



Contents lists available at ScienceDirect

# Review of Economic Dynamics

[www.elsevier.com/locate/red](http://www.elsevier.com/locate/red)



## Deceptive redistribution

Simeon D. Alder <sup>a,\*</sup>, Guillermo L. Ordoñez <sup>b,c</sup>

<sup>a</sup> University of Notre Dame, United States

<sup>b</sup> University of Pennsylvania, United States

<sup>c</sup> NBER, United States



### ARTICLE INFO

*Article history:*

Received 15 July 2014

Received in revised form 23 August 2016

Available online 3 September 2016

*JEL classification:*

C7

D72

D82

H10

H23

O12

*Keywords:*

Redistribution

Reputation

Private information

Rent-seeking

Media

Election

### ABSTRACT

While some policies can enhance welfare, occasionally they may also provide rents to politicians. Opportunism is usually constrained by the policymakers' reputation concerns. However, if instances of rent-seeking are not easily identified, the strength of these concerns hinges on the informed constituents' ability to share their knowledge with the rest of society. We show that governments use excessive redistribution to discourage the communication of information. In contrast to the standard view that inefficient policies are necessary to implement redistribution, we argue that redistribution can perpetuate inefficient policies that generate private rents to politicians.

© 2016 Elsevier Inc. All rights reserved.

## 1. Introduction

Information asymmetries are pervasive in many aspects of society and in this paper we argue that they are key to understanding the interactions between governments and their voters and among a polity's various constituents themselves. In particular, we explore the extent to which incumbents enact policies to preempt the information flow among differentially informed constituencies in an effort to avoid political accountability and extract office rents with relative impunity.

The politicians' actions are constrained by institutions (the rules of the political game) and by the media in its capacity as an information provider. Acemoglu et al. (2001) initiated a vast literature on the role of institutions in the economic development process. There is a broad consensus that institutions as a system of checks and balances between voters, and the executive, legislative, and judicial branches of government shape the constraints that a policymaker faces when choosing between policies that improve social welfare and others that generate private benefits in the form of rents, but are

\* For helpful comments we would like to thank Matthias Doepke (the editor), two anonymous referees, Jeffrey Campbell, Ernesto Dal Bó, Mike Golosov, Giacomo Ponzetto, Mark Rosenzweig, Dan Slater, Pierre Yared, and seminar participants at Basel, Columbia (SIPA), the Federal Reserve Banks of Chicago and St. Louis, IIES, Notre Dame, Western Ontario, Zurich (IEW), the 2011 SED Annual Meeting in Ghent, SITE 2013, and the 2013 NBER Summer Institute (PEPF). We are particularly thankful to Michael Albertus for sharing his vast knowledge about redistribution and land reform in Latin America.

\* Corresponding author.

E-mail addresses: [salder@nd.edu](mailto:salder@nd.edu) (S.D. Alder), [ordonez@econ.upenn.edu](mailto:ordonez@econ.upenn.edu) (G.L. Ordoñez).

undesirable otherwise. Consequently, in countries with strong *de facto* institutions, instances of opportunism are relatively scarce and, when they occur at all, tend to be less egregious, more short-lived, and are typically met by some form of political or legal punishment.

Whether *de jure* sound institutions give rise to political accountability depends to a considerable extent on transparency in the form of timely, accurate, and widely available information about the politicians' actions and decisions. While many countries formally adhere to the idea of a government divided into branches with separate and independent powers, these legal and constitutional checks and balances are all too often unhinged by a lack of transparency and information. The availability of information, however, is not an exogenous circumstance. It depends to a considerable extent on the media's willingness and ability to scrutinize government conduct and to report on it freely and broadly.

Consider, for example, the First Amendment to the US Constitution and Article 29 of the Russian Constitution, both of which guarantee the freedom of the press and hence enable media outlets to take on a watchdog role. Bob Woodward and Carl Bernstein at the *Washington Post*, with more than a little help from *Deep Throat*, eventually got to the bottom of the Watergate scandal that triggered President Nixon's resignation in August 1974. In contrast, much of the Russian press appears to be doing the political leadership's bidding since it does not hesitate to physically intimidate or threaten journalists who stray from the official line.<sup>1</sup> While both countries formally guarantee press freedom, the Russian media's ability to assume an effective watchdog role vis-à-vis the authorities appears to be far more limited. Many other governments or regimes are more extreme and shed all pretense of a free and independent press and resort to outright censorship, as in North Korea or Iran, for example (Strömberg, 2015).

In other instances, governments limit the media's ability to scrutinize their conduct in more subtle ways. The US armed forces' practice of embedding reporters during the 2003 invasion of Iraq, for instance, has been controversial as it was perceived to undermine their journalistic independence (Ignatius, 2010).<sup>2</sup> During the Fujimori presidency in Peru (1990–2000), his chief of intelligence, Vladimiro Montesinos, offered cash payments to television channels and print media in return for favorable news coverage. Thanks to Montesinos' taste for meticulous record-keeping, this episode is among the best documented cases not only of media capture but of bribery and corruption at the highest levels of government more generally (McMillan and Zoido, 2004).

In our paper, the media's ability to bridge information asymmetries is key to improving political accountability. Yet excessive redistribution toward constituents who are relatively uninformed can curb the media's incentive to investigate and report on government misconduct. The media does not back off directly in response to a government threat or bribe, as it does in some of the earlier examples. Rather, "buying" the votes of the least informed by way of excessive transfers diminishes the political value of independent news. The aspect we emphasize in this paper is the government's twin incentive to transfer resources excessively and selectively. Transfers directly sway voters by allocating a bigger slice of the economic pie (*vote buying*). Since, all else equal, the recipients become less sensitive to reports of government misconduct, the media find it optimal to neglect their watchdog role (*information suppression*). It is due to the latter motive that these transfers merit the label *deceptive*.

The evidence supports both redistribution effects. Even though ballots are secret, and rational forward-looking citizens should be immune to vote buying attempts, there is a growing empirical literature documenting that transfer recipients are more likely to support the incumbent, regardless of their opinion about the incumbent's competence or honesty. In addition, the evidence suggests that the media intensify political scrutiny when governments have insufficient resources for redistribution purposes.<sup>3</sup>

In this paper we explore how politicians exploit redistribution in order to influence the sharing of information, and hence the extent of political accountability, in an effort to extract rents for private gain. When redistribution opportunities are plentiful, incumbents are tempted to "buy" the median vote. As long as the uninformed voter receives a large enough share of the economic pie, she may not care very much about the politicians' bad rent-seeking habits. Furthermore, since re-election is virtually guaranteed in this case, the media have no incentive to look for and report on government misconduct. In other words, when redistribution opportunities are plentiful, both vote buying and information suppression operate and impunity reigns supreme.

If, in contrast, the incumbent lacks the resources to buy the uninformed (median) vote outright, voters are more concerned about the politician's true quality since their economic fortunes depend mostly on the government's ability to maximize economic output and less on its opportunistic desire and ability to distribute it unevenly. The consequences are twofold. To begin with, since voters are more sensitive to reports of misconduct, news is more valuable and can steer votes, therefore the media has a stronger incentive to assume an active watchdog role. In addition, since voters care more about the incumbent's quality, a good reputation is more valuable and governments respond by exercising restraint in their

<sup>1</sup> Anna Politkovskaya, the investigative journalist at the independent *Novaya Gazeta* newspaper who reported on human rights abuses during the war in Chechnya and who was assassinated in 2006, claimed that Russia was "hurtling back into a Soviet abyss, into an information vacuum that spells death from our own ignorance. (...) [If you want to go on working as a journalist, it is total servility to Putin. Otherwise, it can be death, the bullet, poison, or trial – whatever our special services, Putin's guard dogs, see fit]" (Politkovskaya, 2004).

<sup>2</sup> In an unusual note to readers, the New York Times' editor Bill Keller acknowledged that the newspaper's reporting on Iraq was too dependent on unverified claims, by sources of questionable credibility, which "were often eagerly confirmed by United States officials convinced of the need to intervene in Iraq" (Keller, 2004).

<sup>3</sup> We discuss this evidence in more detail in section 4.

vote buying effort. In other words, when redistribution opportunities are scarce, the voters' heightened sensitivity to news about the incumbent's type keeps vote buying in check and fosters information sharing. Consequently, opportunists engage in rent-seeking less frequently.

**Literature review.** Our model provides a unified framework to analyze the effectiveness of the media's watchdog role and the availability of discretionary resources for transfer purposes on the incumbent's reputation concerns, her ability to extract (office) rents for private gain, and her prospects for re-election. The incumbent's ability to undermine the flow of information and thereby bolster the odds of surviving in office is similar to the mechanism in Besley and Prat (2006) and Prat and Strömberg (2013). While they focus on media capture, that is, the government's ability to directly suppress the release of adverse information to a uniformly uninformed public, we emphasize how the incumbent makes use of selective transfers to indirectly undermine the media's willingness to assume a (costly) watchdog role.

This paper is also related to a rich literature on social cleavage, information asymmetries, government misconduct, and political turnover. Padro i Miquel (2007) highlights the importance of ethnic fragmentation in explaining kleptocracies and inefficient forms of patronage. We instead focus on endogenous information asymmetries across groups and show that rent-seeking and targeted redistribution emerge even in the absence of exogenous fragmentation. While ethnic and tribal divisions are clearly a salient feature in, say, the African context our theory can account for similar patterns of inefficiency and redistribution in more obliging circumstances.

In our model, the government is either self-interested or benevolent. The government's type is private information and *ex ante* all candidates are identical, which differentiates our paper from Acemoglu and Robinson (2008), Acemoglu et al. (2010, 2011), Yared (2010), and Ales et al. (2011). We are primarily interested in the political longevity of opportunists and hence the persistence of inefficient policies. We abstract from the selection and election processes that Besley and Coate (1997, 1998) or Caselli and Morelli (2004) emphasize. Like Ferejohn (1986) we instead focus on the incumbent's desire to avoid exit when his type is *ex ante* unknown. However, we do so in an environment where endogenous information asymmetries limit his political accountability. This segmentation between different constituencies generates a natural sequence of actions in our theory: the most informed initiate any attempt to unseat the incumbent by "digging up dirt" on his opportunistic behavior. Based on their action (or lack thereof) less informed constituents update their beliefs about the government type and decide whether to jump on the bandwagon. In this regard, informed agents play a role similar to Bueno de Mesquita (2010)'s revolutionary vanguards.

Our model is also related to Fearon (2011), where constituents observe dispersed private signals about the government's performance. While he focuses on the emergence of democratic elections as an endogenous institution that discourages excessive rent-seeking, we emphasize how institutions shape the endogenous dispersion of information in the first place. Information asymmetries, in turn, govern the politician's reputation concerns and hence his appetite for opportunism.<sup>4</sup> Bonfiglioli and Gancia (2013) explore the welfare implications when information asymmetries incentivize politicians to favor policies with short-term payoffs over, say, education or basic research. While political myopia is at the heart of their paper we emphasize the trade-off between opportunism and political longevity.

