Deceptive Redistribution*

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Abstract

Many policies enhance welfare under certain conditions, but have the potential to generate private rents at other times. This can prompt rent-seeking governments to adopt such policies excessively. If the economy’s constituents can easily detect opportunistic policymaking, rent-seeking is constrained by the prospect of losing political reputation and the removal from power. If, in contrast, information is scarce and the politician’s motives are accordingly murky, his discretion depends critically on the ability of different constituents to report instances of abuse. Governments, however, can mitigate scrutiny by way of excessive transfers that benefit prospective political clients. The patterns of inefficiency and redistribution that our model generates match salient stylized facts. In contrast to the standard view that inefficiencies are unavoidable when implementing redistributive policies, we argue that redistribution may be a means to disguise inefficient policies that generate private benefits to politicians.

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1 Introduction

A rich literature emphasizes the importance of institutions as a determinant of economic development.\footnote{Acemoglu et al. (2001) renewed interest in the role of institutions and the research agenda has been very active since then.} They shape, for instance, the constraints that a policymaker faces when selecting between policies that improve social welfare and others that generate private benefits in the form of rents, but are undesirable otherwise. There is ample evidence to suggest that in countries with weak institutions politicians can extract rents and sustain political patronage with relative impunity. Mobutu Sese Seko in Zaire, the Duvaliers in Haiti, or the Marcos family in the Philippines, for instance, were able to extract rents for themselves and their cronies yet hold on to office for years. In contrast, more advanced economies have tighter political constraints. Instances of rent-seeking and cronyism are relatively short-lived and uncommon.

More generally, weak institutions are associated with (i) a high incidence of rent-seeking and opportunistic government behavior, (ii) the frequent adoption of distortionary public policies and (iii) instances of excessive redistribution. This raises a number of salient questions: How can policymakers in these countries disguise their private rent-seeking motives and distortionary policies for extended periods of time? Why do these governments engage in inefficient redistribution? How do they select the beneficiaries of redistributive policies?

In this paper we argue that answers to these questions hinge on the ease with which constituents can identify and respond to instances of abuse of political power. When details about the politicians’ behavior are widespread, the threat of a damaged reputation and the prospect of being removed from office is enough to discourage opportunism and foster the adoption of socially optimal policies. If, on the other hand, rent-seeking is organized in a way such that some constituents are aware of the policymaker’s use of resources for private gain while others are not, then political discipline can be more elusive.

How effortlessly informed constituents can disseminate their knowledge plays a critical role in this context. When it is onerous economically, those in the know weigh the private costs of mobilizing political resources with the expected benefits from ousting a government that fails to act in the public interest. What’s more, an opportunistic
government can favorably unbalance this cost-benefit trade-off by extending political patronage to the least informed constituents, which, in turn, discourages their participation in any replacement attempt. Not surprisingly, patronage sustains information asymmetries among otherwise identical constituents and rent-seeking politicians are more likely to hold on to office.

We capture the salient features of this mechanism in a tractable reputation model. Governments carry out the twin task of maximizing aggregate output (efficiency) and social welfare. While decentralized markets occasionally achieve both objectives, they fail to do so in some states of the world and governments step in to optimally allocate and redistribute resources in the economy.

Two information frictions stand in the way of optimality. First, the government’s type is unknown: some act like a benevolent social planner while others try to extract private rents. Second, while the government always knows the true state of the economy, only some – but not all – political constituents do so. To fix ideas, assume that production is associated with externalities. When they are high, a Pigouvian tax can restore efficiency; when they are low, however, a lower tax suffices. Similarly, governments can maximize welfare in the presence of income and consumption inequalities by transferring resources from the rich to the poor. When income are equalized to begin with there is no need for redistribution.

How can governments extract rents in this economy? By setting excessive tax rates – that is, a high rate when the externality is low – they can misrepresent the size of the economic “pie” and pocket the difference as rents. If all constituents knew the true state of the world, it would be immediately clear that the government acts opportunistically. In contrast, when no one knows, constituents beliefs over the need for different taxes and the government type evolve slowly based on observable taxes.

Here we analyze the intermediate case where some are more informed about the true state of the world than others. Constituents publicize knowledge about the government’s type by way of political mobilization. To unseat the incumbent a majority must support any effort. Since the need for redistribution is equally opaque, rent-seeking politicians exploit the uncertainty with respect to the need for redistribution: they recruit political clients by orchestrating transfers when, in fact, incomes and hence consumption are already equalized. Deceptive redistribution, as we call it, shifts costs and benefits in ways that discourage political activism and prolong un-
certainty about the incumbent’s type. As a result, opportunists can extract rents with relative impunity.

Our model has a number of predictions that are supported by the salient stylized facts. First, the model delivers a hump-shaped pattern of excessive redistribution. When political mobilization is costly, informed constituents do not mobilize resources in the presence of distortions and political leaders can get away with rampant rent-seeking without the need to appease political challengers. As mobilization becomes less onerous, their grip on power is more tenuous. They extract rents with some degree of moderation but actively co-opt potential opponents through redistribution. Finally, when the political system is fairly open, they extract rents infrequently and excessive redistribution is correspondingly rare. The evidence suggests an analogous inverted-U relationship between the quality of an economy’s institutions and the incidence of deceptive redistribution.

When the costs of political mobilization are prohibitive, rent-seeking is pervasive and redistribution is infrequent. Politically unconstrained dictators extract rents with virtual impunity and hence do not rely on broad-based clientelism to remain in power. African strongmen like Mobutu and a handful of his cronies, for instance, accumulated notorious wealth yet faced virtually no political opposition for years, if not decades. Reportedly he earmarked one quarter of the state budget for his personal use and to pay off a fairly small rotating roster of politicians and military officers. (Hawthorn, 1993). At the same time, large-scale redistribution – say, in the form of land reform – is remarkably rare in Africa.

When political opposition is less costly a different pattern emerges. Politicians retain the ability to extract rents yet exercise more moderation. At the same time, they rely on redistribution to quell political unrest and solidify their grip on power. Albertus (2011) and Albertus and Menaldo (forthcoming), for instance, support the prediction that aggressive redistribution is common when the costs of political mobilization are neither prohibitive (as in parts of Africa or Asia) nor free (as in many advanced democracies). They find that between 1951 and 1990, Latin American autocrats were

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2Sub-Saharan Africa abounds with such examples. Meredith (2005) is a comprehensive account of the continent’s postcolonial history and documents instances of ill-gotten wealth by many of its rulers. Padro i Miquel (2007), for instance, mentions Daniel Arap Moi in Kenya and Félix Houphouët-Boigny in Côte d’Ivoire. Their personal wealth reportedly was of the same size as their countries’ foreign debt.

3A notable exception is post-apartheid South Africa.
significantly more likely to redistribute wealth and income through land reform than their democratic counterparts.\(^4\) Through the lens of our model this underscores that their hold on power was open to challenge and that they strategically appeased key constituents by way of resource reallocation. In particular, land reform allowed them to dampen political pressure from the lower and middle classes and he finds that autocrats who distributed land successfully stayed in office longer.

When political mobilization is relatively effortless, the economy’s constituents can discipline opportunistic governments easily. Inevitably, rent-seeking is rare. Since governments only try to mislead their constituents when they extract rents, this also implies a low incidence of deceptive redistribution. One would expect mature democracies to be fairly efficient and the evidence, we believe, supports this view.

Our theory gives rise to another noteworthy prediction. Opportunistic governments target the most affluent for distortion, who become then informed, and recruit political clients amongst the economy’s least informed, who are also the least affluent. This strategy turns out to be optimal since it increases the resources up for grab yet confines awareness of rent-seeking activities to the smallest possible number of constituencies. Since it undermines mobilization it bolsters political survival. We like to think of this result as a rationale for populism where the poor and uneducated unwittingly support governments with socially dubious and possibly self-serving economic policies, even at their own loss.\(^5\)

**Literature Review**

Like Padro i Miquel (2007) we try to understand how self-interested governments manage to remain in power for extended periods in countries with weak institutions. While his answer relies on fragmentation along ethnic lines we argue that information asymmetries across groups that are otherwise identical can help us understand the nexus between institutions, rent-seeking, and redistribution. Since fractionalization is not a prerequisite we can arguably apply our theory to a broader range of countries.

Our model also provides a novel interpretation of the well-known inverted-U rela-

\(^4\)The result is robust and survives controlling for left-right ideology.

\(^5\)Juan Perón in Argentina, Getúlio Vargas in Brazil, or – more recently – Hugo Chávez (Venezuela), Evo Morales (Bolivia), and Rafael Correa (Ecuador) all fit the mold of populist politicians. State control of energy resources, for instance, is a common theme. The policies are extraordinarily inefficient and a source of rents for those in power (see, for instance, Lance, 2007; Usborne, 2006).
tionship between inequality and development, first studied by Kuznets (1955) and Kaldor (1956), and more recently analyzed by Perotti (1993). In our case, since excessive redistribution tends to concentrate wealth in specific groups of the economy, inequality is highest when redistribution is common. Here, this happens when institutions are of intermediate quality. When mobilization is prohibitive, inefficiencies are rampant but everyone outside government is worse off. In contrast, when it is effortless, both rent-seeking and deceptive redistribution are rare: the rising tide lifts all boats.

Unlike Besley and Coate (1997, 1998) and Caselli and Morelli (2004) we do not model the process by which citizens declare themselves candidates and how a particular (head of) government is elected. Rather, we assume that citizens cannot select the incoming government type but can choose when to oust it. Instead of focusing on the entry margin, we pay attention to the exit mechanism.\footnote{In this respect our model is close to Ferejohn (1986).}

The model features a self-interested policymaker in addition to a benevolent planner. Unlike Acemoglu et al. (2008, 2010, 2011), Yared (2010), and Ales et al. (2011), however, we assume that the government’s type is unknown to the public. We further build on the current literature by introducing a matrix of information asymmetries between policymakers and citizens who are, themselves, segmented into constituencies with varying degrees of access to information. While Padro i Miquel and Yared (2011) deal with the costly prevention of political nuisances, we characterize how political actions that are initiated and whose costs are borne by citizens shape the rent-extraction incentives of a reputation-sensitive government. Information asymmetries between different constituencies generate a natural sequence of actions in our theory: the most informed group launches any attempt to unseat an opportunistic government. Relatively uninformed constituents update their beliefs about the government type and decide whether to participate in the political effort to remove the incumbent. In this regard, informed agents play a role similar to Bueno de Mesquita (2010)’s revolutionary vanguards.

Our work is also related to Coate and Morris (1995) and Acemoglu and Robinson (2001). They are concerned with efficient versus inefficient forms of transferring resources between agents. Our focus, on the other hand, is on the extent to which transfer payments mask inefficient policies. These deceptive transfers affect how ac-
curately citizens can update their beliefs about the government type (quality) and how effectively they can discipline self-interested politicians. We assume that the government’s type is private information and the policymaker has incentives to build a reputation that resemble those in Coate and Morris (1995) and Phelan (2006).

In our model, information frictions and asymmetries determine how much discipline citizens can impose on opportunistic politicians. Along similar lines Strömberg (2004b) and Snyder and Strömberg (2010) document how differential press coverage and exposure to radio broadcasts shapes patterns of public spending and political accountability.\footnote{Strömberg (2004a) is a theoretical contribution to the literature on the role of media and public policy.} Alston et al. (2010) show how interest groups with limited voting power and resources manipulate media information in order to secure favorable policies. We instead focus on how constituents with limited information can influence the policy choices of self-interested governments.

There is, of course, a vast literature on the age-old trade-off between redistribution and efficiency (see, for instance, Alesina and Rodrik, 1994; Persson and Tabellini, 1994, among many others). While this literature argues that it may be necessary to introduce inefficiencies in order to redistribute, we emphasize that redistribution may not be the end but the means by which inefficiency is introduced. Rivera-Batiz (2002) emphasizes the role of good governance as a source of innovation and economic growth. We build on that insight by providing primitives that support (or stifle) good governance as an endogenous strategy in a non-cooperative game.

The remainder of the paper is organized as follows. Sections 2.1 and 2.2 set up the environment. In particular, we specify the information frictions and the timing of events. In section 2.3 we define and characterize the equilibrium and we highlight some noteworthy comparative statics. In section 3 we augment the model by introducing an asymmetric endowment shock that enables governments to redistribute resources strategically. We characterize the interaction between institutions on the one hand and policy strategies on the other in more detail in section 4. Section 6 concludes.
2 Asymmetric Information Fosters Inefficient Policies

In this section we introduce a model where rent-seeking governments have reputation concerns. They can introduce distortionary policies to appropriate short-term private gains at the risk of damaging their reputation, which is valuable for the government in the long run. Different constituencies, however, may be affected differentially by those policies and then asymmetrically informed about whether policies are distortionary or not.

In order to highlight the relation between asymmetric information and the incentives of governments to distort and exploit rent-seeking opportunities, we focus on a single period model in which the value of reputation, and hence the severity of punishments, is exogenously imposed. Since reputation is an intrinsically dynamic concept, its value should be determined endogenously in a repeated game. We refrain from doing so in our benchmark model but show in Appendix A.5 how to endogenize the value of reputation and the conditions under which being reputable is economically beneficial. Also in the appendix we show that the equilibrium of the single period game is the solution of any period in a repeated game where reputation is the state variable and the value function is endogenous. What links one period to the next is reputation updating. The remainder of this section, however, introduces the benchmark one-period game.

2.1 Environment

The economy is populated by a government and two constituents, each of which has a continuum of individuals and is indexed by \( i \in \{1, 2\} \). We use the terms constituency, group, sector, and activity interchangeably. In Appendix A.4 we study an extension with a larger number of constituents. The main results of the paper are robust to this extension since free riding prevents information from leaking perfectly to the rest of the society.

The size of each group is exogenous and denoted by \( L \), where \( L^1 = L^2 \). We assume full insurance across members of the same group, but not across groups. Individuals have standard and identical preferences satisfying \( U'(\cdot) > 0 \) and \( U''(\cdot) \leq 0 \).

