A Political Theory of Populism*

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Abstract

Populism is described as an ideology which contrasts the interests of the people and the elite, and calls for defense of the interests of the former. In reality, populist politicians are often seen conducting macroeconomic policies that can be hardly justified by the benefits they provide to the very poorest; in many instances, these policies were far to the left of the majority's preference. In this paper, we explain why even a moderate politician seeking reelection may choose leftist policies. The leftist bias is higher when the polarization is high, or when the political class is predominantly occupied by the rich elite. We extend the model to study the environment where some politicians are corrupt and some are not and reach similar conclusions.

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Comments are greatly appreciated.

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1 Introduction

Leftist policies in a country with highly unequal income and wealth distributions are not surprising: democratic elections with a poor median voter would necessarily result in a policy tilted toward the poor. Yet in many instances, the policies were far over-reaching to the left of the median voter, and often outright harmful to the majority of population. In the Introduction to their 1991 edited volume on Macroeconomics of Populism, Rudiger Dornbush and Sebastian Edwards (Dornbush and Edwards, 1991) summarized the common traits of modern populist regimes. "Populist regimes have historically tried to deal with income inequality problems through the use of overly expansive macroeconomic policies. These policies, which have relied on deficit financing, generalized controls, and a disregard for basic economic equilibria, have almost unavoidably resulted in major macroeconomic crises that have ended up hurting the poorer segments of society."

We build a simple signaling model that allows us to highlight a political reason for the overly leftist policies. The desire to signal their type and thus ensure re-election forces politicians to shift their political platforms further away from the median voter position and towards irresponsible macroeconomic policy. In contrast with early singaling models of elections (Banks, 1990, Harrington, 1993), our model produces a unique separating equilibrium in the game of political positioning.

In the model, candidates are motivated by both the desire to be re-elected and their policy preferences. When the utility derived directly from the fact of re-election is high, the model is a case of an office-seeking politician. When it is low or outright non-existent, candidates are policy motivated in the usual sense of Wittman (1973) and Calvert (1985). To take into account another ubiquitious feature of politics in weakly-institutionalized environment, corruption, we demonstrate that our results are robust to the possibility that elected officials are bribed by the rich agents. Voters are uncertain about the policy that was implemented during the first term of a politician in the office.

The main findings are as follows. Unsurprisingly, the leftist bias is higher when politicians are more opportunistic, i.e. value the office higher relative to the policy. Perhaps more surprisingly, a higher polarization of voters also result in more leftist policies. For a policy-oriented leader, a higher degree of polarization makes losing elections more costly, which in turn forces him to adopt a more populist stance. The higher is the probability that the ruler is poor, the smaller is bias. However, if leaders who are intrinsically leftist are considered to be a rare breed - e.g., when democracy is young - then both candidates choose platforms to the far left of the median voter. Finally, the leftist bias is inverse-U-shaped with respect to the electorate's uncertainty about the type of politicians they elected. Intuitively, if the level of uncertainty is low, politicians need to do less to differentiate themselves, as voters are unlikely to confuse the two types of rulers. If the uncertainty is high, separating through an extreme policy choice becomes too costly.

Formal models that incorporate "the cost of betrayal" into the platform choice by a politician seeking his first election date back to the pioneering work of Banks (1990) and Harrington (1993). In both models, voters learn about candidates' behavior through repeated sampling. Callander and Wilkie (2007) consider signaling equilibria in elections in which participating politicians have different propensity to misinform voters about their true preferences. Kartik and McAfee (2007) study a spatial model of elections, in which a candidate might be of the type committed to fulfill his campaign pledge. Thus, a political position is a signal to the voters about the candidate's "honesty". As a result, a candidate who is perceived as more likely to stick to his positition might win on an un-popular platform over an opponent who caters to median-voter preferences.

The career-concerns models of electoral politics is another related strand of the literature (see Persson and Tabellini, 2000, and excellent survey in Besley, 2006). In Austen-Smith and Banks (1989) politicians face moral-hazard problem as they choose a level of efforts unobservable by voters considering their re-election.

The rest of the paper is organized as follows. Section 2 introduces a basic model with politicians differing in their policy preferences. In Section 3 we analyze the equilibria of the model and study the comparative statics. In Section 4, we supplement our analysis by studying the case where some politicians can accept bribes. Section 5 concludes.

2 Model

There is a population consisting of two groups of citizens (a rich/elite minority and a poor majority), and a pool of politicians. Policy space is one-dimensional space $\mathbb{R}$. There are two periods, and in each period t there is a ruling politician who chooses policy $x_t \in \mathbb{R}$. We assume that each citizen cares about policy outcome only; and the utility of citizen i is given by

$$u_i(x_1, x_2) = u^r(x_1, x_2) = -\sum_{t=1}^{2} (x_t - \gamma^r)^2$$

if the citizen is rich and by

$$u_i(x_1, x_2) = u^p(x_1, x_2) = -\sum_{t=1}^{2} (x_t - \gamma^p)^2$$

if he is poor. In other words, both types of citizens are averse to deviations from their bliss policy. Without loss of generality we let $\gamma^p = 0$ and $\gamma^r = r > 0$, with the interpretation that the poor prefer more "left" policies. Note that we assume no discounting to save on notation; the generalization on the case with discounting is straightforward.

The politicians care about policy, office, and potentially bribes. Their one-period utility is given by

$$v = -\alpha (x - \gamma)^2 + W\mathbf{I}_{\{\text{in office}\}} + B.$$

Here, x is the policy, γ is the politician's ideal policy, and $\alpha > 0$ is the sensitivity to policy choice; W is the utility from being in office, and B is the bribe that he may receives.

