Corruption in Autocracies[*]

James R. Hollyer[†]

Yale University

Leonard Wantchekon

Princeton University

September 2011

Abstract

Corruption is typically depicted as a result of one of two factors: a lack of political accountability or insufficient state capacity. Nonetheless, substantial variation in corruption levels exists even within the set of politically unaccountable high-capacity regimes. In this paper, we examine a third determinant of corruption – the ideological appeal of the government – and demonstrate that this variable can explain variation in the types and levels of corruption experienced in politically unaccountable regimes. Using a model of both moral hazard and adverse selection, we predict that (1) regimes that inspire the intense ideological loyalty of the populace are likely to enjoy low levels of petty corruption and that (2) autocratic regimes that enjoy such intense support from only a narrow segment of the populace will erect credible anti-corruption institutions. Political corruption, by contrast, need not covary with levels of ideological support. We illustrate the mechanisms of our model through a series of case studies that demonstrate the importance of ideology in driving levels of corruption – with a particular focus on low levels of corruption in 'developmentalist' regimes. Finally, we discuss the relevance of our findings to other – democratic – political settings.

[†]Corresponding Author. PO Box 208206 New Haven, CT 06520-8206. james.hollyer@yale.edu

1

Corruption has been the focus of an expansive literature in political science and economics. Broadly speaking, this literature has emphasized two factors that drive variation in corruption levels: Government accountability – in the form of competitive democratic institutions and the transparent flow of information – is argued to enhance the public's control of politicians and consequently lead to reductions in corrupt behavior (Adserà, Boix and Payne, 2003). Political institutions serve as a check on the naturally predatory behavior of politicians. Alternative arguments stress the importance of state strength, which may facilitate or inhibit the ability of political leaders to control the behavior of lower-level officials (Shleifer and Vishny, 1993). Corruption is seen as a moral hazard problem that all governments seek to control or manage, but they vary in their ability to do so.

While these theories convincingly explain a substantial portion of the observed variation in corruption; there is much that remains to be explained. For instance, explanations that stress the importance of political accountability most convincingly explain variation in levels of 'grand' or political corruption; while those that emphasize state capacity focus more heavily on the behavior of low-level bureaucrats (e.g. Shleifer and Vishny, 1993). It is often unclear how the incentives faced by political actors translate into the behavior of petty bureaucrats.[1]

As important is the substantial variation left unexplained in the level of corruption in politically unaccountable (autocratic) regimes.[2] As we document in greater detail below, many autocratic governments maintain lower corruption levels than all but the most advanced democracies. Indeed, Rwanda and South Korea both experienced reductions in the level of corruption as their governments were perceived to grow *more* autocratic.

By the same token, high-capacity governments also vary greatly in levels of corruption. While it may well be the case that governments that lack adequate police and fiscal capacity cannot or do not optimally regulate the behavior of their bureaucrats (Besley and McLaren, 1993; Shleifer and Vishny, 1993); those that do have this power may choose not to exercise it. Countries with extensive police powers and that are able to mobilize very large portions of their national resources – for instance, China, North Korea and Turkmenistan – score very poorly on international measures of corruption.

---

[1]Though, on a this topic, see Acharya and Schwabe (2011).

[2]We classify regimes where there has never been a transfer of power, and in which the ruling party faces no plausible electoral challenge, as autocracies. This definition is in keeping with the Przeworski et al. (2000) measure of democracy. Others consider some of the regimes here referred to as authoritarian as 'contested authoritarian' regimes (Levitsky and Way, 2002) or even as democracies. Our central interest is in the public's (in-)ability to credibly threaten to punish political leaders for corrupt activities, and in the behavior of governments when this threat is absent.

In this paper, we focus on a largely unexplored determinant of corruption: ideological loyalty. We argue that a the intensity and breadth of loyalty to the government plays an important role in determining the level of corruption under autocratic rule. Governments that enjoy intense and broad support will experience low levels of petty corruption and varying levels of political (grand) corruption, without the help of credible anti-corruption institutions. Governments that inspire the intense loyalty of only a narrow sector of the populace, however, will erect credible anti-corruption institutions and – consequently – will experience low levels of both petty and political corruption. Finally, those governments that do not inspire intense ideological support, will experience high levels of petty, and relatively low levels of political, corruption.

Our argument runs as follows: Autocratic élites may systematically manipulate access to corruption rents as a means to provide incentives bureaucratic agents. Access to corruption may be granted to officials as they rise in the bureaucratic hierarchy – enhancing career concerns – or corruption may be tolerated by high-performing agents and punished by low-performing ones – thereby acting analogously to an efficiency wage. Bureaucrats vary in their ideological attachment to the government, such that those that are more closely with the élite affiliated are willing to exert more effort on the élite's behalf at lower wages. Naturally, the ideological leanings of a given bureaucrat are known only to himself and are not (directly) observed by the political élite.

