \\ 0, & j = D \end{cases}$

$$EU_L^D(\lambda = 0) = \hat{a}_F^D(\lambda = 0)\left[-\gamma + \beta\left(\sigma_A \frac{1}{\beta} + (1-\sigma_A)\pi - \pi\right)\right] + (1 + \beta\pi)$$

$$EU_L^D(\lambda = 1) = \hat{a}_F^D(\lambda = 1)\left[-\gamma + \beta\left(\sigma_A + (1-\sigma_A)\hat{\mu} - \pi\right)\right] + (1 + \beta\pi)$$

$$\text{Diff}^D = \gamma\left[\hat{a}_F^D(1) - \hat{a}_F^D(0)\right] + \frac{1}{2}\beta\left\{\hat{a}_F^D(0)\left[\frac{1}{\beta} - \pi\right] - \hat{a}_F^D(1)\left[1 + \hat{\mu} - 2\pi\right]\right\}$$

$$EU_L^H(\lambda = 0) = \hat{a}_F^H(\lambda = 0)\left[-\gamma + \beta\left(\sigma_A\pi + (1-\sigma_A)\frac{1}{\beta} - \frac{1}{\beta}\right)\right] + (1 + \beta\frac{1}{\beta})$$

$$EU_L^H(\lambda = 1) = \hat{a}_F^H(\lambda = 1)\left[-\gamma + \beta\left(\sigma_A\hat{\mu} + (1-\sigma_A) - \frac{1}{\beta}\right)\right] + (1 + \beta\frac{1}{\beta})$$

$$\text{Diff}^H = -\gamma\left[\hat{a}_F^H(1) - \hat{a}_F^H(0)\right] + \frac{1}{2}\beta\left\{\hat{a}_F^H(0)\left[\pi - \frac{1}{\beta}\right] - \hat{a}_F^H(1)\left[\hat{\mu} + 1 - \frac{2}{\beta}\right]\right\}$$

Plugging in terms and simplifying gives us:

$$\text{Diff}^D - \text{Diff}^H = \frac{1}{(\overline{\omega}_F - \underline{\omega}_F)}\left[\gamma\pi(\beta - 1) + \frac{1}{2}\beta\pi(\beta - 1)\left(\pi - \hat{\mu} - 1 + \frac{1}{\beta}\right)\right]$$

Plugging in the lower bound of γ, we have

$$\text{Diff}^D - \text{Diff}^H \geq \frac{\beta\pi(\beta-1)}{2(\overline{\omega}_F - \underline{\omega}_F)} \left[\frac{2(1-\pi)^2}{2-\pi} + \pi - \hat{\mu} - 1 + \frac{1}{\beta}\right]$$

which is strictly positive for $\beta \in (1, \frac{1}{\pi})$. ■

Proof of Claim 9: Lemma 11 proved the "if" part of this claim. For the "only if" part: We saw in the proof of Claim 8 that Hawk leaders will never appoint independent agents when $\beta \geq \frac{1}{\pi}$. For a Dove leader, when $\beta > \frac{1}{\pi}$, we have

$$E[U_L(\lambda = 0)] - E[U_L(\lambda = 1)] = (\gamma + 1 - EW_L)\left[\hat{a}_F(\lambda = 1) - \hat{a}_F(\lambda = 0)\right] - \hat{a}_F(\lambda = 1)\beta\frac{\sigma_A(1-\pi)^2}{1-\pi\sigma_A}$$

which is clearly decreasing in β, with a limit of $-\infty$ as $\beta \to +\infty$.

■

This completes the proof of Results 5 and 6. ■

10 Empirical Illustrations

10.1 US Secretaries of Defense

Table A5 reports the years of service and partisan affiliation of all secretaries of defense. The last column, "Partisan", denotes whether the appointee held elected office or worked in party politics prior to his appointment as secretary of defense.