We assume that between the first and the second period there are elections, in which the median voter (who is poor, since the poor form a majority) decides whether to reelect the politician or choose some random one from a pool of potential politicians. Prior to the elections, he receives a noisy signal $s = x_1 + z$ about the policy x_1 chosen by the incumbent in the first period, where z is noise. He uses this signal to update his prior about the politician's type (discussed below), and choose whether the incumbent is better for him than a random politician. In other words, this is a prospective voting model.

Let us summarize the timing of the game.

1. Politician chooses first-period policy $x_1 \in \mathbb{R}$.

2. Population gets a noisy signal $s = x_1 + z$.

3. Median voter decides whether to replace the current politician with a random one drawn from the pool.

4. In the second period, the politician (the incumbent or the new one) chooses policy $x_2 \in \mathbb{R}$.

5. Everyone learns the realizations of both policies and gets payoffs.

In this paper, we consider two possible alternative assumptions about the politicians' type space. First, we rule bribes out, and instead assume that the two types of politician differ in their policy preferences. Namely, a fraction μ are poor, and have bliss point $\gamma = 0$, while fraction $1 - \mu$ are elite (or rich) and have bliss point $\gamma = r$. Naturally, this will create the median voter an incentive to reelect a politician he perceives as poor, and replace one who represents the elite. In Section 4, we consider the case where politicians do not differ in terms of policy preferences (and for simplicity have the bliss point of the poor majority, $\gamma = 0$), but differ in their honesty. More precisely, fraction μ will be assumed to be honest, while fraction $1 - \mu$ will be able to take bribes from the elite for making certain policy choices. We discuss the setup with corruption in more detail in Section 4.

Before proceeding with the analysis of the game, we make several technical assumptions summarized below. These assumptions ensure that the model is well-behaved.

Assumption 1 *Noise z has a distribution with support on $(-\infty, +\infty)$ with c.d.f. $F(x)$ and p.d.f. $f(x)$. Density $f(x)$ is assumed to be an even (i.e., symmetric around 0) function, which is everywhere differentiable and satisfies $f'(x) < 0$ for $x > 0$.*

Assumption 1 is a mild regulatity condition on the noise. It implies, in particular, that the density function f is single-peaked. Naturally, a normal distribution $N(0, \sigma^2)$ satisfies this assumption, as do many other standard distributions.

Assumption 2 *Noise z is not too small, in the sense that:*

1. *Density function $f(x)$ satisfies*
$$f(0) \leq \frac{2}{r}; \tag{1}$$
2. *For all x, we have*
$$f'(x) < \frac{2\alpha}{W + \max(\mu, 1-\mu)\alpha r^2}$$
3. *DELETE On the interval $x \in (0, P_m)$, where*
$$P_m = (1-\mu) r,$$
we have
$$|f'(x)| < \frac{4\alpha}{W + \mu\alpha r^2}; \tag{2}$$
4. *For $x \in (0, P_m)$,*
$$f(x) + \left(\frac{W}{r\alpha} + \frac{r}{2}\right) f'(x) > 0.$$

The conditions in Assumption 2 are technical, but have straightforward interpretations. Part 1 says that the density at 0 is not too large; given the single-peakedness of f as implied by Assumption 1, this says that noise must take large values with sufficiently large probabilities. For example, it implies that
$$\Pr\left(|z| > \frac{r}{3}\right) > \frac{1}{3}.$$
Parts 2 and 3 of Assumption 2 require also that density does not fall too fast on a certain interval. It is easy to check that Assumption 2 is satisfied for a normal distribution $N(0, \sigma^2)$ if σ is large enough. A uniform distribution on a sufficiently large interval $[-A, A]$ also satisfies Assumption 2 (it does not satisfy Assumption 1, but in Example **??** below we will use its approximation which satisfies both Assumptions.

The equilibrium concept we use is Perfect Bayesian equilibrium (PBE) in pure strategies.

3 Analysis

We analyze the game using backward induction.

In the second period, each politician solves the problem

$$\max_{x_2} -\alpha \left(x_2 - \gamma\right)^2,$$

and therefore chooss his bliss point $x_2 = \gamma$ (which equals $\gamma^p = 0$ for a poor politician and $\gamma^r = r$ for an elite politician). This already implies that the median voter would prefer to have a poor politician to having an elite one in the second period. He therefore will choose to reelect the incumbent if and only if his posterior that the politician is poor exceeds μ or is equal to it, the share of poor politicians in the society (we are making an implicit assumption that whenever the median voter is indifferent—which happens with probability 0—he keeps the incumbent).

Denote the equilibrium policy that poor politicians choose in the first period by $x_1 = a$, and the policy that rich politicians choose by $x_1 = b$. Suppose now that $a < b$; Lemma 1 below establishes that this is the only possibility in an equilibrium. The probability density of getting signal s if policy is x equals $f(s - x)$. Given the prior μ that the incumbent is poor, by Bayes formula, the posterior that the incumbent is poor is given by

$$\hat{\mu} = \frac{\mu f(s-a)}{\mu f(s-a) + (1-\mu) f(s-b)}. \tag{3}$$

This posterior $\hat{\mu}$ satisfies $\hat{\mu} \geq \mu$ if and only if

$$f(s-a) \geq f(s-b). \tag{4}$$

By Assumption 1, $f(\cdot)$ is symmetric and single-peaked, and thus (4) is equivalent to a simple rule

$$s \leq \frac{a+b}{2}. \tag{5}$$

In other words, the incumbent is reelected if and only if condition (5) is satisfied, and thus, if he picks policy x, his expected probability of reelection equals

$$\begin{aligned} \pi(x) &= \Pr\left(x + z \leq \frac{a+b}{2}\right) \\ &= F\left(\frac{a+b}{2} - x\right). \end{aligned} \tag{6}$$

We now formulate the following Lemma, of which we have just proved the second part.

