Online Appendix of "Selectorate's Information and Dictator's Accountability"

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The Proof of Proposition 1

First period payoff functions of the players are:

$$U^N = \begin{cases} \Delta + \frac{X}{\phi} & \text{if } e_1 = \theta_1 \\ r_1 + \frac{X}{\phi} & \text{if } e_1 \neq \theta_1 \end{cases} \qquad U^S = \begin{cases} \Delta \ + \frac{X}{\phi} & \text{if } e_t = \theta_t \\ \frac{X}{\phi} & \text{if } e_1 = \theta_1 \end{cases}$$

$$U^C = U^Z = \begin{cases} \Delta & \text{if } e_1 = \theta_1 \\ 0 & \text{if } e_1 = \theta_1 \end{cases}$$

while in the second period they get[1]

$$U^N = \begin{cases} \Delta + \frac{X}{\phi} & \text{if } e_2 = \theta_2 \text{ and no revolt nor coup} \\ r_2 + \frac{X}{\phi} & \text{if } e_2 \neq \theta_2 \text{ and no revolt nor coup} \\ 0 & \text{if revolt or coup} \end{cases}$$

$$U^C = \begin{cases} \Delta & \text{if } e_2 = \theta_2 \text{ and no revolt nor coup} \\ 0 & \text{otherwise} \end{cases}$$

$$U^Z = \begin{cases} \Delta & \text{if } e_2 = \theta_2 \text{ and no revolt} \\ 0 & \text{if } e_2 \neq \theta_2 \text{ and no revolt} \\ \left.\begin{array}{ll} \frac{X-\eta}{1-\phi} & \text{with probability } 1-\phi \\ 0 & \text{with probability } \phi \end{array}\right\} & \text{if revolt} \end{cases}$$

$$U^S = \begin{cases} \Delta + \frac{X}{\phi} & \text{if } e_2 = \theta_2 \text{ and no revolt nor coup} \\ \frac{X}{\phi} & \text{if } e_2 \neq \theta_2 \text{ and no revolt nor coup} \\ 0 & \text{if revolt} \\ \Delta + \begin{array}{ll} \frac{X}{\phi} & \text{with probability } \phi \\ 0 & \text{with probability } \phi \end{array} & \text{if } e_2 = \theta_2\text{, no revolt but coup} \\ \begin{array}{ll} \frac{X}{\phi} & \text{with probability } \phi \\ 0 & \text{with probability } \phi \end{array} & \text{if } e_2 \neq \theta_2\text{, no revolt but coup.} \end{cases}$$

We use Sequential Equilibrium (SE) as the solution concept instead of the more commonly used notion of Perfect Bayesian Equilibrium, since we have to analyze a three-player game and Sequential Equilibria encompass the notion of consistency which implies that players' beliefs about the true type of dictator agree out of the equilibrium path.

As usual, we work backwards to calculate the set of Sequential Equilibria.

[1] The expected payoffs of the dictator and the selectorate when there is a revolt are normalized to 0.

1. PLAYERS' SEQUENTIAL RATIONAL CHOICES

As explained in the main text, in these principal agents models, the second period choices are trivially given by their myopic best reply, exactly because it is the last period. Hence, we will analyze the players' behavior in the first-stage game, assuming that the players will play their best responses in the second final period.

1.1. Sequential rationality of the citizens

After knowing their first-period utility and the selectorate's choice at the end of the first period, the citizens choose between revolt ($\alpha = 1$) or not ($\alpha = 0$). This means that to derive the citizens' sequential rational behavior, we should consider four possible information sets: $(\delta = \Delta, \rho = 1)$, $(\delta = \Delta, \rho = 0)$, $(\delta = 0, \rho = 1)$, $(\delta = 0, \rho = 0)$, where in each information set, there are two decision nodes depending on the type of dictator. Let $V^Z(\alpha|\delta, \rho)$ be the expected continuation payoff for the citizens when they choose α if (δ, ρ) has been observed. The expected continuation utility that the citizens will get after they choose to initiate a revolution in (δ, ρ) is:

$$V^Z(\alpha = 1|\delta, \rho) = (1-\phi) \times \frac{X-\eta}{1-\phi} + \phi \times 0 = X - \eta. \tag{A1}$$

Clearly, this payoff does not depend on their beliefs about the dictator's type and thus on (δ, ρ). On the other hand, if the citizens decide to accommodate, the continuation payoff will depend on their beliefs about the type of dictator which, in turn, will depend on their information at the time of deciding. Therefore, to find the citizens' rational behavior, we need to consider the four possible information sets:

1. $(\delta = \Delta, \widehat{\rho} = 1)$
2. $(\delta = \Delta, \widehat{\rho} = 0)$
3. $(\delta = 0, \widehat{\rho} = 1)$
4. $(\delta = 0, \widehat{\rho} = 0)$

and the citizens' beliefs in these information sets. Their posterior beliefs should be derived by Bayes' rule, thus in general

$$\mu^Z(C|\delta = \Delta, \rho = 0) = \frac{\pi\overline{\lambda}_1^C(\theta_1)\left[1-\rho\left(\overline{\lambda}, C\right)\right]}{\pi\overline{\lambda}_1^C(r_1)\left[1-\rho\left(\overline{\lambda}, C\right)\right] + (1-\pi)\overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right]}$$

$$\mu^Z(C|\delta = 0, \rho = 0) = \frac{\pi\left(1-\overline{\lambda}_1^C(\theta_1)\right)\left[1-\rho\left(\overline{\lambda}, C\right)\right]}{\pi\left(1-\overline{\lambda}_1^C\right)\left[1-\rho\left(\overline{\lambda}, C\right)\right] + (1-\pi)\left(1-\overline{\lambda}_1^N\right)\left[1-\rho\left(\overline{\lambda}, N\right)\right]}$$

where

$$\overline{\lambda}_1^C(\theta_1) = \int_{-\infty}^{\infty} \lambda_1^T(r_1, \theta_1)dG(r_1), \text{ with } T \in \{C, N\}.$$

Note that if $\rho\left(\overline{\lambda}, T\right) = 1$, there is a new appointed leader and thus, for any $\delta \in \{0, \Delta\}$

$$\mu^Z(C|\delta, 1) = \pi.$$

Hence

$$\mu^Z(C|\delta,\rho)=\begin{cases}\pi & (\delta,\rho)=(\Delta,1)\\ \pi & (\delta,\rho)=(0,1)\\ \frac{\pi\overline{\lambda}_1^C(\theta_1)\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\overline{\lambda}_1^C(\theta_1)\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]} & (\delta,\rho)=(\Delta,0)\\ \frac{\pi\left(1-\overline{\lambda}_1^C(\theta_1)\right)\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\overline{\lambda}_1^C(\theta_1)\right]\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\left[1-\overline{\lambda}_1^N(\theta_1)\right]\left[1-\rho\left(\overline{\lambda},N\right)\right]} & (\delta,\rho)=(0,0)\end{cases}$$

Finally, note that first stage choice different from $\lambda_1^C(r_1,\theta_1)=1$ for any r_1 and thus $\overline{\lambda}_1^C(\theta_1)=1$, are dominated and thus can be eliminated by using opportune refinements of Sequential Equilibria. Hence $\mu^Z(C|0,0)$ is either 0 or $\frac{0}{0}$ i.e. indeterminate, however a standard forward induction argument[2] implies that we can assume $\mu^Z(C|0,0)=0$ since the congruent type has no reason to deviate to a inefficient policy. Moreover

$$\mu^Z(C|\delta=\Delta,\rho=0)=\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}=$$

$$=\begin{cases}0 & if\ \ \rho\left(\overline{\lambda},C\right)=1\ \ \&\ \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]>0\\ \frac{0}{0} & if\ \ \rho\left(\overline{\lambda},C\right)=1\ \ \&\ \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0\\ \pi & if\ \ \rho\left(\overline{\lambda},C\right)=0\ \ \&\ \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=1\\ \frac{\pi}{\pi+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\geq\pi & if\ \ \rho\left(\overline{\lambda},C\right)=0\ \ \&\ \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]\in(0,1)\\ 1 & if\ \ \rho\left(\overline{\lambda},C\right)=0\ \ \&\ \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0\end{cases}$$

again, a standard forward induction argument[3] solves the indeterminacy case since the congruent type has no reason to deviate to a inefficient policy. Thus

$$\mu^Z(C|\delta=\Delta,\rho=0)=\begin{cases}0 & if\ \ \rho\left(\overline{\lambda},C\right)=1\ \ \&\ \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]>0\\ \pi & if\ \ \rho\left(\overline{\lambda},C\right)=0\ \ \&\ \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=1\\ \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]} & if\ \ \rho\left(\overline{\lambda},C\right)=0\ \ \&\ \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]\in(0,1)\\ 1 & if\ \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0\end{cases}$$

Now, we can analyze the citizens' sequential rational behavior in each information set.

1. Information set $(\delta=\Delta,\widehat{\rho}=0)$ The expected continuation payoff the citizens will get after they choose not to revolt is

$$V^Z(\alpha=0|\delta=\Delta,\rho=0)=\mu^Z(C|\Delta,0)\times\Delta+\left(1-\mu^Z(C|\Delta,0)\right)\times 0=\mu^Z(C|\Delta,0)\,\Delta.$$

Sequential rationality implies that the citizens will choose to revolt in $(\delta=\Delta,\rho=0)$ if and only if

$$V^Z(\alpha=1|\delta=\Delta,\rho=0)\geq V^Z(\alpha=0|\delta=\Delta,\rho=0)\qquad\text{(A11)}$$

[2] For example, we can apply the intuitive criterion of Cho and Kreps (1987).
[3] For example, we can apply the intuitive criterion of Cho and Kreps (1987).

i.e.

$$\alpha\left(\delta=\Delta,\rho=0\right)=1 \Longleftrightarrow X-\eta \geq \mu^{Z}\left(C|\Delta,0\right)\Delta \Longleftrightarrow \eta \leq X-\mu^{Z}\left(C|\Delta,0\right)\Delta. \tag{A12}$$

2. Information set $(\delta=\Delta,\widehat{\rho}=1)$ In this information set, the incumbent dictator is removed from office by the selectorate; therefore, there is a new dictator and thus the expected utility the citizens will get after they choose not to revolt does not depend on the previous observation on δ. Then, the expected utility the citizens will get after they choose not to revolt is:

$$V^{Z}(\alpha=0|\delta=\Delta,\widehat{\rho}=1)=\pi\Delta+(1-\pi)0=\pi\Delta. \tag{A13}$$

Sequential rationality implies that the citizens will choose to revolt in $(\delta=\Delta,\widehat{\rho}=1)$ if and only if

$$V^{Z}(\alpha=1|\delta=\Delta,\widehat{\rho}=1)\geq V^{Z}(\alpha=0|\delta=\Delta,\widehat{\rho}=1) \tag{A14}$$

i.e.

