

Selectorate's information and dictator's accountability

Conflict Management and Peace Science

2021, Vol. 38(5) 524–542

© The Author(s) 2019

Article reuse guidelines:

sagepub.com/journals-permissions

DOI: 10.1177/0738894219883994

journals.sagepub.com/home/cmps**Mario Gilli**

University of Milan–Bicocca, Milano, Lombardia, Italy

Yuan Li 

University of Duisburg–Essen, Duisburg, Germany

Abstract

In this paper, we study the evolution of accountability in autocracies and the consequent progressive economic and political mismanagement in terms of information changes. It is often held to be true that better information means greater accountability. On the contrary, we show that in dictatorships, better information might imply worse choices by a dictator. The basic idea is that the reputation mechanism underlying accountability only works if there is enough noise surrounding the dictator's possible type. As the selectorate's information about the dictator's actual type increases over time, the incentives for the dictator to behave correctly vanish.

Keywords

Accountability, autocracy, dictator, information

Introduction

By the end of the 1960s, Reza Pahlavi was considered one of the world's most successful and capable leaders. He had made major changes to modernize Iran, such as curbing the power of ancient elite factions by expropriating large and medium-sized estates for the benefit of small farmers, extending suffrage to women and workers, adopting tolerant policies for religious minorities and homosexuals, building new elementary schools, and providing literacy courses in remote villages. The Iranian economy also showed unprecedented growth for an extended period. However, from the early 1970s, the dictatorial and repressive aspects of his regime became harsher. As policies became more extravagant and the Iranian economy encountered problems such as inflation, corruption, and pollution, the regime's oppression and brutality grew steadily and significantly. In 1978, deepening opposition to the Shah erupted in widespread demonstrations and rioting, which were harshly repressed, but by the

Corresponding author:

Yuan Li, Mercator School of Management and Institute of East Asian Studies, University of Duisburg—Essen, Forsthausweg 2, Duisburg, 47057, Germany.

Email: yuan.li@uni-due.de

end of 1978, strikes were paralyzing Iran, and more than 10% of the country marched against the Shah throughout Iran. On 16 January 1979, Mohammad Reza was overthrown and left Iran at the behest of PM Bakhtiar, a long-time opposition leader.

The case of Reza Pahlavi is just one of the many examples of dictators who significantly worsened their behavior over time. Another example is Zimbabwe's Mugabe. His administration started with promising policies such as expanding health care, improving education, and redistributing land to landless black people. For the first decade of his governance, he was widely regarded as one of the most progressive leaders in postcolonial Africa. Zimbabwe living standards improved significantly, with life expectancy reaching 59 years in 1990, before collapsing to 37 years in 2005. By 1999, Zimbabwe had begun to experience a deepening economic collapse of unprecedented proportions. The collapse was triggered by the government's decision to ignore fiscal constraints by making large payments to veterans of the independence struggle, as a way of buying their loyalty and political support. The unemployment rate rose to 40% with slim prospects for decent jobs. With the continuing deterioration of Zimbabwe's economic conditions, inflation skyrocketed. In 2007, the portion of the Zimbabwean population living on an income of below 1 US dollar a day stood at more than 80% in 2006, up from 36% in 1990. Mugabe increasingly blamed the country's economic problems on Western nations and the white Zimbabwean minority. He became a dreaded dictator, and repression, arbitrary killings, and tortures rose to a new high. Opposition grew, and Mugabe was forced to resign his presidency following a coup in 2017.

A similar case is Hosni Mubarak, who became president of Egypt in October 1981 (Nagarajan, 2013). Throughout the 1980s, Mubarak promoted progressive and liberalized policies, increasing foreign investment, and the production of affordable consumer products. The economy expanded, but this proved unsustainable with an external debt crisis between 1985 and 1990 that led to a period of strict reform policies, including wider incentives for the private sector. From 1991, Mubarak undertook an ambitious domestic economic reform program to reduce the size of the public sector and expand the role of the private sector. Inflation was lowered and from 1981 to 2006, GDP per capita on purchasing-power-parity increased fourfold. While managing to boost the economy, these policies favored the rich and failed to reduce poverty, which increased to about 50% in 2011, leading to socioeconomic and political instability. In particular, from 2005, political corruption rose dramatically, along with harsh repression. Political figures and young activists were imprisoned without trial, illegal secret detention facilities were established, and universities, mosques, and newspaper staff were dismissed for political orientation. In January 2011, protests against Mubarak and his regime erupted in Cairo and other Egyptian cities, and on 11 February Mubarak resigned, and power was transferred to the Egyptian military.

Although the above cases are not exhaustive and are different, they share some common characteristics. Each dictator began with a firm grip on power and promoted progressive policies, which were eventually replaced by inefficient, corrupt, and repressive policies, ultimately resulting in his removal from power—by popular revolt (Iran), a coup (Zimbabwe), or a coup and a popular revolt (Egypt). Of course, in these cases there are many specific confounding factors; however, this sequence of facts is quite common in autocracies, and it has been denominated the “dictator effect” by Papaioannou and Van Zanden (2015), who provide significant evidence that dictators who stay in office for a long time period will find it increasingly difficult to carry out sound economic policies while the quality of institutions deteriorates. In this paper, we ask why a dictator's policy choices worsen over time. We propose a possible explanation based on differential information of the selectorate on

the types of the dictator, showing how the accountability mechanism works in different ways with different information structures. As the selectorate's information about the dictator's true type increases over time, ultimately, the dictator's incentives to behave correctly vanish. A great deal of literature has shown that, in democracies, better information means greater accountability and better governance. On the contrary, we find that, in an autocracy, better information could suggest worse choices by a dictator. The basic idea is that the reputation mechanism behind accountability works correctly only if there is sufficient noise surrounding the dictator's possible types; otherwise, there are no incentives for bad dictators to mimic good ones.¹ Moreover, we found that revolts are possible in equilibrium, and their likelihood directly correlates with the selectorate's de facto power. We do not claim that this paper provides a unique explanation for the dictator effect. Instead, this paper complements the alternative explanations that we review in the following subsection, and contributes to a more comprehensive view of the hidden mechanisms of autocracies.

Related literature

This work relates to two streams of the literature on the inner workings of autocracies: the institutional explanations of the progressive mismanagement of the dictators; and the role of asymmetric information in shaping dictators' behavior. To some extent, this paper is a way of reconciling both approaches.