Total output in the economy is determined by an aggregate fundamental \( \beta = \left( \begin{array}{c} \beta^1 \\ \beta^2 \end{array} \right) \)
and a government policy $\alpha = \begin{pmatrix} \alpha^1 \\ \alpha^2 \end{pmatrix}$, where $\beta^i \in \{\beta^i_L, \beta^i_H\}$ and $\alpha^i \in \{\alpha^i_L, \alpha^i_H\}$. For tractability, we assume further that output in sector $i$ depends only on $\alpha^i$ and $\beta^i$ such that

$$Y^i(\beta^i_H, \alpha^i_H) > Y^i(\beta^i_H, \alpha^i_L) > Y^i(\beta^i_L, \alpha^i_H) > Y^i(\beta^i_L, \alpha^i_L)$$

In a given sector $i$, $\alpha^i_H$ is the policy that maximizes output if the state is $\beta^i_H$ and $\alpha^i_L$ is the policy that maximizes output if conditions are characterized by $\beta^i_L$. In addition, the government can provide insurance across groups using lump sum taxes and subsidies, such that the consumption of each group is $C^1(\alpha) = C^2(\alpha)$, subject to the resource constraint

$$C^1(\alpha) + C^2(\alpha) \leq Y^1(\beta^1, \alpha^1) + Y^2(\beta^2, \alpha^2).$$

The state $\beta$ follows known exogenous stochastic processes with $\Pr(\beta^i_H) = \gamma^i$. The draws from these two distributions are independent across sectors.

The government can be one of two permanent types: $G$ (for “good”) or $B$ (for “bad”). It is drawn from an exogenous distribution with $\Pr(G) = \phi_0$. The government knows its own type. The public, however, has an imprecise – and endogenously evolving – belief about the government’s type. We call it reputation and denote it by $\phi$. We assume that the government’s reputation $\phi$ has an exogenous economic value $\Pi(\phi)$, which is positive, increasing in $\phi$ and accrues at the end of the period. The (continuation) value is discounted by a factor $\delta < 1$. In Appendix A.5 we show how to derive this value endogenously in a fully specified repeated game.

Type-$G$ governments are concerned exclusively with social welfare. They always select the policy $\alpha$ that maximizes output and allocate output equitably across groups. Type-$B$ governments, on the other hand, extract rents while trying to stay in office by way of “managing” their reputation $\phi$.

How can bad governments extract rents? They select an inefficient policy $\alpha$ and then skim the surplus for private use, which is possible due to information frictions. Suppose, for instance, that a bad government selects $\begin{pmatrix} \alpha_L \\ \alpha_H \end{pmatrix}$ when the exogenous state is $\begin{pmatrix} \beta_H \\ \beta_H \end{pmatrix}$. To mimic the good type, the government allocates $C^1(\alpha) + C^2(\alpha) =$
\(Y^1(\beta^1_L, \alpha^1_L) + Y^2(\beta^2_H, \alpha^2_H)\) to the two constituents. Since the state is \(\beta_H\) in sector \(\mathbb{1}\), the assigned consumption does not exhaust the realized output and the government can pocket the difference \(\bar{\Delta} \equiv Y^1(\beta^1_H, \alpha^1_L) - Y^1(\beta^1_L, \alpha^1_L) > 0\) as office rents. \(\bar{\Delta}\) is the private short-term gain associated with depressing output.

Each group knows its own fundamental \(\beta^i\), which implies that it observes whether the government distorts its own activity or not. In the example above, group \(\mathbb{1}\) is informed about the distortion and it knows the government is bad. Group \(\mathbb{2}\), in contrast, does not observe any distortion and relies on other signals to update their belief \(\phi\) about the government’s type. In other words, opportunism may impose a private long-term cost on the government in terms of reputation.

At the beginning of the period, the individuals in \(\mathbb{1}\) and \(\mathbb{2}\) share the same beliefs about the government’s type. Due to asymmetric access to information their beliefs can diverge after observing a government’s policy. In this situation, those in constituency \(\mathbb{1}\) can decide to mobilize political resources to oppose the incumbent government at a cost \(z_1\). Those in the second constituency can then actively participate in the effort at a cost \(z_2\). These costs are what we call mobilization costs and they are independent draws across groups (and common for individuals of each group) from a known and common distribution \(F(z)\) with support \((\underline{z}^i, \infty)\), where \(\underline{z}^i > 0\).\(^9\) Mobilization is deliberately modeled in very general terms and can be interpreted as any form of political action that can lead to a government’s downfall, provided that support is broad enough. At the “soft” end of the spectrum, mobilization is simply a device to publicize private information, say, through investigative journalism. At the other extreme, it may represent civil unrest or an attempt to displace the incumbent government by use of force.\(^{10}\)

If both groups are in agreement that the government is bad – that is, both mobilize resources to unseat the government – the incumbent is replaced by a new draw from the exogenous distribution of government types.

The key information frictions in the model are associated with the government type

\(^{9}\)For simplicity we will assume later that \(\underline{z}^i\) prevents group \(i\) from mobilizing immediately if it has not been distorted, and we will derive such restriction parametrically.

\(^{10}\)Examples somewhere along this continuum include the Velvet Revolution in Czechoslovakia and the Monday Demonstrations in Leipzig (former East Germany) in 1989, both of which led to the demise of their respective communist governments. More recent instances are the street protests of the Arab Spring movement – which made use of force to varying degrees – or the Argentinean revolt of December 2001, which led to the demise of a democratic government.
(G or B) and the state \( \beta \). The government type is private information. The realizations of \( \beta \), on the other hand, are observed by the government and by the affected constituency. The policies \( \alpha, C^1(\alpha) \) and \( C^2(\alpha) \) are public information. Finally, the realizations of the mobilization cost for each group, denoted by \( z^1 \) and \( z^2 \), are observed privately. Table 1 summarizes this information structure.

### 2.2 Timing

The players move sequentially and the exact timing of events is as follows:

1. At the beginning of the period the state \( \beta \) is realized, and each sector draws an independent mobilization cost from the distribution \( F(z) \).

2. The government of type \( j \in \{G, B\} \) with reputation \( \phi \) in power observes \( \beta \) and chooses a vector of policies \( \alpha \). We denote by \( \tau^1_X(\phi, \beta) = \begin{pmatrix} \Pr(\alpha^1_L|\phi, \beta) \\ \Pr(\alpha^2_L|\phi, \beta) \end{pmatrix} \) the government’s two-dimensional strategy of introducing a policy \( \alpha_L \) when it has reputation \( \phi \) and faces the exogenous state \( \beta = \begin{pmatrix} \beta^1 \\ \beta^2 \end{pmatrix} \).

In addition to \( \alpha \), the government announces the consumption allocations \( C^1(\alpha) \) and \( C^2(\alpha) \) that are associated with the policy \( \alpha \). Importantly, we assume that governments can commit to these announcements.

3. Each constituent observes its own exogenous state \( \beta^i \), the policies \( \alpha = \begin{pmatrix} \alpha^1 \\ \alpha^2 \end{pmatrix} \), the announced consumption allocations \( C^1(\alpha) \) and \( C^2(\alpha) \), and its own mobilization cost.
tion cost $z^i$. A constituent $i$ who faces a distortionary policy has an information advantage: it knows that the government is bad with certainty.

4. Each group $i$ decides whether to mobilize resources ($R^i_1 = 1$) or not ($R^i_1 = 0$). The subscript 1 identifies the constituents’ initial best response to the government’s announced policy. We denote the corresponding strategy by

$$\tau^i_1(\beta^i, \alpha, C(\alpha), z^i) = \Pr(R^i_1 = 1|\beta^i, \alpha, C(\alpha), z^i)$$

where $\beta^i \in \{\beta^i_L, \beta^i_H\}$ and $C(\alpha) = \left(\frac{C^1(\alpha)}{C^2(\alpha)}\right)$.

5. If at least one constituency mobilizes in the first round there is a second round where the “laggard” decides whether to join the initial effort or not. If no one mobilizes in a round, all subsequent rounds are cancelled. We denote the second-round strategy by

$$\tau^i_2(R_1, \beta^i, \alpha, C(\alpha), z^i) = \Pr(R^i_2 = 1|R_1, \beta^i, \alpha, C(\alpha), z^i)$$

where $R_1 = \left(\frac{R^1_1}{R^2_1}\right)$.

6. If both constituents mobilize eventually, the incumbent government is removed from power and pays a penalty $P$, which summarizes the extent to which it is ostracized economically once it falls from political grace. The incumbent is then replaced with a new government, which is a good type with the exogenous probability $\phi_0$. The cost of mobilizing again after a government has been overthrown earlier is prohibitive by assumption. This rules out further government turnover for the remainder of the period. The new government chooses new policies $\hat{\alpha}$ and $\hat{C}(\hat{\alpha})$, which take into account that the initial reputation is $\phi_0$ and that it cannot be removed from power until the following period.

If only one group mobilizes in both rounds, the government implements the announced policy $\alpha$ and allocates $C(\alpha)$.

7. The ruling government ends the period with an updated reputation $\phi'$ – the belief held by the least informed, conditional on the actions of the more informed – and receives $\delta \Pi(\phi')$. Reputation $\phi'$ is the relevant one because it is the publicly
available information conditional on all the policies and political mobilization activities by potentially more informed groups.\footnote{In the Appendix, we endogenize $\Pi(\phi)$ in the fully repeated game. In essence, since the population prefers to have a better government in place, a higher reputation increases the probability of remaining in office. If staying in power offers additional opportunities to extract rents, $\Pi(\phi)$ is a well-behaved function that is increasing in $\phi$. In such an extension only the reputation assigned by the uninformed determines the government’s payoffs.}

In a nutshell, the government is aware that the constituency it targets for rent extraction is clued into this attempt. This implies, of course, that it can – with positive probability – signal the opportunistic behavior to those who are unaware, by mobilizing political resources to remove the rent-seeker from office in a coordinated effort.

### 2.3 Equilibrium

In the interest of expositional clarity we make the following three assumptions:

**Assumption 1** $\beta^2_L = \beta_L$.

This assumption is without loss of generality and implies that the policy for $\beta^2_L$ is always $\alpha_L$, allowing us to focus on the potential distortion for $\beta$. Later we relax this assumption, show there is never distortion of both groups, and study which group is more likely to be targeted with distortions, and under which conditions. For notational convenience we call $\beta^I$ informed (about its own fundamental) and $\beta^U$, uninformed (about the fundamental of $\beta^I$). All groups are informed about the fundamental of $\beta$.

We denote the former by $I$ and the later by $U$. We also denote generically $\beta$ and $\alpha$ for those applying to $\beta^I$.

**Assumption 2** All agents are risk-neutral: $U''(\cdot) = 0$.

Under risk neutrality the benevolent planner is no longer concerned with insurance across constituents. To resolve the resulting indeterminacy in the allocation of resources we further assume that:

**Assumption 3** Good governments split consumption equitably ($C^I_\alpha = C^U_\alpha$), subject to the constraint $C^I_\alpha + C^U_\alpha \leq Y_{\beta,\alpha}$.
Assumptions 2 and 3 do not affect our qualitative results but allow us to characterize the interaction of the government’s efficiency and redistribution motives more crisply.

**Definition 1** A Bayesian perfect equilibrium consists of the government distortion probability \( \tau_X(\phi, \beta) \), transfers \( C_\alpha^I = C_\alpha^U \), mobilization probabilities \( \tau_I(\beta, \alpha, C_\alpha, z_I) \) and \( \tau_U(R_I, \alpha, C_\alpha, z_U) \) and an updated government reputation \( \phi' \) for the uninformed group such that:

1. the government and the two sectors maximize their expected utility, and
2. beliefs \( \phi \) are updated using Bayes’ rule, whenever possible.

The following Proposition summarizes the main properties of the unique equilibrium in this model.

**Proposition 1** The unique equilibrium is characterized by the following decision rules.

1. Conditional on observing a policy \( \alpha \) and the transfers \( C_\alpha \), and if \( z \) is high enough such that \( U \) prefers to wait and see \( I \)’s mobilization.
   
   (a) \( U \) never mobilizes resources when \( I \) does not.
   (b) \( U \) mobilizes resources if \( I \) does and if, in addition, the costs of mobilization are sufficiently low, \( z_U < \bar{z}_U|R_I, \alpha, \phi \).

2. Conditional on observing a state \( \beta \) and policies \( \alpha \) and \( C_\alpha \):
   
   (a) \( I \) never mobilizes when the policy is efficient (\( \alpha_H \) when \( \beta_H \) and \( \alpha_L \) when \( \beta_L \)).
   (b) \( I \) mobilizes when the policy is inconsistent with the current state and \( z_I < \bar{z}_I|\beta, \alpha, \phi \).

3. Both good and bad governments announce transfers \( C_{\alpha_L}^I = \frac{Y_{\beta_H, \alpha_L}^I + Y_{\beta_L, \alpha_L}^I}{2} \) or \( C_{\alpha_H}^I = \frac{Y_{\beta_H, \alpha_H}^I + Y_{\beta_L, \alpha_L}^I}{2} \), for \( j \in \{I, U\} \).

4. The assumed strategies of a good government are \( \tau_{X}^G(\phi|\beta_L) = 1 \) and \( \tau_{X}^G(\phi|\beta_H) = 0 \).

5. The unique strategies of a bad government are \( \tau_{X}^B(\phi|\beta_L) = 1 \) and \( \tau_{X}^B(\phi|\beta_H) \) satisfies

\[
\delta \Pi(\phi'_{\alpha_H|\tau_X^B}) - (1 - F_I)\delta \Pi(\phi'_{\alpha_L|\tau_X^B}) = \Delta + F_I\delta \Pi(0) - F_I F_U[\Delta + \delta \Pi(0) + P](1)
\]

where \( \Delta = Y_{\beta_H, \alpha_L} - Y_{\beta_H, \alpha_H} \) and \( \phi'_{\alpha|\tau_X^B} \) is the updated reputation by \( U \) when the policy is \( \alpha \), conditional on the belief about the government’s equilibrium strategy, and \( F_I = F(\bar{z}_I) \) and \( F_U = F(\bar{z}_U) \).
The proof is in Appendix A.2. The intuition for the result is the following.

Clearly, the uninformed constituent never mobilizes unless $I$ mobilizes in the first place. To displace the incumbent both constituents must mobilize. If only $U$ mobilizes, it cannot possibly garner any support from $I$ and hence does not trigger political change. $U$ would incur the cost of mobilizing without obtaining any benefit in return.

Second, since the government reveals its type to $I$ when distorting and $I$ reveals the government type when mobilizing, effectively the cutoffs $\bar{z}_I$ and $\bar{z}_U$ are independent of the incumbent’s reputation $\phi$. In fact, they are determined by knowing the government is bad. Hence, $F_I$ and $F_U$ are also independent on reputation $\phi$.