$$\alpha\left(\delta=\Delta,\widehat{\rho}=1\right)=1 \Longleftrightarrow X-\eta\geq\pi\Delta \Longleftrightarrow \eta\leq X-\pi\Delta. \tag{A15}$$

3. Information set $(\delta=0,\widehat{\rho}=0)$ The expected continuation payoff the citizens will get after they choose not to revolt is:

$$V^{Z}(\alpha=0|\delta=0,\widehat{\rho}=0)=\mu^{Z}\left(C|0,0\right)\Delta+\left(1-\mu^{Z}\left(C|0,0\right)\right)0=0.$$

Sequential rationality implies that the citizens will choose to revolt in $(\delta=0,\widehat{\rho}=0)$ if and only if

$$V^{Z}(\alpha=1|\delta=0,\widehat{\rho}=0)\geq V^{Z}(\alpha=0|\delta=0,\widehat{\rho}=0) \tag{A16}$$

i.e. if and only if

$$\alpha\left(\delta=0,\widehat{\rho}=0\right)=1 \Longleftrightarrow X-\eta\geq 0\times\Delta \Longleftrightarrow \eta\leq X. \tag{A17}$$

4. Information set $(\delta=0,\widehat{\rho}=1)$ In this information set, the incumbent dictator is removed from office by the selectorate; therefore, there is a new dictator and thus the expected utility the citizens will get after they choose not to revolt does not depend on the previous observation on δ. Because of our previous assumptions, the expected utility the citizens will get after they choose not to revolt is:

$$V^{Z}(\alpha=0|\delta=0,\widehat{\rho}=1)=\pi\Delta+(1-\pi)\times 0=\pi\Delta. \tag{A18}$$

Sequential rationality implies that the citizens will choose to revolt in $(\delta=0,\widehat{\rho}=0)$ if and only if

$$V^{Z}(\alpha=1|\delta=0,\widehat{\rho}=1)\geq V^{Z}(\alpha=0|\delta=0,\widehat{\rho}=1) \tag{A19}$$

i.e.

$$\alpha\left(\delta=0,\widehat{\rho}=1\right)=1 \Longleftrightarrow X-\eta\geq\pi\Delta \Longleftrightarrow \eta\leq X-\pi\Delta. \tag{A20}$$

Thus, this analysis allows us to derive the following best reply correspondences for each citizens' information set:

$$\alpha\left(\delta=\Delta,\widehat{\rho}=0\right)^{SR}=\begin{cases}1 & \eta\leq X-\mu^{Z}\left(C|\Delta,0\right)\Delta\\ 0 & \eta\geq X-\mu^{Z}\left(C|\Delta,0\right)\Delta\end{cases}\Leftrightarrow$$

$$\Leftrightarrow\alpha\left(|\Delta,0\right)^{SR}=1\Leftrightarrow$$

$$\Leftrightarrow\begin{cases}\eta\leq X & if\;\;\rho\left(\overline{\lambda},C\right)=1\;\;\&\;\;\overline{\lambda}_{1}^{N}\left(\theta_{1}\right)\left[1-\rho\left(\overline{\lambda},N\right)\right]>0\\ \eta\leq X-\pi\Delta & if\;\;\rho\left(\overline{\lambda},C\right)=0\;\;\&\;\;\overline{\lambda}_{1}^{N}\left(\theta_{1}\right)\left[1-\rho\left(\overline{\lambda},N\right)\right]=1\\ \eta\leq X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_{1}^{N}\left(\theta_{1}\right)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta & if\;\;\rho\left(\overline{\lambda},C\right)=0\;\;\&\;\;\overline{\lambda}_{1}^{N}\left(\theta_{1}\right)\left[1-\rho\left(\overline{\lambda},N\right)\right]\in(0,1)\\ \eta\leq X-\Delta & if\;\;\overline{\lambda}_{1}^{N}\left(\theta_{1}\right)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0\end{cases}$$

$$\alpha\left(\delta=0,\widehat{\rho}=0\right)^{SR}=\begin{cases}1 & \eta\leq X\\ 0 & \eta\geq X\end{cases}$$

$$\alpha\left(\delta=\Delta,\widehat{\rho}=1\right)^{SR}=\begin{cases}1 & \eta\leq X-\pi\Delta\\ 0 & \eta\geq X-\pi\Delta\end{cases}$$

$$\alpha\left(\delta=0,\widehat{\rho}=1\right)^{SR}=\begin{cases}1 & \eta\leq X-\pi\Delta\\ 0 & \eta\geq X-\pi\Delta\end{cases}$$

This analysis allows us to derive the following **citizens' sequential best reply correspondences**:

1. $\eta\in\left[0,X-\Delta\right]$:

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}1 & if\;\;(\delta=\Delta,\widehat{\rho}=0)\\ 1 & if\;\;(\delta=0,\widehat{\rho}=0)\\ 1 & if\;\;(\delta=\Delta,\widehat{\rho}=1)\\ 1 & if\;\;(\delta=0,\widehat{\rho}=1)\end{cases}$$

2. $\eta\in\left[X-\Delta,X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_{1}^{N}\left(\theta_{1}\right)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right]$:

   (a) $if\;\;\overline{\lambda}_{1}^{N}\left(\theta_{1}\right)\left[1-\rho\left(\overline{\lambda},N\right)\right]>0$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}1 & if\;\;(\delta=\Delta,\widehat{\rho}=0)\\ 1 & if\;\;(\delta=0,\widehat{\rho}=0)\\ 1 & if\;\;(\delta=\Delta,\widehat{\rho}=1)\\ 1 & if\;\;(\delta=0,\widehat{\rho}=1)\end{cases}$$

   (b) $if\;\;\overline{\lambda}_{1}^{N}\left(\theta_{1}\right)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if\;\;(\delta=\Delta,\widehat{\rho}=0)\\ 1 & if\;\;(\delta=0,\widehat{\rho}=0)\\ 1 & if\;\;(\delta=\Delta,\widehat{\rho}=1)\\ 1 & if\;\;(\delta=0,\widehat{\rho}=1)\end{cases}$$

3. $\eta\in\left[X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_{1}^{N}\left(\theta_{1}\right)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta,X-\pi\Delta,\right]$:

(a) $if \;\; \rho\left(\overline{\lambda},C\right)=1 \;\;\&\;\; \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]>0$ or $if \;\; \rho\left(\overline{\lambda},C\right)=0 \;\;\&\;\; \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=1$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases} 1 & if \quad (\delta=\Delta,\widehat{\rho}=0) \\ 1 & if \quad (\delta=0,\widehat{\rho}=0) \\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1) \\ 1 & if \quad (\delta=0,\widehat{\rho}=1) \end{cases}$$

(b) $if \;\; \rho\left(\overline{\lambda},C\right)=0 \;\;\&\;\; \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]\in(0,1)$ or $if \;\; \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases} 0 & if \quad (\delta=\Delta,\widehat{\rho}=0) \\ 1 & if \quad (\delta=0,\widehat{\rho}=0) \\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1) \\ 1 & if \quad (\delta=0,\widehat{\rho}=1) \end{cases}$$

4. $\eta\in[X-\pi\Delta,X]:$

(a) $if \;\; \rho\left(\overline{\lambda},C\right)=1 \;\;\&\;\; \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]>0$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases} 1 & if \quad (\delta=\Delta,\widehat{\rho}=0) \\ 1 & if \quad (\delta=0,\widehat{\rho}=0) \\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1) \\ 0 & if \quad (\delta=0,\widehat{\rho}=1) \end{cases}$$

(b) $if \;\; \rho\left(\overline{\lambda},C\right)=0$ or $if \;\; \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases} 0 & if \quad (\delta=\Delta,\widehat{\rho}=0) \\ 1 & if \quad (\delta=0,\widehat{\rho}=0) \\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1) \\ 0 & if \quad (\delta=0,\widehat{\rho}=1) \end{cases}$$

5. $\eta\in[X,\infty)$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases} 0 & if \quad (\delta=\Delta,\widehat{\rho}=0) \\ 0 & if \quad (\delta=0,\widehat{\rho}=0) \\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1) \\ 0 & if \quad (\delta=0,\widehat{\rho}=1) \end{cases}$$

1.2. Sequential rationality of the selectorate

Let $V^S\left(\rho=1|\left(\lambda,T\right),\alpha^{SR}\right)$ be the expected continuation payoff for the selectorate in (λ,T) if he subverts the incumbent dictator and the citizens will subsequently choose according to α^{SR}. Note that in this case, the payoff does not depend on (λ,T), since the dictator has been changed. Therefore, for any $(\lambda,T)\in\{0,1\}\times\{C,N\}$

$$V^S\left(\rho\left(\lambda,T\right)=1|\alpha^{SR}\right)=\left(1-\alpha^{SR}\right)\left[\pi\times\Delta+(1-\pi)\times 0+\phi\times\frac{X}{\phi}+(1-\phi)\times 0\right]+\alpha^{SR}\times 0=$$

$$=\left(1-\alpha^{SR}\right)\left(\pi\Delta+X\right)$$

as the type of the newly picked up dictator is unknown, she will produce Δ with probability π and 0 otherwise. Moreover, both types of dictator will distribute the entire social revenue to the selectorate, but the members of the selectorate who ousted the dictator, with probability ϕ, will be included in the successor's selectorate getting the patronage $\frac{X}{\phi}$ in the second period. Given $\alpha(\delta,\rho)^{SR}$, we get

$$V^S\left(\rho\left(0,C\right)=1|\alpha^{SR}\right)=\begin{cases}0 & \eta\in[0,X-\pi\Delta]\\ \pi\Delta+X & \eta\in[X-\pi\Delta,\infty)\end{cases}$$

$$V^S\left(\rho\left(1,C\right)=1|\alpha^{SR}\right)=\begin{cases}0 & \eta\in[0,X-\pi\Delta]\\ \pi\Delta+X & \eta\in[X-\pi\Delta,\infty)\end{cases}$$

$$V^S\left(\rho\left(0,N\right)=1|\alpha^{SR}\right)=\begin{cases}0 & \eta\in[0,X-\pi\Delta]\\ \pi\Delta+X & \eta\in[X-\pi\Delta,\infty)\end{cases}$$

$$V^S\left(\rho\left(1,N\right)=1|\alpha^{SR}\right)=\begin{cases}0 & \eta\in[0,X-\pi\Delta]\\ \pi\Delta+X & \eta\in[X-\pi\Delta,\infty)\end{cases}$$

Let $V^S\left(\rho\left(\lambda,T\right)=0|\alpha^{SR}\right)$ be the expected continuation payoff for the selectorate in (λ,T) if he supports the incumbent dictator and the citizens will choose according to $\alpha(\delta,\rho)^{SR}$.