For the literature focusing on institutional explanations, Papaioannou and Van Zanden (2015) show that most dictators who stay in office for a long time period will find it increasingly difficult to carry out sound economic policies while the quality of institutions deteriorates. They consider two possible explanations. One is the "Olson–McGuire" approach (McGuire and Olson, 1996; Olson, 1993), based on a model that portrays the dictator as a stationary bandit, where her incentives to deliver public goods depend on her time horizon: the shorter the time horizon, the smaller the incentives to pursue sound policies. The other is the "Wintrobe" approach (Wintrobe, 1990, 2000), based on asymmetric information between the dictators and the selectorate, where the selectorate try to present too optimistic information about the state of the economy while suppressing the bad news, so that the dictator, anticipating this, will not trust the information. The result is that the dictator lacks information for sound economic decision-making, which will lead to worsening long-term economic performance. There is also a social-psychological dimension, the "winner effect": the experience of winning will lead to the release of powerful drugs, such as testosterone and dopamine in the brain, to which people may become addicted and which may change their behavior (Robertson, 2012). Also because of these drugs, people may become less empathic and more egocentric, increasingly lonely and paranoid, and thus the quality of decision-making will decline. More recently, Larcom et al. (2016) suggested that the progressive political mismanagement by a dictator can take place when past wrongdoings perpetuate further wrongdoings, such that the dictator becomes trapped in a repressive steady state. In contrast to the above approaches, Bueno de Mesquita and Smith (2018) present and test an alternative argument derived from a selectorate theory account of how chronic illness interacting with political institutions can shape the deposition of dictators. The argument is that leaders work hard until the coalition of supporters becomes confident that they will be retained. At that point the leader has a significant loyalty advantage because she can promise a long flow of rewards. This flow dries up when the leader is expected to die soon, increasing the likelihood that the leader will be overthrown. Therefore, sick leaders will improve growth to stay

in power for their remaining lifetime. Although the prediction of Bueno de Mesquita and Smith (2018) contrasts with the previous cases, their emphasis on the informational asymmetries between the winning coalition and the citizens fits our approach.

The role of information on the dictator's characteristics is becoming an increasingly important unit of analysis. Guriev and Treisman (2017) argue that dictators survive not because of their use of force but because they convince the public that they are competent. They show that incompetent dictators can survive as long as economic shocks are not too large, so that the dictator's reputation may grow over time, even if living standards fall. Their theory is based on a reputational approach like ours. However the mechanisms under investigation are different: while in our model the dictator can only use policy choices to affect citizens' beliefs, Guriev and Treisman (2017) focus on tools such as propaganda to manipulate citizens' beliefs, tools we believe are intrinsically fragile. In addition, our model focuses on the strategic interaction between coups and citizens' revolts, a crucial aspect not considered in their model. Hollyer *et al.* (2015, 2018 and 2019) analyze the effect of the disclosure of economic data on citizens' belief formation about the leader's type, facilitating or inhibiting collective mobilization and thus on political stability. Part of their work is related to the operationalization of the concept of transparency, which is theoretically straightforward but empirically complex. Another aspect of their works is related to why public information is important to government accountability. In particular, they stress the importance of the public goods-like property of publicly observable information which plays a crucial catalyst role in situations of strategic interaction characterized by strategic complementarity, where the willingness of any citizen to participate in mobilizations is contingent on the willingness of others to participate. Since public information allows citizens to update their beliefs about the beliefs held by other citizens, it may facilitate the formation of shared expectations about the success of mass mobilization. Their approach is crucial to understanding mass demonstrations both in autocratic and in democratic systems (see also Lohmann, 1993). Unlike the mechanisms highlighted in their works, the crucial point of the present paper is on the interplay between the information of the leader, the selectorate and the citizens, and especially the important role played by the selectorate who wish to avoid citizens' revolts.

The emphasis on the centrality of information to political interactions is not new, especially in models of political accountability for democratic regimes.² Many papers have analyzed the effect of change in transparency on accountability within a principal-agent model.³ The starting point of this literature is the Holmstrom Principle (Holmstrom, 1979), which states that more transparency makes both the principal and the agent better off. The subsequent works have tried to understand when the Holmstrom principle does not hold. In dynamic models with incomplete contracts (often called career concerns models),⁴ more transparency can create an incentive for the agent to behave in a conformist way, which might be damaging to the principal. Our model is different because in our model it is the variant public perception of different policy dimensions that induces the divergence of the agent's choice in terms of these dimensions, which, in turn induces the non-monotonicity in the principal's behavior.

Subsequently, this approach has been applied to analyze the inner working of authoritarian political institutions, such as the accountability modeling applied to autocracies (see Besley and Kudamatsu, 2007; Egorov and Sonin, 2011; Gilli and Li, 2013; Svoboda, 2009, 2012). Other related works focus on the threat of revolution by the citizens (see Acemoglu and Robinson, 2006; Aidt and Jensen, 2014; Dorsch and Maarek, 2015; Gilli and Li, 2014;

Svolik, 2013). However, to the best of our knowledge, the strategic interaction between coups and revolution has not been the specific focus of any paper apart from Gilli and Li (2014, 2015).

Our starting point is that no dictator rules alone. Even the most oppressive dictators need the support of key backers. Bueno de Mesquita et al. (2003) refer to these key backers as the “selectorate”, concluding that a larger size of the selectorate is associated with a higher level of public goods provided by the government. Svolik (2009, 2012) refers to these key backers as the “ruling coalition”. This literature, typically, assumes that all dictators share the same primary goal: to hold on to office at all costs because failing to do so will result in miserable ends. Revolutionary challenges to the political systems and the loss of support among their core constituencies are the two main threats that all dictators face. This is the underlying reason why coups and revolutions are so crucial in shaping a wide variety of economic and political outcomes in autocratic regimes. The present paper uses the above works as building blocks because we believe that in any political regime policy choices are driven by the incentives policy-makers face, i.e. by accountability mechanisms. The incentive structure in autocracies works just through the strategic interaction between the credible threat of coups and revolts.

Based on this logic, we combine the two types of threats in a single model, connecting accountability in dictatorships to specific parameters: the effective size of the selectorate (ϕ) and the cost of revolution (η). We follow the modeling strategy of Besley and Kudamatsu (2007) and Gilli and Li (2015), modeling autocratic politics as an incomplete information game. Under such strategic settings, a dictator may implement efficient policies to avoid being overthrown, either by coups or by revolts. The main innovation of the current paper is that it further explores how the selectorate’s information affects a dictator’s incentive to implement efficient policies. Our findings suggest that it is not necessarily a good thing when the selectorate has perfect information about the dictator’s type. It can, in fact, be against the interests of citizens, the selectorate, and even the dictator.