Table A5: Partisan affiliations of US secretaries of defense

President (Party)	SecDef	Years	SecDef Party	Partisan
Truman (D)	Forrestal	1947-1949	D	
	Johnson	1949-1950	D	
	Marshall	1950-1951	I	
	Lovett	1951-1953	R	
Eisenhower (R)	Wilson	1953-1957	R	
	McElroy	1957-1959	R	
	Gates	1959-1961	R	
Kennedy / Johnson (D)	McNamara	1961-1968	R	
	Clifford	1968	D	
Nixon / Ford (R)	Laird	1969-1973	R	✓
	Richardson	1973	R	✓
	Schlesinger	1973-1975	R	
	Rumsfeld	1975-1976	R	✓
Carter (D)	Brown	1977-1980	D	
Reagan (R)	Weinberger	1981-1987	R	✓
	Carlucci	1987-1988	R	
Bush (R)	Cheney	1989-1992	R	✓
Clinton (D)	Aspin	1993-1994	D	✓
	Perry	1994-1997	I	
	Cohen	1997-2000	R	✓
Bush (R)	Rumsfeld	2001-2006	R	✓
	Gates	2006-2011	R	
Obama (D)	Gates	2006-2011	R	
	Panetta	2011-2013	D	✓
	Hagel	2013-2015	R	✓
	Carter	2015-2016	D	
Trump (R)	Mattis	2017-2019	I	
	Esper	2019-2020	R	✓
Biden (D)	Austin	2021-	I	

The main text highlighted the top-line findings regarding asymmetries in cross-partisan and non-partisan appointments, but there are other subtler patterns worth noting. When Democrats do appoint co-partisans to the office, those appointees are often known to be more hawkish than the appointing leaders. Les Aspin, the former Democratic chair of the House Armed Services Committee who served as Clinton's first secretary of defense, had previously been voted out of his chairmanship by fellow Democrats for being too supportive of the Reagan administration's foreign policy (Balzar and Getlin, 1987). Ash Carter, a Democrat who served as Obama's fourth defense secretary, was understood to favor a more assertive foreign policy stance than his boss (Cooper, Sanger, and Landler, 2014). Harold Brown was "regarded as moderate-to-conservative on many defense budget issues and a cautious advocate of arms control" upon his appointment as Jimmy Carter's defense secretary in 1976—a reputation fostered in part through his previous tenures as an arms negotiator under Kissinger, and as Secretary of the Air Force overseeing the escalation of the bombing campaign early in the Vietnam War (Gelb, 1976). When Clark Clifford was selected by Johnson to replace Kennedy's republican appointee Robert McNamara, "Many regarded the new secretary as more of a hawk on Vietnam than McNamara and thought his selection might presage an escalation of the U.S. military effort there."[16]

While the patterns of biased and independent appointments are perhaps most stark for the office of secretary of defense, casual observation suggests that a similar logic applies to other high-level foreign policy appointments as well. Secretaries of State Hillary Clinton and Madeline Albright were both widely viewed as more hawkish than their appointing presidents (Newsweek Staff, 1996; Becker and Shane, 2016); Secretary Clinton, of course, also held independent political aspirations which may well have been served by resigning her post on principled grounds, should the opportunity have arisen. Carter appointed former Nixon defense secretary James Schlesinger to head the newly created Department of Energy and help implement a set of internationally and domestically controversial energy policy reforms. Kennedy's foreign policy team included Republicans in the posts of treasury secretary and national security advisor, in addition to secretary of defense; for prominent ambassadorships in South Vietnam and West Germany, Kennedy and later Johnson appointed Henry Cabot Lodge Jr., the Republican senator and 1960 vice presidential nominee. Obama's first national security advisor, Jim Jones, held no political ties to Obama—the two had only met twice before his appointment—and was known to have turned down a prior

[16] `https://history.defense.gov/Multimedia/Biographies/Article-View/Article/571292/clark-m-clifford/`

appointment under Secretary of Defense Donald Rumsfeld because he perceived Rumsfeld as having unduly politicized the process of military advising (Crowley, 2008).

10.2 Cross-National Data

Here we provide further details on the data used in the cross-national empirics from Section 4. The analysis draws on two data sources:

- The WhoGov data, by Nyrup and Bramwell (2020), is structured at the cabinet member-year level, covering 177 countries from 1966–2018.
- The Manifesto Project, by Volkens, Burst, Krause, Lehmann, Matthieß, Regel, Weßels, and Zehnter (2021), is structured at the party-election level, covering 56 countries from 1920–2021.
- The NELDA dataset, by Hyde and Marinov (2012), is structured at the election level, covering 164 countries form 1945–2012.