$$V^S\left(\rho\left(0,C\right)=0|\alpha^{SR}\right)=\left(1-\alpha^{SR}\right)\times\left(\Delta+\frac{X}{\phi}\right)$$

$$V^S\left(\rho\left(1,C\right)=0|\alpha^{SR}\right)=\left(1-\alpha^{SR}\right)\times\left(\Delta+\frac{X}{\phi}\right)$$

$$V^S\left(\rho\left(0,N\right)=0|\alpha^{SR}\right)=\left(1-\alpha^{SR}\right)\times\left(\frac{X}{\phi}\right)$$

$$V^S\left(\rho\left(1,N\right)=0|\alpha^{SR}\right)=\left(1-\alpha^{SR}\right)\times\left(\frac{X}{\phi}\right)$$

Given $\alpha(\delta,\rho)^{SR}$, we get

$$V^S\left(\rho\left(0,C\right)=0|\alpha^{SR}\right)=\begin{cases}0 & \eta\in[0,X]\\ \Delta+\frac{X}{\phi} & \eta\in[X,\infty)\end{cases}$$

$$V^S\left(\rho\left(1,C\right)=0|\alpha^{SR}\right)=$$

$$=\begin{cases}0 & \eta\in[0,X-\Delta]\\ 0 & \eta\in\left[X-\Delta,X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right] \quad \& \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]>0\\ 0 & \eta\in\left[X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta,X-\pi\Delta,\right] \quad \& \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=1\\ \Delta+\frac{X}{\phi} & \eta\in\left[X-\Delta,X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right] \quad \& \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0\\ \Delta+\frac{X}{\phi} & \eta\in\left[X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta,X-\pi\Delta,\right] \quad \& \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]<1\\ \Delta+\frac{X}{\phi} & \eta\in[X-\pi\Delta,\infty)\end{cases}$$

$$V^S\left(\rho\left(0,N\right)=0|\alpha^{SR}\right)=\begin{cases}0 & \eta\in[0,X]\\ \frac{X}{\phi} & \eta\in[X,\infty)\end{cases}$$

$$V^S\left(\rho\left(1,N\right)=0|\alpha^{SR}\right)=$$

$$
= \begin{cases}
0 & \eta \in [0, X-\Delta] \\
0 & \eta \in \left[X-\Delta, X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right] \quad \& \quad \overline{\lambda}_1^N(\theta_1) > 0 \\
0 & \begin{array}{c} \eta \in \left[X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta, X-\pi\Delta,\right] \quad \& \\ \& \left[\rho\left(\overline{\lambda},C\right)=0 \;\&\; \overline{\lambda}_1^N = 1\right] \vee \left[\rho\left(\overline{\lambda},C\right)=1 \;\&\; \overline{\lambda}_1^N > 0\right] \end{array} \\
0 & \eta \in [X-\pi\Delta, X] \quad \& \quad \rho\left(\overline{\lambda},C\right)=1 \quad \& \quad \overline{\lambda}_1^N(\theta_1) > 0 \\
\frac{X}{\phi} & \begin{array}{c} \eta \in \left[X-\Delta, X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right] \quad \& \\ \& \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right] = 0 \end{array} \\
\frac{X}{\phi} & \begin{array}{c} \eta \in \left[X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta, X-\pi\Delta,\right] \quad \& \\ \& \left[\rho\left(\overline{\lambda},C\right)=0 \;\&\; \overline{\lambda}_1^N \in (0,1)\right] \vee \left[\overline{\lambda}_1^N = 0\right] \end{array} \\
\frac{X}{\phi} & \eta \in [X-\pi\Delta, X] \quad \& \quad \rho\left(\overline{\lambda},C\right)=0 \quad \vee \quad \overline{\lambda}_1^N(\theta_1)=0 \\
\frac{X}{\phi} & \eta \in [X, \infty)
\end{cases}
$$

Sequential rationality implies that for any $(\lambda, T) \in \{0,1\} \times \{C, N\}$, the selectorate will retain the incumbent dictator if and only if:

$$
V^S\left(\rho(\lambda,T)=0|\alpha^{SR}\right) \geq V^S\left(\rho(\lambda,T)=1|\alpha^{SR}\right).
$$

Then

1. *if* $(\lambda, T) = (0, C)$

$$
\rho\left(0,C|\alpha^{SR}\right)=0 \Leftrightarrow \begin{cases} 0 & \eta \in [0,X] \\ \Delta + \frac{X}{\phi} & \eta \in [X,\infty) \end{cases} \geq \begin{cases} 0 & \eta \in [0, X-\pi\Delta] \\ \pi\Delta + X & \eta \in [X-\pi\Delta, \infty) \end{cases} \Leftrightarrow
$$

$$
\Leftrightarrow \rho\left(0,C|\alpha^{SR}\right)^{SR} \in \begin{cases} [0,1] & \eta \in [0, X-\pi\Delta] \\ \{1\} & \eta \in [X-\pi\Delta, X] \\ \{0\} & \eta \in [X,\infty) \end{cases}
$$

2. *if* $(\lambda, T) = (1, C)$

$$
\rho\left(1,C|\alpha^{SR}\right)=0 \Leftrightarrow
$$

$$
\Leftrightarrow \begin{cases}
0 & \eta \in [0, X-\Delta] \\
0 & \eta \in \left[X-\Delta, X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right] \quad \& \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right] > 0 \\
0 & \eta \in \left[X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta, X-\pi\Delta,\right] \quad \& \quad \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right] = 1 \\
\Delta + \frac{X}{\phi} & \eta \in \left[X-\Delta, X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right] \quad \& \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right] = 0 \\
\Delta + \frac{X}{\phi} & \eta \in \left[X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta, X-\pi\Delta,\right] \quad \& \quad \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right] < 1 \\
\Delta + \frac{X}{\phi} & \eta \in [X-\pi\Delta, \infty)
\end{cases} \geq
$$

$$
\geq \begin{cases} 0 & \eta \in [0, X-\pi\Delta] \\ \pi\Delta + X & \eta \in [X-\pi\Delta, \infty) \end{cases} \Leftrightarrow
$$

$$\Leftrightarrow \rho\left(1, C|\alpha^{SR}\right)^{SR} \in$$

$$\in \begin{cases} [0,1] & \eta \in [0, X-\Delta] \\ [0,1] & \eta \in \left[X-\Delta, X-\frac{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right]}\Delta\right] \ \& \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right] > 0 \\ [0,1] & \eta \in \left[X-\frac{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right]}\Delta, X-\pi\Delta,\right] \ \& \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right] = 1 \\ \{0\} & \eta \in \left[X-\Delta, X-\frac{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right]}\Delta\right] \ \& \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right] = 0 \\ \{0\} & \eta \in \left[X-\frac{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right]}\Delta, X-\pi\Delta,\right] \ \& \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right] < 1 \\ \{0\} & \eta \in [X-\pi\Delta, \infty) \end{cases}$$

3. *if* $(\lambda, T) = (0, N)$

$$\rho\left(0, N|\alpha^{SR}\right) = 0 \Leftrightarrow \begin{cases} 0 & \eta \in [0, X] \\ \frac{X}{\phi} & \eta \in [X, \infty) \end{cases} \geq \begin{cases} 0 & \eta \in [0, X-\pi\Delta] \\ \pi\Delta + X & \eta \in [X-\pi\Delta, \infty) \end{cases} \Leftrightarrow$$

$$\Leftrightarrow \rho\left(0, N|\alpha^{SR}\right)^{SR} \in \begin{cases} [0,1] & \eta \in [0, X-\pi\Delta] \\ \{1\} & \eta \in [X-\pi\Delta, X] \\ \{1\} & \eta \in [X, \infty) \ \ \& \ \ \phi \geq \frac{X}{\pi\Delta+X} \\ \{0\} & \eta \in [X, \infty) \ \ \& \ \ \phi \leq \frac{X}{\pi\Delta+X} \end{cases}$$

4. *if* $(\lambda, T) = (1, N)$

$$\rho\left(1, N|\alpha^{SR}\right) = 0 \Leftrightarrow$$

$$\Leftrightarrow \begin{cases} 0 & \eta \in [0, X-\Delta] \\ 0 & \eta \in \left[X-\Delta, X-\frac{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right]}\Delta\right] \ \ \& \ \ \overline{\lambda}_1^N(\theta_1) > 0 \\ 0 & \begin{array}{c} \eta \in \left[X-\frac{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right]}\Delta, X-\pi\Delta,\right] \ \ \& \\ \& \ \left[\rho\left(\overline{\lambda}, C\right) = 0 \ \& \ \overline{\lambda}_1^N = 1\right] \vee \left[\rho\left(\overline{\lambda}, C\right) = 1 \ \& \ \overline{\lambda}_1^N > 0\right] \end{array} \\ 0 & \eta \in [X-\pi\Delta, X] \ \ \& \ \ \rho\left(\overline{\lambda}, C\right) = 1 \ \ \& \ \ \overline{\lambda}_1^N(\theta_1) > 0 \\ \frac{X}{\phi} & \eta \in \left[X-\Delta, X-\frac{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right]}\Delta\right] \ \ \& \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right] = 0 \\ \frac{X}{\phi} & \begin{array}{c} \eta \in \left[X-\frac{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right]}\Delta, X-\pi\Delta,\right] \ \ \& \\ \& \ \left[\rho\left(\overline{\lambda}, C\right) = 0 \ \& \ \overline{\lambda}_1^N \in (0,1)\right] \vee \left[\ \overline{\lambda}_1^N = 0\right] \end{array} \\ \frac{X}{\phi} & \eta \in [X-\pi\Delta, X] \ \ \& \ \ \rho\left(\overline{\lambda}, C\right) = 0 \ \ \vee \ \ \overline{\lambda}_1^N(\theta_1) = 0 \\ \frac{X}{\phi} & \eta \in [X, \infty) \end{cases} \geq$$

$$\geq \begin{cases} 0 & \eta \in [0, X-\pi\Delta] \\ \pi\Delta + X & \eta \in [X-\pi\Delta, \infty) \end{cases} \Leftrightarrow$$