The paper proceeds as follows. In the next section, we introduce and discuss our model, which is analyzed in the third section. The fourth section proposes comments and performs comparative statics exercises, while the last section concludes the paper with a brief discussion. Calculations are reported in the Online Appendix.

The model

We adopt the same setting as Gilli and Li (2015); the main difference is that the selectorate can observe the type of dictator *ex ante*. The model is similar to a two-period political-agency model played by dictator (L) (female), the selectorate (S) (male), and the citizens (Z) (plural). Dictators can be removed from office by the selectorate through a coup or by the citizens through a revolution. In the first period, the three players play sequentially, while in the second only the dictator has a possible choice, if she has not been removed by a successful revolution. The dictator can be one of two types—congruent or non-congruent, $T \in \{C, N\}$, with probability π of being congruent. Each type has different payoffs, as explained below. The dictator is privately informed of the true state of nature $\theta_t \in \{0, 1\}$ and has to make a discrete policy choice, which is denoted by $e_t \in \{0, 1\}$. Public interest requires the dictator to match the true state of nature (i.e. choose an efficient policy), but this would also mean that the non-congruent dictator foregoes her private benefits. The public payoff from the economic policy is Δ if $e_t = \theta_t$, and 0 if $e_t \neq \theta_t$; hence, the efficient policy produces a sort of

generic public good. However, the non-congruent dictator receives a private benefit r_t from picking $e_t \neq \theta_t$, where r_t is drawn according to a continuous cumulative distribution function $G(r_t)$ with $E(r_t) = \bar{r}$, $G(\Delta) = 0$, and $G(r_t) > 0$ for $r_t > \Delta$; yet the congruent dictator obtains no private benefit from selecting $e_t \neq \theta_t$. The interpretation of a dictator's type can be quite broad. A non-congruent type can be an incompetent dictator who finds it costly to adopt an efficient policy. Alternatively, she can be ideological, pursuing her ideological policy notwithstanding the actual situation.

To gain the loyalty of the selectorate, the dictator pays patronage to the selectorate. We suppose that the patronage is funded through the distribution of a given resource, X . From this patronage, the citizens obtain 0 and the selectorate gains X/ϕ^5 where ϕ is a measure of the effective size of the selectorate. Thus, the selectorate obtains its utility from the dictator's policy and then decides whether to support or remove her before citizens choose whether to revolt. The idea is that the selectorate can intervene more quickly than citizens. If the selectorate decides on a coup, the dictator will certainly be removed since a dictator cannot survive without the selectorate's support. However, when the incumbent dictator is ousted by a coup, a new dictator will rise with the support of a new selectorate. We assume that the effective size of the new selectorate remains the same because there is no regime change.⁶ The new dictator will randomly select the members of the new selectorate from the pool of the population. Thus, each member of the old selectorate has a probability ϕ of being included in the new selectorate.

After the selectorate's choice, citizens obtain their utility from the dictator's policy and the selectorate's choice, and they choose whether to revolt. The game then proceeds to the second period, in one of three possible states: no revolt, successful revolution, and unsuccessful revolution. The dictator's possible actions are different in these states. We assume that a revolution would eliminate the possibility of making economic policies since the unique choice for the dictator is to fight the revolt. Hence, a revolution is actually a conflict over the division of given resources X . The payoffs implied by the second-period choices are realized and the game ends.

If there is no revolution, then the dictator remains in power and her type is unchanged. She observes the nature's choice $\theta_2 \in \{0, 1\}$ and has to make a discrete policy choice denoted by $e_2 \in \{0, 1\}$. The players' second-period payoffs are then determined as in the first period following this policy choice.

If the revolution succeeds, the citizens will receive the selectorate's patronage net of the revolution's cost η ,

$$\frac{X - \eta}{1 - \phi}$$

The dictator and the selectorate will obtain a large negative payoff, $-D$, because they are ousted from power and fear for their life. Again, both of these payoffs are realized at the beginning of the second period. If the revolution fails, citizens obtain 0, and the dictator and the selectorate obtain the patronage net of the repression costs k ,⁷

$$\frac{X - k}{\phi}$$

We assume a simple conflict technology: the revolution succeeds with a probability of $1 - \phi$ —that is, the probability of success linearly increases with the effective size of the

citizens. Hence, after a revolution, citizens' expected payoff is $X - \eta$, whereas the dictator's and the selectorate's expected payoffs are $X - k - D + \phi D$. We assume that D is sufficiently large that the dictator and the selectorate will always want to avoid taking the chance of a revolution, if possible. Moreover, to simplify calculations, we assume the dictator's and the selectorate's expected payoff to be equal to 0. A negative or a small positive second-period expected payoff would make the calculations more complex without adding meaningful insight. This assumption is the simplest means of modeling the idea that both the dictator's and the selectorate's most important aim is to avoid a revolution that would challenge their political regime, whenever possible. Thus, we model the revolution in the simplest manner as a constraint on the dictator's and the selectorate's behavior, as argued by Acemoglu and Robinson (2005). Moreover, note that in these types of models, the second period simply plays the role of providing forward incentives for the players' first-period choices. It is not intended to analyse the transition from autocracies to different political regimes.

In the model, a crucial role is played by the effective size of the selectorate ϕ and by the inverse of the cost of revolution $\zeta = (\eta)^{-1}$. We claim that these parameters actually capture the de facto political power of the selectorate and of the citizens in an autocratic regime. Let us consider ϕ : this parameter is a measure of the probability of being reappointed to the selectorate after a coup, and it complements the probability of a successful citizens' revolt. Hence, the higher the ϕ , the less risky the coup. Meanwhile, η is a measure of the certain cost of a revolt; hence, the higher these costs, the smaller the incentives to revolt. To deal directly with citizens' incentive to revolt, we use $\zeta = (\eta)^{-1}$. Finally, suppose $\eta \simeq \tilde{\eta} \in [\varepsilon, \infty]$, so that w.l.g. we might rescale these values so that $(\zeta, \phi) \in [0, 1] \times [0, 1]$, $\Delta \in [0, 1]$ and $X \in [0, 1]$.