Third, the informed don’t mobilize when they observe the socially optimal policies $\alpha, C^I_\alpha$ and $C^U_\alpha$. The reason is that new governments can not make $I$ better off than the incumbent does. It is therefore optimal to not challenge the incumbent regardless of $U$’s strategy.

By construction, good governments propose a unique bundle of $\alpha, C^I_\alpha$ and $C^U_\alpha$, for both $\beta \in \{\beta_L, \beta_H\}$. If, for a given $\alpha$, a bad government proposed a consumption bundle at odds with that of a benevolent planner, it would unambiguously reveal its type. Moreover, when the state is $\beta_L$, the policy $\alpha_H$ together with the consumption allocation $C^I_{\alpha_H} = C^U_{\alpha_H}$ violates the resource constraint since $C^I_{\alpha_H} + C^U_{\alpha_H} - Y^{2}_{\beta_L,\alpha_L} = Y^{1}_{\beta_H,\alpha_H} > Y^{1}_{\beta_L,\alpha_H}$. The government cannot commit to this course of action. If instead, the government chooses the socially efficient $\alpha_L$ together with $C^I_{\alpha_L} = C^U_{\alpha_L}$, it does not reveal its type. The lack of “slush funds” imposed by the resource constraint pushes bad types to always pick $\alpha_L$ when the state is $\beta_L$. Clearly, $\tau^B_X(\phi|\beta_L) = 1$. For simplicity, then we just denote $\tau^B_X(\phi|\beta_H) \equiv \tau^B_X(\phi)$.

In contrast, when bad governments observe $\beta_H$, they have the opportunity to impose $\alpha_L$ and allocate consumption $C^I_{\alpha_H} + C^U_{\alpha_H} - Y^{2}_{\beta_L,\alpha_L} = Y^{1}_{\beta_L,\alpha_L} < Y^{1}_{\beta_H,\alpha_L}$. This is feasible and allows the government to pocket the difference $\Delta = Y^{1}_{\beta_H,\alpha_L} - Y^{1}_{\beta_L,\alpha_L}$. This is the short term gain from distorting the economy with an opportunistic policy, captured in expectation by the right hand side of equation (1). Since the informed observe that the government selected the policy $\alpha_L$ when the fundamental is $\beta_H$, they learn the government type immediately: it is bad. If they mobilize and signal this knowledge, then the uninformed are put on notice that the government is a bad type. On the other hand, if the informed refrain from mobilizing and signaling their knowledge, $U$ downgrades its beliefs about the incumbent’s type since they know that bad gov-
ernments are more likely to select $\alpha_L$ than a benevolent planner is. The government’s long-term cost associated with opportunism is captured, in expectation, by the left hand side of equation (1).

It is important to realize that the right hand side of equation (1) is a constant that summarizes the fixed gains from choosing the inefficient policy $\alpha_L$ when the fundamental is $\beta_H$. In contrast, the left hand side of equation (1) depends on the strategy of bad governments. When bad governments are expected to extract rents aggressively (that is, $\tau^B_X$ is high), observing $\alpha_H$ is a good signal about the government’s type. Seeing $\alpha_L$, on the other hand, is bad news in that it suggests that the government is likely to be of the rent-seeking type. Suppose, in contrast, that opportunists never misbehave ($\tau^B_X = 0$), then the policies $\alpha_L$ and $\alpha_H$ contain absolutely no information about the government’s type.

![Figure 1: Reputation Updating](image)

The reputation gap generated by $\alpha_L$ and $\alpha_H$ is increasing in the belief about the opportunist’s distortion strategy, $\tau^B_X$. Put differently, the reputation penalty associated with $\alpha_L$ increases when agents believe that bad governments are more likely to misbehave. We illustrate this relation, which drives the left hand side of equation (1), in Figure 1. The horizontal axis represents the current reputation. We plot the reputation update following $\alpha_L$ or $\alpha_H$ on the vertical axis. For example, if $\tau^B_X$ is high (the red
curves in the figure), the government’s reputation increases conditional on observing $\alpha_H$ and decreases conditional on observing $\alpha_L$. The gap between these two updates, illustrated by the vertical distance between these two curves, represents the gain from good behavior in terms of reputation formation.

The higher the probability assigned to observing a policy $\alpha_L$ (that is, the higher is $\tau_B^L$) the larger the difference $(\phi_{\alpha_H} - \phi_{\alpha_L})$. A lower probability of opportunistic behavior (lower $\tau_B^L$) induces a smaller gap, which is illustrated by the blue curves in Figure 1.

The formal updating equations as functions of $\tau_B^L$ are in Appendix A.1.

If the left hand side is greater than the right hand side, bad governments always select the “correct” policy ($\alpha_H$ when $\beta_H$, hence $\tau_B^L = 0$). In contrast, if the left hand side of equation (1) is lower than the right hand side, bad governments impose an inefficient policy ($\alpha_L$ when $\beta_H$, hence $\tau_B^L = 1$). In the absence of a corner solution, a unique $\tau_B^L$ satisfies (1) with equality.

The following proposition summarizes the effect of some pivotal model parameters on the equilibrium distortion incentives of an opportunistic government.

**Proposition 2** The bad governments’ distortion probabilities $\tau_B^L(\phi)$ are decreasing in the probability $\gamma$ that the state is $\beta_H$ and the penalty $P$, and increasing in the discount rate $\delta$ and the short term gains $\bar{\Delta}$.

**Proof** When $\gamma$ is low and $I$ is not mobilizing, $U$ assigns a low probability to the need for an $\alpha_L$ policy. Hence, whenever $\alpha_L$ is observed, the reputation of the government suffers more. This deters the government from distorting when $\beta = \beta_H$. In other words, the government is more likely to distort when the policy $\alpha_L$ is a common occurrence. This is straightforward from combining belief updating with equation (1).

As $P \to \infty$, (1) is trivially satisfied: governments that are afraid of punishment never adopt distortionary policies. Less extremely, since $\frac{\partial \phi_{\alpha_L}^H}{\partial \tau_X^B} < 0$ and $\frac{\partial \phi_{\alpha_H}^H}{\partial \tau_X^B} > 0$, an increase in $P$ reduces the right hand side of equation (1) and requires a reduction in $\tau_X^B$ (the probability of distortion) to recover the indifference.\footnote{The intuition for $\frac{\partial \phi_{\alpha_L}^H}{\partial \tau_X^B} < 0$ and $\frac{\partial \phi_{\alpha_H}^H}{\partial \tau_X^B} > 0$ is as follows: the more often a government distorts, i.e. high $\tau_X^B$, the less likely $\alpha_H$ is a bad government’s policy response. As a result, its reputation improves after $\alpha_H$ is observed. Conversely, as $\tau_X^B$ rises, $\alpha_L$ is more and more likely to be distortionary.}

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In contrast, as \( \delta \to 0 \), the long-term repetitional costs (payoffs at the end of the period) are small vis a vis the short term gains from distorting. This implies that the left hand side of equation (1) goes to 0, and the right hand side goes to \((1 - F_I F_U)\bar{\Delta} - P\). If this is positive, the incentives to distort overcome the penalties and \( \tau^B_X = 1 \).

Similarly, when the short-term gains of distorting, \( \bar{\Delta} \), are large vis a vis the long-term reputation costs, the right hand side of equation (1) is large, which can be accommodated with a larger \( \tau^B_X \) to increase the left hand side.

Q.E.D.

First, quite naturally, the larger the expected penalty (\( P \)) from distortions, the more we care about the future (\( \delta \)) and the lower the short-term gains of distortions (\( \bar{\Delta} \)), the lower are the governments incentives to behave opportunistically.

Second, and more interestingly, when the population expects the fundamental \( \beta_H \) to occur infrequently, the government’s reputation does not suffer much when the uninformed observe a policy \( \alpha_L \). By a similar token, the reputation does not improve much when the policy is \( \alpha_H \) and the informed group does not mobilize political resources. This reduces the expected relative costs for bad governments from implementing the wrong policy. In other words, when the policy \( \alpha_L \) is more likely due to the frequency of the state \( \beta_L \), opportunists are more likely to implement it, even when indeed it may not be optimal.

The following proposition summarizes how the probability of distortions by bad governments varies with the prior reputation, \( \phi \), and the cost of mobilization.

**Proposition 3** There exists an \( \bar{F}_I \) such that when mobilization costs are low (\( F_I < \bar{F}_I \)), the bad government type’s distortion probabilities \( \tau^B_X(\phi) \) decrease monotonically in \( \phi \).

In contrast, when the costs are high (\( F_I > \bar{F}_I \)) the bad government type’s distortion probabilities reach a minimum at an intermediate reputation level \( \bar{\phi} \in (0, 1) \).

**Proof** Assume zero mobilization costs for both constituents. Then \( F_I = 1 \) and the left hand side of equation (1) is \( \delta \Pi(\phi'_{\alpha_H|\tau^B_X}) \). For a given \( \tau^B_X \), \( \Pi(\cdot) \) is increasing in \( \phi \). Since \( \frac{\partial \phi'_{\alpha_H|\tau^B_X}}{\partial \tau^B_X} > 0 \) and the right hand side is constant, an increase in \( \phi \) must be offset by a decrease in \( \tau^B_X \). Moreover, in this extreme case with \( F_I = 1 \) the right hand side is negative and \( \tau^B_X = 0 \) for all \( \phi \).

Assume instead that signaling costs for the informed and uninformed are infinity. Then \( F_I = 0 \) and the left hand side of (1) is \( \delta (\Pi(\phi'_{\alpha_H|\tau^B_X}) - \Pi(\phi'_{\alpha_L|\tau^B_X})) \). This reputation
gap is monotonically increasing in $\phi$ and reaches a maximum at a reputation level $\tilde{\phi} \in (0, 1)$. Opportunists with unambiguous reputations, $\phi = 0$ or $\phi = 1$, always distort. Appendix A.1 shows that in this instance bad behavior has no impact on $\phi'$, regardless of the constituents’ belief about the opportunists distortion strategy. Q.E.D.

Intuitively, the initial reputation affects the incentive for bad incumbents to implement inefficient policies. The role of reputation, however, interacts with the constituents’ mobilization costs, which determine how likely the informed are to share their knowledge with the uninformed.

We can distinguish between two motives for reputation management on the left hand side of equation (1): formation and maintenance. Formation is captured by $\Pi(\phi'_{\alpha_H|\tau_X^B}) - \Pi(\phi'_{\alpha_L|\tau_X^B})$ and represented graphically by the vertical gap between the top and bottom of each “teardrop” (red or blue) in Figure 1. Maintenance is captured by $F_I \Pi(\phi'_{\alpha_L|\tau_X^B})$, the lower red or blue curves in Figure 1.

While reputation formation forces are non-monotonic in $\phi$ (they have an inverted U-shape, being zero at $\phi = 0$ and $\phi = 1$), reputation maintenance is monotonically increasing in $\phi$. However the strength of reputation maintenance hinges on $F_I$, which critically depends on mobilization costs. When these are high, it is unlikely that the government is removed from office, which would entail a complete loss of reputation. For that reason, bad types have weak reputation maintenance motives. In contrast, when mobilization costs are small, the government is more likely to be removed from office and reputation management is far more imperative.

As a corollary, while governments with bad reputations are likely to distort more, regardless of mobilization costs, governments with good reputations are less likely to misbehave when mobilization costs are low. In contrast, when these costs are high, even politicians with good reputations are more likely to adopt inefficient policies. In short, high mobilization costs induce governments of all reputations to distort with a higher probability and they prompt those with good reputations to behave opportunistically in particular.
3 Redistribution Preserves Asymmetric Information

A close inspection of the equilibrium reveals that the government can discourage a mobilization of political resources by threatening to “bribe” sector $U$ ex post, that is, once it observes that sector $I$ has already mobilized resources. The government can in fact preempt sector-$U$’s mobilization by transferring the amount $T = \bar{z}_U \equiv E_U(C_U|\phi_0) - E_U(C_U|0)$ to it. Given this threat, sector $I$ does not mobilize in the first place (since $F_U = 0, \bar{z}_I(\beta_H, \alpha_L) = 0$ and $F_I = 0$). This possibility allows the government to distort with impunity, even when its reputation collapses entirely. Moreover, the mere threat of a transfer is sufficient to suppress unrest and no transfers are made on the equilibrium path. Since we grant the government an additional decision node, this result is, however, trivial and of limited relevance. More interesting is the constellation where governments decide on transfers ex ante.

3.1 Endowment Shock

Assume that in addition to the stochastic state $\beta$, the sector $I$ receives a stochastic endowment of the final good, denoted by $\theta$. The endowment realization occurs at the same time as the aggregate shock $\beta$, and $Pr(\theta) = \rho$. Hence, we could interpret this “endowment” shock also as a “positive productivity” shock that increases the total output of the sector.\(^{13}\) Here this shock only accrues to the sector that produces (sector 1 in our example). Like the aggregate fundamental, the endowment $\theta$ is observed by the informed and the government, but not by the uninformed. Later we allow this endowment or productivity shock to affect both sectors and study how different productivity and endowment processes determines which sector the government is more likely to distort.

The government announces $\alpha$, an equitable allocation of the alleged total output, and possibly an additional transfer from $I$ to $U$ of $\theta/2$. The uninformed update their beliefs about the government’s type in two steps: first based on $\alpha$ as in Appendix A.1, then based on the transfer, which is either $\theta/2$ or 0.

As in section 2, good governments are concerned with social welfare and split total

\(^{13}\)With probability $1 - \rho$ the endowment realization is zero. This assumption is without loss of generality. What matters here is that the endowment realization is asymmetric across constituencies and we could, for instance, assume that the endowment is negative with probability $1 - \rho$. 
output plus the endowment evenly across groups. Namely, the consumption allocation of good governments satisfies $C^I_{\alpha,\theta} = C^U_{\alpha,\theta}$ and

$$C^I_{\alpha,\theta} + C^U_{\alpha,\theta} - Y^2_{\beta_L,\alpha_L} = Y^1_{\beta,\alpha} + \theta$$

As before, bad governments pursue the twin objective of extracting private rents and staying in power. While they do not have a direct incentive to implement the social optimum, they may act responsibly nonetheless in an attempt to mimic good governments and thereby bolster their reputation $\phi$.