Lemma 1 *Denote the equilibrium policy that poor politicians choose in the first period by $x_1 = a$, and the policy that rich politicians choose by $x_1 = b$. Then:*

1. *$a < b$, i.e., poor politicians choose a left policy as compared to rich ones;*

2. *Incumbent is reelected if and only the population gets signal $s \leq \frac{a+b}{2}$, and a new politician is elected otherwise.*

Proof. In the Appendix. ■

Part 1 of Lemma 1 shows that beliefs that poor politicians choose more right policies in the first period may not be supported in an equilibrium, and Part 2 summarizes the discussion above.

To proceed, we investigate the politicians' first-period problem in more detail. A poor incumbent solves the problem

$$\max_x -\alpha x^2 + W\pi(x) - (1-\mu)\alpha r^2 (1-\pi(x)). \tag{7}$$

Here, $-\alpha x^2$ is his first period's utility, W is his second period's utility if he is reelected, and $-(1-\mu)\alpha r^2$ is his utility if he is not reelected (with probability μ another poor politician is chosen, in which case the current incumbent will get 0 as policy $x_2 = 0$ will be chosen). The first-order condition for this problem is

$$-2\alpha x - \left(W + (1-\mu)\alpha r^2\right) f\left(\frac{a+b}{2} - x\right) = 0. \tag{8}$$

Similarly, an elite incumbent solves the problem

$$\max_x -\alpha (x-r)^2 + W\pi(x) - \mu\alpha r^2 (1-\pi(x)) \tag{9}$$

(he loses αr^2 only if a poor politician is elected instead of him), which gives the first-order condition

$$-2\alpha(x-r) - \left(W + \mu\alpha r^2\right) f\left(\frac{a+b}{2} - x\right) = 0. \tag{10}$$

The first-order conditions, (8) and (10), must be in equilibrium satisfied at points a and b, respectively. Taking into account that by symmetry of f,

$$f\left(\frac{a+b}{2} - a\right) = f\left(\frac{b-a}{2}\right) = f\left(\frac{a-b}{2}\right) = f\left(\frac{a+b}{2} - b\right),$$

we have a system of two equations:

$$-2\alpha a - \left(W + (1-\mu)\alpha r^2\right) f\left(\frac{b-a}{2}\right) = 0, \tag{11}$$

$$-2\alpha(b-r) - \left(W + \mu\alpha r^2\right) f\left(\frac{b-a}{2}\right) = 0, \tag{12}$$

which define the equilibrium.

Conditions (11) and (12) immediately imply that $a < 0$ and $b < r$, i.e., both types of politicians in equilibrium choose policies which lie to the left of their bliss points on the policy space. Intuitively, a move to the left of the bliss point brings a second-order loss in the first period, but a first-order expected gain in the second period due to a higher chance of reelection. Consequently, our model necessitates a populist bias by the poor politician. This result does not rely on positive benefits from holding office, although we will establish later that higher benefits W increase this bias. In fact, even if $W = 0$, each politician wants to be reelected, because otherwise his preferred policy will be implemented with probability less than one. This effect alone is sufficient for a left bias in policy choice of both types.

Notice also the following important insight. Suppose that elite politicians' equilibrium first period policy b were exogenous, and suppose it changes (in the neighborhood of true equilibrium b). Then the equilibrium choice of poor politicians (policy a they would choose if population thought they choose a in equilibrium) would be given by (11). Since $f\left(\frac{b-a}{2}\right)$ is decreasing in b, then equilibrium choice a is an increasing function of b, so if b decreases, a also decreases. Intuitively, if the elite politicians choose a more left policy, a poor politician has a stronger need to separate, hence he would choose a more left policy. However, consider a similar problem of an elite politician if poor politicians choose more left policies. In this case, $f\left(\frac{b-a}{2}\right)$ is increasing in a, and hence equilibrium value of b, as found from (12), is decreasing in a. Here, the intuition is different. If a decreases, poor politicians are easier to distinguish from the elite ones, and hence rich politicians have a lower chance of reelection. It would seem that, like in the previous case, that this would induce elite politicians to bias their policies further to the left, in order to become more easily confused with the poor. However, unlike the previous case, this move by the poor makes the marginal effect of a policy move further to the left smaller, while the cost remains the same. Consequently, rich politicians prefer to reduce the bias of their policies, even though this would imply a lower chance of reelection, in favor of having a more preferred policy in the first period. These considerations are insightful for comparative statics results, and they almost prove the existence and uniqueness of an equilibrium (the only caveat, covered in the Appendix, is that the above reasoning was conditional on second-order conditions holding, which, as we show their, is guaranteed by Assumption 2).

Let us now proceed with characterizing the equilibrium. Combining (11) and (12), we obtain

$$\frac{a}{W + (1-\mu)\,\alpha r^2} = \frac{b-r}{W + \mu\alpha r^2}.$$

In other words,

$$b = a\frac{W + \mu\alpha r^2}{W + (1-\mu)\,\alpha r^2} + r,$$

and the equilibrium level of populist bias, $p = |a| = -a$, is thus determined from

$$2\alpha p = \left(W + (1-\mu)\,\alpha r^2\right) f\left(\frac{p}{2}\alpha r^2 \frac{1-2\mu}{W + (1-\mu)\,\alpha r^2} + \frac{r}{2}\right). \tag{13}$$

Proposition 1 *There exists a unique PBE in pure strategies. In this equilibrium, politicians choose their preferred policy in the second period. In the first period, politicians choose policies which lie left of their preferred policy. In particular, poor politicians necessarily choose a policy which lie to the left of the policy preferred by the median voter.*

Proof. In the Appendix. ■

Proposition 1 establishes the main result of the paper: the existence (and, in some sense, a necessity) of a leftist bias in a PBE of the game. The intuition is fairly straightforward. Moving slightly to the left of his ideal policy gives each politician a second-order loss, but a first-order gain due to a higher probability of being identified (misidentified, in the case of a rich politician) as a poor politician is higher. We next move to studying the comparative statics.