All players' utilities are linear in their consumption. Their formal expression is reported in the Online Appendix. To summarize, the timing of the model is as follows:

1. Nature picks the state of nature and the private rent the dictator can extract, (θ_1, r_1) , and the type of dictator, congruent or not, $T \in \{C, N\}$. These three random variables are stochastically independent. The realization of θ_1 and r_1 is private information of the dictator. The dictator's type can be observed by the dictator and the selectorate, but not by the citizens.
2. Type T dictator chooses a policy, and the payoffs for each player in period one are realized. The probability of choosing an efficient policy is denoted by $\lambda_1^T : (r_1, \theta_1) \mapsto [0, 1]$. Denote by

$$\bar{\lambda}_1^T(\theta_1) = \int_{\Delta}^{\infty} \lambda_1^T(r_1, \theta_1) dG(r_1)$$

the ex ante average probability of a correct policy.

3. The selectorate decides whether to retain the incumbent dictator. The probability of retaining the dictator is denoted by $\rho : \{0, \Delta\} \mapsto [0, 1]$.
4. If the incumbent dictator is ousted from power, a new dictator will enter office and will be congruent with a probability of π . The new dictator will form her own selectorate, and the members of the selectorate who deposed the previous dictator will have a probability ϕ of being included in the new one.
5. Citizens observe the choice implemented by the selectorate, $\hat{\rho} \in \{0, 1\}$, and the effect of the policy chosen by the dictator but not her type. Based on this information, they

decide whether to initiate a revolution. The probability of a revolution is $\alpha : \{0, \Delta\} \times \{0, 1\} \mapsto [0, 1]$. The revolution succeeds with probability $1 - \phi$ and fails with probability ϕ .

6. The game enters the second period and nature determines the state of nature and the private rent of the second period, (θ_2, r_2) . In the second period, there are three possible states:
 - (a) No revolution—the dictator remains in power and her type is unchanged. She observes nature’s choice and chooses a policy according to her type. The payoffs are realized, and the game ends.
 - (b) Successful revolution—the dictator and the selectorate are removed from power and obtain a large negative payoff $-D$, whereas the citizens divide the country’s wealth X , receiving a payoff

$$\frac{X - \eta}{1 - \phi}$$

net of the revolution’s costs η . These payoffs are realized, and the game ends.

- (c) Failed revolution: the dictator and the selectorate divide the country’s wealth X , receiving a payoff

$$\frac{X - k}{\phi}$$

net of the repression costs k , while citizens obtain 0 payoff. These payoffs are realized, and the game ends.

The first-stage game structure is reported in Figure 1 and the notation used is summarized in Table 1.

Equilibria of the model

The Online Appendix provides the details of the derivation of the sequential equilibria of the model. These are similar to the calculations in Gilli and Li (2015) but with a subtle difference:

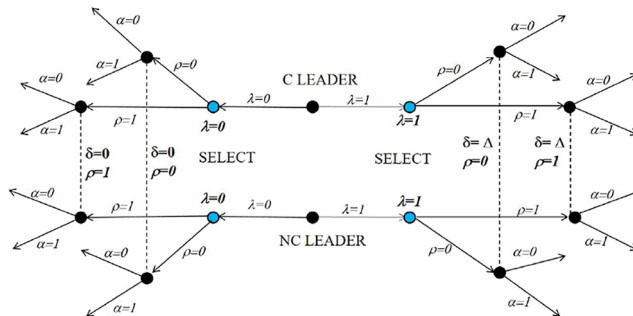


Figure 1. The first-stage game structure.

Table I. Definition of notations.

Symbol	Definitions
	<i>Players</i>
L	Incumbent dictator
S	Selectorate
Z	Citizens
$T \in \{C, N\}$	Type of incumbent dictator with $\Pr\{T = C\} = \pi$
	<i>Exogenous variables</i>
$\theta_t \in \{0, 1\}$	State of nature at time t
$r_t \sim G(r)$	Private random rent the dictator can extract at time t
$\delta \in \{0, \Delta\}$	Payoff from the public policy
X	Exogenous wealth of the country
$\zeta \in [0, 1]$	De facto power of citizens
$\phi \in [0, 1]$	De facto power of selectorate
	<i>Endogenous variables</i>
$\bar{\lambda}_t^T \in [0, 1]$	Probability of efficient policy at time t for type T
$\rho(\delta, T) \in [0, 1]$	Probability of a coup
$\alpha(\delta, \rho) \in [0, 1]$	Probability of a citizens' revolt
	<i>Payoffs</i>
$U^{T/Z/S}(\lambda, \alpha, \rho)$	First-period utility of type T dictator/selectorate/citizens
$V^{T/S/Z}$	Expected continuation payoff of type T dictator/selectorate/citizens

in this paper's model, the selectorate has an informational advantage over citizens since he has perfect information about the dictator's type.

As in Gilli and Li (2015), citizens are the "last resort" players in the sense that they will revolt if no other incentives for the dictator work and, as in standard models of revolution in autocracies (Tullock, 1971, 1974), they will revolt if and only if the expected net gains from such a redistribution exceed their status quo well-being. Thus, they compare the status quo payoff $\delta \in \{0, \Delta\}$ and the potential gains from a successful revolt X to decide whether to revolt. In particular, the expected gains from a revolt depend on their de facto power. When citizens' de facto power is large, the accountability mechanism fails to work because the dictator cannot avoid revolts or coups by means of efficient policy. However, new and interesting mechanisms come into play when citizens' de facto power is intermediate or small.

When citizens' de facto power is intermediate, they will revolt if the expected future policy is inefficient. In Gilli and Li (2015), a revolution could be avoided either by removing the dictator through a coup or by an efficient policy choice by the dictator. Now, however, the selectorate's choice to oust the dictator has the perverse effect of signaling that the dictator is inefficient; hence, even if he fears a revolution, the selectorate cannot avoid a citizens' revolt by a coup. In particular, the selectorate cannot credibly commit to a coup if the dictator's policy is inefficient. Thus, when the dictator chooses inefficient policies because of the amount of private rent, neither the selectorate nor the dictator can avoid a revolt.

Meanwhile, when citizens' de facto power is small, they will not revolt and are thus ineffective players. Again, however, the incentives at work for the dictator are perverse because she has no possibility of acquiring a reputation as a congruent dictator by means of efficient policies. Hence, the only possibility for the dictator is to take the private rent and abscond.

In the Online Appendix, we show how this strategic behavior leads to six possible equilibria depending on the players' de facto power. Associated with these six equilibria are five

different equilibrium outcomes. We interpret these equilibrium outcomes as different autocratic regimes according to the dictator's incentives for choosing an efficient policy and to the selectorate's and citizens' responses to such choices.