In addition to the government’s distortion strategy $\tau^B_X(\phi) = \Pr_B(\alpha_L|\beta_H)$, we denote the redistribution strategy of a government with reputation $\phi$ by $\tau^I_R(\phi) = \Pr_i(\theta/2|\theta, \beta)$. This denotes the probability of transferring $\theta/2$ to $U$ when the $I$’s realized endowment $I$ is $\theta$ or 0. The timing and the strategies for $U$ and $I$ are identical to those in section 2.

### 3.2 Equilibrium

**Definition 2** A Bayesian perfect equilibrium consists of the government distortion probability $\tau^B_X(\phi, \beta)$, transfers $C^I_{\alpha,\theta} = C^U_{\alpha,\theta}$, excessive redistribution probability $\tau^I_R(\phi, \theta)$ and mobilization probabilities $\tau_I(\beta, \alpha, C_{\alpha,\theta}, \theta/2, z_I)$ and $\tau_U(R_I, \alpha, C_{\alpha,\theta}, \theta/2, z_U)$ and an updated government reputation $\phi'$ for the uninformed group such that:

1. the government and the two sectors maximize their expected utility, and

2. beliefs $\phi$ are updated using Bayes’ rule, whenever possible.\(^{14}\)

Now the government has an additional decision margin: redistribution. This is critical for $I$’s decision to mobilize resources against the incumbent. The mobilization costs are $z_I$. The mobilization benefits are given by the possibility of convincing $U$ to join the effort to displace the incumbent. Redistribution turns out to be an important tool for the government to reduce the likelihood of the uninformed joining the mobilization since it reduces $I$’s expected benefit in the first place.

The most interesting case is a zero endowment realization, where the government has the option to transfer $\theta/2$. This dampens $U$’s incentive to mobilize in support of

\(^{14}\)As before, $C_{\alpha,\theta} = (C^I_{\alpha,\theta}, C^U_{\alpha,\theta})$.\)
I’s attempt to displace the incumbent. However, this redistribution is excessive in the sense that resources are no longer allocated equitably. In effect, excessive redistribution consists of taking away \( \frac{\theta}{2} \) from the informed and transferring it to the uninformed. Consumption is no longer equalized between the two constituents. The government pretends that the informed got an additional endowment of \( \theta \) when, in fact, it did not.\(^{15}\) Proposition 4 characterizes the government’s redistribution strategy. The proof is in Appendix A.3.

**Proposition 4** In equilibrium the bad government’s excessive redistribution strategies in equilibrium are characterized by two properties:

1. There is never excessive redistribution \((\hat{\tau}^B_\beta(\phi_0) = 0)\) when the state of nature \((\beta)\) is public information and the incumbent has a clean reputation slate (that is, \(\phi = \phi_0\)).

2. There are unique excessive redistribution strategies \(\tau^B_\beta(\phi)\) for all reputation levels \(\phi\) when the realization of \(\beta\) is not publicly known.

The first property – no excessive redistribution when the fundamental is known – is critical when the incumbent is replaced by a new draw from the exogenous distribution of government types. We know from section 2.3 that a government is only removed from power when the aggregate state is \(\beta_H\). In equilibrium, distortions only occur in this state. The newly instated government is a good type with probability \(\phi_0\). The behavior of a new government is key to pinning down the distortion and redistribution strategies of opportunistic governments of all other reputation levels, since the payoffs associated with mobilizing critically depend on the behavior of these rookies.

The simple intuition is that the government’s redistribution motive is more obscure in the presence of an asymmetric stochastic endowment process. The extent to which \(U\) can disentangle the efficiency and redistribution motives depends on the precision of the signal: more precise signals reduce the probability of inefficiency and excessive redistribution. The signal precision here is governed by I’s mobilizing costs. With low costs in a first order stochastic dominance sense I is more likely to mobilize political resources. Not observing a mobilization when costs are high, on the other

\(^{15}\)In the case with \(U''(\cdot) < 0\) rather than \(U''(\cdot) = 0\) this amounts to a wedge between the marginal utilities of the two constituencies.
hand, is ambiguous. Either the government behaves or it is too costly to inform \( U \) about misconduct.

We can now spell out the main proposition of the paper. In the presence of endowment shocks that justify redistribution, bad government can use such redistribution opportunities to obstruct information sharing. It can therefore act with relative impunity should it decide to distort in the first place.

**Proposition 5** When redistribution is legitimate, at least on occasion, bad governments can distort more frequently.

**Proof** The distortion strategies \( \tau^B_X(\phi) \) in the absence of redistribution needs (that is, when \( \tau^B_R(\phi) = 0 \)) are characterized by Proposition 1. If governments decide not redistributing excessively, despite the option to do so, then \( F_I \) and \( F_U \) remain unchanged and the distortion decision is exactly as in section 2.

Bad governments, however, may decide to redistribute excessively with positive probability (\( \tau^B_R(\phi) > 0 \)). This, of course, happens when the payoff associated with \( \tau^B_R(\phi) > 0 \) is higher than the payoff associated with \( \tau^B_R(\phi) = 0 \). This implies a larger right hand side in equation (1), which represents the expected gains from distortion and pins down \( \tau^B_X(\phi) \). In order to restore the equality at the distortion stage it is necessary to raise \( \tau^B_X(\phi) \), which increases the left hand side. To the extent that redistribution lowers the joint mobilization probability of both sectors – given by \( F_IF_U \) – it spurs opportunistic governments to distort more often.

The intuition for this result is simple. The possibility of excessive redistribution reduces, in expectation, the probability that the uninformed join the mobilization effort of the informed, and may hence discourage the informed from mobilizing in the first place. Indeed, a low probability reduces the expected benefits of mobilization by the informed. This discourages political activism. Since the probability that an opportunistic government is removed from office is given by \( F_IF_U \), excessive redistribution lowers the likelihood of political punishment and acts as a form of insurance against the consequences of inefficient policy choices and rent extraction.

There are natural counter-forces to this logic. First, even when the uninformed mobilize less frequently, the informed have stronger incentives to mobilize. Excessive redistribution introduces an additional motive to unseat the incumbent. Second, even
when the incumbent remains in power, the uninformed update the government’s reputation down whenever they observe any redistribution: all else equal, bad types are more likely to redistribute. If these countervailing forces were too strong, however, bad governments would simply prefer not to use excessive redistribution and the distortion probabilities would be the same as in section 2.

In effect, redistribution offers an opportunity for governments to transfer resources excessively across constituents, from the informed to the uninformed. Thereby they reduce the incentives to mobilize. Hence, the mere possibility of redistribution being efficient allows the government to abuse it in order to extract rents with relative impunity.

4 Redistribution and Institutions

We provide a tractable analytical framework to study the effect of institutions that govern political participation on the rent seeking behavior of governments, the inefficiency of their policies and the extent of excessive redistribution.

The distribution of mobilization costs \( F(z) \) captures the ease with which different groups in the economy can express their dissatisfaction with public policies and communicate their belief about government quality to other constituents. High mobilization costs represent, for instance, curbs on press freedom, different forms of political repression like intrusive surveillance or restrictions on the establishment of political parties, limited judicial review of government decisions, or scant access to impartial courts in general. In these, and many more, instances institutions prevent citizens from monitoring government conduct and, in the event of abuse of power, from taking meaningful political action. In essence, our costly signals capture any institutional feature that promotes political entrenchment.

The discipline of governments critically depends on the mobilization decision of the informed, who initiate any attempt to kick out the incumbent. This decision depends directly on the cost \( z_I \) and indirectly on the mobilization cost of the uninformed: when these are high, the uninformed are unlikely to take political action and the expected benefit accruing to the informed declines.

In the following propositions we show that a rise in mobilization costs, modeled as a
first-order stochastic dominance shift in $F(z)$ for informed and/or uninformed constituents, increases the probability of distortionary policies and decreases the conditional probability of excessive redistribution.

**Proposition 6** An increase in mobilization costs that raises $F_I$ or $F_U$ weakly increases the distortion probability of bad governments, $\tau_B^X(\phi)$, for all $\phi$.

**Proof** The distortion probability $\tau_B^X(\phi)$ is given by equation (1)

$$\delta[\Pi(\phi'_{\alpha_H}|r_X^R) - \Pi(\phi'_{\alpha_L}|r_X^R)] = \bar{\Delta} - F_I\delta(\Pi(\phi'_{\alpha_H}|r_X^R) - \Pi(0)) - F_IF_U[\bar{\Delta} + \delta\Pi(0) + P]$$

The derivative of the right hand side with respect to $F_I$ is

$$\frac{\partial \text{RHS}}{\partial F_I} = -\delta(\Pi(\phi'_{\alpha_L}|r_X^R) - \Pi(0)) - F_U[\bar{\Delta} + \delta\Pi(0) + P] < 0$$

Similarly, the derivative of the right hand side with respect to $F_U$ is

$$\frac{\partial \text{RHS}}{\partial F_U} = -F_I[\bar{\Delta} + \delta\Pi(0) + P] < 0$$

Since the right hand side falls with an increase in $F_I$ or $F_U$, in equilibrium, the left hand side must decrease too. Since

$$\frac{\partial}{\partial \tau_B^X(\phi)} \left( \frac{\Pi(\phi'_{\alpha_H}|r_X^R) - \Pi(\phi'_{\alpha_L}|r_X^R)}{\delta \tau_B^X(\phi)} \right) > 0,$$

$\tau_B^X(\phi)$ must fall. In the extreme, if the distortion probability is a corner solution such that $\tau_B^X(\phi) = 0$, (the right hand side is strictly smaller than the left hand side) then a further increase in the right hand side maintains the inequality that induces no distortion. However, even when the distortion probability remains zero, it becomes more likely that a change in parameters move the governments toward distortions. Q.E.D.

**Proposition 7** An increase in mobilization costs for the informed that affects $F_I^{nr}$ more than $F_I^r$ weakly increases the probability of excessive redistribution $\tau_B^R(\phi)$, for all $\phi$. Similarly, an increase in mobilization costs for the uninformed that affects $F_U^{nr}$ more than $F_U^r$ weakly increases the probability of excessive redistribution $\tau_B^R(\phi)$, for all $\phi$.  

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Proof Equation (8) pins down the probability of excessive redistribution. After some rearranging, we obtain:

\[
\delta \left[ \Pi(\phi'_{r|R}) - \Pi(\phi'_{nr|R}) \right] = F_{I}^{nr} \delta X^{nr} - F_{I}^{r} \delta X^{r} + \left[ F_{I}^{nr} F_{U}^{nr} - F_{I}^{r} F_{U}^{r} \right] (\bar{\Delta} + \delta \Pi(0) + P)
\]

where \( X^{nr} = \Pi(\phi'_{nr|R}) - \Pi(0) \) and \( X^{r} = \Pi(\phi'_{r|R}) - \Pi(0) \).

Consider an increase in mobilization costs for the informed in a first-order stochastic dominance sense. Clearly, this raises the expected cost for the informed \( E_{I}(z) \) and the uninformed \( E_{U}(z) \). The partial derivative of the right hand side with respect to \( E_{U}(z) \) is:

\[
\frac{\partial \text{RHS}}{\partial E_{U}(z)} = \frac{\partial F_{I}^{nr}}{\partial E_{U}(z)} \delta X^{nr} - \frac{\partial F_{I}^{r}}{\partial E_{U}(z)} \delta X^{r} + \left( F_{I}^{nr} \frac{\partial F_{U}^{nr}}{\partial E_{U}(z)} - F_{I}^{r} \frac{\partial F_{U}^{r}}{\partial E_{U}(z)} \right) (\bar{\Delta} + \delta \Pi(0) + P)
\]

Since \( X^{nr} > X^{r} \), this derivative is negative if \( \frac{\partial F_{I}^{r}}{\partial E_{U}(z)} < \frac{\partial F_{I}^{nr}}{\partial E_{U}(z)} \) (recall \( \frac{\partial F_{I}^{r}}{\partial E_{U}(z)} < 0 \)). Now, assume that average mobilization costs for the uninformed rise, that is, \( E_{U}(z) \) goes up. The partial derivative of the right hand side with respect to \( E_{U}(z) \) is:

\[
\frac{\partial \text{RHS}}{\partial E_{U}(z)} = \frac{\partial F_{I}^{nr}}{\partial E_{U}(z)} \delta X^{nr} - \frac{\partial F_{I}^{r}}{\partial E_{U}(z)} \delta X^{r} + \left( F_{I}^{nr} \frac{\partial F_{U}^{nr}}{\partial E_{U}(z)} - F_{I}^{r} \frac{\partial F_{U}^{r}}{\partial E_{U}(z)} \right) (\bar{\Delta} + \delta \Pi(0) + P)
\]

As before, since \( X^{nr} > X^{r} \) and \( (\bar{\Delta} + \delta \Pi(0) + P) > 0 \) this derivative is negative if \( \frac{\partial F_{I}^{r}}{\partial E_{U}(z)} < \frac{\partial F_{I}^{nr}}{\partial E_{U}(z)} \cdot \frac{\partial F_{U}^{nr}}{\partial E_{U}(z)} < \frac{\partial F_{U}^{nr}}{\partial E_{U}(z)} \) and \( F_{I}^{nr} > F_{I}^{r} \) (recall \( \frac{\partial F_{I}^{r}}{\partial E_{U}(z)} < 0 \) and \( \frac{\partial F_{I}^{r}}{\partial E_{U}(z)} < 0 \)).

This implies that a rise in mobilization costs, \( E(z) \), increases the right hand side. In equilibrium, the left hand side must also increase, which happens only if \( \tau_{R}^{B}(\phi) \) declines since \( \frac{\partial \left( \Pi(\phi'_{r|R}) - \Pi(\phi'_{nr|R}) \right)}{\partial \tau_{R}^{B}(\phi)} > 0 \). If the distortion probability is a corner solution, \( \tau_{R}^{B}(\phi) = 1 \), then a further increase in the right hand side maintains the inequality that induces excessive redistribution. Q.E.D.

Proposition 6 shows that high costs of mobilizing political resources induce high probabilities of distortion \( \tau_{X}^{B}(\phi) \) in the economy. The intuition for this result is that constituents are less responsive politically, which reduces the government’s expected punishment. Proposition 7 shows that, conditional on distorting the economy, high costs of mobilizing political resources tend to decrease, under certain conditions, the probability of excessive redistribution. Intuitively, governments rely less on redistribution to manage their survival in office when they can act with relative impunity.