The first step in the analysis is to construct a party-election index of hawkishness, from the variables coded in the Manifesto data. Specifically we use the following variables (with descriptions copied from the Manifesto Project codebook):

- `per101`: Foreign Special Relationships: Positive
    - Favourable mentions of particular countries with which the manifesto country has a special relationship; the need for co-operation with and/or aid to such countries.
- `per104`: Military: Positive
    - The importance of external security and defence. May include statements concerning:
        - ∗ The need to maintain or increase military expenditure;
        - ∗ The need to secure adequate manpower in the military;
        - ∗ The need to modernise armed forces and improve military strength;
        - ∗ The need for rearmament and self-defence;
        - ∗ The need to keep military treaty obligations.
- `per105`: Military: Negative
    - Negative references to the military or use of military power to solve conflicts. References to the 'evils of war'. May include references to:
        - ∗ Decreasing military expenditures;
        - ∗ Disarmament;
        - ∗ Reduced or abolished conscription.
- `per106`: Peace

- Any declaration of belief in peace and peaceful means of solving crises—absent reference to the military. May include:
  - ∗ Peace as a general goal;
  - ∗ Desirability of countries joining in negotiations with hostile countries;
  - ∗ Ending wars in order to establish peace.

Then the index of hawkishness, for each party-election, is simply constructed as

$$\text{hawkishness} = \text{per101} + \text{per104} - \text{per105} - \text{per106}$$

(Note that other indices included in the Manifesto Project dataset are similarly constructed as a simple sum across individual measures.)

From this party-election hawkishness index, we then create a "hawkish reputation" variable, as the average across a given party's hawkishness measure over all elections within the past ten years (including the current election). This variable is intended to capture the party's medium- to long-term image among the electorate, while being less susceptible to measurement error due to short-term fluctuations in the content of party manifestos.

Finally, consistent with the structure of the theoretical model, we want to categorize each party as being either a hawk party or a dove party, within the context of a given political environment. For each election, we apply the following procedure:

- Order parties by their hawkishness index.
- Find the vote-share-weighted median party.
- If the median party is the most hawkish party in the election (i.e. if the most hawkish party received >50% of votes), label that party as a hawk party, and all other parties as dove parties; vice-versa if the median party is the most dovish.
- If the median party is neither the most hawkish nor most dovish party (i.e. there is at least one party on either side of the median), then the parties on each side of the median party are labelled hawk parties or dove parties, respectively, while the median party is labelled as neither.

Each leader-year and cabinet member-year is then assigned a continuous "hawkishness" value, and a categorical "hawk/dove/neither" value, based on their party affiliation. In particular:

- Each officer-year is assigned their party's value from the most recent prior election, up to ten years in the past.

- If there is no manifesto coded for this party in the past ten years, assign scores based on the first manifesto up to five years in the future.
- If no manifestos are coded for this party in this fifteen year window, then we treat the values as missing.

Altogether, this yields 58,278 officer-year observations, of which 41,278 have party affiliations that can be labeled as hawk/dove/neither, and 7,399 are coded in WhoGov as "independent".[17] Aggregating to the country-year level, we have 1,807 country-year observations for which the leader's party has a non-missing hawk/dove value.

Included in this sample are a variety of political systems, of which only a subset are contexts in which the theory's mechanisms should be operative. Thus we restrict the sample to (i) presidential systems, and (ii) parliamentary systems with coalition governments, and in both cases omit observations of single-party systems (e.g. Communist states in Eastern Europe, and Mexico pre-1988). We omit majority parliamentary governments under the rationale that, due to strong norms or internal political pressures (which are not captured by the theoretical model in this paper), leaders of these governments will trivially fill their cabinets with co-partisans. (Results in Table 3 are substantively similar if we include coalition governments.) We omit single-party systems under the rationale that these systems are not appropriately characterized by a theoretical model in which the leader faces an electoral incentive to signal to the voters his moderation relative to his party image. Table A7 reports the set of countries and years included in this restricted sample, which is the sample used in the analyses reported in Table 3.