Proposition 2 *The absolute value of populist bias, $p = |a|$, is higher if:*

1. *W is higher (i.e., politicians value being in office more);*
2. *μ is lower (i.e., poor politicians are rarer);*
3. *α is lower, provided that $W \neq 0$ (i.e., changing political positions is relatively costless for politicians).*

Proof. In the Appendix. ■

This result is very intuitive. For example, a higher utility of staying in office unambiguously increases politician's desire to get elected. Hence, both types of politicians are likely to select more left policies than they would without this increase, and, in the case of poor politicians, this unambiguously shifts their equilibrium choice further to the left. A similar intuition applies in the case of α: if α becomes lower, both types of politicians decide to sacrifice their utility of period 1 for a higher chance of reelection.

The comparative statics on μ, the share of politicians who are poor, is slightly more complicated. Suppose that μ becomes smaller, i.e., the likelihood that the second period's politician will be pro-poor if the incumbent is not reelected is sufficiently small. This may reflect the situation in young democracies, where pro-elite politicians form the majority. In that case, a poor politician knows that if he is not reelected, his successor is less likely to pursue his preferred policies. This increases the desire of the poor politician for reelection, and for any given behavior of elite politicians, he would choose more left policies. However, an elite politician is now more certain that his preferred policy will be chosen in the second period even if he is not reelected, and this reduces his desire to signal in order to get reelected. Asssumption 2 ensures that the second effect does not dominate.

Proposition 3 *In the absense of benefits from being in office (if $W = 0$), elite politicians will not choose policies left of median voter's bliss point (i.e., $b > 0$). If $W > 0$, it is possible that $a < b < 0$ in equilibrium.*

Proof. In the Appendix. ■

This result supplements the comparative statics on W obtained in Proposition 2. It says that with $W > 0$, elite politicians are more likely to choose left policies, and it is even possible that all politicians become populists. If politicians are purely policy motivated, this may not be the case. (Note that, of course, this result relies on the assumption that future is not more valued than the present; if it were more valued, then all politicians could become populists even with $W = 0$. The intuition for this result is very simple. By choosing a populist policy, an elite incumbent cannot get better than ensuring that in the second period his favorite policy will be implemented. However, he can choose his favorite policy in the first period, and then in the second period, the policy may coincide with his bliss point r or with 0, but it will not be populist. This implies that choosing a populist policy in the first period is suboptimal for an elite politician – provided that he does not value reelection per se, as would be the case if $W > 0$.

4 Corruption

So far, we assumed that population's preference over second period's politicians is driven by politicians' policy preferences. In this section, we assume that some politicians are corrupt and can accept bribes. To keep the analysis tractable, we now rule out differences between politicians in terms of policy preferences; moreover, for simplicity we assume that $\gamma = 0$ is the politicians' bliss point. We now suppose that share μ of politicians are honest, i.e., they cannot accept bribes, while share $1 - \mu$ are corrupt and can accept bribes from the elite. We do not model the bargaining over the bribe process explicitly; instead, we postulate efficient bargaining and assume that the benefits of bribing are split between the politician and the elite in proportion $\chi : 1 - \chi$ (the politician gets share χ).

The timing of the new game is therefore as follows.

1. Politician and the elite bargain over first-period policy $x_1 \in \mathbb{R}$.

2. Population gets a noisy signal $s = x_1 + z$.

3. Median voter decides whether to replace the current politician with a random one drawn from the pool.

4. In the second period, the politician (possibly new) and the elite decide policy $x_2 \in \mathbb{R}$.

5. Everyone learns the realizations of both policies and gets payoffs.

The structure of the game is thus identical to the case introduced in Section 2, except for the efficient bargaining between the politician and the elite in stages 1 and 4. Note that parameter α which captured the intensity of politicians' policy preferences may now be given another interpretation. A small α also means that the elite is relatively large as compared to the politician, so bribing can be relatively inexpensive for the elite. A large α, however, means that the elite constitutes a relatively small group of the population, which makes the politician hard to bribe. We discuss the implications of this interpretation later on.

As before, we start our analysis with the second period. Then, an honest politician will choose his bliss point $x_2^h = 0$. A corrupt politician, however, bargains with the elite, and the equilibrium policy is determined from the condition of maximization of the join surplus of the elite and the politician. Their second-period problem is

$$\max_{x_2^c} \left(-\alpha \left(x_2^c \right)^2 - \left(x_2^c - r \right)^2 \right),$$

which has the solution

$$x_2^c = \frac{r}{1+\alpha}.$$

Naturally, a higher weight on politician's preferences biases the policy towards his bliss point. Their second-period utility is then $W - \frac{\alpha r^2}{\alpha+1}$, and the gain in utility, as compared to the status-quo $W - r^2$ (since without the bribe, the politician would choose $x_2^c = 0$), equals $\frac{r^2}{\alpha+1}$. Consequently, bribe B_2 is determined from the equation

$$-\alpha \left(x_2^c \right)^2 + B_2 = \chi \frac{r^2}{\alpha+1},$$

implying

$$B_2 = \left(\chi + \frac{\alpha}{\alpha+1} \right) \frac{r^2}{\alpha+1}.$$

Interestingly, the effect of the intensity of politician's preferences on the bribe is nonmonotonic: the bribe reaches its maximum at $\alpha = \frac{1-\chi}{1+\chi}$; for lower α the bribe is smaller because the politician is very cheap to persuade, and for very large α the politician is too hard to bribe, hence equilibrium bribe is low.

We have the following result.