$$\Leftrightarrow \rho\left(1, N|\alpha^{SR}\right)^{SR} \in$$

$$\in \begin{cases} [0,1] & \eta \in [0, X-\Delta] \\ [0,1] & \eta \in \left[X-\Delta, X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right] \ \ \& \ \ \overline{\lambda}_1^N(\theta_1)>0 \\ [0,1] & \begin{array}{c} \eta \in \left[X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta, X-\pi\Delta,\right] \ \ \& \\ \& \ \left[\rho\left(\overline{\lambda},C\right)=0 \ \& \ \overline{\lambda}_1^N=1\right] \vee \left[\rho\left(\overline{\lambda},C\right)=1 \ \& \ \overline{\lambda}_1^N>0\right] \end{array} \\ \{0\} & \eta \in \left[X-\Delta, X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right] \ \ \& \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0 \\ \{0\} & \begin{array}{c} \eta \in \left[X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta, X-\pi\Delta,\right] \ \ \& \\ \& \ \left[\rho\left(\overline{\lambda},C\right)=0 \ \& \ \overline{\lambda}_1^N\in(0,1)\right] \vee \left[\overline{\lambda}_1^N=0\right] \end{array} \\ \{1\} & \eta \in [X-\pi\Delta, X] \quad \& \quad \rho\left(\overline{\lambda},C\right)=1 \ \ \& \ \ \overline{\lambda}_1^N(\theta_1)>0 \\ \{0\} & \eta \in [X-\pi\Delta, X] \ \ \& \ \ \left[\rho\left(\overline{\lambda},C\right)=0 \ \ \vee \ \ \overline{\lambda}_1^N(\theta_1)=0\right] \ \ \& \ \ \phi \leq \frac{X}{\pi\Delta+X} \\ \{1\} & \eta \in [X-\pi\Delta, X] \ \ \& \ \ \left[\rho\left(\overline{\lambda},C\right)=0 \ \ \vee \ \ \overline{\lambda}_1^N(\theta_1)=0\right] \ \ \& \ \ \phi \geq \frac{X}{\pi\Delta+X} \\ \{0\} & \eta \in [X,\infty) \ \ \& \ \ \phi \leq \frac{X}{\pi\Delta+X} \\ \{1\} & \eta \in [X,\infty) \ \ \& \ \ \phi \geq \frac{X}{\pi\Delta+X} \end{cases}$$

Hence, we can conclude that both the selectorate's and the citizens' sequential rational behavior depend on the costs of revolting, on the selectorate's de facto power and on the citizens' beliefs which, in turn, depend on the dictator's and on the selectorate's behavior. To sum up:

1. when $(\lambda, T) = (0, C)$ then

$$\Leftrightarrow \rho\left(0, C|\alpha^{SR}\right)^{SR} \in \begin{cases} [0,1] & \eta \in [0, X-\pi\Delta] \\ \{1\} & \eta \in [X-\pi\Delta, X] \\ \{0\} & \eta \in [X,\infty) \end{cases}$$

2. when $(\lambda, T) = (1, C)$ then

$$\rho\left(1, C|\alpha^{SR}\right)^{SR} \in$$

$$\in \begin{cases} [0,1] & \eta \in [0, X-\Delta] \\ [0,1] & \eta \in \left[X-\Delta, X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right] \ \ \& \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]>0 \\ [0,1] & \eta \in \left[X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta, X-\pi\Delta,\right] \ \ \& \ \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=1 \\ \{0\} & \eta \in \left[X-\Delta, X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right] \ \ \& \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0 \\ \{0\} & \eta \in \left[X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta, X-\pi\Delta,\right] \ \ \& \ \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]<1 \\ \{0\} & \eta \in [X-\pi\Delta, \infty) \end{cases}$$

3. when $(\lambda, T) = (0, N)$ then

$$\rho\left(0, N|\alpha^{SR}\right)^{SR} \in \begin{cases} [0,1] & \eta \in [0, X-\pi\Delta] \\ \{1\} & \eta \in [X-\pi\Delta, X] \\ \{1\} & \eta \in [X,\infty) \ \ \& \ \ \phi \geq \frac{X}{\pi\Delta+X} \\ \{0\} & \eta \in [X,\infty) \ \ \& \ \ \phi \leq \frac{X}{\pi\Delta+X} \end{cases}$$

4. when $(\lambda, T) = (1, N)$ then

$$\rho\left(1, N|\alpha^{SR}\right)^{SR} \in$$

$$\in \begin{cases} [0,1] & \eta \in [0, X-\Delta] \\ [0,1] & \eta \in \left[X-\Delta, X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right] \;\&\; \overline{\lambda}_1^N(\theta_1) > 0 \\ [0,1] & \begin{array}{c} \eta \in \left[X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta, X-\pi\Delta,\right] \;\& \\ \& \left[\rho\left(\overline{\lambda},C\right)=0 \;\&\; \overline{\lambda}_1^N = 1\right] \vee \left[\rho\left(\overline{\lambda},C\right)=1 \;\&\; \overline{\lambda}_1^N > 0\right] \end{array} \\ \{0\} & \eta \in \left[X-\Delta, X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right] \;\&\; \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0 \\ \{0\} & \begin{array}{c} \eta \in \left[X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta, X-\pi\Delta,\right] \;\& \\ \& \left[\rho\left(\overline{\lambda},C\right)=0 \;\&\; \overline{\lambda}_1^N \in (0,1)\right] \vee \left[\overline{\lambda}_1^N = 0\right] \end{array} \\ \{1\} & \eta \in [X-\pi\Delta, X] \;\;\&\;\; \rho\left(\overline{\lambda},C\right)=1 \;\;\&\;\; \overline{\lambda}_1^N(\theta_1) > 0 \\ \{0\} & \eta \in [X-\pi\Delta, X] \;\;\&\;\; \left[\rho\left(\overline{\lambda},C\right)=0 \;\vee\; \overline{\lambda}_1^N(\theta_1)=0\right] \;\&\; \phi \le \frac{X}{\pi\Delta+X} \\ \{1\} & \eta \in [X-\pi\Delta, X] \;\;\&\;\; \left[\rho\left(\overline{\lambda},C\right)=0 \;\vee\; \overline{\lambda}_1^N(\theta_1)=0\right] \;\&\; \phi \ge \frac{X}{\pi\Delta+X} \\ \{0\} & \eta \in [X,\infty) \;\;\&\;\; \phi \le \frac{X}{\pi\Delta+X} \\ \{1\} & \eta \in [X,\infty) \;\;\&\;\; \phi \ge \frac{X}{\pi\Delta+X} \end{cases}$$

An alternative, possible more useful way, of writing the **selectorate sequential best reply** is distinguishing regions in the space $(\eta, \phi) \in [0, \infty) \times [0, 1]$ and players choices:

1. $(\eta, \phi) \in [0, X-\Delta] \times [0, 1]:$

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} [0,1] & (\lambda,T) = (0,C) \\ [0,1] & (\lambda,T) = (1,C) \\ [0,1] & (\lambda,T) = (0,N) \\ [0,1] & (\lambda,T) = (1,N) \end{cases}$$

2. $(\eta, \phi) \in \left[X-\Delta, X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right] \times [0,1]:$

   (a) $if\ \ \overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right] > 0$

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} [0,1] & (\lambda,T) = (0,C) \\ [0,1] & (\lambda,T) = (1,C) \\ [0,1] & (\lambda,T) = (0,N) \\ [0,1] & (\lambda,T) = (1,N) \end{cases}$$

   (b) $if\ \ \overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right] = 0$

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} [0,1] & (\lambda,T) = (0,C) \\ \{0\} & (\lambda,T) = (1,C) \\ [0,1] & (\lambda,T) = (0,N) \\ \{0\} & (\lambda,T) = (1,N) \end{cases}$$

3. $(\eta, \phi) \in \left[X - \frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta, X-\pi\Delta\right] \times [0,1]:$

(a) $if \quad \overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=1$ and $\left[\rho\left(\overline{\lambda},C\right)=0 \ \& \ \overline{\lambda}_1^N=1\right]\vee\left[\rho\left(\overline{\lambda},C\right)=1 \ \& \ \overline{\lambda}_1^N>0\right]$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ [0,1] & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ [0,1] & (\lambda,T)=(1,N)\end{cases}$$

(b) $if \quad \overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=1$ and $\left[\rho\left(\overline{\lambda},C\right)=0 \ \& \ \overline{\lambda}_1^N\in(0,1)\right]\vee$ $\left[\ \overline{\lambda}_1^N=0\right]$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ [0,1] & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

(c) $if \quad \overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]\in[0,1)$ and $\left[\rho\left(\overline{\lambda},C\right)=0 \ \& \ \overline{\lambda}_1^N=1\right]\vee$ $\left[\rho\left(\overline{\lambda},C\right)=1 \ \& \ \overline{\lambda}_1^N>0\right]$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ [0,1] & (\lambda,T)=(1,N)\end{cases}$$

(d) $if \quad \overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]\in[0,1)$ and $\left[\rho\left(\overline{\lambda},C\right)=0 \ \& \ \overline{\lambda}_1^N\in(0,1)\right]\vee$ $\left[\ \overline{\lambda}_1^N=0\right]$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

4. $(\eta,\phi)\in[X-\pi\Delta,X]\times\left[0,\frac{X}{\pi\Delta+X}\right]$:

   (a) $if \quad \rho\left(\overline{\lambda},C\right)=1 \ \ \& \ \ \overline{\lambda}_1^N(\theta_1)>0$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{1\} & (\lambda,T)=(1,N)\end{cases}$$

   (b) $if \quad \rho\left(\overline{\lambda},C\right)=0 \ \vee \ \overline{\lambda}_1^N(\theta_1)=0$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

5. $(\eta,\phi)\in[X-\pi\Delta,X]\times\left[\frac{X}{\pi\Delta+X},1\right]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{1\} & (\lambda,T)=(1,N)\end{cases}$$

6. $(\eta,\phi)\in[X,\infty)\times\left[0,\frac{X}{\pi\Delta+X}\right]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{0\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{0\} & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

7. $(\eta,\phi)\in[X,\infty)\times\left[\frac{X}{\pi\Delta+X},1\right]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{0\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{1\} & (\lambda,T)=(1,N)\,.\end{cases}$$

1.3. Sequential rationality of the dictator

1.3.1. A comprehensive view of the selectorate's and of citizens' sequential rational behavior

Let sum up the selectorate's and the citizens' sequential rational behavior as a functions of the parameters $(\eta,\phi)\in[0,\infty)\times[0,1]$ **and** of the selectorate's and leader's possible behavior.