The following are the five possible autocratic regimes:

1. *A failed state*, in which the citizens' de facto power is so large that the citizens will revolt, notwithstanding the dictator's and the selectorate's choices. Hence, the dictator will simply set the policy according to her type, and the selectorate can choose any possible behavior without any possibility of avoiding revolution. Note that attempted revolutions are not inevitably successful. Hence, the observable effect of such an autocratic regime is equilibrium instability caused by revolution and possibly coups; inefficient predatory policies are pursued with the maximum possible probability: $1 - \pi$. *The region parameters and the political characteristics of the autocratic regime do not depend on the selectorate's information.*
2. *An efficient autocracy with possible revolts*, in which citizens' de facto power is intermediate. Under this regime, citizens will revolt if and only if the dictator implements an inefficient policy, whether there are coups or not. *The selectorate's behavior is ineffective for avoiding revolution since it cannot credibly commit to a coup contingent on policy alone.* Hence, the dictator will implement an efficient policy unless the temptation of grabbing private rent is too high—that is, the dictator's incentives for choosing efficient policies are maximized, even if a revolt is possible when the policy is inefficient. *The region parameters and the political characteristics of the autocratic regime depend on the selectorate's information.*
3. *An efficient autocracy without revolts*, in which citizens' de facto power is intermediate, and the selectorate's de facto power is small. Under this regime, citizens will revolt if and only if the dictator implements an inefficient policy and *there is no coup*. Because of this credible threat, the selectorate will launch a coup if the dictator implements an inefficient policy. Thus, the dictator will implement an efficient policy unless the temptation of grabbing private rent is too high, only when the selectorate is not strong enough to credibly conduct a coup. *The region parameters of the autocratic regime depend on the selectorate's information but not its political characteristics.*
4. *A predatory autocracy with coups*, in which citizens' de facto power is small or intermediate, but the selectorate's de facto power is large. In this case, the selectorate cannot credibly commit to not conducting a coup when the policy is efficient. Hence, the non-congruent dictator anticipates that she will be removed by a coup, notwithstanding her policy choice; hence, she has no incentive to choose an efficient policy and will grab any possible rent. *The region parameters of this autocratic regime and its political characteristics depend on the selectorate's information.*
5. *A predatory autocracy without coups*, in which citizens and the selectorate have small de facto power. In this case, the threat of a revolution or a coup is not credible. Hence, the non-congruent dictator has no incentive to choose an efficient policy and will grab any possible rent. *The region parameters of the autocratic regime and its political characteristics do not depend on the selectorate's information.*

Table 2 summarizes the political regimes and economic policies that emerge in equilibrium when the selectorate has perfect information about the dictator's type, as a function of the

Table 2. Equilibrium policies when selectorate has perfect information.

	Selectorate de facto power	
Citizens' de facto power $\zeta \in [0, \frac{1}{X}]$	$\phi \in [0, \frac{X}{X+\pi\Delta}]$ Predatory autocracy without coups Inefficient policy with probability $(1 - \pi)$ No coups No revolts	$\phi \in [\frac{X}{X+\pi\Delta}, 1]$ Predatory autocracy with coups Inefficient policy with probability $(1 - \pi)$ Coups No revolts
$\zeta \in [\frac{1}{X}, \frac{1}{X-\pi\Delta}]$	Efficient autocracy without revolts Inefficient policy with probability $(1 - \pi)[1 - G]$ Coups No revolts	Predatory autocracy with coups Inefficient policy with probability $(1 - \pi)$ Coups No revolts
$\zeta \in [\frac{1}{X-\pi\Delta}, \frac{1}{X-\Delta}]$	Efficient autocracy with revolts Inefficient policy with probability $(1 - \pi)[1 - G]$ Coups Revolts with probability $(1 - \pi)[1 - G]$	Efficient autocracy with revolts Inefficient policy with probability $(1 - \pi)[1 - G]$ Coups Revolts with probability $(1 - \pi)[1 - G]$
$\zeta \in [\frac{1}{X-\Delta}, 1]$	Failed state Inefficient policy with probability $1 - \pi$ Coups Revolts	Failed state Inefficient policy with probability $1 - \pi$ Coups Revolts

combination of two key political institutional parameters: the de facto power of the selectorate ϕ and the de facto power of the citizens ζ .

The following subsections present the combination of ϕ and ζ that give rise to different political regimes, with their observable characteristics. The detailed derivation and the formal statement are in the Online Appendix.

Failed states

Proposition 1. *When citizens' de facto power is very large (i.e. $\zeta \in [1/(X - \Delta), 1]$), then for any de facto selectorate power (i.e. $\forall \phi \in [0, 1]$), the non-congruent dictator will choose an inefficient policy. For any policy implemented by the dictator, the political regime will be challenged by citizens' revolts and possibly coups.*

This is the case of a *failed state* because, in equilibrium, there is certain revolution and possibly coups. This characterizes countries in which the dictator is insufficiently powerful to withstand challenges from citizens—a situation of political instability. This distribution of power leads to chaos, revolts, and possibly coups. In this situation, the selectorate's information is irrelevant because the selectorate itself is powerless. The non-congruent dictator has no incentive to choose efficient policies; the credibility of the threat of revolution by citizens

is counter-productive in that it generates instability and inefficient policies. This is exactly the same outcome as in Gilli and Li's (2015) model with imperfect selectorate information.

Efficient autocracies with revolts

Proposition 2. *When citizens' de facto power is large (i.e. $\zeta \in [(1/(X - \pi\Delta)), (1/(X - \Delta))]$), then for any selectorate de facto power (i.e. $\forall \phi \in [0, 1]$), the non-congruent dictator will choose an inefficient policy if and only if the private rent is large enough; otherwise, she adopts an efficient policy. If an inefficient policy is implemented, she faces a citizens' revolt and possibly coups; if the implemented policy is efficient, citizens will not revolt, and the selectorate will not make a coup.*

This is the case of an *efficient autocracy with possible revolts and coups*. The dictator has the maximum possible incentive to choose efficient policies; however, when the private rent is too large, she prefers to grab the money facing a revolt. Hence, in equilibrium, we might observe revolutions and coups. Note that, paradoxically, the information advantage of the selectorate makes it ineffective, and the incentivizing role relies entirely on the credibility of the threat of revolt. The crucial point is that the selectorate's information advantage does not allow it to credibly commit to conducting a coup when the policy is inefficient.