Lemma 2 *In the case with corruption:*

1. *In the second period, honest politician chooses* $x_2^h = 0$*, while corrupt politician chooses* $x_2^c = \frac{r}{1+\alpha}$*;*

2. *In the first period, honest and corrupt politicians choose policies* $x_1^h = a$ *and* $x_1^c = b$ *such that* $a < b$*;*

3. *The median voter prefers to have an honest politician in the second period, and reelects the incumbent if and only if he receives signal*

$$s \geq \frac{a+b}{2}.$$

Proof. In the Appendix. ■

Part 1 of Lemma 2 was established earlier, while Parts 2 and 3 are proved in the Appendix similarly to the previous case. Let us now consider the first-period problem. The probability of reelection of a politician who chooses policy x is again given by (6). An honest politician does not accept bribes, and solves the problem

$$\max_x -\alpha x^2 + W\pi(x) - (1-\mu)\alpha\left(\frac{r}{1+\alpha}\right)^2 (1-\pi(x)). \tag{14}$$

Note that this problem is the same as (7), except for that an election of a corrupt politician gives him a utility of $-\alpha\left(\frac{r}{1+\alpha}\right)^2$ instead of $-\alpha r^2$. This problem yields the first-order condition

$$-2\alpha x - \left(W + (1-\mu)\alpha\left(\frac{r}{1+\alpha}\right)^2\right) f\left(\frac{a+b}{2} - x\right) = 0. \tag{15}$$

A corrupt politician in the first period bargains with the elite. He thus chooses policy to maximize

$$\max_x \left\{ \begin{array}{c} -\alpha x^2 - (x-r)^2 + \left(W - \frac{\alpha r^2}{\alpha+1}\right)\pi(x) \\ -(1-\mu)\left(\frac{\alpha r^2}{\alpha+1} + \left(\chi + \frac{\alpha}{\alpha+1}\right)\frac{r^2}{\alpha+1}\right)(1-\pi(x)) - \mu r^2 (1-\pi(x)) \end{array} \right\}. \tag{16}$$

Indeed, the second-period utility if the incumbent is reelected is $W - \frac{\alpha r^2}{\alpha+1}$; if he is not reelected but another corrupt politician comes to power it is the same $W - \frac{\alpha r^2}{\alpha+1}$ less $W + B_2$ lost to that new politician, and if the new politician is honest, the elite loses r^2. The first order condition of corrupt politician's first period problem is therefore

$$-2\alpha x - 2(x-r) - \left(W - \frac{\alpha r^2}{\alpha+1} + (1-\mu)\left(\frac{\alpha r^2}{\alpha+1} + \left(\chi + \frac{\alpha}{\alpha+1}\right)\frac{r^2}{\alpha+1}\right) + \mu r^2\right) f\left(\frac{a+b}{2} - x\right) = 0. \tag{17a}$$

Since first-order conditions (15) and (17a) must be satisfied in equilibrium for $x = a$ and $x = b$, respectively, we now get the equilibrium is characterized by the following two equations:

$$-2\alpha a - \left(W + (1-\mu)\,\alpha\left(\frac{r}{1+\alpha}\right)^2\right) f\left(\frac{b-a}{2}\right) = 0 \tag{18}$$

and

$$-2\alpha b - 2(b-r) - \left(W - \frac{\alpha r^2}{\alpha+1} + (1-\mu)\left(\frac{\alpha r^2}{\alpha+1} + \left(\chi + \frac{\alpha}{\alpha+1}\right)\frac{r^2}{\alpha+1}\right) + \mu r^2\right) f\left(\frac{b-a}{2}\right) = 0. \tag{19}$$

Let us now make another technical assumption.

Assumption 3 *On the interval $x \in (0, P_m)$, where [[[$\frac{2\alpha}{W+\max(\mu,1-\mu)\alpha r^2}$]]]*

Assumption 4 $W - \frac{\alpha r^2}{\alpha+1} + (1-\mu)\left(\frac{\alpha r^2}{\alpha+1} + \left(\chi + \frac{\alpha}{\alpha+1}\right)\frac{r^2}{\alpha+1}\right) + \mu r^2$

$$P_m = \frac{W}{\alpha r} + (1-\mu)\,r,$$

we have

$$\left|f'(x)\right| < \frac{4(\alpha+1)}{W + (1-\mu)\left(\chi + \frac{\alpha}{\alpha+1}\right)\frac{r^2}{\alpha+1} + \mu\frac{(2\alpha+1)r^2}{\alpha+1}}.$$

With the additional Assumption 3, we can establish the following results.

Proposition 4 *There exists a unique Perfect Bayesian Equilibrium. In this equilibrium, honest politicians necessarily choose populist policies in the first period. Corrupt politicians will choose pro-elite policies if $W = \chi = 0$, but may choose populist policies otherwise.*

Proof. In the Appendix. ■

The last part of the result suggests that if corrupt politicians do not value being in power per se (they neither get direct benefits from being in office, nor they expect to get a high surplus from engaging in corruption in the second period), then in the first period, the elite is able to bias their policy in their favor. The reason is that reelection matters sufficiently little for the corrupt politician, and he can afford to shift his policy towards elite's bliss point. However, if office is sufficiently valuable, he will engage in populist policies to make him harder to distinguish from an honest politician, who necessarily chooses populist policies.

We now establish the following comparative statics results.

Proposition 5 *Honest politicians choose more left policies if:*

1. *W is higher (more utility from holding office);*

2. *χ is higher (corrupt politicians have higher bargaining power with the elites);*

3. *μ is lower (honest politicians are rare), provided that corrupt politicians have sufficiently high bargaining power, so $\chi > \frac{1}{1+\alpha}$.*

Proof. In the Appendix. ■

These results are very intuitive. A higher W makes both politicians want reelection more, hence, they engage in more signaling. A higher χ makes only the corrupt politician want to seek reelection more; however, as this shifts their policies to the left, honest politicians want to move further left in order to separate themselves. Finally, if honest politicians are rare, it makes them want to signal even more, because the population's prior is that corrupt politicians are very likely.