1. $(\eta,\phi)\in[0,X-\Delta]\times[0,1]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ [0,1] & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ [0,1] & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}1 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

2. $(\eta,\phi)\in\left[X-\Delta,X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right]\times[0,1]:$

   (a) $if\ \ \overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]>0$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ [0,1] & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ [0,1] & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}1 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

(b) $if \quad \overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

3. $(\eta,\phi)\in\left[X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta,X-\pi\Delta\right]\times[0,1]:$

(a) $if \quad \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=1$ and $\left[\rho\left(\overline{\lambda},C\right)=0\ \&\ \overline{\lambda}_1^N=1\right]\vee\left[\rho\left(\overline{\lambda},C\right)=1\ \&\ \overline{\lambda}_1^N>0\right]$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ [0,1] & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ [0,1] & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}1 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

(b) $if \quad \overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=1$ and $\left[\rho\left(\overline{\lambda},C\right)=0\ \&\ \overline{\lambda}_1^N\in(0,1)\right]\vee\left[\overline{\lambda}_1^N=0\right]$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ [0,1] & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

(c) $if \quad \overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]\in[0,1)$ and $\left[\rho\left(\overline{\lambda},C\right)=0\ \&\ \overline{\lambda}_1^N=1\right]\vee\left[\rho\left(\overline{\lambda},C\right)=1\ \&\ \overline{\lambda}_1^N>0\right]$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ [0,1] & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

(d) $if\ \ \overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]\in[0,1)$ and $\left[\rho\left(\overline{\lambda},C\right)=0\ \&\ \overline{\lambda}_1^N\in(0,1)\right]\vee\left[\ \overline{\lambda}_1^N=0\right]$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

4. $(\eta,\phi)\in[X-\pi\Delta,X]\times\left[0,\frac{X}{\pi\Delta+X}\right]$:

   (a) $if\ \ \rho\left(\overline{\lambda},C\right)=1\ \ \&\ \ \overline{\lambda}_1^N(\theta_1)>0$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{1\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}1 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

   (b) $if\ \ \rho\left(\overline{\lambda},C\right)=0\ \ \vee\ \ \overline{\lambda}_1^N(\theta_1)=0$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

5. $(\eta,\phi)\in[X-\pi\Delta,X]\times\left[\frac{X}{\pi\Delta+X},1\right]$:

   (a) $if\ \ \rho\left(\overline{\lambda},C\right)=1\ \ \&\ \ \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]>0$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{1\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha(\delta,\widehat{\rho})^{SR}=\begin{cases}1 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

(b) $if \quad \rho\left(\overline{\lambda},C\right)=0$ or $\quad if \quad \overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{1\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha(\delta,\widehat{\rho})^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

6. $(\eta,\phi)\in[X,\infty)\times\left[0,\frac{X}{\pi\Delta+X}\right]$:

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{0\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{0\} & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha(\delta,\widehat{\rho})^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 0 & if \quad (\delta=0,\widehat{\rho}=0)\\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

7. $(\eta,\phi)\in[X,\infty)\times\left[\frac{X}{\pi\Delta+X},1\right]$:

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{0\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{1\} & (\lambda,T)=(1,N)\,.\end{cases}$$

$$\alpha(\delta,\widehat{\rho})^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 0 & if \quad (\delta=0,\widehat{\rho}=0)\\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

Let we sum up the selectorate's and the citizens' sequential rational behavior as a functions of the parameters (η,ϕ) **and** of the selectorate's and leader's possible behavior.

1. Suppose $\overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0$ then the players' sequential rational best reply correspondence are

1. $(\eta,\phi)\in[0,X-\Delta]\times[0,1]:$

$$\rho\left(\lambda,T|\alpha^{BR}\right)^{BR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ [0,1] & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ [0,1] & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{BR}=\begin{cases}1 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

2. $(\eta,\phi)\in\left[X-\Delta,X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right]\times[0,1]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

3. $(\eta,\phi)\in\left[X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta,X-\pi\Delta\right]\times[0,1]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

4. $(\eta,\phi)\in[X-\pi\Delta,X]\times\left[0,\frac{X}{\pi\Delta+X}\right]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

5. $(\eta,\phi)\in[X-\pi\Delta,X]\times\left[\frac{X}{\pi\Delta+X},1\right]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{1\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if & (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if & (\delta=0,\widehat{\rho}=0)\\ 0 & if & (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if & (\delta=0,\widehat{\rho}=1)\end{cases}$$

6. $(\eta,\phi)\in[X,\infty)\times\left[0,\frac{X}{\pi\Delta+X}\right]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{0\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{0\} & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if & (\delta=\Delta,\widehat{\rho}=0)\\ 0 & if & (\delta=0,\widehat{\rho}=0)\\ 0 & if & (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if & (\delta=0,\widehat{\rho}=1)\end{cases}$$

7. $(\eta,\phi)\in[X,\infty)\times\left[\frac{X}{\pi\Delta+X},1\right]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{0\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{1\} & (\lambda,T)=(1,N).\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if & (\delta=\Delta,\widehat{\rho}=0)\\ 0 & if & (\delta=0,\widehat{\rho}=0)\\ 0 & if & (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if & (\delta=0,\widehat{\rho}=1).\end{cases}$$

2. Suppose $\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]\in(0,1)$ then the players' sequential rational best reply correspondence are

1. $(\eta,\phi)\in[0,X-\Delta]\times[0,1]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ [0,1] & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ [0,1] & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}1 & if & (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if & (\delta=0,\widehat{\rho}=0)\\ 1 & if & (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if & (\delta=0,\widehat{\rho}=1)\end{cases}$$

2. $(\eta,\phi)\in\left[X-\Delta, X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right]\times[0,1]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ [0,1] & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ [0,1] & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}1 \quad if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

3. $(\eta,\phi)\in\left[X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta, X-\pi\Delta,\right]\times[0,1]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

(a) $if \quad \rho\left(\overline{\lambda},C\right)=1$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}1 \quad if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

(b) $if \quad \rho\left(\overline{\lambda},C\right)=0$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 \quad if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

4. $(\eta,\phi)\in[X-\pi\Delta,X]\times\left[0,\frac{X}{\pi\Delta+X}\right]:$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

(a) $if \quad \rho\left(\overline{\lambda},C\right)=1$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}1 \quad if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=0)\\ 0 \quad if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 \quad if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

(b) $if \quad \rho\left(\overline{\lambda},C\right)=0$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 \quad if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=0)\\ 0 \quad if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 \quad if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

5. $(\eta,\phi)\in[X-\pi\Delta,X]\times\left[\frac{X}{\pi\Delta+X},1\right]$:

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{1\} & (\lambda,T)=(1,N)\end{cases}$$

(a) $if\ \ \rho\left(\overline{\lambda},C\right)=0$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}1 & if\quad(\delta=\Delta,\widehat{\rho}=0)\\ 1 & if\quad(\delta=0,\widehat{\rho}=0)\\ 0 & if\quad(\delta=\Delta,\widehat{\rho}=1)\\ 0 & if\quad(\delta=0,\widehat{\rho}=1)\end{cases}$$

(b) $if\ \ \rho\left(\overline{\lambda},C\right)=1$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if\quad(\delta=\Delta,\widehat{\rho}=0)\\ 1 & if\quad(\delta=0,\widehat{\rho}=0)\\ 0 & if\quad(\delta=\Delta,\widehat{\rho}=1)\\ 0 & if\quad(\delta=0,\widehat{\rho}=1)\end{cases}$$

6. $(\eta,\phi)\in[X,\infty)\times\left[0,\frac{X}{\pi\Delta+X}\right]$:

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{0\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{0\} & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if\quad(\delta=\Delta,\widehat{\rho}=0)\\ 0 & if\quad(\delta=0,\widehat{\rho}=0)\\ 0 & if\quad(\delta=\Delta,\widehat{\rho}=1)\\ 0 & if\quad(\delta=0,\widehat{\rho}=1)\end{cases}$$

7. $(\eta,\phi)\in[X,\infty)\times\left[\frac{X}{\pi\Delta+X},1\right]$:

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{0\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{1\} & (\lambda,T)=(1,N)\,.\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if\quad(\delta=\Delta,\widehat{\rho}=0)\\ 0 & if\quad(\delta=0,\widehat{\rho}=0)\\ 0 & if\quad(\delta=\Delta,\widehat{\rho}=1)\\ 0 & if\quad(\delta=0,\widehat{\rho}=1)\end{cases}$$

3. Suppose $\overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=1$ then the players' sequential rational best reply correspondence are

1. $(\eta, \phi) \in [0, X-\Delta] \times [0,1]$:

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} [0,1] & (\lambda, T) = (0, C) \\ [0,1] & (\lambda, T) = (1, C) \\ [0,1] & (\lambda, T) = (0, N) \\ [0,1] & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 1 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

2. $(\eta, \phi) \in \left[X-\Delta, X - \frac{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right] + (1-\pi)\overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right]}\Delta\right] \times [0,1]$:

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} [0,1] & (\lambda, T) = (0, C) \\ [0,1] & (\lambda, T) = (1, C) \\ [0,1] & (\lambda, T) = (0, N) \\ [0,1] & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 1 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

3. $(\eta, \phi) \in \left[X - \frac{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda}, C\right)\right] + (1-\pi)\overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda}, N\right)\right]}\Delta, X - \pi\Delta\right] \times [0,1]$:

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} [0,1] & (\lambda, T) = (0, C) \\ [0,1] & (\lambda, T) = (1, C) \\ [0,1] & (\lambda, T) = (0, N) \\ [0,1] & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 1 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

4. $(\eta, \phi) \in [X - \pi\Delta, X] \times \left[0, \frac{X}{\pi\Delta + X}\right]$:

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{1\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{1\} & (\lambda, T) = (0, N) \\ \{0\} & (\lambda, T) = (1, N) \end{cases}$$

   (a) $if \quad \rho\left(\overline{\lambda}, C\right) = 1$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 1 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

(b) $if \quad \rho\left(\overline{\lambda}, C\right) = 0$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

5. $(\eta, \phi) \in [X - \pi\Delta, X] \times \left[\frac{X}{\pi\Delta + X}, 1\right]$:

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{1\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{1\} & (\lambda, T) = (0, N) \\ \{1\} & (\lambda, T) = (1, N) \end{cases}$$

(a) $if \quad \rho\left(\overline{\lambda}, C\right) = 1$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 1 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

(b) $if \quad \rho\left(\overline{\lambda}, C\right) = 0$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

6. $(\eta, \phi) \in [X, \infty) \times \left[0, \frac{X}{\pi\Delta + X}\right]$:

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{0\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{0\} & (\lambda, T) = (0, N) \\ \{0\} & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

7. $(\eta, \phi) \in [X, \infty) \times \left[\frac{X}{\pi\Delta + X}, 1\right]$:

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{0\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{1\} & (\lambda, T) = (0, N) \\ \{1\} & (\lambda, T) = (1, N) . \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

1.3.2. The equilibrium behavior of the non congruent dictator

We should distinguish seven regions in the space $(\eta, \phi) \in [0, \infty) \times [0, 1]$.