Our theory predicts that self-interested politicians pander to the least informed constituents. While this is what Latin American "populists" tend to do, it is at variance with the empirical evidence in Strömberg (2004b) and Snyder and Strömberg (2010). Similarly, in a model of endogenous *incomplete* information Strömberg (2004a) finds that politicians are more responsive to large and/or affluent constituencies.<sup>5</sup> In our game with *imperfect* information, poor constituents are endogenously less knowledgeable, on average, and they have a comparative advantage in generating "cheap" votes that keep the self-interested politician in power. In our case, even though the uninformed may prefer to unseat an opportunist if they actually knew it was a bad type, "excessive" transfers inhibit the sharing of that critical piece of information.

The remainder of the paper is organized as follows. We introduce the model and define the equilibrium in section 2. We then review the comparative statics of inefficiencies and information flows with respect to the availability of resources for excessive redistribution in section 3 and the empirical evidence in section 4. Section 5 concludes.

## 2. The model

To analyze the nexus between redistribution and inefficiency when salient information about the incumbent's policies is asymmetrically dispersed in the population, we build a model that features a self-interested government with both redistribution motives and reputation concerns that capture a preference to remain in power. The government can adopt distortionary policies to appropriate short-term private rents at the risk of damaging its reputation, which she values in the long run. We show that redistribution plays not only a *vote buying* role but furthermore contributes to delaying the revelation of adverse information about the government's type and thereby improves her prospects of staying in power.

<sup>4</sup> The two models share a "dictatorial equilibrium" where governments extract *all* rents but stay in power anyway. Individual constituents do not rebel since no one else will. We are, however, more interested in understanding the conditions under which politicians curb their opportunism thanks to a credible threat of losing office.

<sup>5</sup> In a different model emphasizing the role of media in the political process, Alston et al. (2010) show how interest groups with limited voting power and resources manipulate information in order to secure favorable policies.

## 2.1. Environment

The economy is populated by a government and two sectors indexed by  $i \in \{1, 2\}$ .<sup>6</sup> A measure  $\eta_i$  of risk-neutral individuals resides in each sector  $i$  and we assume that  $\sum_i \eta_i = 1$ . Each sector is endowed with  $\theta_i \in \{\theta_i^L, \theta_i^H\}$  units of a numeraire good, where  $\Pr(\theta_i^L) = \gamma_i$ , independent across sectors. Each sector has also access to a production technology that generates additional units of the numeraire good,  $Y_i$ . The amount of these additional units depends on the combination of a sector-specific government policy  $\alpha_i \in \{\alpha_i^L, \alpha_i^H\}$  and an exogenous sector-specific fundamental  $\beta_i \in \{\beta_i^L, \beta_i^H\}$ , where  $\Pr(\beta_i^L) = \xi_i$  is also independent across sectors.

We assume that there is a unique optimal policy for each realization of  $\beta_i$ , such that  $\alpha_i^H$  is the policy that maximizes output if the state is  $\beta_i^H$  and  $\alpha_i^L$  is the policy that maximizes output if the state is  $\beta_i^L$ . Furthermore, output is always larger with  $\beta_i^H$  regardless of the policy. Formally,

$$Y_i^*(\beta_i^H, \alpha_i^H) > Y_i(\beta_i^H, \alpha_i^L) > Y_i^*(\beta_i^L, \alpha_i^L) > Y_i(\beta_i^L, \alpha_i^H). \quad (1)$$

where  $Y^*$  denotes the maximum output conditional on the fundamental  $\beta_i$ .

We assume social welfare is maximized when implementing the largest feasible total output and distributing it equally across sectors, such that the socially optimal (total) consumption in sector  $i$  is

$$C_i^* = \eta_i \left[ \sum_i Y_i^* + \sum_i \theta_i \right]. \quad (2)$$

Governments can redistribute across sectors by collecting all resources and implementing lump-sum transfers  $T_i$  to each  $i$ , subject to the feasibility constraint

$$\sum_i T_i \leq \sum_i Y_i + \sum_i \theta_i. \quad (3)$$

The government can be one of two permanent types:  $G$  (for “good”) or  $B$  (for “bad”). The type 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 this belief *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 discounted by a factor  $\delta < 1$ . We assume that  $\Pi(\phi)$  is a positive and increasing function of  $\phi$  to capture the logic that, since the population prefers to have a better government in place, a higher reputation increases the probability of remaining in power. In Online Appendix, part B we derive the *endogenous* value of reputation,  $\Pi(\phi)$ , in a repeated game and show that it is indeed a well-behaved function, i.e., positive and increasing in  $\phi$ .

Type- $G$  governments are concerned exclusively with social welfare, which they achieve by choosing a policy pair  $\alpha = \{\alpha_1, \alpha_2\}$  that maximizes output according to (1) and by choosing  $T = \{T_1, T_2\}$  to allocate sectoral consumption according to (2). That is,

$$T_i^* = C_i^* - (Y_i^* + \theta_i),$$

which, by construction, satisfies the government’s budget balance.

Type- $B$  governments, on the other hand, are concerned with extracting private rents while trying to maintain their reputation  $\phi$  as high as possible. How can bad governments extract rents and at the same time avoid being revealed as opportunists? Since transfers to and from each sector (but not the sectoral consumption levels) are assumed to be observable, bad governments can select an inefficient policy pair, implement transfers that are consistent with an efficient policy-pair to mislead the “residents” in one of the sectors, and then skim the surplus for private use.

Suppose, for instance, that a bad government selects  $(\alpha_1^L, \alpha_2^H)$  when the exogenous state is  $(\beta_1^H, \beta_2^H)$ . This implies that sector  $1$  produces  $Y_1(\beta_1^H, \alpha_1^L)$ , which is inefficient since it could have produced  $Y_1^*(\beta_1^H, \alpha_1^H)$  with the correct policy. This inefficiency is a *social short-term loss* and we denote it by

$$\chi \equiv Y_1^*(\beta_1^H, \alpha_1^H) - Y_1(\beta_1^H, \alpha_1^L) > 0.$$

If the government makes transfers consistent with its policy  $(\alpha_1^L, \alpha_2^H)$ , then transfers do not exhaust the realized output, as  $Y_1(\beta_1^H, \alpha_1^L) > Y_1^*(\beta_1^H, \alpha_1^L)$  and the government can pocket the difference as office rents. This is the opportunist’s *private short-term gain* and we denote it by

$$\Delta \equiv Y_1(\beta_1^H, \alpha_1^L) - Y_1^*(\beta_1^H, \alpha_1^L) > 0.$$

<sup>6</sup> We use the terms sector, constituency, group, and activity interchangeably. In Online Appendix, part A we study an extension with a larger number of constituents. The main results of the paper are robust to this extension as long as free riding and lack of coordination prevent information from leaking perfectly to the rest of the society.

**Table 1**  
Who knows what?

WHO	WHAT
Government	$\{G, B\}, \{\beta_i, \theta_i, T_i, \alpha_i\} \forall i$
Sector 1	$\beta_1, \theta_1, z_1, \{T_i, \alpha_i\} \forall i$
Sector 2	$\beta_2, \theta_2, z_2, \{T_i, \alpha_i\} \forall i$

Let  $\tau_{i,X}^j(\beta, \theta|\phi)$  denote the probability that a government of type  $j \in \{G, B\}$  with reputation  $\phi$  applies a policy  $\alpha_i^L$  to sector  $i$  when observing the pair of fundamentals  $\beta = \{\beta_1, \beta_2\}$  and the pair of endowments  $\theta = \{\theta_1, \theta_2\}$ .

This economy features yet another opportunity for distortion: redistribution. Even though the maximization of social welfare implies a proportional split of resources across sectors according to (2), bad types may find it tempting to redistribute excessively. Assume, for instance, that the endowment pair is  $(\theta_1^L, \theta_2^L)$ . The government could set transfers pretending that 1 has an endowment  $\theta_1^H$  instead, which implies that 1 consumes  $C_1 < C_1^*$  and 2 consumes  $C_2 > C_2^*$ . Since individuals are risk-neutral we allow  $C_i < 0$ , without loss of generality.<sup>7</sup> It will become apparent later that the government may use this sort of excessive redistribution in order to “buy” votes and to slow down the erosion of its reputation.

Let  $\tau_R^j(\beta, \theta, \alpha|\phi)$  denote the probability that a government of type  $j \in \{G, B\}$  with reputation  $\phi$  implements excessive transfers  $T_i$  (implying that  $C_i \neq C_i^*$ ) given the pairs of fundamentals  $\beta$ , endowments  $\theta$ , and the announced policy  $\alpha$ .

Each sector knows its own fundamental  $\beta_i$ , which implies that it observes whether the government distorts economic activity in its own sector. In the example above, 1 is informed about the distortion and therefore knows the government is bad. Sector 2's activity, in contrast, is not subject to any distortion and its constituents rely on other signals, such as the announced policy and transfers to update their belief  $\phi$  about the government's type. In other words, rent-seeking may inflict a *private long-term loss* on the government if its behavior generates signals that damage its reputation.

Each sector can spend  $z_i$  units of its endowment or output to generate *public* information about its own  $\beta_i$ . We assume that, conditional on spending  $z_i$ , the information is credible (i.e., there is *evidence*) with probability  $F(z_i)$ , where  $F(0) = 0$  and  $F(\infty) = 1$ .

After the policy  $\alpha$  is announced, but before it is implemented, the incumbent government runs for re-election. If a majority votes against her, she is removed from power, pays a penalty  $P$  that summarizes the extent to which she is ostracized economically once she falls from political grace, and is replaced with a new government, which is a good type with the exogenous probability  $\phi_0$  and can implement a new set of policies and transfers. If she is re-elected, she remains in power and implements the announced policies and transfers. A re-elected incumbent ends the period with an updated reputation  $\phi'$  – the belief held by the least informed sector – and receives  $\delta\Pi(\phi')$ . The belief  $\phi'$  is the relevant one as it takes into account all publicly observable policies and actions, including those of more informed constituents.

The key information frictions in the model are associated with the government's type ( $G$  or  $B$ ) and the fundamental  $\beta_i$  in each sector. While the government type is private information, the realizations of  $\beta_i$  are observed by both the government and the constituents in  $i$  (but not by the economy's other constituents). The effort to produce evidence,  $z_i$ , is observed privately, whereas the policies  $\alpha_i$  and transfers  $T_i$  are public information. Table 1 summarizes who knows what.

## 2.2. Timing

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

1. Conditional on the realization of the fundamentals  $\beta$  and endowments  $\theta$ , the government ( $G$  or  $B$ , with reputation  $\phi$ ) announces policies  $\alpha$  and transfers  $T$ .
2. Conditional on its own exogenous  $\beta_i$  and  $\theta_i$  in addition to the announced policies and transfers, a sector  $i$  that faces a distortionary policy learns that the government is bad with certainty and spends  $z_i$  to substantiate the claim that  $\beta_i$  is inconsistent with  $\alpha$ .
3. The constituents of both sectors participate in an election. The incumbent stays in power with an updated reputation  $\phi'$  if the majority supports her re-election, in which case she implements the previously announced policies and transfers. If the incumbent is voted out of office, she pays a penalty  $P$  and is replaced by a new government that can implement different policies and transfers.