One more observation is worth noting. It would seem that since corruptness of some politicians allows the elite to move their policies in their favor, corruptness of most politicians implies an unambiguous increase in welfare for the elite. However, our model implies that this need not be the case, and in fact for some parameter values the elite is worse off. In other words, the elite could be better off if it could commit not to bribe any of the politicians (in which case, presumably, the population would have no preferences over second period politicians, and the signaling would not be profitable in the first period). In fact, there are two reasons for why ability to bribe may hurt the elite. First and foremost, this makes honest politicians choose populist policies, because they now want to signal to the population that they are not corrupt. Consequently, even though bribes may help the elite move corrupt politicians' policies to the right, this actually moves honest politicians' policies to the left. Second, if corrupt politicians value being in office sufficiently high (they either get personal benefits from office, or they extract surplus from the rich in the second period), then they may also choose populist policies in the first period in order to make their corruptness harder to detect. Hence, corruptness of some politicians may make all politicians choose populist policies in the first period, thus making the elite worse off.

This discussion is summarized in the next proposition.

Proposition 6 *If $W = \chi = 0$, then the elite is better off from its ability to bribe corrupt politicians. However, if W is high enough, then the elite would be better off if it could commit never to bribe any politicians.*

Proof. In the Appendix. ■

5 Conclusion

During the decades of fast world growth and low world inflation, there was fewer expamples of popylist dictators across the globe than three decades before. Even some regimes that much resembled the populist regimes of the post-war period in many ways were conservative in the choice of their macroeconomic policy. Still, Hawkins (2003) desribing the rise of Hugo Chavez in Venezuela notes: :"If we define populism in strictly political terms—as the presence of what some scholars call a charismatic mode of linkage between voters and politicians, and a democratic discourse that relies on the idea of a popular will and a struggle between 'the people' and 'the elite'—then Chavismo is clearly a populist phenomenon." Still, the financial crisis opens door for emergence of populist regimes.

Another non-trivial feature of populist regimes is that their leaders not only sought power, but put down a lot of efforts to dismantle democratic institutions such as competitive elections and media freedom. (This is what puts countries with such different background as Chavez's Venezuela and Putin's Russia in the same league.) But we leave it for future research.

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Appendix: Proofs (To be Completed)

Proof of Lemma 1. Part 1. Consider three cases: $a < b$, $a > b$, and $a = b$. Median voter's posterior that the politician is poor is (by Bayes rule)

$$\hat{\mu} = \frac{\mu f(s-a)}{\mu f(s-a) + (1-\mu) f(s-b)}.$$

If $a = b$, then $\hat{\mu} = \mu$, and thus, by assumption, the incumbent is necessarily reelected. The poor and rich incumbents then choose their bliss points, so $a = 0 < r = b$, which contradicts $a = b$.

If $a \neq b$, then $\hat{\mu} \geq \mu$ if and only if

$$f(s-a) \geq f(s-b),$$

which simplifies to $s \leq (a+b)/2$ if $a < b$ and to $s \geq (a+b)/2$ if $a > b$. But if $a > b$, the likelihood of reelection is given by

$$\pi(x) = \Pr(x + z \geq (a+b)/2) = 1 - F((a+b)/2 - x) = F(x - (a+b)/2)$$

(the last equality follows from the symmetry of distribution). Hence, poor and rich incumbents solve problems

$$\begin{gathered} \max_x -\alpha x^2 + W\pi(x) - (1-\mu)\alpha r^2 (1-\pi(x)), \\ \max_x -\alpha (x-r)^2 + W\pi(x) - \mu\alpha r^2 (1-\pi(x)), \end{gathered}$$

respectively.

We have

$$\begin{aligned} -\alpha a^2 + WF\left(\frac{a-b}{2}\right) - (1-\mu)\alpha r^2 F\left(\frac{b-a}{2}\right) &\geq -\alpha b^2 + WF\left(\frac{b-a}{2}\right) - (1-\mu)\alpha r^2 F\left(\frac{a-b}{2}\right), \\ -\alpha (b-r)^2 + WF\left(\frac{b-a}{2}\right) - \mu\alpha r^2 F\left(\frac{a-b}{2}\right) &\geq -\alpha (a-r)^2 + WF\left(\frac{a-b}{2}\right) - \mu\alpha r^2 F\left(\frac{b-a}{2}\right). \end{aligned}$$

Adding these inequalities, dividing by α and simplifying, we get

$$-a^2 - (b-r)^2 \geq -b^2 - (a-r)^2 + r^2 \left(2F\left(\frac{a-b}{2}\right) - 1\right)(2\mu - 1)$$

Further simplification yields

$$a - b \leq \frac{1}{2} r \left(2F\left(\frac{a-b}{2}\right) - 1\right)(1 - 2\mu).$$

If $a > b$, then this condition implies $1 - 2\mu > 0$. However, then we have

$$\frac{a-b}{2} \leq \frac{r}{2}\left(F\left(\frac{a-b}{2}\right) - \frac{1}{2}\right).$$

Due to concavity of F for positive arguments (see Assumption 2), this is only possible if

$$f(0) \geq \frac{2}{r}.$$

However, in that case Assumption 2 is violated.