1. Case $(\eta, \phi) \in [0, X - \Delta] \times [0, 1]$ In this region

$$\rho\left(\lambda, T | \alpha^{SR}\right)^{SR} \in \begin{cases} [0,1] & (\lambda, T) = (0, C) \\ [0,1] & (\lambda, T) = (1, C) \\ [0,1] & (\lambda, T) = (0, N) \\ [0,1] & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 1 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

Now, consider the non-congruent dictator's expected payoff following the simple strategy $\overline{\lambda}_1^N(\theta_1) = 0$ given the subsequent sequentially rational choices of the other players: she would get

$$EU^N\left(\overline{\lambda}^N(\theta_1) = 0 | \rho^{SR}, \alpha^{SR}\right) = r_1 + \frac{X}{\phi}$$

while any deviation to $\widetilde{\lambda}_1^N(\theta_1) > 0$ would generate the payoff

$$EU^N\left(\widetilde{\lambda}_1^N(\theta_1) > 0 | \rho^{SR}, \alpha^{SR}\right) = \left(1 - \widetilde{\lambda}_1^N(\theta_1)\right)\left(r_1 + \frac{X}{\phi}\right) + \widetilde{\lambda}_1^N(\theta_1)\left(\Delta + \frac{X}{\phi}\right)$$

which is always smaller, hence we get the following result

Lemma 1. *When* $(\eta, \phi) \in [0, X - \Delta] \times [0, 1]$ *there is a continuum of outcome equivalent Sequential Equilibria:*

$$\overline{\lambda}_1^C(\theta_1) = 1, \quad \overline{\lambda}_1^N(\theta_1) = 0$$

$$\rho\left(\overline{\lambda}, T\right) \in \begin{cases} [0,1] & (\lambda, T) = (0, C) \\ [0,1] & (\lambda, T) = (1, C) \\ [0,1] & (\lambda, T) = (0, N) \\ [0,1] & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right) = \begin{cases} 1 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

$$\mu^Z(C | \delta, \rho) = \begin{cases} \pi & (\delta, \rho) = (\Delta, 1) \\ \pi & (\delta, \rho) = (0, 1) \\ 1 & (\delta, \rho) = (\Delta, 0) \\ 0 & (\delta, \rho) = (0, 0). \end{cases}$$

2. *Case* $(\eta,\phi)\in\left[X-\Delta, X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right]\times[0,1]$

Now, consider the non-congruent dictator's expected payoff following the simple strategy

$$\overline{\lambda}_1^N(\theta_1)=0:$$

Then

$$\rho\left(0,N|\alpha^{SR}\right)^{SR}\in[0,1] \text{ and } \alpha\left(\delta=0,\widehat{\rho}\in[0,1]\right)^{BR}=1$$

since when $\overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

and

$$\alpha\left(\delta,\widehat{\rho}\right)^{BR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

thus she would get

$$EU^N\left(\overline{\lambda}_1^N(\theta_1)=0|\rho^{SR},\alpha^{SR}\right)=r_1+\frac{X}{\phi}$$

while any deviation to $\widetilde{\lambda}_1^N(\theta_1)>0$ would generate the payoff

- if $\rho\left(\overline{\lambda},N\right)\in[0,1)$

  $$EU^N\left(\widetilde{\lambda}_1^N(\theta_1)>0|\rho^{SR},\alpha^{SR}\right)=\left(1-\widetilde{\lambda}_1^N(\theta_1)\right)\left(r_1+\frac{X}{\phi}\right)+\widetilde{\lambda}_1^N(\theta_1)\left(\Delta+\frac{X}{\phi}\right)$$

  since in this case

  $$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ [0,1] & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ [0,1] & (\lambda,T)=(1,N)\end{cases}$$

  $$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}1 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

  thus, we get an equilibrium with $\overline{\lambda}^N(\theta_1)=0$
- if $\rho\left(\overline{\lambda},N\right)=1$, we have an inconsistency since in this case

  $$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 \quad if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

thus with probability $\widetilde{\lambda}_1^N(\theta_1)$ we have $\rho=0$.

Hence we would get the result that when $(\eta,\phi)\in\left[X-\Delta,X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right]\times[0,1]$ there is a continuum of outcome equivalent Sequential Equilibria:

$$\overline{\lambda}_1^C(\theta_1)=1,\quad \overline{\lambda}_1^N(\theta_1)=0$$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1) & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 \quad if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

$$\mu^Z(C|\delta,\rho)=\begin{cases}\pi & (\delta,\rho)=(\Delta,1)\\ \pi & (\delta,\rho)=(0,1)\\ 1 & (\delta,\rho)=(\Delta,0)\\ 0 & (\delta,\rho)=(0,0)\end{cases}$$

however note that in this case the interval $\left[X-\Delta,X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta\right]$ would shrink to a single point $\eta=X-\Delta$, hence the case would actually disappear.

3. Case $(\eta,\phi)\in\left[X-\frac{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]}{\pi\left[1-\rho\left(\overline{\lambda},C\right)\right]+(1-\pi)\overline{\lambda}_1^N(\theta_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]}\Delta,X-\pi\Delta\right]\times[0,1]$: Consider the non-congruent dictator's expected payoff following the simple strategy

$$\overline{\lambda}_1^N(\theta_1)=0:$$

Then

$$\rho\left(0,N|\alpha^{SR}\right)^{SR}\in[0,1]\ \text{ and }\ \alpha\left(\delta=0,\widehat{\rho}\in[0,1]\right)^{BR}=1$$

since when $\overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]=0$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

and

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 \quad if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=0)\\ 1 \quad if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 \quad if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

thus she would get

$$EU^N\left(\overline{\lambda}_1^N(\theta_1)=0|\rho^{SR},\alpha^{SR}\right)=r_1+\frac{X}{\phi}$$

while any deviation to $\widetilde{\lambda}_1^N(\theta_1)\in(0,1)$ would generate the payoff

- if $\rho\left(\overline{\lambda},C\right)=0$

$$EU^N\left(\widetilde{\lambda}_1^N(r_1)>0|\rho^{SR},\alpha^{SR}\right)=\left(1-\widetilde{\lambda}_1^N(r_1)\right)\left(r_1+\frac{X}{\phi}\right)+\widetilde{\lambda}_1^N(r_1)\left(\Delta+\frac{X}{\phi}+E\left(r_2\right)+\frac{X}{\phi}\right);$$

since in this case

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

Thus we get an equilibrium with $\overline{\lambda}_1^N(r_1)=0$ if and only if

$$r_1+\frac{X}{\phi}\geq\left(1-\widetilde{\lambda}_1^N(r_1)\right)\left(r_1+\frac{X}{\phi}\right)+\widetilde{\lambda}_1^N(r_1)\left(\Delta+\frac{X}{\phi}+E\left(r_2\right)+\frac{X}{\phi}\right)\Leftrightarrow$$

$$\Leftrightarrow\widetilde{\lambda}_1^N(r_1)\left(r_1+\frac{X}{\phi}\right)\geq\widetilde{\lambda}_1^N(r_1)\left(\Delta+\frac{X}{\phi}+E\left(r_2\right)+\frac{X}{\phi}\right)\Leftrightarrow r_1+\frac{X}{\phi}\geq\Delta+\frac{X}{\phi}+E\left(r_2\right)+\frac{X}{\phi}\Leftrightarrow$$

$$\Leftrightarrow r_1\geq\Delta+E\left(r_2\right)+\frac{X}{\phi}$$

which has probability

$$1-G\left(\Delta+E\left(r_2\right)+\frac{X}{\phi}\right)$$

- if $\rho\left(\overline{\lambda},C\right)=1$, we have an inconsistency since in this case

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

thus with probability $\widetilde{\lambda}_1^N(\theta_1)$ we have $\rho\left(\overline{\lambda},C\right)=0$.

- if $\overline{\lambda}_1^N(r_1)\left[1-\rho\left(\overline{\lambda},N\right)\right]\in[0,1)$ and $\left[\rho\left(\overline{\lambda},C\right)=0\ \&\ \overline{\lambda}_1^N=1\right]$ then her payoff is

$$EU^N\left(\widetilde{\lambda}_1^N(r_1)=1|\rho^{SR},\alpha^{SR}\right)=\left(\Delta+\frac{X}{\phi}+E\left(r_2\right)+\frac{X}{\phi}\right)$$

since

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ [0,1] & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

Thus we get an equilibrium with $\overline{\lambda}_1^N(r_1)=1$ if and only if

$$r_1+\frac{X}{\phi}\geq\Delta+\frac{X}{\phi}+E\left(r_2\right)+\frac{X}{\phi}\Leftrightarrow r_1\geq\Delta+\frac{X}{\phi}+E\left(r_2\right)$$

which has probability

$$1-G\left(\Delta+E\left(r_2\right)+\frac{X}{\phi}\right)$$

so that we get the previous equilibrium and we can conclude with the following lemma

Lemma 2. *When* $(\eta,\phi)\in\left[X-\frac{\pi\rho\left(\overline{\lambda},C\right)}{\pi\rho\left(\overline{\lambda},C\right)+(1-\pi)\overline{\lambda}_1^N(r_1)\rho\left(\overline{\lambda},N\right)}\Delta,X-\pi\Delta\right]\times[0,1]$ *there is a unique Sequential Equilibrium such that*

$$\overline{\lambda}_1^C(r_1)=1,\quad \overline{\lambda}_1^N(r_1)=G\left(\Delta+E\left(r_2\right)+\frac{X}{\phi}\right)$$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 1 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

$$\mu^Z(C|\delta,\rho)=\begin{cases}\pi & (\delta,\rho)=(\Delta,1)\\ \pi & (\delta,\rho)=(0,1)\\ \frac{\pi}{\pi+(1-\pi)G\left(\Delta+E(r_2)+\frac{X}{\phi}\right)} & (\delta,\rho)=(\Delta,0)\\ 0 & (\delta,\rho)=(0,0)\end{cases}$$

4. Case $(\eta,\phi) \in [X-\pi\Delta, X] \times \left[0, \frac{X}{\pi\Delta+X}\right]$ Consider the non-congruent dictator's expected payoff following the simple strategy

$$\overline{\lambda}_1^N(\theta_1) = 0$$

Then

$$\rho\left(0, N|\alpha^{SR}\right)^{SR} = 1 \text{ and } \alpha\left(\delta = 0, \widehat{\rho} = 1\right)^{BR} = 0$$

since when $\overline{\lambda}_1^N(\theta_1) = 0$

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{1\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{1\} & (\lambda, T) = (0, N) \\ \{0\} & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

thus she would get

$$EU^N\left(\overline{\lambda}_1^N(\theta_1) = 0|\rho^{SR}, \alpha^{SR}\right) = r_1 + \frac{X}{\phi}$$

while any deviation to $\widetilde{\lambda}_1^N(\theta_1) \in (0,1)$ would generate the payoff