Efficient autocracies without revolts

Proposition 3. *When citizens' de facto power is intermediate (i.e. $\zeta \in [(1/X), (1/(X - \pi\Delta))]$), and the selectorate's de facto power is small (i.e. $[0, (X/(\pi\Delta + X))]$), the non-congruent dictator will choose an inefficient policy if and only if the private rent is large enough; otherwise, she will prefer an efficient policy. If an inefficient policy is implemented, then she is overthrown by a coup of the selectorate, and there are no revolts.*

This is the case of an *efficient autocracy without revolts but possible coups*. The dictator has the maximum possible incentive to choose efficient policies. In equilibrium, we never observe revolutions but might observe coups. An efficient policy is implemented because of the credible threat of revolution, which, in turn, induces the credible threat of a coup. Anticipating a citizens' revolt, the selectorate prefers to remove a dictator who does not choose an efficient policy to avoid a revolution. In this case, the role of the coup threat is a strategic complement to the credible threat of revolution. However—and this is the important novelty of this model with perfect selectorate information—to credibly commit to such a policy the selectorate must be weak enough; otherwise, the selectorate would conduct a coup whenever the dictator is non-congruent, notwithstanding her policy. This would destroy the incentive mechanism.

Note that the policy equilibrium outcomes of the last two cases are the same. However, the strategic behaviors that induce the same dictator's choices are different. In both situations, when the private rent of the dictator is large, future revenues from maintaining power will be less valuable than their appropriation in the present. The non-congruent dictator will thus choose an inefficient economic policy and will be challenged in the first case by a revolt and in the second by a coup. In the first case, a revolt is necessary as an incentivizing device

since the selectorate cannot credibly commit to removing a bad dictator because of the joint effect of its informational advantage and strength. In the second case, the combination of selectorate weakness, its informational advantage, and the credible threat of a revolt allows the selectorate to credibly commit to a coup when it faces an inefficient policy. Note that these are important qualifications of the results of the selectorate theories of Bueno de Mesquita et al. (2005), Besley and Kudamatsu (2007), and Gilli and Li (2015), which only emphasize the selectorate's power. In our model, the introduction of citizens and perfect selectorate information induces an incentivizing role for the selectorate only when it is weak.

Predatory autocracies with coups

Proposition 4. *When citizens' de facto power is low (i.e. $\zeta \in [0, (1/(X - \pi \Delta))]$), and the selectorate's de facto power is high (i.e. $\phi \in [(X/(\pi \Delta + X)), 1]$), the non-congruent dictator will choose an inefficient policy to grab the rent, no matter how small it is, because she will be removed from power, notwithstanding her policies.*

This is the case of a *predatory autocracy with coups*. When the cost of revolution is high, the threat of a coup is the only constraint on the dictator. However, when the selectorate's power is large, its informational advantage does not allow it to credibly threaten a coup only when the policy is inefficient. It will remove the non-congruent dictator anyway; hence, a coup threat does not work as an incentive device. In such a case, the dictator will implement an inefficient policy, grab the money, and be removed from power.

Predatory autocracies without coups

Proposition 5. *When both citizens and the selectorate have low de facto power (i.e. $(\zeta, \phi) \in [0, (1/X)] \times [0, (X/(\pi \Delta + X))]$), the non-congruent dictator will choose an inefficient policy to grab the rent, no matter how small it is. Notwithstanding this inefficient choice, she will remain in power because neither the selectorate nor citizens have the incentives to remove her.*

This is the case of a *predatory autocracy without coups*. When the cost of revolution is high, the threat of a coup is the only constraint on the dictator. However, when the selectorate's power is small, the threat of a coup is not credible, notwithstanding the informational advantage. In such a case, the dictator will implement an inefficient policy and remain in power nonetheless. This case coincides with the kleptocratic equilibrium investigated in Gilli and Li (2013, 2015).

Again, note that the equilibrium policy outcomes of these last two cases are the same: the probability of inefficient policies is maximum in both cases. However, the strategic behaviors that induce the same dictator's choices are different, as are the consequences. In the first case, the selectorate is strong and will remove the predatory dictator. However, the combination of informational advantage and strength does not allow it to credibly commit to threatening the leader's removal if and only if the policy is inefficient; instead, the coup will be contingent on the dictator's type. Hence, the non-congruent leader has no incentive to implement a good policy. Meanwhile, when citizens and the selectorate have no power, the non-congruent

dictator will choose an inefficient economic policy because she has no fear of being removed by a coup or revolt.

Comments on the results

This work aims to show that accountability in autocracies works in very different ways depending on the selectorate’s information. To show the large differences between perfect and imperfect selectorate information, Table 3 compares the political regimes and economic policies that emerge in equilibrium, whether the selectorate has perfect or imperfect information.

Ignoring the failed-states outcome driven by citizens’ de facto power alone, Figure 1 graphically compares the two informational situations, emphasizing the perverse effect of the combination of the selectorate’s informational advantages and its de facto power on autocracies’ policy performances. As Figure 2 shows, cases of inefficient policies increase significantly, and the selectorate’s informational advantage is self-defeating when coupled with high power.

Let us consider the players’ behavior:

$$\bar{\lambda}_1(\zeta, \phi) = \begin{cases} \pi & \text{if } (\zeta, \phi) \in [0, \frac{1}{X}] \times [0, 1] \\ \pi & \text{if } (\zeta, \phi) \in [\frac{1}{X}, \frac{1}{X-\pi\Delta}] \times [\frac{X}{\pi\Delta+X}, 1] \\ \pi + (1 - \pi)G\left(\Delta + E(r_2) + \frac{X}{\phi}\right) & \text{if } (\zeta, \phi) \in [\frac{1}{X}, \frac{1}{X-\Delta}] \times [0, \frac{X}{\pi\Delta+X}] \\ \pi + (1 - \pi)G\left(\Delta + E(r_2) + \frac{X}{\phi}\right) & \text{if } (\zeta, \phi) \in [\frac{1}{X-\pi\Delta}, \frac{1}{X-\Delta}] \times [\frac{X}{\pi\Delta+X}, 1] \\ 0 & \text{if } (\zeta, \phi) \in [\frac{1}{X-\Delta}, 1] \times [0, 1] \end{cases}$$

$$\hat{\rho}(\zeta, \phi) = \begin{cases} 0 & \text{if } (\zeta, \phi) \in [0, \frac{1}{X}] \times [0, \frac{X}{\pi\Delta+X}] \\ 1 - \pi & \text{if } (\zeta, \phi) \in [0, \frac{1}{X-\pi\Delta}] \times [\frac{X}{\pi\Delta+X}, 1] \\ (1 - \pi)\left[1 - G\left(\Delta + E(r_2) + \frac{X}{\phi}\right)\right] & \text{if } (\zeta, \phi) \in [\frac{1}{X}, \frac{1}{X-\Delta}] \times [0, \frac{X}{\pi\Delta+X}] \\ [0, 1] & \text{if } (\zeta, \phi) \in [\frac{1}{X-\pi\Delta}, 1] \times [0, 1] \end{cases}$$