## 2.3. Equilibrium

In equilibrium, the constituents' and the government's strategies are mutual best responses.

<sup>7</sup> Recall that transfers are observable, but consumption is not.

**Definition 1.** A Bayesian perfect equilibrium consists of each government type's policies  $\tau_{i,X}^j(\beta, \theta|\phi)$  for  $j \in \{G, B\}$  and  $i \in \{\mathbb{1}, 2\}$ , transfers  $T_i^j(\beta, \theta, \alpha)$  for  $j \in \{G, B\}$  and  $i \in \{\mathbb{1}, 2\}$ , the constituents' efforts to collect evidence  $z_i$  for  $i \in \{\mathbb{1}, 2\}$ , and an updated government reputation  $\phi'$ , such that

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

Even though there are only two sectors with two possible realizations of the fundamental and endowment each, the set of the government's strategies is large. More specifically, there are 16  $\tau_{i,X}^j$  (from four possible combinations of  $\beta$  and  $\theta$  each) and 64  $T_i^j$  (since there are four possible pairs of policies denoted by  $\alpha$ ) for each government's type  $j \in \{G, B\}$  and for each sector  $i \in \{\mathbb{1}, 2\}$ .

To keep the problem tractable and the exposition clear we impose the following assumptions that are without loss of generality. They reduce the dimensionality of the problem without compromising the main forces behind the mechanism.

**Assumption 1.** Let  $\eta \equiv \eta_2$  and assume that the median voter is a constituent in sector 2 (i.e.  $\eta > \frac{1}{2}$ ).

**Assumption 2.** Sector 2's endowment and productive capacity are set to zero:

$$\begin{aligned}\theta_2^L &= \theta_2^H = 0 \\ Y_2(\beta_2^H, \alpha_2^H) &= Y_2(\beta_2^H, \alpha_2^L) = Y_2(\beta_2^L, \alpha_2^H) = Y_2(\beta_2^L, \alpha_2^L) = 0.\end{aligned}\tag{4}$$

**Assumption 3.** Sector 1's endowments are drawn from  $\theta_{\mathbb{1}}^L = 0$  and  $\theta_{\mathbb{1}}^H = \bar{\theta} > 0$ . Moreover, sector 1's production technology is such that it satisfies

$$Y^H \equiv Y_{\mathbb{1}}(\beta_{\mathbb{1}}^H, \alpha_{\mathbb{1}}^H) > Y^L \equiv Y_{\mathbb{1}}(\beta_{\mathbb{1}}^H, \alpha_{\mathbb{1}}^L) > Y_{\mathbb{1}}(\beta_{\mathbb{1}}^L, \alpha_{\mathbb{1}}^L) = 0 > -\bar{\theta} > Y_{\mathbb{1}}(\beta_{\mathbb{1}}^L, \alpha_{\mathbb{1}}^H).\tag{5}$$

The first assumption implies that governments need only worry about sector 2's beliefs for re-election. The second implies that governments only care about sector 1's resources for distortion. Together, these two assumptions imply that only sector 1 can be distorted and hence *informed* (about its own fundamental and endowment), while 2's economic activity cannot be distorted and 2 therefore remains *uninformed* (about the fundamental and endowment of sector 1). The third assumption simplifies our notation since  $\chi = Y^H - Y^L$  and  $\Delta = Y^L$ .

As mentioned, these assumptions are useful for restricting the choice set of governments to a policy rather than a pair of policies. In terms of distortions, they choose between  $\alpha^L$  or  $\alpha^H$  when 1's fundamental is  $\beta^L$  or  $\beta^H$  and 1's endowment is  $\theta^L$  or  $\theta^H$ . For notational simplicity we denote by  $\tau_X^{j,kk'}(\phi)$  the probability that a government of type  $j$  chooses  $\alpha^L$  when 1's fundamental is  $\beta^k$  and the endowment is  $\theta^{k'}$ , where  $k = \{L, H\}$  and  $k' = \{L, H\}$ . It follows that there are only four possible values (instead of 16) for  $\tau_X^{j,kk'}(\phi)$  when the government is of type  $j$  and has reputation  $\phi$ .

The assumptions also simplify the discussion of transfers, restricting the choice set of governments in terms of redistribution, reducing them from 64 possible choices to only eight for each government type. There are, however, only four socially optimal levels of consumption for 2.<sup>8</sup>

$$\begin{aligned}C_2^*(\alpha^H, \theta^H) &= \eta[Y^H + \bar{\theta}] \\ C_2^*(\alpha^H, \theta^L) &= \eta Y^H \\ C_2^*(\alpha^L, \theta^H) &= \eta \bar{\theta} \\ C_2^*(\alpha^L, \theta^L) &= 0\end{aligned}$$

As the *good* government would only implement one of these four possibilities, a *bad* government would never implement any other transfer since it would immediately reveal its opportunistic type. This implies that on the equilibrium path there will be only four possible transfers to sector 2, such that  $T_2^*(\alpha, \theta) = C_2^*(\alpha, \theta)$ .

Since sector 2 is pivotal for the incumbent's re-election, the opportunistic government type has incentives to transfer resources excessively to 2, pretending the endowment of sector 1 is  $\theta^H$  when it is, in fact,  $\theta^L$ . Note, however, that opportunists only redistribute excessively if they extract private rents (i.e., the policy is  $\alpha^L$  when the realized fundamental is  $\beta^H$ ). This restricts the choice of a bad government to  $\tau_R(\phi) \equiv \tau_R^B(\beta^H, \theta^L, \alpha^L|\phi)$  only.

By assumption, one sector is the source for rents (since it owns the production technology), owns the resources that can be redistributed deceptively, and controls the media, while the median voter is a member of the second group. In section 3 we describe the equilibrium under this set of assumptions and then discuss the government's strategies under alternative assumptions.

<sup>8</sup> Note that our normalizations and the assumption of risk-neutrality imply that consumption can be negative.

### 3. Role of deceptive redistribution

The following lemma characterizes the choices of a good government. By construction, the corresponding allocations are also efficient.

**Lemma 1.** *Good governments choose  $\tau_X^{G,Hk'}(\phi) = 0$  and  $\tau_X^{G,Lk'}(\phi) = 1$  for all  $\phi$  and endowments  $\theta^{k'}$ , with  $k' \in \{L, H\}$ . Transfers are  $T^*(\alpha, \theta) = C_2^*(\alpha, \theta)$  for all  $\phi, \alpha \in \{\alpha^L, \alpha^H\}$  and  $\theta \in \{\theta^L, \theta^H\}$ .*

The proof is straightforward. Good governments always prefer to maximize output and distribute output in proportion to the measure of individuals in each sector.

The strategies of a bad government are more interesting but somewhat less straightforward. They are pinned down by Lemma 1 and vary across three regions defined by the size of  $\bar{\theta}$ . We characterize these regions in the following propositions.

**Proposition 1** (*Large endowment:  $\gamma\bar{\theta} > Y^H$* ). *When bad governments distort they always transfer  $\eta\bar{\theta}$  to sector 2, which implies  $\tau_R(\phi) = 1$ . Bad governments are always re-elected. Sector 1 never generates evidence of distortion in case it happens and bad governments are never revealed as such.*

*Bad governments choose  $\tau_X^{B,Lk}(\phi) = 1$  for all  $\phi$  and  $k = \{L, H\}$ . The probabilities of distortion  $\tau_X^{B,HL}(\phi)$  and  $\tau_X^{B,HH}(\phi)$  are indeterminate but jointly satisfy the equation*

$$\delta \left[ \Pi(\phi'_{(\alpha^H, \theta^H)} | \tau_R = 1) - \Pi(\phi'_{(\alpha^L, \theta^H)} | \tau_R = 1) \right] = \Delta. \quad (6)$$

The intuition is straightforward. First, let's consider what defines a “large” endowment. If 1 presents evidence of distortion,  $\beta^H$  becomes public information and in the absence of any distortionary policy by a new government output would expand by  $\chi = Y^H - Y^L$ . Moreover, the new government would not divert  $\Delta = Y^L$ . The realization of the endowment shock, however, would still not be publicly known, and 2 may loose the gain from excessive redistribution under a new government, which occurs with the exogenous probability  $\gamma = \Pr(\theta_1 = 0)$ . The net expected gain is  $\eta(Y^H - \gamma\bar{\theta})$ , which is negative when the endowment is sufficiently large, i.e.,  $\gamma\bar{\theta} > Y^H$ .

Whenever  $\gamma\bar{\theta} > Y^H$ , 2 re-elects the government even when there is evidence of policy distortions. It does not make sense for 1 to spend resources on generating evidence that does not change the outcome of the elections. Clearly, redistribution benefits the incumbent in two ways. First, since it guarantees re-election, the incumbent avoids the penalty  $P$ . Second, as it prevents the flow of information about  $\beta$  from 1 to 2, it preserves the reputation, which is valuable to the incumbent and remains in the  $1 > \phi' > 0$  range as long as 1 refrains from generating any evidence.

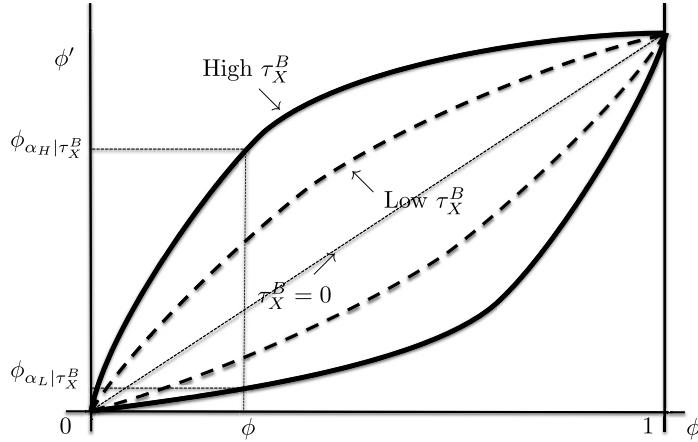
Even though the government redistributes excessively whenever it distorts, it may not be optimal to always distort (i.e.,  $\tau_X^{B,H}(\phi)$  is not always 1). To see why, let's take a closer look at equation (6). While the right hand side,  $\Delta$ , is a constant that summarizes the fixed gains from distorting, the left hand side depends on the strategies of bad governments and summarizes the reputational costs of distortions. When bad governments are expected to extract rents aggressively (when either  $\tau_X^{B,HH}(\phi)$  or  $\tau_X^{B,HL}(\phi)$  are high), observing  $\alpha^H$  is a good signal about the government's type. Observing  $\alpha^L$ , in contrast, is a bad signal since bad governments are far more likely to select that policy. They do so whenever  $\beta$  is low and they are likely to do so when  $\beta$  is high. That, in fact, distinguishes them from good types. To sum up, whenever bad governments are expected to distort frequently, the reputational costs of distortions are large, which discourages opportunists from distorting too frequently.