- if $\rho\left(\overline{\lambda}, C\right) = 0$

  $$EU^N\left(\widetilde{\lambda}_1^N(r_1) > 0|\rho^{SR}, \alpha^{SR}\right) = \left(1 - \widetilde{\lambda}_1^N(r_1)\right)\left(r_1 + \frac{X}{\phi}\right) + \widetilde{\lambda}_1^N(r_1)\left(\Delta + \frac{X}{\phi} + E\left(r_2\right) + \frac{X}{\phi}\right);$$

  since in this case

  $$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{1\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{1\} & (\lambda, T) = (0, N) \\ \{0\} & (\lambda, T) = (1, N) \end{cases}$$

  $$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

  Thus we get an equilibrium with $\overline{\lambda}_1^N(r_1) = 0$ if and only if

  $$r_1 + \frac{X}{\phi} \geq \left(1 - \widetilde{\lambda}_1^N(r_1)\right)\left(r_1 + \frac{X}{\phi}\right) + \widetilde{\lambda}_1^N(r_1)\left(\Delta + \frac{X}{\phi} + E\left(r_2\right) + \frac{X}{\phi}\right) \Leftrightarrow$$

  $$\Leftrightarrow \widetilde{\lambda}_1^N(r_1)\left(r_1 + \frac{X}{\phi}\right) \geq \widetilde{\lambda}_1^N(r_1)\left(\Delta + \frac{X}{\phi} + E\left(r_2\right) + \frac{X}{\phi}\right) \Leftrightarrow r_1 + \frac{X}{\phi} \geq \Delta + \frac{X}{\phi} + E\left(r_2\right) + \frac{X}{\phi} \Leftrightarrow$$

  $$\Leftrightarrow r_1 \geq \Delta + E\left(r_2\right) + \frac{X}{\phi}$$

  which has probability

  $$1 - G\left(\Delta + E\left(r_2\right) + \frac{X}{\phi}\right)$$

- if $\rho\left(\overline{\lambda}, C\right) = 1$, we have an inconsistency since in this case

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{1\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{1\} & (\lambda, T) = (0, N) \\ \{0\} & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

thus with probability 1 we have $\rho\left(\overline{\lambda}, C\right) = 0$.

Then, we can conclude with the following lemma

Lemma 3. *When* $(\eta, \phi) \in [X - \pi\Delta, X] \times \left[0, \frac{X}{\pi\Delta + X}\right]$ *there is a unique Sequential Equilibrium such that*

$$\overline{\lambda}_1^C(r_1) = 1, \quad \overline{\lambda}_1^N(r_1) = G\left(\Delta + E(r_2) + \frac{X}{\phi}\right)$$

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{1\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{1\} & (\lambda, T) = (0, N) \\ \{0\} & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

$$\mu^Z(C|\delta, \rho) = \begin{cases} \pi & (\delta, \rho) = (\Delta, 1) \\ \pi & (\delta, \rho) = (0, 1) \\ \frac{\pi}{\pi + (1-\pi)G\left(\Delta + E(r_2) + \frac{X}{\phi}\right)} & (\delta, \rho) = (\Delta, 0) \\ 0 & (\delta, \rho) = (0, 0) \end{cases}$$

5. Case $(\eta, \phi) \in [X - \pi\Delta, X] \times \left[\frac{X}{\pi\Delta + X}, 1\right]$ Consider the non-congruent dictator's expected payoff following the simple strategy

$$\overline{\lambda}_1^N(\theta_1) = 0$$

Then

$$\rho\left(0, N|\alpha^{SR}\right)^{SR} = 1 \text{ and } \alpha\left(\delta = 0, \widehat{\rho} = 1\right)^{BR} = 0$$

since when $\overline{\lambda}_1^N(\theta_1) = 0$

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{1\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{1\} & (\lambda, T) = (0, N) \\ \{1\} & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

thus she would get

$$EU^{N}\left(\overline{\lambda}_1^{N}(\theta_1)=0|\rho^{SR},\alpha^{SR}\right)=r_1+\frac{X}{\phi}$$

while any deviation to $\widetilde{\lambda}_1^N(\theta_1)\in(0,1)$ would generate the payoff

- if $\rho\left(\overline{\lambda},C\right)=0$

$$EU^{N}\left(\widetilde{\lambda}_1^{N}(r_1)>0|\rho^{SR},\alpha^{SR}\right)=\left(1-\widetilde{\lambda}_1^{N}(r_1)\right)\left(r_1+\frac{X}{\phi}\right)+\widetilde{\lambda}_1^{N}(r_1)\left(\Delta+\frac{X}{\phi}\right);$$

since in this case

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

Thus

$$EU^{N}\left(\overline{\lambda}_1^{N}(\theta_1)=0|\rho^{SR},\alpha^{SR}\right)\geq EU^{N}\left(\widetilde{\lambda}_1^{N}(r_1)>0|\rho^{SR},\alpha^{SR}\right)$$

and we get an equilibrium with $\overline{\lambda}_1^N(r_1)=0$.

- if $\rho\left(\overline{\lambda},C\right)=1$, we have an inconsistency since in this case

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{1\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}1 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if \quad (\delta=0,\widehat{\rho}=0)\\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

thus with probability 1 we have $\rho\left(\overline{\lambda},C\right)=0$.

Then, we can conclude with the following lemma

Lemma 4. *When* $(\eta,\phi)\in[X-\pi\Delta,X]\times\left[\frac{X}{\pi\Delta+X},1\right]$ *there is a unique Sequential Equilibrium such that*

$$\overline{\lambda}_1^{C}(r_1)=1,\ \ \overline{\lambda}_1^{N}(r_1)0$$

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{1\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{1\} & (\lambda, T) = (0, N) \\ \{0\} & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

$$\mu^{Z}(C|\delta, \rho) = \begin{cases} \pi & (\delta, \rho) = (\Delta, 1) \\ \pi & (\delta, \rho) = (0, 1) \\ 1 & (\delta, \rho) = (\Delta, 0) \\ 0 & (\delta, \rho) = (0, 0) . \end{cases}$$

6. Case $(\eta, \phi) \in [X, \infty) \times \left[0, \frac{X}{\pi\Delta + X}\right]$ Consider the non-congruent dictator's expected payoff following the simple strategy

$$\overline{\lambda}_1^N(\theta_1) = 0$$

Then

$$\rho\left(0, N|\alpha^{SR}\right)^{SR} = 0 \text{ and } \alpha\left(\delta = 0, \widehat{\rho} = 1\right)^{BR} = 0$$

since when $\overline{\lambda}_1^N(\theta_1) = 0$

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{0\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{0\} & (\lambda, T) = (0, N) \\ \{0\} & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

Thus she would get

$$EU^N\left(\overline{\lambda}_1^N(\theta_1) = 0|\rho^{SR}, \alpha^{SR}\right) = r_1 + \frac{X}{\phi} + r_1 + \frac{X}{\phi} + E\left(r_2\right) + \frac{X}{\phi}$$

while any deviation to $\widetilde{\lambda}_1^N(\theta_1) \in (0, 1)$ would generate the payoff

$$EU^N\left(\widetilde{\lambda}_1^N(r_1) > 0|\rho^{SR}, \alpha^{SR}\right) = \left(1 - \widetilde{\lambda}_1^N(r_1)\right)\left(r_1 + \frac{X}{\phi}\right) + \widetilde{\lambda}_1^N(r_1)\left(\Delta + \frac{X}{\phi} + E\left(r_2\right) + \frac{X}{\phi}\right);$$

since in this case

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{0\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{0\} & (\lambda, T) = (0, N) \\ \{0\} & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 0 & if \quad (\delta=0,\widehat{\rho}=0)\\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

Thus

$$EU^{N}\left(\overline{\lambda}_1^N(\theta_1)=0|\rho^{SR},\alpha^{SR}\right)\geq EU^{N}\left(\widetilde{\lambda}_1^N(r_1)>0|\rho^{SR},\alpha^{SR}\right)$$

and we get an equilibrium with $\overline{\lambda}_1^N(r_1)=0$.

Lemma 5. *When $(\eta,\phi)\in[X,\infty)\times\left[0,\frac{X}{\pi\Delta+X}\right]$ there is a unique Sequential Equilibrium such that*

$$\overline{\lambda}_1^C(r_1)=1,\ \ \overline{\lambda}_1^N(r_1)0$$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{0\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{0\} & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 0 & if \quad (\delta=0,\widehat{\rho}=0)\\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

$$\mu^{Z}(C|\delta,\rho)=\begin{cases}\pi & (\delta,\rho)=(\Delta,1)\\ \pi & (\delta,\rho)=(0,1)\\ 1 & (\delta,\rho)=(\Delta,0)\\ 0 & (\delta,\rho)=(0,0)\,.\end{cases}$$

7. Case $(\eta,\phi)\in[X,\infty)\times\left[\frac{X}{\pi\Delta+X},1\right]$ Consider the non-congruent dictator's expected payoff following the simple strategy

$$\overline{\lambda}_1^N(\theta_1)=0$$

Then

$$\rho\left(0,N|\alpha^{SR}\right)^{SR}=1 \text{ and } \alpha\left(\delta=0,\widehat{\rho}=1\right)^{BR}=0$$

since

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{0\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{1\} & (\lambda,T)=(1,N)\,.\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if \quad (\delta=\Delta,\widehat{\rho}=0)\\ 0 & if \quad (\delta=0,\widehat{\rho}=0)\\ 0 & if \quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if \quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

Thus she would get

$$EU^{N}\left(\overline{\lambda}_1^N(\theta_1)=0|\rho^{SR},\alpha^{SR}\right)=r_1+\frac{X}{\phi}$$

while any deviation to $\widetilde{\lambda}_1^N(\theta_1) \in (0,1)$ would generate the payoff

$$EU^N\left(\widetilde{\lambda}_1^N(r_1) > 0|\rho^{SR}, \alpha^{SR}\right) = \left(1 - \widetilde{\lambda}_1^N(r_1)\right)\left(r_1 + \frac{X}{\phi}\right) + \widetilde{\lambda}_1^N(r_1)\left(\Delta + \frac{X}{\phi}\right);$$

since in this case

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{0\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{1\} & (\lambda, T) = (0, N) \\ \{1\} & (\lambda, T) = (1, N). \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

Thus

$$EU^N\left(\overline{\lambda}_1^N(\theta_1) = 0|\rho^{SR}, \alpha^{SR}\right) \geq EU^N\left(\widetilde{\lambda}_1^N(r_1) > 0|\rho^{SR}, \alpha^{SR}\right)$$

and we get an equilibrium with $\overline{\lambda}_1^N(r_1) = 0$.