Part 2. By part 1, the only remaining possibility is $a < b$. The statement for this case is proved in the text. ■

Proof of Proposition 1. The second derivatives for (7) and (9) are

$$-2\alpha + \left(W + (1-\mu)\alpha r^2\right) f'\left(\frac{a+b}{2} - x\right) < 0$$

and

$$-2\alpha + \left(W + \mu\alpha r^2\right) f'\left(\frac{a+b}{2} - x\right) < 0,$$

respectively. Assumption 2 ensures that both are satisfied and hence both problems are convex. Once this is true, we find that (11) implies an increasing a as a function of b whenever $a < b$, whereas (12) implies a decreasing b as a function of a whenever $a < b$. Consequently, if an equilibrium exists, it is unique, since these "best-response" curves may intersect only once. The existence result trivially follows from (13): clearly, the left-hand side and the right-hand side have an intersection at some positive p. ■

Proof of Proposition 2. Both a higher W and a lower α shifts the best-response curves to the left. Indeed, taking the derivatives of (11) yields

$$\begin{aligned}
\frac{\partial}{\partial W}\left(-2\alpha x - \left(W + (1-\mu)\alpha r^2\right) f\left(\frac{a+b}{2} - x\right)\right) &= -f\left(\frac{a+b}{2} - x\right) < 0, \\
\frac{\partial}{\partial \alpha}\left(-2x - (1-\mu) r^2 f\left(\frac{a+b}{2} - x\right)\right) &= \frac{W}{\alpha} f\left(\frac{a+b}{2} - x\right) > 0,
\end{aligned}$$

where in the second equality we used (11). The same is true for (12), and thus the intersection of the two curves shifts to the left. Consequently, in the new equilibrium a is lower, and the absolute value of populist bias, p, is higher. To obtain the result for μ, differentiate the right-hand side of (13) w.r.t. μ:

$$\begin{aligned}
& \frac{\partial}{\partial \mu}\left(\left(W + (1-\mu)\alpha r^2\right) f\left(\frac{p}{2}\alpha r^2 \frac{1-2\mu}{W + (1-\mu)\alpha r^2} + \frac{r}{2}\right)\right) \\
= \quad & -\alpha r^2 f(\cdot) - \frac{2W + \alpha r^2}{\left(W + (1-\mu)\alpha r^2\right)} \frac{p}{2}\alpha r^2 f'(\cdot). \qquad \text{(A1)}
\end{aligned}$$

Since $\mu < 1/2$, we have $f'(\cdot) < 0$. From (13) and Assumption 2(a),

$$p < \frac{\left(W + (1-\mu)\alpha r^2\right)}{r\alpha} = \frac{W}{r\alpha} + (1-\mu) r.$$

Consequently,

$$\frac{p}{2}\alpha r^2 \frac{1-2\mu}{W+(1-\mu)\,\alpha r^2}+\frac{r}{2}<\frac{r}{2}(1-2\mu)+\frac{r}{2}=r(1-\mu)\,.$$

Hence,

$$-f(\cdot)-\frac{2W+\alpha r^2}{\left(W+(1-\mu)\,\alpha r^2\right)}\frac{p}{2}f'(\cdot)<-f(\cdot)-\left(\frac{W}{r\alpha}+\frac{r}{2}\right)f'(\cdot)\,,$$

and now Assumption 2 implies that (A1) is negative in this case, too. Now, suppose that μ decreases. If p decreases or stays the same, then the left-hand side of (13) decreases while the right-hand side unambiguously increases (recall that $f'(\cdot)<0$). For the equality to be preserved, p must increase as μ decreases. This completes the proof. ■

Proof of Proposition 3. If $W=0$, an elite politician would never choose $x_1<0$, because even $x_1=r$ and $x_2=0$ (which is the worst he can get if he is not reelected) dominates $x_1<0$ and $x_2=r$ (which is the best he can get both in the case where he is reelected and where he is not reelected). Consequently, $x_1=r$ would be a profitable deviation, and thus $x_1<0$ may not be the case in an equilibrium if $W=0$.

If $W>0$ is sufficiently large, $x_1<0$ is possible for both politicians. Indeed, x_1^r and x_1^p are linked by

$$x_1^r=x_1^p\frac{W+\mu\alpha r^2}{W+(1-\mu)\,\alpha r^2}+r.$$

If W is sufficiently large, equilibrium populism p can be made arbitrarily large (otherwise in (13), the argument of f would be bounded from below, and thus the right-hand side could be arbitrarily large, which is incompatible with the left-hand side being bounded). But then x_1^p may be arbitrarily large (in absolute value) negative number, and thus x_1^r will also become negative, since $\frac{W+\mu\alpha r^2}{W+(1-\mu)\alpha r^2}$ has a limit as $W\to\infty$. This completes the proof. ■

Proof of Lemma 2. The proof of the Lemma is completely analagous to the proof of Lemma 1 and is omitted. ■

Proof of Proposition 4. Notice that under Assumption 2, problems (14) and (16) are convex. Indeed, take (14); the second derivative w.r.t. x equals

$$-2\alpha+\left(W+(1-\mu)\,\alpha\left(\frac{r}{1+\alpha}\right)^2\right)f'\left(\frac{a+b}{2}-x\right)<0,$$

since $1+\alpha>1$ and thus $W+(1-\mu)\,\alpha\left(\frac{r}{1+\alpha}\right)^2<W+(1-\mu)\,\alpha r^2$. For problem (16), the second derivative w.r.t. x equals, after simplifications,

$$-2\alpha-2+\left(W+\left(\mu+(1-\mu)\left(\chi+\frac{\alpha}{\alpha+1}\right)\right)\frac{r^2}{\alpha+1}\right)f'\left(\frac{a+b}{2}-x\right).$$

For this to be negative, it suffices that

$$f'\left(\frac{a+b}{2}-x\right) \quad < \quad \frac{2(\alpha+1)}{\left(W+\left(\mu+(1-\mu)\left(\chi+\frac{\alpha}{\alpha+1}\right)\right)\frac{r^2}{\alpha+1}\right)}$$
$$= \quad \frac{2\alpha}{W\frac{\alpha}{\alpha+1}+\left(\mu+(1-\mu)\left(\chi+\frac{\alpha}{\alpha+1}\right)\right)\frac{r^2}{\alpha+1}\frac{\alpha}{\alpha+1}}. \tag{A2}$$

Simple algebra reveals

$$W\frac{\alpha}{\alpha+1}+\left(\mu+(1-\mu)\left(\chi+\frac{\alpha}{\alpha+1}\right)\right)\frac{r^2}{\alpha+1}\frac{\alpha}{\alpha+1}<W+\alpha r^2,$$

and then (A2) is negative, provided that 2 is satisfied. As in the Proposition 1 we get that equilibrium is determined by the intersection of a as an increasing function of b and of b as a decreasing function of a. This ensures that equilibrium is unique if it exists, and existence is proved similarly to Proposition 1.