Suppose, on the other hand, that bad governments are expected to never misbehave (i.e.,  $\tau_X^{B,H}(\phi) = 0$ ). Then the policies  $\alpha^L$  and  $\alpha^H$  contain no information about the government's type. In this extreme situation, bad behavior entails no reputation costs and bad governments have a strong incentive to distort.

Put differently, the reputation gap between enacting the policy  $\alpha^L$  or  $\alpha^H$  is increasing in the belief about the opportunist's distortion strategies,  $\tau_X^{B,HH}(\phi)$  and  $\tau_X^{B,HL}(\phi)$ . We illustrate this relation, which governs the left hand side of equation (6), in Fig. 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  $\tau_X^{B,Hk}(\phi)$  is high for either  $k = \{L, H\}$  (the solid 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 the two solid curves, represents the gain from good behavior in terms of reputation formation.

The higher the probability assigned to observing  $\alpha^L$  – that is, the higher is either  $\tau_X^{B,Hk}(\phi)$  – the larger the difference  $(\phi'_{\alpha^H, \theta^H} - \phi'_{\alpha^L, \theta^H})$ . A lower probability of opportunistic behavior (lower  $\tau_X^{B,Hk}(\phi)$ ) induces a smaller gap, which is illustrated by the dashed curves in Fig. 1. The formal updating equations as functions of  $\tau_X^{B,HL}(\phi)$ ,  $\tau_X^{B,HH}(\phi)$  and  $\tau_R(\phi)$  are at the end of Appendix A.1.

If the left hand side of equation (6) is greater than the right hand side when evaluated at  $\tau_X^{B,HL}(\phi) = \tau_X^{B,HH}(\phi) = 0$ , bad governments always select the “correct” policy, as the losses in terms of reputation do not compensate the expected gains in terms of distortion. However this cannot be an equilibrium. If there are no distortions,  $(\phi'_{\alpha^H, \theta^H} = \phi'_{\alpha^L, \theta^H})$  and the left hand must be smaller than the right hand side, which induces (at least occasional) distortion.



**Fig. 1.** Reputation updating.

In contrast, if the left hand side of equation is smaller than the right hand side when evaluated at  $\tau_X^{B,HL}(\phi) = \tau_X^{B,HH}(\phi) = 1$ , bad governments always choose a distortionary policy as long as the cost in terms of reputation updating is small enough compared to the short term gain in terms of distortion.

In the absence of the previous corner solution, where bad governments always distort, the equilibrium is given by a combination of  $\tau_X^{B,HL}(\phi)$  and  $\tau_X^{B,HH}(\phi)$  that equalizes the reputation gap and  $\Delta$ . Note that even when the gap that delivers the equilibrium is unique, the combination of  $\tau_X^{B,HL}(\phi)$  and  $\tau_X^{B,HH}(\phi)$  that characterize that gap is not. The reason is that there is no pecking order of whether the government prefers to distort when the endowment is high or when it is low. In both cases, the government obtains  $\Delta$  and in both cases the government transfers the same amount to  $\mathcal{Z}$ , and for that reason, the strategies do not generate any difference in terms of re-election probabilities or reputational costs. In other words, bad governments do not differentiate their distortion strategies with respect to the realization of the endowment, as long as their reputation does not suffer too much when they announce  $\alpha^L$ .

The next proposition describes the opposite case, in which the *ex ante* endowment is “small”.

**Proposition 2** (*Small endowment:  $\gamma\bar{\theta} < \psi Y^H$* ). Let

$$\psi \equiv \frac{1 - (1 - \phi_0)[(1 - \gamma)\tau_X^{B,HH}(\phi_0) + \gamma\tau_X^{B,HL}(\phi_0)]}{1 - (1 - \phi_0)\tau_X^{B,HL}(\phi_0)\tau_R(\phi_0)} \leq 1.$$

In this region a government that announces  $\alpha^L$  is never re-elected and bad governments never distort, that is,  $\tau_X^{B,HL}(\phi) = \tau_X^{B,HH}(\phi) = 0$ .

Intuitively, this proposition is the polar opposite of the previous one. Let's first consider what defines the small endowment region. By removing a government that announces  $\alpha^L$ ,  $\mathcal{Z}$  may lose out on  $\eta\bar{\theta}$  in excessive transfers with probability  $\gamma$ . But it can gain  $\eta Y^H$  under the new government thanks to the Pareto-efficient policy  $\alpha^H$  and no rent-seeking. Whether  $\mathcal{Z}$  actually receives  $\eta Y^H$ , however, depends on the new government's strategy. Since all incoming governments have the same reputation,  $\phi_0$ , we can summarize this equilibrium strategy by  $\psi$ .

Just like in the previous case,  $\mathcal{Z}$ 's support for the incumbent does not depend on the available evidence. If there is evidence of distortion, such that  $\beta^H$  is revealed, the new government is not expected to distort, that is,  $\tau_X^{B,HH}(\phi_0) = \tau_X^{B,HH}(\phi_0) = 0$  and  $\psi = 1$ . This condition is simply the complement to the region in Proposition 1. On the other hand, if there is no evidence of distortion then a new government with reputation  $\phi_0$  will distort with some positive probability. As a result, the gains from removing the incumbent are smaller. The proposition asserts that even in this case (i.e., without evidence),  $\mathcal{Z}$  replaces the incumbent and  $\mathcal{R}$  makes no effort (i.e.,  $z = 0$ ) since it has no effect on the outcome of the election.

In this region, the incumbent is replaced whenever the policy announcement is  $\alpha^L$ . Since incumbents benefit from distorting only when they actually stay in office, not only do they not get office rents when they announce  $\alpha^L$ , but they also incur the penalty  $P$  associated with replacement.<sup>9</sup> An interesting message from this result is that there is less room for distortionary policies when redistribution opportunities are less abundant (when wealth or income is more equally distributed, for instance). This creates a negative relation between inequality and growth.

<sup>9</sup> This may be an overly stark assumption, but it would be fairly straightforward to allow the incumbent to collect the office rents before being removed from power. In this case, if the short-term gains are larger than the punishment, opportunists distort with positive probability and continue to manage their reputation actively.

**Proposition 3** (Intermediate endowment:  $\psi Y^H < \gamma \bar{\theta} < Y^H$ ). A government announcing  $\alpha^L$  is re-elected if 1 does not present evidence of distortion and is removed if it does. Let  $z_{d,nd}^*$  denote 1's effort to generate evidence, when the incumbent distorts but does not redistribute excessively. Similarly,  $z_{d,d}^*$  is 1's effort when the incumbent distorts and redistributes excessively. These effort levels are characterized by

$$\begin{aligned} F'(z_{d,nd}^*)(1 - \eta)Y^H &= 1 \\ F'(z_{d,d}^*)(1 - \eta)(Y^H + \bar{\theta}) &= 1, \end{aligned}$$

such that  $F(z_{d,nd}^*) < F(z_{d,d}^*)$ .

The distortion probabilities,  $\tau_X^{B,HL}(\phi)$  and  $\tau_X^{B,HH}(\phi)$ , and the probability of excessive redistribution,  $\tau_R(\phi)$ , are jointly determined by

$$\delta \left[ \Pi(\phi'_{(\alpha^L, \theta^L)} | \tau_X^*, \tau_R^*) - (F(z_{d,d}^*)\Pi(0) + (1 - F(z_{d,d}^*))\Pi(\phi'_{(\alpha^L, \theta^H)} | \tau_X^*, \tau_R^*)) \right] = (1 - F(z_{d,d}^*))(\Delta + P) \quad (7)$$

$$\delta \left[ \Pi(\phi'_{(\alpha^H, \theta^H)} | \tau_X^*, \tau_R^*) - \Pi(\phi'_{(\alpha^L, \theta^H)} | \tau_X^*, \tau_R^*) \right] = (1 - F(z_{d,nd}^*))\Delta - F(z_{d,nd}^*)(P + \Pi(\phi'_{(\alpha^L, \theta^H)} | \tau_X^*, \tau_R^*) - \Pi(0)) \quad (8)$$

$$\delta \left[ \Pi(\phi'_{(\alpha^H, \theta^L)} | \tau_X^*, \tau_R^*) - \Pi(\phi'_{(\alpha^L, \theta^L)} | \tau_X^*, \tau_R^*) \right] = (1 - F(z_{d,d}^*))\Delta - P, \quad (9)$$

where  $\tau_X^*$  denotes the vector with the probabilities to set a policy  $\alpha^L$  in each state and  $\tau_R^*$  denotes the vector with the probabilities to set a redistribution based on  $\theta^H$  in each state.

The proof is in Appendix A.1. The intuition for the result is as follows.

In this “intermediate” region, evidence is critical to determine the outcome of the election. When 1 presents evidence, 2's expected gains from replacing the incumbent, which arise from an increase in the size of the economic pie, dominate the expected losses stemming from missing out on an excessive transfer. In contrast, when there is no evidence about government misconduct the expected gains from replacing the incumbent are lower than the expected losses.

Since evidence affects the electoral outcome in this region of the parameter space, it also shapes the incentives of sector 1 to generate such evidence whenever the incumbent engages in rent-seeking. In equilibrium, the efforts are such that they equalize the marginal expected benefits from replacement (recall that credible evidence reveals the true  $\beta$  and a new government never adopts a distortionary policy after the evidence has been made public) with the marginal cost of effort (which equals 1). Naturally, 1 has stronger incentives to exert effort when the government distorts and redistributes excessively (first equation) compared to distortion only (second equation).

Given the strategies of 1 and 2, how do bad governments decide whether to distort? And if they adopt a distortionary policy, what determines whether they redistribute excessively?

When a bad government observes  $\beta^H$  it has an incentive to distort, but it also faces the probability that 1's evidence-gathering efforts are successful. When that happens, the incumbent will lose power, miss out on office rents, pay the penalty  $P$ , and her reputation will be worthless. If the incumbent decides to distort, it is fairly easy to see that it will redistribute excessively with positive probability. If it didn't, 2 would remove her whenever she announces  $\alpha^L$ , just like in the small endowment region above. Being the occasional beneficiary of excessive redistribution induces 2 to keep the incumbent in office when she does announce  $\alpha^L$  unless 1 presents credible evidence about her type. Excessive redistribution lowers the probability of being removed from office from 1 to  $0 < F'(z_{d,d}^*) < 1$ . This drop in the exit probability is big enough to offset the long-term reputation cost associated with excessive redistribution. In equilibrium, the opportunist's distortion and redistribution probabilities have to balance these costs and benefits.

According to equation (7), bad governments must be indifferent between excessive and no redistribution. The left-hand side shows the expected gain of *not* redistributing excessively in terms of reputation when the endowment realization is low ( $\theta_L$ ), that is, the difference in the values associated with the Bayesian updates between announcing a policy consistent with  $(\alpha^L, \theta^L)$  and the alternative, which is counterfactually consistent with  $(\alpha^L, \theta^H)$ . On the right-hand side is the expected cost of *not* redistributing excessively. This includes the higher probability of being replaced, i.e.,  $F(z_{d,d}^*) > F(z_{d,nd}^*)$ , in which case the incumbent pays not only the penalty  $P$  but also foregoes the short-term rent  $\Delta$ .