Table 3 reported partisan appointment patterns for defense ministers. Table A6 reports the same findings for ministers of foreign affairs as well. The patterns are qualitatively similar, though somewhat less stark than in the case of defense ministers: Dove party leaders are more likely than are Hawk party leaders to appoint independent foreign ministers (11% vs. 7%), and less likely to appoint a foreign minister of their own party (53% vs. 60%). A notable distinction, however, is that for foreign ministers, the Hawk leader/Dove minister pairing is slightly more common than the Dove leader/Hawk minister pairing (whereas the reverse is true in the case of defense ministers). [18] Speculatively, this difference may be explained in part by the differences

[17] The remaining observations either have a missing value for party affiliation in the WhoGov data; or have a party affiliation which could not be matched with a party in the Manifesto data; or have a party affiliation whose corresponding entry in the Manifesto data does not have an associated vote share value recorded, which prevents us from assigning hawk/dove values relative to the vote-share-weighted median.

[18] We also see that, under Dove leaders, Hawk foreign affairs ministers are more likely (13% vs. 8%) when reelection is approaching (contrary to theoretical expectations); though we also see leaders of both parties are less likely to appoint independent foreign affairs closer to an election (consistent with the theory).

Table A6: Minister Partisanship Across Countries

		Leader Party		Hawk Leader		Dove Leader	
				Up for Reelection in Next 2 Years?			
		Hawk	Dove	No	Yes	No	Yes
Minister of Defense	Hawk Party	76%	26%	74%	78%	29%	22%
	Dove Party	14%	63%	14%	14%	61%	65%
	Independent	6%	15%	9%	3%	18%	11%
	Leader's Party	64%	48%	57%	71%	43%	54%
		(n=607)	(n=395)	(n=303)	(n=304)	(n=219)	(n=176)
Minister of Foreign Affairs	Hawk Party	71%	10%	69%	73%	8%	13%
	Dove Party	16%	72%	16%	15%	73%	71%
	Independent	7%	11%	9%	5%	14%	8%
	Leader's Party	61%	53%	57%	64%	53%	53%
		(n=607)	(n=395)	(n=303)	(n=304)	(n=219)	(n=176)

Note: 1,532 country-year observations, across 50 countries from 1966–2018, including presidential systems and coalition governments in parliamentary systems, and excluding the U.S.

in the types of international "games" that fall within the portfolios of the two ministries: the defense portfolio is more concerned with issues relating to deterrence, as assumed in the present model, whereas the foreign affairs portfolio covers a wider range of international interactions which are more cooperative in nature—potentially giving rise to different appointment incentives for the leader. Explaining the differences between these positions, and how different international games map onto different cabinet portfolios, is a question we hope to pursue in future research.

Table A7: Sample Composition for Table 3 Analyses

	Years in Sample		
Country	Total	First	Last
Albania	31	1986	2016
Armenia	9	2008	2016
Australia	46	1966	2018
Austria	53	1966	2018
Azerbaijan	25	1992	2016
Belgium	53	1966	2018
Bosnia & Herzegovina	25	1992	2016
Bulgaria	22	1990	2016
Canada	48	1966	2018
Croatia	24	1992	2015
Cyprus	26	1993	2018
Czechia	23	1993	2016
Denmark	40	1968	2018
Estonia	21	1995	2018
Finland	41	1966	2018
France	48	1966	2018
Georgia	20	1994	2013
Germany	53	1966	2018
Greece	28	1982	2016
Hungary	27	1985	2016
Iceland	51	1966	2018
Ireland	37	1973	2018
Israel	53	1966	2018
Italy	41	1966	2017
Japan	53	1966	2018
Latvia	23	1994	2018
Lithuania	7	1992	2004
Luxembourg	53	1966	2018
Macedonia	21	1995	2016
Malta	6	1997	2012
Mexico	31	1988	2018
Moldova	17	1997	2016
Montenegro	20	1997	2016
Netherlands	53	1966	2018
New Zealand	50	1966	2018
Norway	29	1966	2018
Poland	5	1991	1995
Portugal	41	1976	2016
Romania	25	1990	2015
Serbia	17	1997	2013
Slovakia	24	1993	2016
Slovenia	25	1992	2016
South Africa	23	1994	2016
South Korea	24	1993	2016
Spain	28	1977	2016
Sweden	21	1977	2018
Switzerland	48	1967	2018
Turkey	27	1966	2002
Ukraine	11	2005	2016
United Kingdom	5	2010	2014

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