$$\hat{\alpha}(\zeta, \phi) = \begin{cases} 0 & \text{if } (\zeta, \phi) \in [0, \frac{1}{X-\pi\Delta}] \times [0, 1] \\ (1 - \pi)\left[1 - G\left(\Delta + E(r_2) + \frac{X}{\phi}\right)\right] & \text{if } (\zeta, \phi) \in [\frac{1}{X-\pi\Delta}, \frac{1}{X-\Delta}] \times [0, 1] \\ 1 & \text{if } (\zeta, \phi) \in [\frac{1}{X-\Delta}, 1] \times [0, 1] \end{cases}$$

From these expressions it is immediately possible to derive some interesting properties:

1. *The probability of efficient public policies* is maximized with intermediate de facto citizens’ power and weakly decreases with the selectorate’s de facto power.
2. *The probability of coups* weakly increases with the selectorate’s de facto power and weakly increases or decreases with citizens’ de facto power, depending on the selectorate’s power.
3. *The probability of revolts* weakly increases with both citizens’ and the selectorate’s de facto power.

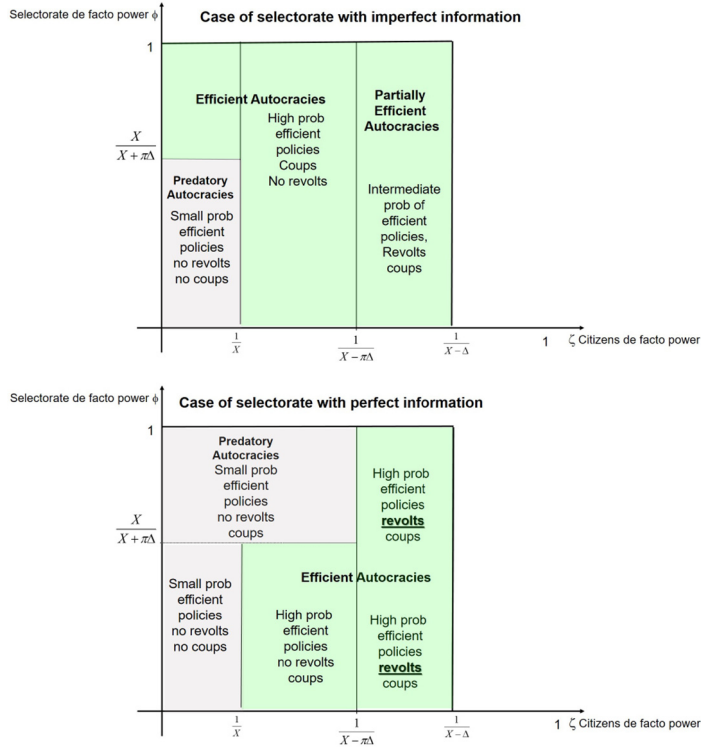


Figure 2. Selectorate information and policy outcomes.

Finally, in the case of efficient autocracies, the probability of implementing an efficient policy decreases with the de facto power of the selectorate. There are two reasons for this effect. First, the dictator must share the benefits of ruling the regime with the selectorate, and if the selectorate has more power, the dictator must share more benefits with the selectorate to avoid a coup. Therefore, a too powerful selectorate reduces the benefits the dictator can gain from holding office and thus reduces the dictator’s incentive to implement efficient policies to remain in power. Second, if the selectorate is powerful, the probability that the selectorate can successfully overthrow the non-congruent dictator increases. This effect also reduces the dictator’s incentives to promote efficient policies to remain in power. This finding further differentiates this study from Besley and Kudamatsu (2007) and Gilli and Li (2015), in which the probability of an efficient policy monotonically increased with the size of the selectorate.

This finding might be applied to countries such as Thailand, whose economy has been trapped in a serial drama of selectorate coups and leadership changes. Thailand used to rely on a small selectorate mainly made up of the military in the 1960s, with the government sometimes being dominated by a military junta or by the monarchy. From the late 1970s, Thailand seemed headed toward a more democratic form of government, with a larger selectorate ever increasing in size and power. In the last few decades, Thai politics has witnessed the emergence of many new powerful groups such as various political parties (e.g. Chart Thai, Thai Rak Thai), business associations (e.g. Thai Chamber of Commerce) and civil

society movements (e.g. People's Alliance for Democracy). With the dramatic increase in the selectorate's de facto power, the risk of coups rose significantly. The coup led by Prayuth Chan-ocha against the government of Yingluck Shinawatra in May 2014 was as at least the ninth coup in Thailand since 1970. The economic consequences of such frequent coups are quite clear; they have blocked government borrowing, stalled exports, and reduced transfers to lower-income groups.

Conclusion


In this study, we developed a model that can help explain why a dictator's public policy often worsens significantly over time. A crucial aspect that is usually ignored is the quality of the selectorate's information regarding the dictator's type; this work shows how and why this aspect is crucial. We compared the standard case of imperfect information with the case of perfect information. We showed that this improvement in information is self-defeating in the sense that, coupled with selectorate power, it leads to outcomes that are worse for all agents.

Our results highlight the fact that efficiency considerations cannot be separated from the interplay between players' de facto political power and their information. In particular, the interaction between checks and balances and information in disciplining autocrats is subtle. When the selectorate has perfect information about the dictator's type, efficient policies require either high citizen strength, so that the threat of revolution is credible only when there are poor outcomes, or low-intermediate citizen strength, together with a weak selectorate, so that a coup threat is not credible. In this setting, when the selectorate is powerful and has acquired perfect information about the dictator's type, its power is self-defeating and paradoxically reduces its ability to discipline the leader.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

ORCID iD

Yuan Li  <https://orcid.org/0000-0001-7139-4391>

Supplemental material

All data, replication materials, and instructions regarding analytical materials upon which published claims rely are available online through the SAGE *CMPS* website: <https://journals.sagepub.com/doi/suppl/10.1177/0738894219883994>

Notes

1. The adverse effects of transparency and information have also been studied by Malesky et al. (2012), who found that legislative transparency may have perverse effects on delegate performance in Vietnam.
2. The seminal works are Banks and Sundaram (1993) and Fearon (1999); a complete and effective review is Besley (2006).
3. In our model, the leader is the agent, while the selectorate and the citizens are the principals.
4. See, for example, Dewatripont et al. (1999), Holmström (1999) and Prat (2005).