Equation (8) implies that bad governments must be indifferent between distorting and not, when the state is  $(\beta^H, \theta^H)$ . The left-hand side of the equation shows the expected gain from *not* distorting in terms of reputation when endowment is  $\theta^H$ . They stem from the difference in the value of the incumbent's reputation associated with a policy that is consistent with  $(\alpha^H, \theta^H)$  and the value associated with the counterfactual policy that is consistent with  $(\alpha^L, \theta^H)$ . The right-hand side shows the expected gain from distorting and announce  $\alpha^L$ : the short term gain  $\Delta$  which materializes with probability  $1 - F(z_{d,nd}^*)$  net of the cost of being removed (the penalty  $P$  and the value  $\Pi(0)$  of a ruined reputation), which she incurs with probability  $F(z_{d,nd}^*)$ .

Finally, equation (9) shows that bad governments must be indifferent between distorting and not, when the state is  $(\beta^H, \theta^L)$ . The left-hand side of the equation shows the expected gain from *not* distorting in terms of reputation when

endowment is  $\theta^L$ . They stem from the difference between the values of reputation when the policy is consistent with  $(\alpha^H, \theta^L)$  and when it is consistent with  $(\alpha^L, \theta^L)$ . The right-hand side shows the expected gain from distorting and announce  $\alpha^L$ : the office rent  $\Delta$  which she collects with probability  $1 - F(z_{d,d}^*)$  minus the cost of being replaced and pay the penalty  $P$ .

In the absence of corner solutions, a unique combination of  $\tau_X^{B,HH}$ ,  $\tau_X^{B,HL}$  and  $\tau_R$  satisfies all three equations with equality.

To summarize, distortion and deceptive redistribution are rampant when  $\bar{\theta}$  is large. Moreover, the informed exert no effort (i.e.,  $z = 0$ ) since evidence of misconduct is politically worthless. Opportunistic governments are always re-elected, regardless of their reputation. When the resources that can be redistributed deceptively are scarcer ( $\bar{\theta}$  is in the intermediate range), bad governments are more circumspect. Excessive transfers are less frequent ( $0 < \tau_R < 1$ ) and the informed step up their evidence-gathering effort ( $z_{d,d}^* > z_{d,nd}^* > 0$ ). Evidence is valuable since bad governments remain in power unless the informed reveal the incumbent's type to the median voter. We find, in fact, empirical evidence to support the rise in  $z$  in response to a drop in  $\bar{\theta}$ , especially in the Peruvian context, which we review in section 4.1.

**Remarks on alternative assumptions.** So far, we have characterized the equilibrium strategies under the assumption that 1 owns the production technology that can be a source of rents for the incumbent, is endowed with the resources that can be redistributed deceptively, and controls the media. Sector 2, on the other hand, included the median voter. Before we review the empirical evidence, it is worth discussing the opportunist's strategies under alternative assumptions.

Suppose that the median voter belonged to 1. Then 2 is obsolete and the incumbent never distorts. He would be removed from power immediately since the critical voter is informed rather than uninformed. This situation is isomorphic to solving the model with perfect information or a single group.

What if sector 2 was home to the median voter but also controls the media? In this case, the government's rent-seeking decision is unchanged with the important twist that the media never looks for evidence of bad behavior. This case is isomorphic to assuming that  $F(z) = 0$  for all  $z$  in our previous setting.

Finally, consider the case where 1 owns the production technology while 2 receives the stochastic endowment that a benevolent planner could redistribute equitably. Would opportunists like to extract rents from 1 and redistribute excessively from 2 to 1 to compensate the former for the loss of resources associated with the inefficient policy  $\alpha^L$ ? The answer is negative since this strategy reveals the government's type to both sectors and this triggers the incumbent's immediate removal. This, in fact, corresponds to the special case of our model with  $F(z) = 1$  for  $z = 0$ , that is, a version with complete information.

There may still be ways for the government to redistribute excessively to 1 without revealing its type to 2. However, in this situation the median voter would always vote to unseat a government when it announces a potentially distortionary policy, namely  $\alpha^L$ . This, in fact, is the solution for the special case where  $\bar{\theta} = 0$  and the government does not distort on the equilibrium path.

#### 4. Empirical evidence

Our contribution is chiefly theoretical and it emphasizes the nexus between the role of media in providing accountability, information asymmetries across groups in the population, targeted resource transfers between constituents, and rent-seeking behavior. While hard evidence on government misconduct is, almost by definition, scarce, and the distinction between actual voting behavior and the voter's assessment of the incumbent's performance (reputation) is empirically challenging, we find support for our theory in a number of recent episodes and events.

##### 4.1. Peru under Fujimori (1990–2000)

Arguably the best-documented case combining the misappropriation of public resources, social transfers and the role of media is the ten-year presidency of Alberto Fujimori in Peru (1990–2000). In an initial effort to cover up graft and other types of misconduct on a large scale involving the president, several of his family members, as well as other senior officials and business leaders, the government made recurring payments to most major media outlets in return for editorial control, if not outright censorship (Conaghan, 2002, 2005). This contingent flow of revenue made it very costly to stray from the government's editorial line and with the exception of a small number of limited-audience newspapers, magazines, and one cable channel, the media stayed clear of sensitive topics like human rights abuses, kickbacks in public procurement, or the misappropriation of charitable donations, to mention just a few. In our model, the extent of press freedom is encapsulated in the exogenous function  $F$ , which turns costly effort into news.

At the same time and in order to boost his re-election prospects, Fujimori expanded Peru's anti-poverty programs from 2.8% of GDP in 1994 to 8.2% in 1997 (Segura-Ubiergo, 2007). While there is no doubt that the country was in need of enhanced social programs, he took advantage of abundant resources stemming from the privatization of public enterprises and turned anti-poverty policy into well camouflaged vote buying tool (Pajuelo-Teves, 2010). This is the empirical counterpart to excessive transfers in the model, which also indirectly reduced the incentives for media to find evidence of misconduct.

In September 2000, after a decade of increasingly unsustainable social spending and just months after Fujimori's re-election to a third term, a series of secretly taped videos emerged. These so-called *Vladi-videos* showed Fujimori's chief of intelligence, Vladimiro Montesinos, handing out large cash bribes to politicians, judges, and owners of TV stations, among others. The collection contained stunning evidence of both media capture and rent seeking. During the 2000 presidential campaign, for instance, all except one channel, the 24-hour cable news channel *Canal N* which aired the *Vladi-videos*, accepted payments in return for favorable coverage or for limiting the opposition's airtime.<sup>10</sup>

In the aftermath of Fujimori's resignation and Montesino's arrest, the full extent of the administration's previously undisclosed misconduct came to light and the illicit payments made in the attempt to capture the Peruvian media turned out to be only the tip of the iceberg. It has been estimated that Fujimori and his inner circle unlawfully appropriated in excess of \$600 million from public coffers (Transparency International, 2004; McMillan and Zoido, 2004).<sup>11</sup>

During his time in office, Fujimori aggressively courted the country's poor and rural population for political support. The allocation of funds in one of his signature anti-poverty programs illustrates how a seemingly legitimate policy initiative could serve a very different political purpose: vote buying. Funded by proceeds from privatizations and two loans from the Inter-American Development Bank, Fujimori set up the Peruvian Social Fund (FONCODES), which was one of the elements in the government's poverty reduction strategy. From the very beginning, critics raised concerns about the "politicization" of the fund and Schady (2000) finds empirical evidence supporting that claim in disaggregated fund expenditure data.<sup>12</sup> Not only does funding spike sharply ahead of the 1992 and 95 elections and the 1993 constitutional referendum, but he also documents that core and swing provinces and metropolitan districts received significantly higher per capita expenditures compared to less pivotal ones between 1991 and 1993, even after controlling for poverty. Put differently, the Ministry of the Presidency, which administered FONCODES disproportionately funded projects in provinces that strongly supported Fujimori in the 1990 election or had a vote share close to 50% (suggesting that the median voter was ideologically neutral and hence "swayable"). In addition, project funding between 1993 and 1995 went disproportionately to provinces and districts where Fujimori's vote share in 1993 dropped compared to 1990. Presumably, this was an attempt to win back the voters the Fujimori camp lost in 1993. While FONCODES was considered a legitimate anti-poverty program, voters in target districts just as clearly understood that it served political purposes. Arce (2010) argues, in fact, that political support for Fujimori in poor, rural districts was "highly contingent on a constant flow of material [FONCODES] benefits."

Similarly, after land invasions on the outskirts of Lima in January 2000, Fujimori announced the PROFAM program, the purpose of which was to provide urban squatters with state-owned land. The opposition considered the program to be a vote buying mechanism as did many Peruvians. 97% of polled Peruvians were aware of the program and 77% were in favor of redistribution. Yet 60% considered it a vote buying policy (*medida electorera*) and only 36% said it was a good solution. While many "people were able to ascertain Fujimori's [political] intentions" (Carrión, 2006), the most likely beneficiaries, the poor, overwhelmingly supported the president's program.

Hindsight is, of course, twenty-twenty and the *Vladi-videos* simply confirmed what educated and informed voters had believed for some time. Due to a long history of media bias, Fujimori supporters, many of which had been politically marginalized under previous governments, dismissed earlier reports of government misconduct in opposition newspapers like *La Repùblica* or the magazine *Caretas* on the grounds of being partisan (Conaghan, 2002, 2005). The extent of graft and bribery documented in the videos, however, no longer left any room for interpretation and Fujimori's and Montesino's fall from grace was swift. It was not a coincidence that this evidence was released at a time when the central government deficit was rising and social expenditures were under considerable pressure.

#### 4.2. 2006 presidential election in Brazil

Late in the first term of Brazil's president Lula da Silva, a series of corruption scandals dimmed his re-election prospects. The *mensalão* (monthly payments to members of Congress in return for votes) and *caixa dois* (an illegal party slush fund) scandals implicated senior party officials, presidential advisors, and nearly the president himself. His poll numbers sank during the second half of 2005, yet he eventually managed to secure a second term in late 2006. Remarkably, Lula's victory was fueled by victories in states where he had very tepid support in the four previous presidential elections (Northeast)

<sup>10</sup> McMillan and Zoido (2004) offer a detailed account of not only media, but also political and judicial capture during the Fujimori years.

<sup>11</sup> According to the *Stolen Asset Recovery Initiative* (StAR), (available at <http://star.worldbank.org/corruption-cases/node/18699>) a partnership between the World Bank and the United Nations Office on Drugs and Crime, Peru recovered \$170 million in three cases involving Montesinos and a further \$17 million are frozen in Swiss accounts. In the *ropa donada* case, 90% of approximately \$100 million in charitable donations made through the APENKAI foundation, which was run by the president's siblings and brother-in-law (who was also Peru's ambassador to Japan) remain unaccounted for (Quiroz, 2008). Numerous instances of embezzlement, in addition to human rights abuses and alleged involvement in drug trafficking, prompted this massive attempt to capture the Peruvian media. Since they had the farthest reach in terms of audience, TV stations and the tabloid press (the so-called *prensa chicha*) were the government's primary target.<sup>12</sup> Attempts to capture media with a more limited reach were far more restrained in order to maintain the semblance of a free press.