\footnote{Cost changes that do not dominate in a first-order stochastic sense can also be associated with increases in \( E_{I}(z) \) and \( E_{U}(z) \). Our comparative statics do not account for these cases.}
When we combine these results we can show that the unconditional probability of observing excessive redistribution is non-monotonic in the cost of mobilization.

**Proposition 8** The unconditional probability of excessive redistribution – given by $\tau^B_X(\phi)\tau^B_R(\phi)$ – is non-monotonic in average mobilization costs of the informed and uninformed, $E_I(z)$ and $E_U(z)$, respectively. It reaches its maximum at intermediate cost levels.

The result follows immediately from the combination of our two previous propositions. While $\tau^R_X(\phi)$ weakly increases with signaling costs, $\tau^B_R(\phi)$ weakly decreases. Figure 2 illustrates the result graphically. In essence, when costs are low, the probability of distortion is low. The incidence of excessive redistribution, on the other hand, is high precisely because governments need to rely a lot on redistribution if they want to discourage political activism by the informed. In contrast, when costs are high, the opposite pattern prevails. Distortion is a frequent occurrence but high costs prevent citizens from removing the incumbent easily. For that reason, the need for redistribution conditional on distortions to stifle political opposition diminishes.

In our theory, redistribution has two orthogonal motives. One is socially desirable: governments respond to welfare concerns and attempt to equalize marginal utilities. The second motive is socially objectionable. Rent-seeking governments rely on deceptive redistribution as a tool to ease political pressure from key constituencies and this creates an environment of relative political impunity. Since asymmetric information prevents citizens from disentangling the two motives, rent-seeking can survive in equilibrium despite the loss on aggregate efficiency. In fact, the inefficiency introduced by excessive redistribution is what allows for more inefficiency in the application of distortionary policies.

Our non-monotonicity results are reminiscent of those reported in Bueno de Mesquita et al. (2003), particularly chapters 4 and 8. In their work, institutional quality is defined by the extent of political participation – the *selectorate*, denoted by $S$ – combined with the required size of the *winning coalition*, denoted by $W$. As long as no members defect from $W$, the incumbent stays in power. In the model, variations in $\frac{W}{S}$ capture differences in institutional quality. We, on the other hand, set $\frac{W}{S} = \frac{1}{2}$ and characterize institutional disparity by varying the entry costs into the selectorate. Remarkably, our informed constituents and the members of the winning coalition in their book tend to be worst off under institutions with some political accountability.
and participation, albeit limited.\footnote{See the discussion of figure 4.2 in \textit{Bueno de Mesquita et al.} (2003) for more details.}

In addition, our theory mirrors the facts on large-scale land reform as a form of redistribution under various regime types in post-World War II Latin America. \textit{Albertus} (2011) finds that autocrats were significantly more likely to institute land reforms than democracies. Likewise, our theory predicts that governments who are subject to limited political accountability are most likely to resort to redistribution in order to cling to political power. Regimes that are more thoroughly insulated from public opinion, on the other hand, do not resort to redistribution since – according to our theory – the institutional context makes them reputation indifferent. Our theory predicts that repressive autocratic regimes like Mobutu Sese Seko’s in Zaire, Soeharto’s in Indonesia, Ferdinand Marcos’ in the Philippines, or the Duvaliers’ in Haiti are aggressive rent-seekers. It turns out that these five dictators are indeed notorious for ransacking public funds for private gain on a large scale. Not surprisingly, there were hardly any
land reforms under these strongmen, certainly none on a comparable scale to those in Latin America.\footnote{See pages 27-29 in Kang (2002) for a discussion of land reform in the Philippines. Interestingly, South Korea underwent significant reform under US pressure in the 1950s.}

5 Who is Informed?

So far we have assumed that 2 is not subject to distortions. It is always in the sector-specific state $\beta^2_L$ and governments are not tempted to extract rents. This enabled us to focus on potential distortions to 1. Naturally, in this simplified setting 1 is always better informed than 2 and this is why we called them informed and uninformed, respectively. In this section we go back to the original setting, in which either groups may be subject to a shock that tempts bad governments to distort. 2 is in state $\beta^2_L$ with probability $1 - \gamma^2$ or $\beta^2_H$ with probability $\gamma^2$. No group has an information advantage ex ante. In contrast, targeted constituents are informed whereas those who are unencumbered are uninformed ex post.

Trivially, when $i \in \{1, 2\}$ is in state $\beta^i_L$, then opportunistic governments do not distort that sector since doing so yields no rents. When $i$ is in $\beta^i_H$ then governments can distort in order to extract rents. In addition to deciding whether to distort or not, bad governments must also decide how many constituents it wants to target. $\tau^B_{X,i|1}(\phi)$ denotes the probability of distorting $i$ when only sector $i$ is in state $\beta^i_H$ and $\tau^B_{X,i|2}(\phi)$ is the probability of targeting $i$ when both constituents are in $\beta^i_H$. In equilibrium, governments choose four strategies.

Clearly, if both constituents are in $\beta_L$ there are no rents on the table and governments behave. If a single sector is in state $\beta_H$ the analysis follows the benchmark in section 2, with one critical difference. Suppose 1 is at risk, that is $\beta^1_H$. In the benchmark, 1 (the “informed”) knows 2 (the “uninformed”) is never distorted because its fundamental is always $\beta^2_L$ by assumption. In this more general environment, however, 1 does not know whether 2’s fundamental is $\beta^2_L$ or $\beta^2_H$ and, in addition, whether 2 has been targeted by an opportunistic government. All else equal, it will turn out that 1 is more optimistic that 2 participates in political action compared to the benchmark.

As far as the timing is concerned, both groups simultaneously decide whether to mobilize right away or to wait and see if the other mobilizes first and join later, if at all.
To avoid ad infinitum delays, subsequent opportunities to take action are contingent
on mobilization by one of the constituents. The game ends after one round of inaction.

Below we first show how to solve for the symmetric equilibrium when $I$ and $2$ are
equally sized, i.e. when $Y^1(\beta, \alpha) = Y^2(\beta, \alpha)$ for all combinations of $\beta$ and $\alpha$. We then
perturb the symmetry and study how bad governments behave when one sector is
more tempting than the other because it offers more lucrative rents.

**Proposition 9**  
Assume the two groups are identical. In a symmetric equilibrium, $\tau^B_{X_{i1}}(\phi) \in (0,1)$ are determined by the equation

$$
\delta \Pi(\phi^1_{\alpha_{2H}^1, \alpha_{2L}^1} | r_X) = Pr(2m | r_X, \alpha_{1L}^1, \alpha_{2L}^2)(-P) + Pr(1m | r_X, \alpha_{1L}^1, \alpha_{2L}^2)[\tilde{\Delta}_1 + \delta \Pi(0)] 
+ Pr(0m | r_X, \alpha_{1L}^1, \alpha_{2L}^2)[\tilde{\Delta}_1 + \delta \Pi(\phi^1_{\alpha_{2H}^1, \alpha_{2L}^1} | r_X)]
$$

where $Pr(2m | r_X^B)$ is the probability both groups mobilize, $Pr(1m | r_X^B)$ is the probability only
the distorted group mobilizes and $Pr(0m | r_X^B)$ is the probability no group mobilizes. In a
symmetric equilibrium, $\tau^B_{X_{i2}}(\phi) \in (0,1)$ are determined by the equation

$$
\delta \Pi(\phi^1_{\alpha_{2H}^1, \alpha_{2L}^2} | r_X) = Pr(2m | r_X, \alpha_{1L}^1, \alpha_{2L}^2)(-P) + Pr(1m | r_X, \alpha_{1L}^1, \alpha_{2L}^2)[\tilde{\Delta}_1 + \tilde{\Delta}_2 + \delta \Pi(0)] 
+ Pr(0m | r_X, \alpha_{1L}^1, \alpha_{2L}^2)[\tilde{\Delta}_1 + \tilde{\Delta}_2 + \delta \Pi(0)]
$$

**Proof**  
Assume the state is characterized by $\beta_{2H}^1$ and $\beta_{2L}^2$. The solution is similar to the
benchmark setting, where the distortion strategies make bad governments indifferent
between distorting $I$ and not (first equation in the proposition). The main difference
with the benchmark setting is that $I$ does not know whether $2$’s fundamentals are $\beta_{1L}^1$
or $\beta_{2H}^1$. In this last case, $2$ may have also been distorted (with probability $\tau^B_{X_{21}}(\phi)$), in
which case $2$ may be more likely to join a political mobilization than in the bench-
mark setting. So far, we have only paid attention to the first round of simultaneous
moves. Suppose, instead, that $I$ mobilized and $2$ decided to wait and see. $1$’s move
is informative in that it reveals $\beta_{2H}^1$ and $2$ can decide to join the effort to unseat the
government. With this new information, the cutoff for $2$’s participation is

$$
F^d_2 = F\left[ E_2(C^2 | \phi_0, \cdot, \beta_{2H}^1) - C^2_{\alpha_{2L}^1, \alpha_{2L}^2} \right]
$$

The government, however, observes $2$ is not distorted, and the probability of a syn-
chronized attempt to unseat the incumbent is given by

\[ Pr(2m|\tau^B_X, \alpha^1_L, \alpha^2_L) = F_1 F_2 \]

As in the benchmark, \( F_2 \) is determined by \( z_2 < \bar{z}_2 \equiv E_2(C^2|\phi_0, \cdot, \beta^2_H) - C^2_{\alpha^1_L, \alpha^2_L} \). The incentives \( 1 \) has to mobilize political resources, \( F_1 \), is determined by \( z_1 < \bar{z}_1 \equiv \bar{F}_2 \left[ E_1(C^1|\phi_0, \beta^H_H, \cdot) - C^1_{\alpha^1_L, \alpha^2_L} \right] \). Note, critically, that in contrast to the benchmark setting, \( F_1 \) is not determined by \( F_2 \), but by

\[
\bar{F}_2 = \frac{1 - \gamma_2}{1 - \gamma_2 + \gamma_2 \tau^B_X|2} F_2 + \frac{\gamma_2 \tau^B_X|2}{1 - \gamma_2 + \gamma_2 \tau^B_X|2} F_2^d
\]

Since \( 1 \) observes a set of policies \( (\alpha^1_L, \alpha^2_L) \), it may be the case that \( 2 \) has not been distorted (when \( 2 \)'s fundamentals are \( \beta^2_L \), with probability \( 1 - \gamma_2 \)) or that \( 2 \) has been distorted (when \( 2 \)'s fundamentals are \( \beta^2_H \), with probability \( \gamma_2 \tau^B_X|2 \)). In the first case \( 2 \) would join the mobilization efforts with probability \( F_2 \). In the second case \( 2 \) would join the mobilization effort if \( z_2 < \bar{z}_2 \equiv E_2(C^2|\phi_0, \cdot, \beta^2_H) - C^2_{\alpha^1_L, \alpha^2_L} \), which determines a probability of mobilization \( F_2^d > F_2 \).

This implies that, in contrast with the benchmark setting, imperfect information about the fundamental of the other group increases the probability of mobilization in the economy, since \( \bar{F}_2 > F_2 \), and then \( F_1 \) is increasing in \( \tau^B_X|2 \).

Assume now fundamentals are \( \beta^1_H \) and \( \beta^2_H \). Now bad governments could distort both groups, only one group or none. In a symmetric equilibrium, bad governments randomize their distortions decisions if they are indifferent between distorting both groups or none.

\[
\delta\Pi(\phi^0, \alpha^1_L, \alpha^2_L|\tau^B_X) = Pr(2m|\tau^B_X, \alpha^1_L, \alpha^2_L)(-P) + Pr(1m|\tau^B_X, \alpha^1_L, \alpha^2_L)[\bar{\Delta}_1 + \bar{\Delta}_2 + \delta\Pi(0)] + Pr(0m|\tau^B_X, \alpha^1_L, \alpha^2_L)[\bar{\Delta}_1 + \bar{\Delta}_2 + \delta\Pi(0)]
\]

where

\[
Pr(2m|\tau^B_X, \alpha^1_L, \alpha^2_L) = F_1 (1 - F_2) \bar{F}_2^d + F_2 (1 - F_1) \bar{F}_1^d + F_1 F_2
\]

In the symmetric equilibrium these two equations together pin down the distorting strategies of the government, \( \tau^B_X|1 = \tau^B_X|1 \) and \( \tau^B_X|2 = \tau^B_X|2 \).

Q.E.D.
The next Proposition shows that in case of asymmetric incentives to distort a group, bad governments distort more likely the group that generates more output (this is with larger $\bar{\Delta}$), both when that sector is the only one distortable and when both groups are.

**Proposition 10** Assume, without loss of generality, that $\bar{\Delta}_1 > \bar{\Delta}_1$, then $\tau^B_{X_1|1} > \tau^B_{X_2|1}$ and $\tau^B_{X_1|2} > \tau^B_{X_2|2}$.

**Proof**

We will proceed in this proof, perturbing the symmetric equilibrium in the previous proposition, and assuming, without loss of generality that $\bar{\Delta}_1 = \bar{\Delta}_2 + \epsilon$.

When fundamentals are $\beta^1_B$ and $\beta^2_B$, bad governments are indifferent between distorting $I$ or not if

$$\delta \Pi(\phi'_{\alpha^1_B}, \alpha^2_B|\bar{\Delta}^B) = Pr(2m|\tau^B_{X}, \alpha^1_B, \alpha^2_B)(-P) + Pr(1m|\tau^B_{X}, \alpha^1_B, \alpha^2_B)[\bar{\Delta}_1 + \delta \Pi(0)]$$

$$+ Pr(0m|\tau^B_{X}, \alpha^1_B, \alpha^2_B)[\bar{\Delta}_1 + \delta \Pi(\phi'_{\alpha^1_B}, \alpha^2_B|\bar{\Delta}^B)]$$

When fundamentals are $\beta^1_L$ and $\beta^2_B$, bad governments are indifferent between distorting $I$ or not if

$$\delta \Pi(\phi'_{\alpha^1_L}, \alpha^2_B|\bar{\Delta}^B) = Pr(2m|\tau^B_{X}, \alpha^1_L, \alpha^2_B)(-P) + Pr(1m|\tau^B_{X}, \alpha^1_L, \alpha^2_B)[\bar{\Delta}_2 + \delta \Pi(0)]$$

$$+ Pr(0m|\tau^B_{X}, \alpha^1_L, \alpha^2_B)[\bar{\Delta}_2 + \delta \Pi(\phi'_{\alpha^1_B}, \alpha^2_B|\bar{\Delta}^B)]$$

Assume we start from the symmetric equilibrium and distort short term gains by making $\bar{\Delta}_1 = \bar{\Delta}_1 + \epsilon$. The right hand side of the first expression is larger than the right hand side of the second expression. This implies the left hand side of the first expression should also be larger than the left hand side of the second expression, which is achieved when $\tau^B_{X_1|1} > \tau^B_{X_2|1}$.