5. Naturally, this is just normalization.
6. This hypothesis could be relaxed without changing our main results.
7. Introducing k is just for symmetry; if it is costly for the citizens to initiate a revolution, it should also be costly for the dictator to repress it. However, k will not affect the normalization of the expected payoffs of the dictator and the selectorate.

References

- Acemoglu D and Robinson JA (2005) *Economic Origins of Dictatorship and Democracy*. Cambridge: Cambridge University Press.
- Aidt TS and Jensen PS (2014) Workers of the world, unite! Franchise extensions and the threat of revolution in Europe, 1820–1938. *European Economic Review* 72: 52–75.
- Banks JS and Sundaram RK (1993) Adverse selection and moral hazard in a repeated elections model. In: *Political Economy: Institutions, Competition and Representation*, Volume 7. Cambridge: Cambridge University Press, pp. 295–312.
- Besley T (2006) *Principled Agents?: The Political Economy of Good Government*. Oxford: Oxford University Press on Demand.
- Besley T and Kudamatsu M (2007) Making autocracy work. CEPR Discussion Papers 6371.
- Bueno de Mesquita B, Smith A, Morrow JD and Siverson RM (2005) *The Logic of Political Survival*. Cambridge, MA: MIT Press.
- Bueno De Mesquita B and Smith A (2018) Political loyalty and leader health. *Quarterly Journal of Political Science* 13(4): 333–361.
- Dewatripont M, Jewitt I and Tirole J (1999) The economics of career concerns, part I: Comparing information structures. *The Review of Economic Studies* 66(1): 183–198.
- Dorsch MT and Maarek P (2015) Inefficient predation and political transitions. *European Journal of Political Economy* 37: 37–48.
- Egorov G and Sonin K (2011) Dictators and their viziers: Endogenizing the loyalty–competence trade-off. *Journal of the European Economic Association* 9(5): 903–930.
- Fearon JD (1999) Electoral accountability and the control of politicians: Selecting good types versus sanctioning poor performance. In: *Democracy, Accountability, and Representation*, Volume 2. Cambridge: Cambridge University Press, pp. 55–97.
- Gilli M and Li Y (2013) A model of Chinese central government: The role of reciprocal accountability. *Economics of Transition* 21(3): 451–477.
- Gilli M and Li Y (2014) Accountability in one-party government: Rethinking the success of Chinese economic reform. *Journal of Institutional and Theoretical Economics JITE* 170(4): 616–645.
- Gilli M and Li Y (2015) Coups, revolutions and efficient policies in autocracies. *European Journal of Political Economy* 39: 109–124.
- Guriev SM and Treisman D (2017) The popularity of authoritarian leaders: A cross-national investigation. Available from: SSRN 2882915.
- Hollyer JR, Rosendorff BP and Vreeland JR (2015) Transparency, protest, and autocratic instability. *American Political Science Review* 109(4): 764–784.
- Hollyer JR, Rosendorff BP and Vreeland JR (2018) *Transparency, Democracy, and Autocracy: Economic Transparency and Political (In)Stability*. Cambridge: Cambridge University Press.
- Hollyer JR, Rosendorff BP and Vreeland JR (2019) Why do autocrats disclose? Economic transparency and inter-elite politics in the shadow of mass unrest. *Journal of Conflict Resolution* 63(6): 1488–1516.
- Holmström B (1999) Managerial incentive problems: A dynamic perspective. *The Review of Economic Studies* 66(1): 169–182.
- Holmstrom B (1979) Moral hazard and observability. *Bell Journal of Economics* 10(1): 74–91.

- Larcom S, Sarr M and Willems T (2016) *Dictators Walking the Mogadishu Line: How Men Become Monsters and Monsters Become Men*. New York: The World Bank.
- Lohmann S (1993) A signaling model of informative and manipulative political action. *American Political Science Review* 87(2): 319–333.
- Malesky E, Schuler P and Tran A (2012) The adverse effects of sunshine: A field experiment on legislative transparency in an authoritarian assembly. *American Political Science Review* 106(4): 762–786.
- McGuire MC and Olson M (1998) The economics of autocracy and majority rule: The invisible hand and the use of force. In: *The Political Dimension of Economic Growth*. Berlin: Springer, pp. 38–73.
- Nagarajan KV (2013) Egypt's political economy and the downfall of the Mubarak regime. *International Journal of Humanities and Social Science* 3(10): 22–39.
- Olson M (1993) Dictatorship, democracy, and development. *American Political Science Review* 87(3): 567–576.
- Papaioannou KJ and Van Zanden JL (2015) The dictator effect: How long years in office affect economic development. *Journal of Institutional Economics* 11(1): 111–139.
- Prat A (2005) The wrong kind of transparency. *American Economic Review* 95(3): 862–877.
- Robertson I (2012) *The Winner Effect: How Power Affects your Brain*. London: A&C Black.
- Svolik MW (2009) Power sharing and leadership dynamics in authoritarian regimes. *American Journal of Political Science* 53(2): 477–494.
- Svolik MW (2012) *The Politics of Authoritarian Rule*. Cambridge: Cambridge University Press.
- Svolik MW (2013) Contracting on violence: The moral hazard in authoritarian repression and military intervention in politics. *Journal of Conflict Resolution* 57(5): 765–794.
- Tullock G (1971) The paradox of revolution. *Public Choice* 11(1): 89–99.
- Tullock G (1974) *The Social Dilemma: The Economics of War and Revolution*. Blacksburg: University Publications.
- Wintrobe R (1990) The tinpot and the totalitarian: An economic theory of dictatorship. *American Political Science Review* 84(3): 849–872.
- Wintrobe R (2000) *The Political Economy of Dictatorship*. Cambridge: Cambridge University Press.

DuEPublico

Duisburg-Essen Publications online

UNIVERSITÄT
DUISBURG
ESSEN

Offen im Denken

ub

universitäts
bibliothek

This text is made available via DuEPublico, the institutional repository of the University of Duisburg-Essen. This version may eventually differ from another version distributed by a commercial publisher.

DOI: 10.1177/0738894219883994

URN: urn:nbn:de:hbz:465-20220815-151906-9

This publication is with permission of the rights owner freely accessible due to an Alliance licence and a national licence (funded by the DFG, German Research Foundation) respectively.

All rights reserved.