<sup>12</sup> McMillan and Zoido (2004) offer a payment-by-payment account of bribery and media capture during the Fujimori administration. Conaghan (2002) gives a similarly detailed account of Montesino's media machinations, as does chapter 7 in Conaghan (2005). Conaghan (2006) is a more general overview of corruption during the Fujimori administration.

<sup>13</sup> According to Roberts (1995), one director of FONCODES resigned over the alleged political manipulation of social projects.

while he lost political ground in his traditional strongholds in the South and Southeast (Hunter and Power, 2007; Zucco, 2008, 2013).

In contrast to Peru under Fujimori, there is no evidence to suggest that the government actively suppressed media coverage of the scandal, but it took full advantage of socio-economic information asymmetries in order to win back political support from the country's median voter, who happened to be both poor and poorly informed.<sup>14</sup>

Zucco (2008) argues that the massive expansion of the *Bolsa Família* conditional cash transfer (CCT) and anti-poverty program late in Lula's first term was the driving force behind his comeback and re-election.<sup>15</sup> Since these individual transfers are more tangible than, say investments in public education, some anticipate that the short-term political imperative of expanding these programs comes at the expense of longer-run investment into social infrastructure (Hall, 2008) or the provision of public goods.<sup>16</sup> While the *Bolsa Família* program is permanent there is also evidence to suggest that voters respond to one-time transfers.<sup>17</sup>

#### 4.3. Vouchers in Romania

According to *Transparency International*, political corruption has been a major concern in Romania and politicians are using the same type of vote buying schemes as their counterparts in Peru and Brazil.<sup>18</sup> While it is not clear whether information asymmetries are as pronounced as in our previous examples, Pop-Eleches and Pop-Eleches (2012) find that voters still respond to transfer payments. Specifically, they review a 2005 program targeting Romania's rural poor, who had traditionally been the incumbents' core constituency, and find that recipients of a €200 voucher toward the purchase of a personal computer expressed a significantly higher intention to vote and this additional mobilization was mostly in favor of the incumbent parties.<sup>19</sup>

Our model predicts that recipients of a transfer are more likely to support the incumbent. Since they realize that opportunists are more likely to initiate such a transfer, political support and the recipients' beliefs about the government type move in opposite directions. The Romanian voucher program corroborates this prediction rather nicely. Recipients were 26% more likely to vote and almost 16% more likely to vote for the incumbent. In contrast, they expressed less trust in central government and the prime minister(s) and had more negative evaluations with respect to the incumbents' competence.<sup>20</sup> Moreover, recipients did not believe that the incumbents cared more about the fate of the poor. In contrast to Brazil's *Bolsa Família*, the voucher program was a one-time transfer, which suggests that voters indeed take *pocketbook* considerations into account at election time.<sup>21</sup>

#### 4.4. PANES in Uruguay

Yet another case illustrates that voters who receive transfers express stronger political support for the incumbent government, even though not necessarily a more positive view of it. Uruguay's PANES (*Plan de Atención Nacional a la Emergencia Social*) was a one-time poverty alleviation program in response to a major economic crisis in the early 2000s. By program design, selection at the eligibility threshold was quasi-random and reverse causality in the form of political targeting is not a concern. Using a regression discontinuity model Manacorda et al. (2011) find that recipients were 11 to 13 percentage points more likely to support the government over the opposition coalition. Moreover, they find that support was persistent and thus at odds with a simple *pocketbook* (or retrospective) voting theory. Since voters in our model are forward-looking, they respond to transfers not only because of *pocketbook* considerations but also in anticipation of future transfers. In this respect, the evidence from PANES lines up neatly with our model predictions.

<sup>14</sup> Similar to Peru, the circulation of serious daily newspapers and weekly magazines is very low and the typical reader is relatively affluent.

<sup>15</sup> Hunter and Power (2007) report that "the higher the percentage of state families added to the *Bolsa Família* rolls in the 18 months prior to the election, the higher the vote swing toward Lula" and against the opposition. Moreover, voter turnout was positively correlated with *Bolsa* penetration, even after controlling for gubernatorial runoff elections (which tend to boost turnout). In addition, they found that poor voters (who are concentrated in the *Nordeste*, the Northeast) were far less aware of the *mensalão* and *caixa dois* scandals than their more affluent counterparts (who lived in the South and Southeast). Moreover, while poor voters were significantly less informed, they also seemed to be less troubled by reports of government corruption. As long as they got a big enough share of the economic pie, they were willing to turn a blind eye to Lula's bad behavior.

<sup>16</sup> Bonfiglioli and Gancia (2013) explore the welfare implications of precisely such a shift away from policies with longer-term payoffs for political expediency.

<sup>17</sup> FONCODES was not set up as a permanent fund but was expected to be operating for the duration of the Fujimori administration and was an autonomous body outside the traditional line ministries (Schady, 2000). Since it was run from within the newly created Ministry of the Presidency, there was a perception that it would not survive his presidency. This institutional arrangement is similar to Mexico's original *Progresa* program (later renamed *Oportunidades* and then *Prospera*).

<sup>18</sup> See the annual Corruption Perceptions Indices at transparency.org where Romania is ranked similarly to Brazil or even worse.

<sup>19</sup> Romania was governed by a coalition of parties in 2005. The voucher program was timed such that the winners were announced less than two months before the 2004 presidential and parliamentary election. Endogeneity is typically a major concern in empirical research on *pocketbook* voting. However, since the size of the program was determined after applications were submitted, the eligibility cutoff was plausibly exogenous and the scope for politicians to individually target critical constituents (core or pivotal voters) with a voucher was virtually nil.

<sup>20</sup> The coefficients on trust and competence were negative, but not statistically significant. This is not a concern since what matters for the purposes of our argument is that learning and voting are not positively correlated.

<sup>21</sup> The computer purchase voucher program has since been converted into an annual program.

Moreover, stronger political support did not necessarily translate into higher levels of confidence in the incumbent president. Using somewhat more suggestive evidence from the *Latinobarómetro* survey, [Manacorda et al. \(2011\)](#) find that likely recipients did not express higher levels of confidence. While this is no “smoking gun” evidence in support of the mechanism we emphasize in our model, the absence of a positive correlation between the voters’ political support and beliefs about the incumbent is reassuring. Clearly, voting behavior and learning are distinct processes.

The Peruvian and Brazilian cases highlight the concurrence of excessive redistribution and lack of media scrutiny while the Romanian and Uruguayan examples call attention to the subtle distinction between voting for an incumbent and her reputation when governments implement targeted transfer policies, which are both key to the proposed mechanism. While establishing the causality from redistribution to acquiescent media more firmly is beyond the scope of this theoretical contribution, we believe that our paper offers a roadmap for more serious empirical work on the nexus between information asymmetries, transfers, and political opportunism.

## 5. Conclusion

We develop a tractable framework to study the economic and political effects of information asymmetries in an environment where politicians adopt policies that serve their self-interest rather than the (voting) public’s. Targeted transfers play a critical role in this context. They enable opportunistic politicians with reputation concerns to uncouple political support in the form of favorable votes (*vote buying*) from the voters’ beliefs about the incumbent’s competence or honesty (*learning*). In equilibrium, even rational and forward-looking voters will tolerate a certain degree of misconduct as long as they receive a disproportionate share of the economic pie.

We find evidence in a number of recent episodes in Peru, Brazil, Romania, and Uruguay in support of our claim that voters do, in fact, respond to targeted transfers even though they don’t hold more favorable views about the incumbent’s competence than otherwise comparable non-recipients. Furthermore, evidence of misconduct tends to be more plentiful when resources for selective transfers are scarce. Put differently, our mechanisms highlights that even rational voters take so-called *pocketbook* considerations into account. Clearly, these transfers are politically expedient and this raises the question whether these types of anti-poverty programs are supplanting more traditional social policies with long-term payoffs like public education ([Hall, 2008](#); [Bonfiglioli and Gancia, 2013](#)). While conditional cash transfer programs certainly have *bona fide* merits, our model suggests that their rising popularity may follow a political as much as an economic imperative.

## Appendix A

### A.1. Proof of Propositions 1–3

We solve the model backwards. First we solve for 2’s voting decision, which corresponds to the median voter in section 3. This decision is conditional on the announced policies and transfers.

Some preliminaries are useful for the discussion of the voting decision. First, a government never announces a transfer that is not consistent with splitting the available resources proportionally in some state of the economy. Doing otherwise immediately reveals that the incumbent is a bad type. Naturally, this last statement comes from taking a stand on off-equilibrium beliefs. Following the Cho-Keeps criterion we impose that, when transfers are at odds with a proportional distribution of resources, Bayes’ rule cannot be applied and 2 infers that the incumbent is a bad type.

This implies that 2 observes one of four possible states ahead of an election:

1.  $(L, L)$ : policy  $\alpha^L$  and transfer  $T_2 = 0$ .
2.  $(L, H)$ : policy  $\alpha^L$  and transfer  $T_2 = \eta\bar{\theta}$ .
3.  $(H, L)$ : policy  $\alpha^H$  and transfer  $T_2 = \eta Y^H$ .
4.  $(H, H)$ : policy  $\alpha^H$  and transfer  $T_2 = \eta(Y^H + \bar{\theta})$ .

The government can implement only two distortions: announcing policy  $\alpha^L$  when the true fundamental is  $\beta^H$  or announcing  $\alpha^H$  when the true fundamental is  $\beta^L$ . [Assumption 3](#) rules out the latter since  $Y_{\frac{1}{2}}(\beta_{\frac{1}{2}}^L, \alpha_{\frac{1}{2}}^H) + \bar{\theta} < 0$  and the government simply does not have sufficient resources to credibly implement positive transfers when distorting in this way, not getting private rents and loosing reputation completely. As sector 2 knows that the incumbent may only distort when announcing  $\alpha^L$ , whenever the policy is  $\alpha^H$ , which happens in states  $(H, L)$  and  $(H, H)$ , there is no reason to vote for the incumbent removal.

Assume the government announces a policy  $\alpha^L$ . If the announced transfer is 0, according to  $(L, L)$ , the government distributes as if both potential output and the endowment realization were low and it is optimal for 2 to unseat the incumbent. At worst, the new government implements the same policy. Yet with positive probability the incumbent was distorting and the new government may implement a different, non-distortionary, policy and transfer that allocate  $C_2^*(\beta^H, \theta^L) = \eta Y^H$  to 2.

In contrast, if the announced transfer is  $\eta\bar{\theta}$ , according to  $(L, H)$ , the government distributes as if potential output were low and the realized endowment were high. In this case, the incumbent may be distorting and, in addition, redistributing

excessively. Now 2's vote depends on whether 1 presents credible evidence about the government's misconduct. Next, we describe these two possibilities.