Now assume fundamentals are $\beta^1_B$ and $\beta^2_B$. Bad governments’ payoffs when not distorting any group is

$$\delta \Pi(\phi'_{\alpha^1_B}, \alpha^2_B|\bar{\Delta}^B)$$
Bad governments’ payoffs from just distorting $1$ is
\[ Pr(2m|\tau_X^B, \alpha_L^1, \alpha_H^2)(-P) + Pr(1m|\tau_X^B, \alpha_L^1, \alpha_H^2)[\bar{\Delta}_1 + \delta\Pi(0)] + Pr(0m|\tau_X^B, \alpha_L^1, \alpha_H^2)[\bar{\Delta}_1 + \delta\Pi(\phi'_{\alpha_L^1, \alpha_H^2|\tau_X^B})] \]

Bad governments’ payoffs from just distorting $2$ is
\[ Pr(2m|\tau_X^B, \alpha_H^1, \alpha_L^2)(-P) + Pr(1m|\tau_X^B, \alpha_H^1, \alpha_L^2)[\bar{\Delta}_2 + \delta\Pi(0)] + Pr(0m|\tau_X^B, \alpha_H^1, \alpha_L^2)[\bar{\Delta}_2 + \delta\Pi(\phi'_{\alpha_H^1, \alpha_L^2|\tau_X^B})] \]

Bad governments’ payoffs from distorting both groups is
\[ Pr(2m|\tau_X^B, \alpha_L^1, \alpha_L^2)(-P) + (1 - Pr(2m|\tau_X^B, \alpha_L^1, \alpha_L^2))[\bar{\Delta}_1 + \bar{\Delta}_2 + \delta\Pi(0)] \]

If the last expression is higher than the rest, then bad governments would always distort both groups. When the first expression is higher than the rest, then bad governments would distort no group. Starting from the symmetric strategies, the four expressions should be equal, otherwise there are pure strategies as the ones defined above.

Assuming interior solutions, if $\bar{\Delta}_1 = \bar{\Delta}_1 + \epsilon$, then $\tau_{X1|2}^B > \tau_{X2|2}^B$. Recall the second expression increases more than the fourth ($Pr(2m|\tau_X^B, \alpha_L^1, \alpha_H^2) < Pr(2m|\tau_X^B, \alpha_L^1, \alpha_L^2)$), then it is necessary to increase $\tau_{X1|2}^B$ relatively more than $\tau_{X2|2}^B$ to regain indifference. This result implies that $F_1 < F_2$, which in fact reinforces the fact that $\tau_{X1|1}^B > \tau_{X2|1}^B$.

Intuitively, bad governments not only decide how frequently to distort, but also pick the most lucrative distortion target. Clearly, they target distortionary policies to wealthier and more productive sectors in order to extract higher rents. By refraining from targeting all constituents at once they maintain the friction associated with asymmetric information. In the extreme, if the gains from distorting the poorest sectors are too small the government will never target them. Naturally, since a targeted sector is also informed about the government’s real intentions it follows that the most affluent tend to be knowledgeable and subject to distortionary policies at the same time.

This intuition relies on our assumption that the distribution of mobilization costs is
symmetric across sectors or constituents. This need not be the case. If the wealthy sector has lower costs it is no longer obvious that the government target it more frequently. What matters for opportunistic governments is indeed the size of prospective rents relative to the likelihood that a particular constituent takes political action. Effectively, bad types solve a trade off between extracting rents and controlling the diffusion of knowledge across constituents in the economy.

A natural question to ask is why governments do not redistribute from the poor to the wealthy in order to prevent the scattering of information. By subjecting one sector to distortion and another to inefficient redistribution agents would learn the government’s true type. It is cheaper to discourage information transmission by channeling funds from the distorted group to the undistorted group.

In essence, our theory can rationalize policies that are commonly called populist. Wealthy constituents are targets for inefficient policies because they promise to yield sizeable rents. At the same time, the government transfers resources excessively to less affluent constituents to garner their political indifference and to undermine attempts to impose policy discipline.

6 Conclusion

We develop a tractable framework to study the nexus between efficiency and redistribution from a novel point of view. Opportunistic governments have strong incentives to adopt inefficient policies in order to extract private rents that stem from holding public office. The threat of removal from power, however, makes opportunists reputation sensitive and they weigh the benefits of short-term rent extraction against the long-term value of extended office tenure: governments who are perceived to be socially benevolent are more likely to hold on to power.

The opportunity to redistribute resources offers a mechanism to reshape this tradeoff. The recipients who, in our environment, are the least informed constituents, are less likely to join efforts to displace a rent-seeking incumbent and that, all else equal, dulls everyone else’s incentive to oust the government. However, the opportunist’s improved prospect of political survival comes at a twofold cost: society at large is worse off due to the higher incidence of inefficient policies and hence lower welfare.
Secondly, while more likely to hold on to office, the politician’s reputation takes a hit. Our theory predicts that excessive redistribution follows an inverted-U pattern: when political participation is onerous, opportunistic governments can extract rents with hardly any hindrance. Since their position in power is unlikely to be challenged, there is no need to build a base of political clients. Correspondingly, excessive redistribution is uncommon. When institutions are of intermediate quality, the rent-seeker’s position is more tenuous. Deceptive redistribution is used extensively in order to discourage political activism. For instance, Latin American autocrats resort to large scale land reform in the second half of the twentieth century precisely to alleviate political pressure from the lower and middle classes. Our theory offers, in fact, a rationalization for “populism” in the tradition of Perón, Vargas, or Chávez. Near the top of the institutional quality spectrum, the openness of the political system in democratic societies imposes considerable discipline on self-interested politicians and opportunities for deceptive redistribution are accordingly rare.

Finally, our theory enables us to review the age-old efficiency-redistribution trade-off from an unconventional angle. Redistribution is no longer the end but rather the means by which opportunistic regimes extract private rents. This abuse of redistribution for personal gain is, of course, what makes it deceptive.
References


A Appendix

A.1 Beliefs

The decision of each sector to riot in order to unseat the government depends on their respective beliefs about government quality. Sector $U$ observes the policy $\alpha$ and $R_I$ and updates its belief $\Pr(G|R_I, \alpha)$ about the government type in order to choose
\( R_U \in \{0, 1\} \). Sector I, in turn, anticipates \( U \)'s update and forms expectations about \( R_U \) in its own riot decision. The government, finally, forms expectations about the actions of both sector in its policy choice.

Since we assume that \( \beta \in \{ \beta_H, \beta_L \} \), we can limit ourselves to four possible updates the uninformed sector can perform, conditional on \( \{ R_I = 1, \alpha_L \}, \{ R_I = 1, \alpha_H \}, \{ R_I = 0, \alpha_L \}, \) and \( \{ R_I = 0, \alpha_H \} \), where \( \alpha_L \) is the policy that implements first-best allocations when \( \beta = \beta_L \) and \( \alpha_H \) does the same under \( \beta_H \). For simplicity we denote \( \tau_X \) the probability bad governments set \( \alpha_L \) when \( \beta = \beta_H \) and \( \phi \) the prior belief about the government’s quality

\[
\begin{align*}
\Pr(G|R_I = 0, \alpha_L) &= \frac{\phi_{\alpha_L}}{\phi_{\alpha_L} + \left[ 1 - \frac{(1-\gamma)\tau_I \tau_X}{(1-\gamma)\tau_X + \gamma} \right] (1 - \phi_{\alpha_L})} \\
\Pr(G|R_I = 0, \alpha_H) &= \frac{\phi_{\alpha_H}}{\phi_{\alpha_H} + (1 - \phi_{\alpha_H})} = \phi_{\alpha_H} \\
\Pr(G|R_I = 1, \alpha_H) &= 0 \\
\Pr(G|R_I = 1, \alpha_L) &= 0
\end{align*}
\]

where

\[
\begin{align*}
\phi_{\alpha_L} &= \Pr(G|\alpha_L) = \frac{\gamma \phi}{\gamma \phi + [\gamma + (1-\gamma)\tau_X](1 - \phi)} < \phi \\
\phi_{\alpha_H} &= \Pr(G|\alpha_H) = \frac{(1-\gamma) \phi}{(1-\gamma) \phi + (1-\gamma)(1-\tau_X)(1 - \phi)} > \phi
\end{align*}
\]
Cohort’s $U$ update conditional on observing $R_I = 0$ and $\alpha_L$ is,

\[
\Pr(G|R_I = 0, \alpha_L) = \Pr(R_I = 0|G, \alpha_L) \Pr(G|\alpha_L) \\
\left( \Pr(R_I = 0|G, \alpha_L) \Pr(G|\alpha_L) \right)^{-1} \\
\Pr(R_I = 0|G, \alpha_L) = \Pr(R_I = 0|G, \alpha_L, \beta_L) \Pr(\beta_L|G, \alpha_L) \\
+ \Pr(R_I = 0|G, \alpha_L, \beta_H) \Pr(\beta_H|G, \alpha_L) \\
= 1 \times 1 + (1 - \tau_I) \times 0 \\
= 1 \\
\Pr(R_I = 0|B, \alpha_L) = \Pr(R_I = 0|B, \alpha_L, \beta_L) \Pr(\beta_L|B, \alpha_L) \\
+ \Pr(R_I = 0|B, \alpha_L, \beta_H) \Pr(\beta_H|B, \alpha_L) \\
= 1 \times \frac{\gamma}{\tau_X(1 - \gamma) + \gamma} + (1 - \tau_I) \times \frac{\tau_X(1 - \gamma)}{\tau_X(1 - \gamma) + \gamma} \\
= 1 - \frac{\tau_I \tau_X}{\tau_X(1 - \gamma) + \gamma}
\]

\[
\Pr(G|\alpha_L) = \frac{\Pr(\alpha_L|G) \Pr(G)}{\Pr(\alpha_L|G) \Pr(G) + \Pr(\alpha_L|B) \Pr(B)} \\
= \frac{\gamma \phi}{\gamma \phi + [\gamma + (1 - \gamma) \tau_X](1 - \phi)} \\
= \phi_{\alpha_L} < \phi \\
\Pr(B|\alpha_L) = 1 - \phi_{\alpha_L}
\]

Putting all the pieces back together, we have:

\[
\Pr(G|R_I = 0, \alpha_L) = \frac{\phi_{\alpha_L}}{\phi_{\alpha_L} + \left[ 1 - \frac{(1 - \gamma) \tau_I \tau_X}{(1 - \gamma) \tau_X + \gamma} \right] (1 - \phi_{\alpha_L})}
\]
Cohort’s $U$ update conditional on observing $R_I = 0$ and $\alpha_H$ is.

$$\Pr(G|R_I = 0, \alpha_H) = \frac{\Pr(R_I = 0|G, \alpha_H) \Pr(G|\alpha_H)}{\Pr(R_I = 0|G, \alpha_H) \Pr(G|\alpha_H) + \Pr(R_I = 0|B, \alpha_H) \Pr(B|\alpha_H)}$$

$$\Pr(R_I = 0|G, \alpha_H) = 1$$

$$\Pr(R_I = 0|B, \alpha_H) = 1$$

$$\Pr(G|\alpha_H) = \frac{\Pr(\alpha_H|G) \Pr(G)}{\Pr(\alpha_H|G) \Pr(G) + \Pr(\alpha_H|B) \Pr(B)}$$

$$= \frac{(1 - \gamma)\phi}{(1 - \gamma)\phi + (1 - \gamma)(1 - \tau)(1 - \phi)}$$

$$= \phi_{\alpha_H} > \phi$$

$$\Pr(B|\alpha_H) = 1 - \phi_{\alpha_H}$$

Putting all the pieces back together, we obtain:

$$\Pr(G|R_I = 0, \alpha_H) = \frac{\phi_{\alpha_H}}{\phi_{\alpha_H} + (1 - \phi_{\alpha_H})} = \phi_{\alpha_H}$$

(2)

Given that $I$ has access to more information than $U$, $R_I = 1$ sends an unambiguous signal to the uninformed that the government is bad. Clearly then,

$$\Pr(G|R_I = 1, \alpha_H) = 0$$

(3)

$$\Pr(G|R_I = 1, \alpha_L) = 0$$

(4)

### A.2 Proof of Proposition 1

The uninformed observe the policy $\alpha$. If the uninformed observe $\alpha_H$ it infers $I$ would never want to mobilize, then it does not want either. However, if it observes $\alpha_L$ it may predict the informed group may have been distorted. Naturally, if mobilization costs were zero, then the uninformed would be willing to mobilize just in case. Assume, at an extreme, that bad governments always distort when $\beta_H$ (this is, with probability $\gamma$) and that informed never mobilize first but always follow. The benefits of the uninformed of immediate mobilization are

$$\gamma(1 - \phi_0)E_U(C^U|\phi_0) + (1 - \gamma(1 - \phi_0))C^U_{\alpha} - z_U$$
where

$$E_U(C^U|\phi_0) = \phi_0 C^U_{\alpha_H} + (1 - \phi_0) \left[ \hat{\tau}^B_X C^U_{\alpha_L} + (1 - \hat{\tau}^B_X) C^U_{\alpha_H} \right]$$

and $\hat{\tau}^B_X$ refers to the government’s strategy when the state $\beta$ is public information. This occurs after the incumbent is previously removed, which occurs only when $\beta = \beta_H$. At the end of this proof, in Lemma 1 we prove that $\hat{\tau}^B_X(\phi_0) > 0$.

The net benefits from waiting are just $C^U_{\alpha_H}$, since we assume in the extreme the informed never mobilizes, even under distortion.