Lemma 6. *When $(\eta, \phi) \in [X, \infty) \times \left[\frac{X}{\pi\Delta + X}, 1\right]$ there is a unique Sequential Equilibrium such that*

$$\overline{\lambda}_1^C(r_1) = 1, \quad \overline{\lambda}_1^N(r_1)0$$

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{0\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{1\} & (\lambda, T) = (0, N) \\ \{1\} & (\lambda, T) = (1, N). \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

$$\mu^Z(C|\delta, \rho) = \begin{cases} \pi & (\delta, \rho) = (\Delta, 1) \\ \pi & (\delta, \rho) = (0, 1) \\ 1 & (\delta, \rho) = (\Delta, 0) \\ 0 & (\delta, \rho) = (0, 0). \end{cases}$$

We can conclude with the following result:

Proposition 1. *The game describing the interaction between a fully informed selectorate and incompletely informed citizens has the following Sequential Equilibria:*

1. *When $(\zeta, \phi) \in \left[0, \frac{1}{X}\right] \times \left[0, \frac{X}{\pi\Delta + X}\right]$ there is a unique Sequential Equilibrium such that*

$$\overline{\lambda}_1^C(\theta_1) = 1, \quad \overline{\lambda}_1^N(\theta_1) = 0$$

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{0\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{0\} & (\lambda, T) = (0, N) \\ \{0\} & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

$$\mu^Z(C|\delta, \rho) = \begin{cases} \pi & (\delta, \rho) = (\Delta, 1) \\ \pi & (\delta, \rho) = (0, 1) \\ 1 & (\delta, \rho) = (\Delta, 0) \\ 0 & (\delta, \rho) = (0, 0). \end{cases}$$

2. *When* $(\zeta, \phi) \in \left[0, \frac{1}{X}\right] \times \left[\frac{X}{\pi\Delta + X}, 1\right]$ *there is a unique Sequential Equilibrium such that*

$$\overline{\lambda}_1^C(\theta_1) = 1, \quad \overline{\lambda}_1^N(\theta_1) = 0$$

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{0\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{1\} & (\lambda, T) = (0, N) \\ \{1\} & (\lambda, T) = (1, N). \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

$$\mu^Z(C|\delta, \rho) = \begin{cases} \pi & (\delta, \rho) = (\Delta, 1) \\ \pi & (\delta, \rho) = (0, 1) \\ 1 & (\delta, \rho) = (\Delta, 0) \\ 0 & (\delta, \rho) = (0, 0). \end{cases}$$

3. *When* $(\zeta, \phi) \in \left[\frac{1}{X}, \frac{1}{X - \pi\Delta}\right] \times \left[0, \frac{X}{\pi\Delta + X}\right]$ *there is a unique Sequential Equilibrium such that*

$$\overline{\lambda}_1^C(\theta_1) = 1, \quad \overline{\lambda}_1^N(\theta_1) = G\left(\Delta + E(r_2) + \frac{X}{\phi}\right)$$

$$\rho\left(\lambda, T|\alpha^{SR}\right)^{SR} \in \begin{cases} \{1\} & (\lambda, T) = (0, C) \\ \{0\} & (\lambda, T) = (1, C) \\ \{1\} & (\lambda, T) = (0, N) \\ \{0\} & (\lambda, T) = (1, N) \end{cases}$$

$$\alpha\left(\delta, \widehat{\rho}\right)^{SR} = \begin{cases} 0 & if \quad (\delta = \Delta, \widehat{\rho} = 0) \\ 1 & if \quad (\delta = 0, \widehat{\rho} = 0) \\ 0 & if \quad (\delta = \Delta, \widehat{\rho} = 1) \\ 0 & if \quad (\delta = 0, \widehat{\rho} = 1) \end{cases}$$

$$\mu^Z(C|\delta, \rho) = \begin{cases} \pi & (\delta, \rho) = (\Delta, 1) \\ \pi & (\delta, \rho) = (0, 1) \\ \frac{\pi}{\pi + (1-\pi)G\left(\Delta + E(r_2) + \frac{X}{\phi}\right)} & (\delta, \rho) = (\Delta, 0) \\ 0 & (\delta, \rho) = (0, 0) \end{cases}$$

4. *When* $(\zeta,\phi)\in\left[\frac{1}{X},\frac{1}{X-\pi\Delta}\right]\times\left[\frac{X}{\pi\Delta+X},1\right]$ *there is a unique Sequential Equilibrium such that*

$$\overline{\lambda}_1^C(\theta_1)=1,\quad \overline{\lambda}_1^N(\theta_1)=0$$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}\{1\} & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ \{1\} & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if\quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if\quad (\delta=0,\widehat{\rho}=0)\\ 0 & if\quad (\delta=\Delta,\widehat{\rho}=1)\\ 0 & if\quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

$$\mu^Z(C|\delta,\rho)=\begin{cases}\pi & (\delta,\rho)=(\Delta,1)\\ \pi & (\delta,\rho)=(0,1)\\ 1 & (\delta,\rho)=(\Delta,0)\\ 0 & (\delta,\rho)=(0,0)\,.\end{cases}$$

5. *When* $(\zeta,\phi)\in\left[\frac{1}{X-\pi\Delta},\frac{1}{X-\Delta}\right]\times[0,1]$ *there is a unique Sequential Equilibrium such that*

$$\overline{\lambda}_1^C(\theta_1)=1,\quad \overline{\lambda}_1^N(\theta_1)=G\left(\Delta+E\left(r_2\right)+\frac{X}{\phi}\right)$$

$$\rho\left(\lambda,T|\alpha^{SR}\right)^{SR}\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ \{0\} & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ \{0\} & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)^{SR}=\begin{cases}0 & if\quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if\quad (\delta=0,\widehat{\rho}=0)\\ 1 & if\quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if\quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

$$\mu^Z(C|\delta,\rho)=\begin{cases}\pi & (\delta,\rho)=(\Delta,1)\\ \pi & (\delta,\rho)=(0,1)\\ \frac{\pi}{\pi+(1-\pi)G\left(\Delta+E(r_2)+\frac{X}{\phi}\right)} & (\delta,\rho)=(\Delta,0)\\ 0 & (\delta,\rho)=(0,0)\end{cases}$$

6. *When* $(\zeta,\phi)\in\left[\frac{1}{X-\Delta},1\right]\times[0,1]$ *there is a continuum of outcome equivalent Sequential Equilibria:*

$$\overline{\lambda}_1^C(\theta_1)=1,\quad \overline{\lambda}_1^N(\theta_1)=0$$

$$\rho\left(\overline{\lambda},T\right)\in\begin{cases}[0,1] & (\lambda,T)=(0,C)\\ [0,1] & (\lambda,T)=(1,C)\\ [0,1] & (\lambda,T)=(0,N)\\ [0,1] & (\lambda,T)=(1,N)\end{cases}$$

$$\alpha\left(\delta,\widehat{\rho}\right)=\begin{cases}1 & if\quad (\delta=\Delta,\widehat{\rho}=0)\\ 1 & if\quad (\delta=0,\widehat{\rho}=0)\\ 1 & if\quad (\delta=\Delta,\widehat{\rho}=1)\\ 1 & if\quad (\delta=0,\widehat{\rho}=1)\end{cases}$$

$$\mu^Z(C|\delta,\rho) = \begin{cases} \pi & (\delta,\rho) = (\Delta,1) \\ \pi & (\delta,\rho) = (0,1) \\ 1 & (\delta,\rho) = (\Delta,0) \\ 0 & (\delta,\rho) = (0,0)\,. \end{cases}$$

From this proposition, it is immediate to get the following corollary.

COROLLARY 1. *1. When $(\zeta,\phi) \in \left[0,\frac{1}{X}\right] \times \left[0,\frac{X}{\pi\Delta+X}\right]$ there is a unique equilibrium outcome such that*

$$\overline{\lambda}_1^C(\theta_1) = 1, \quad \overline{\lambda}_1^N(\theta_1) = 0, \quad \widehat{\rho} = 0, \quad \widehat{\alpha} = 0$$

2. When $(\zeta,\phi) \in \left[0,\frac{1}{X}\right] \times \left[\frac{X}{\pi\Delta+X},1\right]$ there is a unique equilibrium outcome such that

$$\overline{\lambda}_1^C(\theta_1) = 1, \quad \overline{\lambda}_1^N(\theta_1) = 0$$

$$\widehat{\rho} \in \begin{cases} \{0\} & prob\ \ \pi \\ \{1\} & prob\ \ 1-\pi \end{cases}$$

$$\widehat{\alpha} = 0$$

3. When$(\zeta,\phi) \in \left[\frac{1}{X},\frac{1}{X-\pi\Delta}\right] \times \left[0,\frac{X}{\pi\Delta+X}\right]$ there is a unique equilibrium outcome such that

$$\overline{\lambda}_1^C(\theta_1) = 1, \quad \overline{\lambda}_1^N(\theta_1) = G\left(\Delta + E(r_2) + \frac{X}{\phi}\right)$$

$$\widehat{\rho} \in \begin{cases} \{0\} & prob\ \ \pi + (1-\pi)\,G\left(\Delta + E(r_2) + \frac{X}{\phi}\right) \\ \{1\} & prob\ \ (1-\pi)\left[1 - G\left(\Delta + E(r_2) + \frac{X}{\phi}\right)\right] \end{cases}$$

$$\widehat{\alpha} = 0$$

4. When $(\zeta,\phi) \in \left[\frac{1}{X},\frac{1}{X-\pi\Delta}\right] \times \left[\frac{X}{\pi\Delta+X},1\right]$ there is a unique equilibrium outcome such that

$$\overline{\lambda}_1^C(r_1) = 1, \quad \overline{\lambda}_1^N(r_1) = 0$$

$$\widehat{\rho} \in \begin{cases} \{0\} & prob\ \ \pi \\ \{1\} & prob\ \ 1-\pi \end{cases}$$

$$\widehat{\alpha} = 0$$

5. When $(\zeta,\phi) \in \left[\frac{1}{X-\pi\Delta},\frac{1}{X-\Delta}\right] \times [0,1]$ there is a unique equilibrium outcome such that

$$\overline{\lambda}_1^C(\theta_1) = 1, \quad \overline{\lambda}_1^N(\theta_1) = G\left(\Delta + E(r_2) + \frac{X}{\phi}\right)$$

$$\widehat{\rho} \in \begin{cases} \{0\} & prob\ \ \pi + (1-\pi)\,G\left(\Delta + E(r_2) + \frac{X}{\phi}\right) \\ [0,1] & prob\ \ (1-\pi)\left[1 - G\left(\Delta + E(r_2) + \frac{X}{\phi}\right)\right] \end{cases}$$

$$\widehat{\alpha} \in \begin{cases} \{0\} & prob\ \ \pi + (1-\pi)\,G\left(\Delta + E(r_2) + \frac{X}{\phi}\right) \\ 1 & prob\ \ (1-\pi)\left[1 - G\left(\Delta + E(r_2) + \frac{X}{\phi}\right)\right] \end{cases}$$

6. *When* $(\zeta, \phi) \in \left[\frac{1}{X-\Delta}, 1\right] \times [0,1]$ *there is a unique equilibrium outcome such that*

$$\overline{\lambda}_1^C(\theta_1) = 1, \quad \overline{\lambda}_1^N(\theta_1) = 0, \quad \widehat{\rho} \in [0,1], \quad \widehat{\alpha} = 1.$$