If there is *no evidence* of distortion, 2 only knows that a bad government *may* be distorting. If the true fundamental were  $\beta^L$ , it would receive the same transfer, regardless of government type. Then, the transfer 2 can expect to receive from a new government, which is good with the exogenous probability  $\phi_0$ , is:

$$\begin{aligned} E(T(\phi_0)) = & T(\alpha^H, \theta^H)(1 - \zeta)(1 - \gamma)[1 - (1 - \phi_0)\tau_X^{B,HH}] \\ & + T(\alpha^H, \theta^L)(1 - \zeta)\gamma[1 - (1 - \phi_0)\tau_X^{B,HL}] \\ & + T(\alpha^L, \theta^H)\left[\zeta + (1 - \zeta)(1 - \phi_0)[\gamma\tau_X^{B,HL}\tau_R + (1 - \gamma)\tau_X^{B,HH}]\right] \\ & + T(\alpha^L, \theta^L)(1 - \zeta)(1 - \phi_0)\gamma\tau_X^{B,HL}(1 - \tau_R) \end{aligned}$$

After replacing the  $T(\cdot, \cdot)$ s by the expressions defining the four possible states, the expected transfer is

$$\begin{aligned} E(T(\phi_0)) = & (1 - \zeta)[1 - (1 - \phi_0)][(1 - \gamma)\tau_X^{B,HH}(\phi_0) + \gamma\tau_X^{B,HL}(\phi_0)]]\eta Y^H \\ & + \left[\zeta + (1 - \zeta)[1 - \gamma + \gamma(1 - \phi_0)\tau_X^{B,HL}(\phi_0)\tau_R(\phi_0)]\right]\eta\bar{\theta}. \end{aligned}$$

Intuitively, if 2 unseats the incumbent it will obtain a transfer  $\eta\bar{\theta}$ , as with the incumbent, when:

1. The fundamental is  $\beta^L$ : With probability  $\zeta$  the incumbent did not distort and hence did not redistribute excessively, which implies that 1's endowment is indeed  $\theta^H$ .
2. The fundamental is  $\beta^H$ : In this case, the endowment of 1 is  $\bar{\theta}$  with probability  $(1 - \zeta)(1 - \gamma)$  or the endowment is 0 and the new government chooses to distort and to redistribute excessively.

Since 2 always obtains  $\eta\bar{\theta}$  when re-electing the incumbent, it will always do so, regardless of evidence, if  $\eta\bar{\theta} > E(T(\phi_0))$  or when

$$\gamma\bar{\theta} > \psi Y^H, \quad \text{where } \psi \equiv \frac{1 - (1 - \phi_0)[(1 - \gamma)\tau_X^{B,HH}(\phi_0) + \gamma\tau_X^{B,HL}(\phi_0)]}{1 - (1 - \phi_0)\tau_X^{B,HL}(\phi_0)\tau_R(\phi_0)} \leq 1.$$

The former condition holds when there is no evidence since  $\tau_X^{B,HH}(\phi_0)$ ,  $\tau_X^{B,HL}(\phi_0)$ , and  $\tau_R(\phi_0)$  are the strategies of a government with reputation  $\phi_0$  who makes decisions under the same information set as the incumbent.

If there is *evidence* of distortion, 2 learns that the true fundamental in sector 1 is  $\beta^H$ . This changes the information set under which the new government operates. It cannot distort without revealing its type, in which case its reputation would collapse to 0. Assuming  $\Pi(\phi_0) - \Pi(0) > \Delta$ , a successor does not distort and  $\tau_X^{B,HH}(\phi_0) = \tau_X^{B,HL}(\phi_0) = 0$ , which implies  $\psi = 1$  and 2 would re-elect the incumbent even when 1 presents evidence of misconduct as long as  $\gamma\bar{\theta} > Y^H$ .

These conditions highlight the existence of three regions when the state is  $(L, H)$  (i.e., the government distributes as if potential output were low and the endowment realization where high):

1. *Large endowment*:  $\gamma\bar{\theta} > Y^H$ : 2 re-elects the government, even when there is evidence of distortion.
2. *Small endowment*:  $\gamma\bar{\theta} < \psi Y^H$ : 2 unseats the government, even when there is no evidence of distortion.
3. *Intermediate endowment*:  $\psi Y^H < \gamma\bar{\theta} < Y^H$ : 2 re-elects the government when there is no evidence of distortion and unseats it when there is evidence.

Now we can solve for 1's effort to generate evidence in each state. When 1 chooses the evidence-gathering effort it knows the true state of the economy. In particular, it knows whether the incumbent announced the "right"  $\alpha$  and  $\theta$

Since 2 always re-elects the incumbent in states  $(H, L)$  and  $(H, H)$  and unseats her in state  $(L, L)$ , 1 has no incentive to devote resources to evidence-gathering in those cases as it does not change the outcome of the election. In contrast, in state  $(L, H)$ , evidence changes the outcome of the election, but only when  $\bar{\theta}$  is in the intermediate region. In the other two regions, when  $\bar{\theta}$  is either small or large, 1 makes no effort to generate evidence.

We denote the effort to acquire evidence by  $z_{d,d}$  when  $\bar{\theta}$  is in the intermediate range, the true fundamental is  $\beta^H$  but the government announces  $\alpha^L$  (distortion in production, captured by the first  $d$ ) and the true endowment is  $\theta^L$  but the government announces transfers consistent with  $\theta^H$  (distortion in redistribution, captured by the second  $d$ ). In this case, 1 faces the following problem:

$$\max_{z_{d,d}} F(z_{d,d})(1 - \eta)Y^H - (1 - F(z_{d,d}))(1 - \eta)\bar{\theta} - z_{d,d}$$

In essence, if 1 finds evidence and triggers the ouster of the incumbent, the successor changes the policy to  $\alpha^H$  (no distortion) immediately since the true fundamental is publicly observable, which, in turn, implies that 1 would consume

$(1 - \eta)Y^H$ . If  $\mathbb{1}$  cannot offer credible evidence, the incumbent implements the announced distortionary policy that reduces output and redistributes excessively. The first order condition that characterizes the optimal effort is

$$F'(z_{d,d}^*)(1 - \eta)(Y^H + \bar{\theta}) = 1,$$

with the restriction, from the second-order condition, that  $F''(z_{d,d}^*) < 0$ .

Similarly,  $z_{d,nd}$  denotes the effort to acquire evidence when  $\bar{\theta}$  is intermediate, the true fundamental is  $\beta^H$ , the government announces  $\alpha_L$  (distortions in production), but refrains from excessive redistribution. The corresponding first order condition is

$$F'(z_{d,nd}^*)(1 - \eta)Y^H = 1,$$

with the additional second-order condition  $F''(z_{d,nd}^*) < 0$ .

Clearly, the larger the effect of policy distortions or excessive redistribution, the higher is  $z^*$  and the more likely  $\mathbb{1}$  generates evidence of distortion. Moreover,  $\mathbb{1}$  exerts higher effort when the incumbent also redistributes excessively, as  $z_{d,nd}^* < z_{d,d}^*$  implies  $F(z_{d,nd}^*) < F(z_{d,d}^*)$ .

Given these voting and evidence-gathering strategies, we can characterize the bad government's distortion and redistribution choices.

**Redistribution strategy.** When  $\mathbb{1}$ 's endowment realization is  $\theta^H$  the government cannot redistribute excessively. This implies that  $\tau_R^B(\beta^k, \theta^H, \alpha^k|\phi) = 1$  for all  $k = \{L, H\}$ . Similarly, conditional on no distortion there are no reason for redistributing excessively. This, in turn, implies that  $\tau_R^B(\beta^H, \theta^L, \alpha^H|\phi) = \tau_R^B(\beta^L, \theta^L, \alpha^L|\phi) = 0$ . The only state in which the government has an incentive to redistribute excessively is in state  $(H, L)$  conditional on announcing the policy  $\alpha^L$ , this is  $\tau_R^B(\beta^H, \theta^L, \alpha^L|\phi)$ , which we denote by  $\tau_R$  in what follows, for expositional simplicity. Let  $\tau_R^*$  denote the vector of the opportunist's redistribution strategies. These strategies are either 0 or 1 (see previous discussion), except for  $\tau_R$ .

When the government distorts, it knows that absent redistribution it will be replaced with certainty, which induces it to redistribute excessively in order to force a re-election. When  $\bar{\theta}$  is in the *small* range, the excessive transfer is inconsequential and the optimal strategy is  $\tau_R = 0$ . In contrast, excessive redistribution in the region where  $\bar{\theta}$  is sufficiently large is very effective. Government are always reelected with a transfer  $\eta\bar{\theta}$  and  $\tau_R = 1$  is optimal. What happens when  $\bar{\theta}$  is in the *intermediate* region?

If the incumbent does not announce a transfer  $\eta\bar{\theta}$ , it is always removed from power and gets

$$\delta\Pi(\phi'_{(\alpha^L, \theta^L)}|\tau_X^*, \tau_R^*) - P, \quad (10)$$

where  $\phi'_{(\alpha^L, \theta^L)}|\tau_X^*, \tau_R^*$  denotes the updated reputation when the state is  $(L, L)$  and  $\mathbb{2}$  believes that bad types redistribute excessively with the vector of probabilities  $\tau_R^*$ . In contrast, if the incumbent does announce a transfer  $\eta\bar{\theta}$ , it can expect to receive

$$F(z_{d,d}^*)[\delta\Pi(0) - P] + (1 - F(z_{d,d}^*))\left[\Delta + \delta\Pi(\phi'_{(\alpha^L, \theta^H)}|\tau_X^*, \tau_R^*)\right]. \quad (11)$$

The excessive redistribution probability  $\tau_R$  that characterizes the vector  $\tau_R^*$  is interior (this is  $\tau_R \in (0, 1)$ ) only if equation (10) equals equation (11). If not, the corner solution is  $\tau_R = 1$  if equation (10) is smaller than equation (11) or  $\tau_R = 0$  if equation (10) is larger than equation (11).

Clearly, excessive redistribution is more likely when  $P$  is large or when  $F(z_{d,d}^*)$  is low, either because it is costly for  $\mathbb{1}$  to produce evidence or because it is difficult to prove its veracity once it has been made public.

**Distortion strategy.** Bad governments never distort when  $\mathbb{1}$ 's fundamental is  $\beta^L$ , then  $\tau_X^{B,Lk} = 0$  for  $k = \{L, H\}$ . This implies that we need to solve both for  $\tau_X^{B,HL}$  and  $\tau_X^{B,HH}$ , which are the distortion probabilities when the fundamental is  $\beta^H$  and the endowment realizations are low and high, respectively.