Since $C^U_{\alpha_H} > E_U(C^U|\phi_0)$, then $U$ never mobilizes when observing $\alpha_H$. Since $C^U_{\alpha_L} < E_U(C^U|\phi_0)$, then $U$ would never mobilize immediately when observing $\alpha_L$ if

$$\gamma(1 - \phi_0)[E_U(C^U|\phi_0) - C^U_{\alpha}] \equiv \tilde{z}_U < z_U$$

In what follows we will assume this sufficient condition holds (this is $z > \tilde{z}_U$). Results do not change relaxing this assumption but complicates substantially the notation.

Based on this assumption a sector $U$ decides whether or not to mobilize only conditional on $I$ mobilizing (this is, $R_I = 1$). Expected payoffs for $U$ are

$$I_{(R_I=1)}E_U(C^U|\phi_0) + I_{(R_I=0)}C^U_{\alpha} - z_U \quad \text{if} \quad \tau_U = 1$$

$$C^U_{\alpha} \quad \text{if} \quad \tau_U = 0$$

where $I_{(\cdot)}$ is an indicator function.

If $I$ does not signal ($R_I = 0$), it is clearly better for $U$ not to signal. It cannot get rid of the government but still incurs the cost $z_U$. Contrarily, if $I$ does signal ($R_I = 1$), $U$ updates the government’s reputation to $\phi'(R_I = 1, \alpha) = 0$. Hence the strategies for $U$ are, for all $\alpha$:

$$\tau_U(R_I = 0, \alpha) = 0$$

$$\tau_U(R_I = 1, \alpha) = \begin{cases} 1 & \text{if} \quad z_U < \tilde{z}_U \equiv E_U(C^U|\phi_0) - C^U_{\alpha} \\ 0 & \text{if} \quad z_U \geq \tilde{z}_U \end{cases}$$

Before $U$ moves, $I$ observes the realization of the state $\beta$ and the government’s policy
\[ F(z_U)E_I(C^I|\phi_0) + (1 - F(z_U))C_{\alpha}^I - z_I \quad \text{if} \quad \tau_I = 1 \]
\[ C_{\alpha}^I \quad \text{if} \quad \tau_I = 0 \]

where

\[ E_I(C^I|\phi_0) = \phi_0 C_{\alpha_H}^I + (1 - \phi_0) \left[ \hat{\tau}^B X C_{\alpha_L}^I + (1 - \hat{\tau}^B) C_{\alpha_H}^I \right] \]

Hence, for all \( \alpha \), conditional on \( \beta_H \)

\[
\tau_I(\beta_H, \alpha) = \begin{cases} 
1 & \text{if } z_I < \bar{z}_I \equiv F(z_U)[E_I(C^I|\phi_0) - C_{\alpha}^I] \\
0 & \text{if } z_I \geq \bar{z}_I 
\end{cases}
\]

Finally, we need to analyze the governments’ problem. A good government is concerned exclusively with social welfare. Formally, it solves the following maximization problem:

\[
\max_{\tau_B X(\beta), C^I, C^U} \left\{ \tau_B^G(\beta) Y_{\beta_H, \alpha_L} + (1 - \tau_B^G(\beta)) Y_{\beta_H, \alpha_H} \right\} 
\]
\[+ I_{(\beta = \beta_L)} \left\{ \tau_B^G(\beta) Y_{\beta_L, \alpha_L} + (1 - \tau_B^G(\beta)) Y_{\beta_L, \alpha_H} \right\} \]

such that \( Y_{\beta, \alpha} = C_{\alpha}^I + C_{\alpha}^U \) and \( C_{\alpha}^I = C_{\alpha}^U \) for \( \alpha \in \{\alpha_H, \alpha_L\} \)

Bad governments, on the other hand, are interested in rent extraction all the while being concerned with their reputation. With some (egregious) abuse of notation they maximize

\[
\max_{\alpha} \Pi(\phi) = \Delta(\beta, \alpha) + \delta \Pi(\phi')
\]

More precisely, imposing \( \tau_B^B(\beta_L) = 1 \), and denoting \( \tau_B^B = \tau_B^B(\beta_H) \)

\[
\max_{\tau_B^B(\beta), C^I, C^U} \left\{ \tau_B^B \left[ - F_U P + F_I (1 - F_U)(\bar{\Delta} + \delta \Pi(0)) \right] \right. 
\]
\[+ (1 - F_I)(\bar{\Delta} + \delta \Pi(\phi'_{\alpha_L}|\tau_B^B)) \left. \right] \times (1 - \tau_B^B) \delta \Pi(\phi'_{\alpha_H}|\tau_B^B) \}
\]

\[-I_{(C_{\alpha}^I \neq C_{\alpha}^L)} \hat{P} \]
where $F_I \equiv F(\bar{z}_I)$, $F_U \equiv F(\bar{z}_U)$, and $C_{\lambda}^*$ denotes the allocations to $I$ and $U$ implemented by a good government, $\Delta(\beta, \alpha') = Y_{\beta, \alpha'} - Y_{\beta, \alpha}$ denote the rent a government can extract when the state is $\beta$ and the policy is $\alpha'$, $\Pi(\phi)$ is the continuation value of remaining in office when the government has a reputation $\phi$, $P$ is the penalty a government has to pay whenever it is removed from office. If the government remains in office even though it completely revealed its $B$ type by announcing consumption $C_{\lambda} \neq C_{\lambda}^*$ it is subject to a penalty $\hat{P}$.\footnote{Otherwise we should keep track of all possible deviations in transfers.}

When the state is $\beta_L$, the $I$-sector has no incentive to signal when the government appropriately announces $\alpha_L$. In fact, all governments “do the right thing” under these circumstances. Furthermore, bad government cannot announce $\alpha_H$, since it cannot pay the promised transfers $C_{\lambda}^H$, pays a penalty $\hat{P}$ and its reputation goes to $\phi' = 0$. In this case it is a dominant strategy for bad governments to pool with good governments.

When $\beta = \beta_H$, on the other hand, bad governments are tempted to adopt the policy $\alpha_L$ as this enables them to extract excessive rents. However, this distortion may unleash signaling and eventually a punishment of the government.

Since $\phi'_{\alpha_L|1} < \phi < \phi'_{\alpha_H|1}$, bad governments distort ($\tau_B^X = 1$) if:

$$\delta \Pi(\phi'_{\alpha_H|1}) < F_I(1 - F_U)(\bar{\Delta} + \delta \Pi(0)) - F_IF_UP + (1 - F_I)(\bar{\Delta} + \delta \Pi(\phi'_{\alpha_L|1}))$$  \hspace{1cm} (5)

Since $\phi'_{\alpha_L|0} = \phi'_{\alpha_H|0} = \phi$, bad governments behave ($\tau_B^X = 0$) if:

$$\delta \Pi(\phi) > F_I(1 - F_U)(\bar{\Delta} + \delta \Pi(0)) - F_IF_UP + (1 - F_I)(\bar{\Delta} + \delta \Pi(\phi))$$  \hspace{1cm} (6)

Given these updates, when condition (5) is fulfilled, and the government distorts, condition (6) cannot be satisfied. Similarly, when condition (6) is fulfilled, and the government does not distort, condition (5) cannot be satisfied. These are the conditions for an equilibrium in pure strategies.

Alternatively, neither of the two conditions is satisfied. In this case the equilibrium is in random strategies $\tau_B^{X*}$ that fulfill the following condition:

$$\delta \Pi(\phi'_{\alpha_H|\tau_B^{X*}}) = F_I(1 - F_U)(\bar{\Delta} + \delta \Pi(0)) - F_IF_UP + (1 - F_I)(\bar{\Delta} + \delta \Pi(\phi'_{\alpha_L|\tau_B^{X*}})),$$  \hspace{1cm} (7)
that is, the government is indifferent between distorting or not. This equation can be rewritten as

\[ \delta [\Pi'(\phi_{\alpha H|\tau_B^X}) - (1 - F_I)\Pi'(\phi_{\alpha L|\tau_B^X})] = \bar{\Delta} + F_I\delta \Pi(0) - F_I F_U [\bar{\Delta} + \delta \Pi(0) + P] \]

A unique solution for \( \tau_B^X \) for all \( \phi \) requires the left hand side being increasing in \( \tau_B^X \) at a higher rate than the right hand side. Since the right hand side is fixed and the left hand side grows with \( \tau_B^X \) (generates a higher gap in reputation updating from observing a policy \( \alpha_H \)), then it is always the case that \( \frac{\partial \text{LHS}}{\partial \tau_B^X} > \frac{\partial \text{RHS}}{\partial \tau_B^X} \).

Lemma 1 There is always some distortion with perfect information: \( \hat{\tau}_B^X(\phi_0) > 0 \).

Proof Since a newly installed government of type \( B \) with reputation \( \phi_0 \) does not face the prospect of removal from office for the remainder of the period, \( F_I = F_U = 0 \),

\[ \delta [\Pi'(\phi_{\alpha H|\hat{\tau}_B^X}) - \Pi'(\phi_{\alpha L|\hat{\tau}_B^X})] = \bar{\Delta} > 0 \]

The solution is \( \hat{\tau}_B^X \in (0, 1] \), hence governments always distort with some probability. Suppose, instead, that they never distort (\( \hat{\tau}_B^X = 0 \)) which happens if the left hand side is greater than the right hand side. This, however, is impossible since in that case there is no updating (\( \phi'_{\alpha H|\hat{\tau}_B^X} = \phi'_{\alpha L|\hat{\tau}_B^X} = \phi \)) and the left hand side is zero. Contrarily, new governments always distort (\( \hat{\tau}_B^X = 1 \)) if the left hand side is smaller than the right hand side, which is the case if \( \delta [\Pi(1) - \Pi'(\phi'_{\alpha L|\hat{\tau}_B^X=1})] < \bar{\Delta} \).

Q.E.D.

A.3 Proof of Proposition 4

First, we show that \( \hat{\tau}_R^B(\phi_0) = 0 \), then we prove uniqueness of \( \tau_R^B(\phi) \) for all \( \phi \).

A new bad government does not have incentives to redistribute in order to prevent signals in its first period in office (when \( \beta \) is known) since signaling is assumed to be prohibitively costly (that is, \( F_I = F_U = 0 \) by assumption). Redistribution triggers a reputation loss with no offsetting contemporaneous gain. It follows that \( \hat{\tau}_R^B(\phi_0) = 0 \).

We can show uniqueness of \( \tau_R^B(\phi) \) by first proving Lemma 2.

Lemma 2 The opportunity to redistribute excessively reduces the signaling probability of the uninformed sector (i.e., reduces \( F_U \)) and increases the signaling probability of the informed
sector (i.e., raises $F_I$).

**Proof of Lemma** The distortion strategy $\tau^B_X$ is determined as in section 2, that is, the government distorts ($\tau^B_X = 1$) if:

$$\delta \Pi(\phi'_{\alpha_H|\tau^R}) < F_I(1 - F_U)(\Delta + \delta \Pi(0)) - F_I F_U P + (1 - F_I)(\Delta + \delta \Pi(\phi'_{\alpha_L|\tau^R}))$$

After the distortion decision, the government redistributes excessively ($\tau^B_R = 1$) if the payoffs from doing so (denoted by $r$),

$$(1 - F_I^r)[\Delta + \delta \Pi(\phi'_{r|\tau^R})] + F_I^r[(1 - F_U^r)[\bar{\Delta} + \delta \Pi(0)] - F_U^r P],$$

are greater than the payoffs from not doing so (denoted by $nr$)

$$(1 - F_I^{nr})[\Delta + \delta \Pi(\phi'_{nr|\tau^R})] + F_I^{nr}[(1 - F_U^{nr})[\bar{\Delta} + \delta \Pi(0)] - F_U^{nr} P],$$

Hence, the government will decide to redistribute excessively ($\tau^B_R = 1$) if

$$\delta[(1 - F_I^r)\Pi(\phi'_{r|\tau^R}) - (1 - F_I^{nr})\Pi(\phi'_{nr|\tau^R})] > (F_I^{nr} - F_I^r)\delta \Pi(0) - [F_I^{nr} F_U^{nr} - F_I^{nr} F_I^r](\bar{\Delta} + \delta \Pi(0) + P)$$

As before, $U$'s condition for signaling is given by a cutoff $\bar{z}_U^r = E_U(C_U^I|\phi_0) - (C_U^I + \frac{\theta}{2})$ where,

$$E_U(C_U^I|\phi_0) = \phi_0 C_{\alpha_H}^U + (1 - \phi_0)[\hat{\tau}^B_X C_{\alpha_L}^U + (1 - \hat{\tau}^B_X)C_{\alpha_H}^U]$$

$$+ \frac{\theta}{2}[(1 - \rho) + (1 - \phi_0)\rho \hat{\tau}^B_X \hat{\tau}^B_R]$$

Since $\hat{\tau}^B_R(\phi_0) = 0$,

$$\bar{z}_U^r = \bar{z}_U^{nr} - \rho \frac{\theta}{2}$$

which means that, when endowment has been redistributed, the probability of the uninformed issuing a signal decreases (this is $F_U^r < F_U^{nr}$). Furthermore, the derivative of $\bar{z}_U^r$ with respect to $\theta$ is negative.

Similarly, the signaling decision by sector $I$ follows a cutoff $\bar{z}_I^r \equiv F(\bar{z}_U^r)[E_I(C^I|\phi_0) -
\[(C^I_\alpha - \theta^2),\] where

\[E_I(C^I|\phi_0) = \phi_0 C^I_{\alpha H} + (1-\phi_0)[\hat{\tau}^B_X C^I_{\alpha L} + (1-\hat{\tau}^B_X C^I_{\alpha H} - \frac{\theta}{2} \hat{\tau}^B_X \hat{\tau}^B_R]\]

Again, since \(\hat{\tau}^B_R(\phi_0) = 0\),

\[\bar{z}_r^I = \bar{z}_r^{nr} - (F(\bar{z}_r^{nr}) - F(\bar{z}_r^U))\left[E_I(C^I|\phi_0) - C^I_{\alpha}\right] + F(\bar{z}_r^U)\frac{\theta}{2}\]

which means that with redistribution the probability of the informed issuing a signal may increase or decrease depending on the impact of redistribution in the probability of uninformed rioting. The derivative of \(\bar{z}_r^I\) with respect to \(\theta\), can then also be positive or negative.

Q.E.D. (Lemma)

We now show that \(\tau^B_R(\phi)\) is unique for all \(\phi\).