In the first period, policy of the first politician is given by (15), which automatically implies $a<0$.

$$-2\alpha a-\left(W+(1-\mu)\,\alpha\left(\frac{r}{1+\alpha}\right)^2\right)f\left(\frac{b-a}{2}\right)=0 \tag{A3}$$

and

$$-2\alpha b-2(b-r)-\left(W-\frac{\alpha r^2}{\alpha+1}+(1-\mu)\left(\frac{\alpha r^2}{\alpha+1}+\left(\chi+\frac{\alpha}{\alpha+1}\right)\frac{r^2}{\alpha+1}\right)+\mu r^2\right)f\left(\frac{b-a}{2}\right)=0. \tag{A4}$$

To be completed. ■

$$-\tfrac{\alpha r^2}{\alpha+1}+(1-\mu)\left(\tfrac{\alpha r^2}{\alpha+1}+\left(\chi+\tfrac{\alpha}{\alpha+1}\right)\tfrac{r^2}{\alpha+1}\right)+\mu r^2<\left(\mu+(1-\mu)\left(1+\tfrac{\alpha}{\alpha+1}\right)\right)\tfrac{r^2}{\alpha+1}$$
$$\alpha-\left(\mu+(1-\mu)\left(\tfrac{\alpha}{\alpha+1}\right)\right)\tfrac{1}{\alpha+1}=\tfrac{1}{(\alpha+1)^2}\left(\alpha^3+2\alpha^2-\mu\right)$$
$$=\tfrac{1}{(\alpha+1)^2}\left(2\alpha^2-\alpha+\alpha^3+\alpha\mu-1\right)$$

$$\alpha-\left(\mu+(1-\mu)\left(1+\tfrac{\alpha}{\alpha+1}\right)\right)\tfrac{1}{\alpha+1}\tfrac{\alpha}{\alpha+1}=\tfrac{\alpha^2}{(\alpha+1)^3}\left(\alpha^2+3\alpha+\mu+1\right)$$
$$(1-\mu)\,\alpha-\left(\mu+(1-\mu)\left(1+\tfrac{\alpha}{\alpha+1}\right)\right)\tfrac{1}{\alpha+1}\tfrac{\alpha}{\alpha+1}=-\tfrac{\alpha}{(\alpha+1)^3}\left(\mu-\alpha-3\alpha^2-\alpha^3+2\alpha\mu+3\alpha^2\mu+\alpha^3\mu\right)$$

Proof of Proposition 5. To be completed. ■

Proof of Proposition 6. To be completed. ■

$$\frac{2\alpha}{W+(\alpha+\mu)\frac{r^2}{(\alpha+1)^2}}$$

$W-\frac{\alpha r^2}{\alpha+1}+(1-\mu)\left(\frac{\alpha r^2}{\alpha+1}+\left(\chi+\frac{\alpha}{\alpha+1}\right)\frac{r^2}{\alpha+1}\right)+\mu r^2$

Is it true that $-\frac{\alpha r^2}{\alpha+1}+(1-\mu)\left(\frac{\alpha r^2}{\alpha+1}+\left(\chi+\frac{\alpha}{\alpha+1}\right)\frac{r^2}{\alpha+1}\right)+\mu r^2>\alpha r^2$

$-\frac{\alpha}{\alpha+1}+(1-\mu)\left(\frac{\alpha}{\alpha+1}+\frac{\alpha}{\alpha+1}\frac{1}{\alpha+1}\right)+\mu-\alpha=-\frac{1}{(\alpha+1)^2}\left(\alpha^3+2\alpha^2-\mu\right)$

Minimum of $-\mu\frac{\alpha r^2}{\alpha+1}+(1-\mu)\left(\chi+\frac{\alpha}{\alpha+1}\right)\frac{r^2}{\alpha+1}+\mu r^2$

$(\alpha+\mu)\frac{r^2}{(\alpha+1)^2}$

$((1-\mu)\alpha+\mu(\alpha+1))=\alpha+\mu$

distance: $\frac{W+\min(\mu,1-\mu)\alpha r^2}{2\alpha}\frac{2}{r}=\min(\mu,1-\mu)\alpha r^2$

$-\frac{\alpha r^2}{\alpha+1}+(1-\mu)\left(\frac{\alpha r^2}{\alpha+1}+\left(\chi+\frac{\alpha}{\alpha+1}\right)\frac{r^2}{\alpha+1}\right)+\mu r^2-\alpha r^2$

$-\frac{\alpha r^2}{\alpha+1}+r^2=\frac{r^2}{\alpha+1}$

$-\frac{\alpha r^2}{\alpha+1}+(1-\mu)\left(\frac{\alpha r^2}{\alpha+1}+\left(\chi+\frac{\alpha}{\alpha+1}\right)\frac{r^2}{\alpha+1}\right)=-\frac{r^2}{(\alpha+1)^2}\left(2\alpha\mu-\chi-\alpha-\alpha\chi+\mu\chi+\alpha^2\mu+\alpha\mu\chi\right)$