If the true state is given by  $(\beta^H, \theta^H)$  and the incumbent announces  $\alpha^H$  (does not distort), her payoff is

$$\delta\Pi(\phi'_{(\alpha^H, \theta^H)}|\tau_X^*, \tau_R^*), \quad (12)$$

where  $\tau_X^*$  denotes the vector of distortionary strategies in all states, as believed by  $\mathbb{2}$ . If she does distort, her payoff is

$$F(z_{d,nd}^*)[\delta\Pi(0) - P] + (1 - F(z_{d,nd}^*))\left[\Delta + \delta\Pi(\phi'_{(\alpha^L, \theta^H)}|\tau_X^*, \tau_R^*)\right]. \quad (13)$$

If the true state is given by  $(\beta^H, \theta^L)$ , if the incumbent announces  $\alpha^H$ , her payoff is also

$$(1 - \tau_R^*)\delta\Pi(\phi'_{(\alpha^H, \theta^L)}|\tau_X^*, \tau_R^*) + \tau_R^*\delta\Pi(\phi'_{(\alpha^H, \theta^H)}|\tau_X^*, \tau_R^*). \quad (14)$$

If she does distort, her payoff is

$$(1 - \tau_R^*) \left[ \delta \Pi(\phi'_{(\alpha^L, \theta^L)} | \tau_X^*, \tau_R^*) - P \right] + \tau_R^* \left[ F(z_{d,d}^*) [\delta \Pi(0) - P] + (1 - F(z_{d,d}^*)) [\Delta + \delta \Pi(\phi'_{(\alpha^L, \theta^H)} | \tau_X^*, \tau_R^*)] \right] \quad (15)$$

If the two distortion probabilities are interior, they are jointly determined by equalizing (12) with (13) and (14) with (15).

We then have three equations and three unknowns ( $\tau_X^{B,HH}$ ,  $\tau_X^{B,HL}$ , and  $\tau_R$ ) that completely characterize  $\tau_X^*$  and  $\tau_R^*$ . When all three probabilities are interior, the three equations are:

$$\delta \left[ \Pi(\phi'_{(\alpha^L, \theta^L)} | \tau_X^*, \tau_R^*) - \left( F(z_{d,d}^*) \Pi(0) + (1 - F(z_{d,d}^*)) \Pi(\phi'_{(\alpha^L, \theta^H)} | \tau_X^*, \tau_R^*) \right) \right] = (1 - F(z_{d,d}^*)) (\Delta + P),$$

$$\delta \left[ \Pi(\phi'_{(\alpha^H, \theta^H)} | \tau_X^*, \tau_R^*) - \left( F(z_{d,nd}^*) \Pi(0) + (1 - F(z_{d,nd}^*)) \Pi(\phi'_{(\alpha^L, \theta^H)} | \tau_X^*, \tau_R^*) \right) \right] = \Delta - F(z_{d,nd}^*) (\Delta + P),$$

and

$$\delta \left[ \Pi(\phi'_{(\alpha^H, \theta^L)} | \tau_X^*, \tau_R^*) - \Pi(\phi'_{(\alpha^L, \theta^L)} | \tau_X^*, \tau_R^*) \right] = (1 - F(z_{d,d}^*)) \Delta - P,$$

where the last equation was created by taking into account the second equality. Notice that, the left hand sides of these equations are positive since the reputation posteriors are determined by Bayes' rule, as follows.

$$\phi'_{(\alpha^H, \theta^H)} = \frac{(1 - \zeta)(1 - \gamma)\phi}{(1 - \zeta)(1 - \gamma)\phi + [(1 - \zeta)(1 - \gamma)(1 - \tau_X^{B,HH})](1 - \phi)} > \phi$$

$$\phi'_{(\alpha^H, \theta^L)} = \frac{(1 - \zeta)\gamma\phi}{(1 - \zeta)\gamma\phi + [(1 - \zeta)\gamma(1 - \tau_X^{B,HL})](1 - \phi)} > \phi$$

$$\phi'_{(\alpha^L, \theta^H)} = \frac{\zeta(1 - \gamma)\phi}{\zeta(1 - \gamma)\phi + [\zeta(1 - \gamma) + (1 - \zeta)(\gamma\tau_R\tau_X^{B,HL} + (1 - \gamma)\tau_X^{B,HH})](1 - \phi)} < \phi$$

$$\phi'_{(\alpha^L, \theta^L)} = \frac{\zeta\gamma\phi}{\zeta\gamma\phi + [\zeta\gamma + (1 - \zeta)\gamma(1 - \tau_R)\tau_X^{B,HL}](1 - \phi)} < \phi$$

## Appendix B. Supplementary material

Supplementary material related to this article can be found online at <http://dx.doi.org/10.1016/j.red.2016.08.003>.

## References

- Acemoglu, Daron, Robinson, James, 2008. Persistence of power, elites, and institutions. *The American Economic Review* 98 (1), 267–293.
- Acemoglu, Daron, Golosov, Mikhail, Tsyvinski, Aleh, 2010. Dynamic mirrlees taxation under political economy constraints. *The Review of Economic Studies* 77 (3), 841–881.
- Acemoglu, Daron, Golosov, Mikhail, Tsyvinski, Aleh, 2011. Political economy of Ramsey taxation. *Journal of Public Economics* 95 (7–8), 467–475.
- Acemoglu, Daron, Johnson, Simon, Robinson, James A., 2001. The colonial origins of comparative development: an empirical investigation. *The American Economic Review* 91 (5), 1369–1401.
- Ales, Laurence, Maziero, Pricila, Yared, Pierre, 2011. Rent-seeking, imperfect information and political turnover. Working Paper. Carnegie Mellon University.
- Alston, Lee J., Libecap, Gary D., Mueller, Bernardo, 2010. Interest groups, information manipulation in the media, and public policy: the case of the landless peasants movement in Brazil. NBER Working Paper 15865.
- Arce, Moisés, 2010. Market Reform in Society: Post-Crisis Politics and Economic Change in Authoritarian Peru. Pennsylvania State University Press.
- Besley, Timothy, Prat, Andrea, 2006. Handcuffs for the grabbing hand? Media capture and government accountability. *The American Economic Review* 96 (3), 720–736.
- Besley, Timothy, Coate, Stephen, 1997. An economic model of representative democracy. *The Quarterly Journal of Economics* 112 (1), 85–114.
- Besley, Timothy, Coate, Stephen, 1998. Sources of inefficiency in a representative democracy: a dynamic analysis. *The American Economic Review* 88 (1), 139–156.
- Bonfiglioli, Alessandra, Gancia, Gino, 2013. Uncertainty, electoral incentives, and political myopia. *The Economic Journal* 123 (568), 373–400.
- Bueno de Mesquita, Ethan, 2010. Regime change and revolutionary entrepreneurs. *American Political Science Review* 104 (3), 446–466.
- Carrión, Julio, 2006. Public opinion, market reforms, and democracy in Fujimori's Peru. In: Carrión, Julio (Ed.), *The Fujimori Legacy: the Rise of Electoral Authoritarianism in Peru*. Pennsylvania State University Press, University Park.
- Caselli, Francesco, Morelli, Massimo, 2004. Bad politicians. *Journal of Public Economics* 88 (3–4), 759–782.
- Conaghan, Catherine M., 2002. Cashing in on authoritarianism: media collusion in Fujimori's Peru. *The Harvard International Journal of Press/Politics* 7 (1), 115–125.
- Conaghan, Catherine M., 2005. Fujimori's Peru: Deception in the Public Sphere. University of Pittsburgh Press.
- Conaghan, Catherine M., 2006. The immoral economy of Fujimorismo. In: Carrión, Julio (Ed.), *The Fujimori Legacy: the Rise of Electoral Authoritarianism in Peru*. Pennsylvania State University Press, University Park.
- Fearon, James D., 2011. Self-enforcing democracy. *The Quarterly Journal of Economics* 126 (4), 1661–1708.

- Ferejohn, John, 1986. Incumbent performance and electoral control. *Public Choice* 50 (1), 5–25.
- Hall, Anthony, 2008. Brazil's Bolsa Família: a double-edged sword? *Development and Change* 39 (5), 799–822.
- Hunter, Wendy, Power, Timothy J., 2007. Rewarding Lula: executive power, social policy, and the Brazilian elections of 2006. *Latin American Politics and Society* 49 (1), 1–30.
- Ignatius, David, 2010. The dangers of embedded Journalism, in war and politics. *Washington Post*, B01.
- Keller, Bill, 2004. The Times and Iraq. *New York Times*.
- Manacorda, Marco, Miguel, Edward, Vigorito, Andrea, 2011. Government transfers and political support. *American Economic Journal: Applied Economics* 3 (3), 1–28.
- McMillan, John, Zoido, Pablo, 2004. How to subvert democracy: Montesinos in Peru. *The Journal of Economic Perspectives* 18 (4), 69–92.
- Padro i Miquel, Gerard, 2007. The control of politicians in divided societies: the politics of fear. *The Review of Economic Studies* 74 (4), 1259–1274.
- Pajuelo-Teves, Ramón, 2010. War and neoliberal transformation: the Peruvian experience. In: Gutiérrez, Francisco, Schönwälder, Gerd (Eds.), *Economic Liberalization and Political Violence: Utopia Or Dystopia?*. Pluto Press.
- Politkovskaya, Anna, 2004. Poisoned by Putin. *The Guardian*.
- Pop-Eleches, Cristian, Pop-Eleches, Grigore, 2012. Targeted government spending and political preferences. *Quarterly Journal of Political Science* 7 (3), 285–320.
- Prat, Andrea, Strömberg, David, 2013. The political economy of mass media. In: Acemoglu, Daron, Arellano, Manuel, Dekel, Eddie (Eds.), *Advances in Economics and Econometrics*, vol. II. Cambridge University Press, pp. 135–187.
- Quiroz, Alfonso W., 2008. *Corrupt Circles: a History of Unbound Graft in Peru*. Woodrow Wilson Center Press/Johns Hopkins University Press, Washington, DC/Baltimore.
- Roberts, Kenneth M., 1995. Neoliberalism and the transformation of populism in Latin America: the Peruvian case. *World Politics* 48 (1), 82–116.
- Schady, Norbert R., 2000. The political economy of expenditures by the Peruvian social fund (FONCODES), 1991–1995. *American Political Science Review* 94 (2), 289–304.
- Segura-Ubiergo, Alex, 2007. *The Political Economy of the Welfare State in Latin America: Globalization, Democracy, and Development*. Cambridge University Press, Cambridge, New York.
- Snyder, James M., Strömberg, David, 2010. Press coverage and political accountability. *Journal of Political Economy* 118 (2), 355–408.
- Strömberg, David, 2004a. Mass media competition, political competition, and public policy. *The Review of Economic Studies* 71 (1), 265–284.
- Strömberg, David, 2004b. Radio's impact on public spending. *The Quarterly Journal of Economics* 119 (1), 189–221.
- Strömberg, David, 2015. Media and politics. *Annual Review of Economics* 7 (1), 173–205.
- Transparency International, 2004. *Global Corruption Report*. Pluto Press.
- Yared, Pierre, 2010. Politicians, taxes and debt. *The Review of Economic Studies* 77 (2), 806–840.
- Zucco, Cesar, 2008. The president's 'New' constituency: Lula and the pragmatic vote in Brazil's 2006 presidential elections. *Journal of Latin American Studies* 40 (1), 1–22.
- Zucco, Cesar, 2013. When payouts pay off: conditional cash transfers and voting behavior in Brazil 2002–10. *American Journal of Political Science* 57 (4), 810–822.