As \(\tau^B_R(\phi)\) increases, there is an increase in \(\phi'_{nr|\tau^B_R}\) and a decrease in \(\phi'_{r|\tau^B_R}\). This implies that in equation (8) with equality, as \(\tau^B_R(\phi)\) increases, the left hand side always decreases more than the right hand side, which is fixed. The derivative of the left hand side (LHS) with respect to \(\tau^B_R(\phi)\) is

\[
\frac{\partial \text{LHS}}{\partial \tau^B_R} = (1 - F^r_I)\delta \frac{\partial \Pi(\phi'_{r|\tau^B_R})}{\partial \tau^B_R} - (1 - F^{nr}_I)\delta \frac{\partial \Pi(\phi'_{nr|\tau^B_R})}{\partial \tau^B_R} < 0
\]

The most interesting state of nature in terms of an opportunistic government’s behavior is \((\beta_H, 0)\). By distorting the redistribution of resources the government can transfer \(\theta\) to \(U\) (which leaves \(I\) with \(\theta\) less of consumption), the government can extract positive rents and – at the same time – minimize the gain the uninformed can realize by way of signaling. For that reason, signaling becomes less likely and the incumbent can misbehave (that is, adopt the inefficiently policy \(\alpha_L\)) with more impunity.

A.4 Many Informed Agents and Free Riding

As the number of informed agents grow, is it the case that information about the government’s type flows with certainty to uninformed groups? In this section we argue that free riding prevents this from happening, and hence our analysis remains as the number of informed groups grow.
Assuming that there are two distinct groups of consumer-voters, suppose there are \( N \in \mathbb{Z}^{++} \) of equal size. Assume also that \( 1 \leq N_I < N \) sectors are aware of \( \beta \) (i.e. they are informed); \( N_U = N - N_I \) is the number of uninformed groups. For the time being, let all the informed sectors be identical in terms of their action costs \( C_i = C_j = z_I \) for \( i, j \in [1, N_I] \). Lastly, let \( C_i = C_j = z_U \) for \( i, j \in (N_I, N] \) be the symmetric action cost of all uninformed sectors. This analysis is the isomorphic to analyzing the behavior of the agents composing the groups analyzed in the main text.

As in the baseline model, the (endogenous) policy for all sectors in state \( \beta_L \) is \( \alpha_L \) and bad governments have private incentives to impose an inefficient policy \( \alpha_L \) even when the true fundamental is \( \beta_H \). Analogously to section 2, aggregate output is a function of all \( \beta \)'s and \( \alpha \)'s. Each sector receives:

\[
y_{\beta,\alpha} = \frac{1}{N} Y_{\beta,\alpha}
\]

The opportunistic politician pockets the difference, \( Y_{\beta_L,\alpha_L} - N y_{\beta_L,\alpha_L} \), as a private rent.

We are interested in the behavior of the informed agents, who observe \( \beta \) and \( \alpha \). Symmetry implies that expected gains from getting rid of a bad government are the same for all of them. In the game, a signal sent by a single informed agent is sufficient to inform the rest of the economy about the quality of government and thereby trigger the formation of a coalition with the aim to remove the incumbent. Sending a signal, however, is costly and this is where the free-riding problem arises.

For simplicity, assume that \( N_I + 1 \) participating groups are sufficient to unseat the incumbent government. Let \( \hat{\pi}_i \) denote agent \( i \)'s gross expected gain from getting rid of the incumbent:

\[
\hat{\pi} = F(\bar{z}_U) \left[ E_I(\pi|\phi_0) - \pi(\beta, \alpha) \right]
\]

where \( F(z_U) \) defines \( U \)'s cutoff as in section 2.

Under the within-group symmetry assumption about costs, only the case \( z_I < \hat{\pi} \) generates interesting insights.

We are looking for a symmetric mixed strategy equilibrium, where \( p \) denotes the probability for each informed agent to send a signal. If an agent sends a signal, the expected net gain is \( \hat{\pi} - z_I \). If it does not, it realizes a net gain of zero with probability \( (1-p)^{N_I-1} \) (no other informed agent sends a signal) or \( \hat{\pi} \) with probability \( 1 - (1-p)^{N_I-1} \) (at least one informed agent sends a signal).
A particular informed agent is indifferent between sending a signal or not whenever:

\[ \hat{\pi} - z_I = \hat{\pi}(1 - (1 - p)^{N_I - 1}) \]

The (symmetric) probability for each informed agent sending a signal is:

\[ p = 1 - \left( \frac{z_I}{\hat{\pi}} \right)^\frac{1}{N_I - 1} \]

The probability of at least one informed agent sending a signal is:

\[ 1 - (1 - p)^{N_I} = 1 - \left( \frac{z_I}{\hat{\pi}} \right)^\frac{N_I}{N_I - 1} \]

In the limit with \( N_I \to \infty \) the corresponding probabilities are:

\[ p \to 0 \]
\[ 1 - (1 - p)^{N_I} \to 1 - \frac{z_I}{\hat{\pi}} > 0, \]

since \( \frac{N_I}{N_I - 1} \to 1 \) as \( N_I \to \infty \)

That is, the probability no informed agent sending a signal in the presence of free-riding does not converge to zero as the number of informed agents grow. The reason is that free riding makes the probability of each single informed agent sending a signal goes to zero at a faster rate than the number of informed agents. Put differently, in the model with a continuum of informed agents and free riding, the uncertainty about the government’s type is not completely resolved. This allows the bad government to keep distorting based on the optimal strategy \( \tau_X \) studied in the main text.

### A.5 Endogenous Value of Reputation

In the main text we assumed a single period model and an exogenous continuation value, \( \Pi(\phi) \), which was increasing in \( \phi \). Reputation, however, is an intrinsically dynamic concept, and its continuation value arises endogenously in a dynamic game. In this section we show how to determine the value \( \Pi(\phi) \) endogenously and we discuss why the solution for a single period as we characterize in the main text is effectively
the solution for any period which is sufficiently far from a terminal period $T$.

Where does the value of reputation come from? As long as retaining power has some value and reputation increases the likelihood of staying in office, reputation has a positive value. In what follows we describe how continuation values are determined in a model with an arbitrarily large number of periods and what the conditions are for these values to be increasing.

To introduce dynamics we assume an overlapping generation structure, in which three cohorts coexist in every period; young, old and retired. When young, agents are uninformed about the real effects of government’s policies. When old, they are informed. The retired simply consume a fixed amount of endowment and die before the end of the period. The timing within each period is the same as in the main text, with one exception: at the end of each period the current young and old elect the government with updated posterior reputation $\phi$ for one more period, or replace the incumbent with who, by assumption, has reputation $\phi_0$.

To avoid deterministic outcomes and to ensure that continuation values are a smooth function of reputation, we assume that there is a random utility gain associated with reelectioning the incumbent, for all cohorts in each period, denoted by $\nu_t \sim F_{\nu[-\nu, \nu]}$.

Only young and old cohorts vote. Since the old retire the period, they cast their vote based on $\nu$: their consumption does not depend on the government type. In contrast, the young are old next period and they decide based on $\nu$ and the probability that the incumbent is good, $\phi$. Under this assumption elections themselves do not reveal additional information about the government’s type.

How are the government’s continuation values $\Pi_t(\phi)$ determined at the end of each period $t$? Assume that the economy comes to an end in period $T$ and $\Pi_T(\phi) = 0$ for all $\phi$. From equation 1, it is clear that all bad governments distort in the final period, that is, $\tau_{T,X}^B(\phi|\beta_H) = 1$ for all $\phi$.\(^\text{20}\) Intuitively, at that point bad governments have no incentives that come from the future in terms of staying in office and prefer to extract the short-term benefit.

Since agents anticipate this behavior, they are more likely to reelect an incumbent at the end of period $T - 1$ if he has a good reputation. The expected gains for the young

\(^{20}\)This is true for interesting parameters in the paper. In particular when $(1 - F_I F_U) \bar{\Delta} - F_I F_U P > 0$.\(^{20}\)
from reelecting an incumbent with reputation \( \phi \) at the end of \( T - 1 \) is

\[
E^Y(U_T|\phi) = E(C_T|\phi) + \nu_T = (1 - \gamma) \frac{Y_{\beta_L,\alpha_L}}{2} + \gamma \left[ \phi \frac{Y_{\beta_H,\alpha_H}}{2} + (1 - \phi) \frac{Y_{\beta_H,\alpha_L}}{2} \right] + \nu_T
\]

In contrast, the expected gains from replacing the incumbent, at the end of \( T - 1 \), with a new type \( \phi_0 \) is

\[
E^Y(U_T|\phi_0) = E(C_T|\phi_0) = (1 - \gamma) \frac{Y_{\beta_L,\alpha_L}}{2} + \gamma \left[ \phi_0 \frac{Y_{\beta_H,\alpha_H}}{2} + (1 - \phi_0) \frac{Y_{\beta_H,\alpha_L}}{2} \right]
\]

This implies that young voters reelect the incumbent for the terminal period if

\[
\nu_T > \bar{\nu}_T(\phi) \equiv E(C_T|\phi_0) - E(C_T|\phi) = \frac{\gamma}{2} (\phi_0 - \phi)
\]

Trivially, old voters reelect the incumbent for the final period if \( \nu_T > 0 \). Intuitively, the incumbent is reelected if the utility gains from maintaining the incumbent are larger than the expected gains from separating the incumbent, which for the young cohort is given by the expected lower probability of distortions by the alternative government in the last period \((\phi_0 - \phi)\), which translates into a higher output and consumption \((\bar{\Delta} = Y_{\beta_H,\alpha_H} - Y_{\beta_H,\alpha_L})\) with probability \( \gamma \). Naturally, if \( \phi > \phi_0 \), young voters reelect the incumbent even if it comes at some utility cost \( \nu_T < 0 \).

An incumbent is reelected at the end of period \( T - 1 \) if

\[
\xi_T(\phi) = \frac{1}{2} \left[ 1 - F_{\nu}(\bar{\nu}_T(\phi)) \right] + \frac{1}{2} \left[ 1 - F_{\nu}(0) \right],
\]

which is clearly increasing in \( \phi \) (since \( \bar{\nu}_T(\phi) \) is decreasing in \( \phi \)). The better the incumbent’s reputation, the more likely his reelection.

A higher reelection probability is important for bad types since there are gains from distorting in the future \( \gamma \bar{\Delta} \). If, in addition, fixed and exogenous rents \( \bar{\Pi} \) are associated with being in office (power, prestige, etc), it is straightforward to see that the governments’ continuation value at \( T - 1 \) is increasing in reputation:

\[
\Pi_{T-1}(\phi) = \xi_T(\phi)[\gamma \bar{\Delta} + \bar{\Pi}]
\]

Following the same logic, the expected gains to the young from reelecting an incum-
bent with reputation $\phi$ at the end of $T-2$ is

$$E(U_{T-1} | \phi) = (1 - \gamma) \frac{Y_{\beta_L, \alpha_L}}{2} + \gamma \left[ \frac{Y_{\beta_H, \alpha_H}}{2} + (1 - \phi) \tau_{T-1,X}^B(\phi) \frac{Y_{\beta_H, \alpha_L} - Y_{\beta_H, \alpha_H}}{2} \right] + \nu_{T-1},$$

while the expected gains from replacing the incumbent, at the end of $T-2$, with a new $\phi_0$ type is

$$E^Y(U_{T-1} | \phi_0) = (1 - \gamma) \frac{Y_{\beta_L, \alpha_L}}{2} + \gamma \left[ \frac{Y_{\beta_H, \alpha_H}}{2} + (1 - \phi_0) \tau_{T-1,X}^B(\phi_0) \frac{Y_{\beta_H, \alpha_L} - Y_{\beta_H, \alpha_H}}{2} \right]$$

This implies that young voters reelect the incumbent at the end of period $T-2$ if

$$\nu_{T-1} > \bar{\nu}_{T-1}(\phi) \equiv \frac{\bar{\Delta}}{2} \left[ (1 - \phi) \tau_{T-1,X}^B(\phi) - (1 - \phi_0) \tau_{T-1,X}^B(\phi_0) \right]$$

Since old voters at $T-2$ reelect the incumbent if $\nu_{T-1} > 0$, the probability of reelection of an incumbent with reputation $\phi$ at the end of period $T-2$ is

$$\xi_{T-1}(\phi) = \frac{1}{2} \left[ 1 - F_\nu(\bar{\nu}_{T-1}(\phi)) \right] + \frac{1}{2} \left[ 1 - F_\nu(0) \right],$$

which is also increasing in $\phi$ under the sufficient condition that $\bar{\nu}_{T-1}(\phi)$ is decreasing in $\phi$ (Proposition 3).

The government’s continuation values take the possibility of staying in power until period $T$ into account. Then,

$$\Pi_{T-2}(\phi) = \xi_{T-1}(\phi) [\gamma \tau_{T-1,X}^B(\phi) \bar{\Delta} + \bar{\Pi}] + \delta E_\phi \Pi_{T-1}(\phi).$$

Assume for now that the mobilization costs are low enough so the incentive to distort $\tau_{X,T-1}^B(\phi)$ is decreasing in $\phi$ (see Proposition 3). In this equilibrium, where bad types with better reputations are less likely to distort, there is a counter-force that tends to depress the continuation value. On the one hand, continuation values increase with reputation because the probability of reelection increases with reputation. On the other hand, the lower probability of distortion that comes from a better reputation decreases the bad government’s prospective gains from distortion: they don’t behave opportunistically very often.

To summarize, the government’s continuation values are increasing in reputation if
and only if the gains from being in power, $\Pi$, are large enough to compensate for the decrease in opportunities to extract rents. In other words, an equilibrium with continuation values increasing in $\phi$ and distortion probabilities decreasing in $\phi$ is sustained when the benefit associated with reelection, $\bar{\Pi}$, is large enough compared to the opportunistic incentives of rent-seeking.

Finally, following Ordoñez (2012), continuation values are a contraction mapping such that, for periods far away from the terminal period $T$, they converge to a stationary solution for all $\phi$, which implies the distortion probabilities $\tau^B t, X(\phi)$ are also stationary for all $\phi$. In this sense, the solution characterized in the main text for a single period is effectively the solution for any period sufficiently far from the terminal period, and then it is the unique limit, as $T \to \infty$, to the finite horizon Markov perfect equilibria described in Proposition 1.