Autocratic élites may seek to encourage the performance of their bureaucrats through any means at their disposal. But, there are costs to removing established bureaucrats from office, largely due to the loss of skill-specific capital (Gailmard and Patty, 2007). At the margin, therefore, autocratic governments seek to maximize the performance of the bureaucracy they have, rather than undertaking large scale purges of bureaucratic agents. This tendency gives rise to an adverse selection problem: Absent constraining institutions autocrats cannot commit to abstain from the use of corruption to encourage the performance of bureaucratic agents. The use of such incentives enhances the pecuniary motivations to seek bureaucratic office. Therefore, even those without much ideological affinity for the political élite may be motivated to seek bureaucratic posts with the aim of securing access to corruption rents.

This adverse selection problem is at its worst when the government enjoys the intense ideological support of a small portion of the population – as the majority of seekers after bureaucratic office will be motivated by opportunism rather than ideology. Under these conditions, the élite may reap large returns if it is able to dissuade opportunists from

seeking bureaucratic posts and rather staff these positions with its zealous supporters. It may attempt to achieve this outcome by erecting credible anti-corruption institutions, which serve to tie the élite's hands and prevent the manipulation of corruption rents. By so-doing, the élites may dissuade opportunists from seeking posts and ensure that ideological zealots assume bureaucratic office.

In what follows, we place greater flesh on this argument. We first motivate our question with a review of existing theories of corruption and an examination of the empirical variation of corruption within authoritarian regimes. We then offer an informal discussion of our theoretical contentions. We relate these contentions to the existing literature. And we formalize our theory with a game theoretic model involving problems of both moral hazard and adverse selection. Following this formalization, we provide qualitative evidence in support of our argument. Section 6 concludes.

1   Motivation

A substantial literature in political science and economics links the control of corruption to two aspects of political institutions: accountability and state capacity. The focus on accountability is most heavily influenced by models of retrospective voting, which suggest that the ability of voters to sanction government behavior is critical to the control of incumbent politicians (Barro, 1973; Ferejohn, 1986). Indeed, the classical model of retrospective voting – in which the incumbent leader may either siphon state resources for her personal benefit or seek to deliver services to the electorate – translates readily into a corruption framework. In these models, the presence of electoral control – and the shadow value of future economic activity (McGuire and Olson, 1996) – are all that keeps a government from wholesale expropriation.

Prospective voting models also suggest that electoral institutions may check corruption. In these models, the perceived 'corruptibility' of political candidates serves to reduce their attractiveness to all members of the electorate – a form of negative valance. In competitive elections, voters will be less likely to vote for a candidate as her corruptibility rises; though this effect may not be sufficient to prevent corrupt candidates from obtaining office in multidimensional issue settings (Myerson, 1993). Nonetheless, electoral competition serves to constrain the degree of corruption that may be expected from governments that attain office.

Recent work elaborates on the mechanisms by which democracy can influence levels

of corruption. The efficacy of democratic institutions may be influenced by the amount of information available to the electorate (Adserà, Boix and Payne, 2003), by the presence or absence of checks and balances (Persson, Roland and Tabellini, 1997; Persson and Tabellini, 2000), by the clarity of lines of responsibility (Kunicová and Rose-Ackerman, 2005), or by the role of opposition parties (Kunicová, 2002). Both cross-national (Adserà, Boix and Payne, 2003; Kunicová and Rose-Ackerman, 2005; Gerring and Thacker, 2004) and within-country (Ferraz and Finan, 2008; Alt and Lassen, 2008) empirical research supports the contention that democracy and accountability matter for corruption outcomes.

While these results provide credible evidence of the importance of democracy; much variation in corruption levels remains to be explained. Indeed, Treisman (2007) casts doubt on the causal role of democracy. He finds that once the length of a given democratic spell is controlled for, current democracy does not predict corruption outcomes. Moreover, examples abound of autocracies with relatively low corruption levels, or of countries that lowered levels of corruption even as they became increasingly autocratic. For instance, Korea established its first anti-corruption agency under the autocratic Park regime (Quah, 1999), rather than under the democratic government Park unseated. Levels of corruption declined in Rwanda even as Kagame cemented his increasingly autocratic control (Reyntjens, 2004).[3]

We do not wish to contend that democracy does not matter for corruption outcomes. Rather, we merely note that non-democratic governments vary widely in levels of corruption. Evidence for this variance can be witnessed in Figure 1, which plots 2008 control of corruption scores from 184 democracies and non-democracies. In all, 16 of 72 non-democracies receive higher scores (lower levels of corruption) than does the median democracy. Clearly then, covariates other than democracy influence the prevalence of corruption.

Does state capacity explain all remaining variation in levels of corruption amongst autocracies? We contend that it does not. Capacity may affect corruption for a variety of reasons: States that lack administrative capacity may prove unable to audit the bureaucracy in a manner that has proven to be effective in curbing corrupt behavior (Olken, 2007). Weak governments may be unable to coordinate bureaucratic corruption, resulting in particularly damaging competing demands for bribes (Shleifer and Vishny, 1993). Or countries

---

[3]Corruption data for Rwanda can be obtained from the World Bank's African Development Indicators `http://databank.worldbank.org/ddp/home.do`.

Figure 1: Distribution of WGI Control of Corruption Scores in Democracies and Non-Democracies in 2008
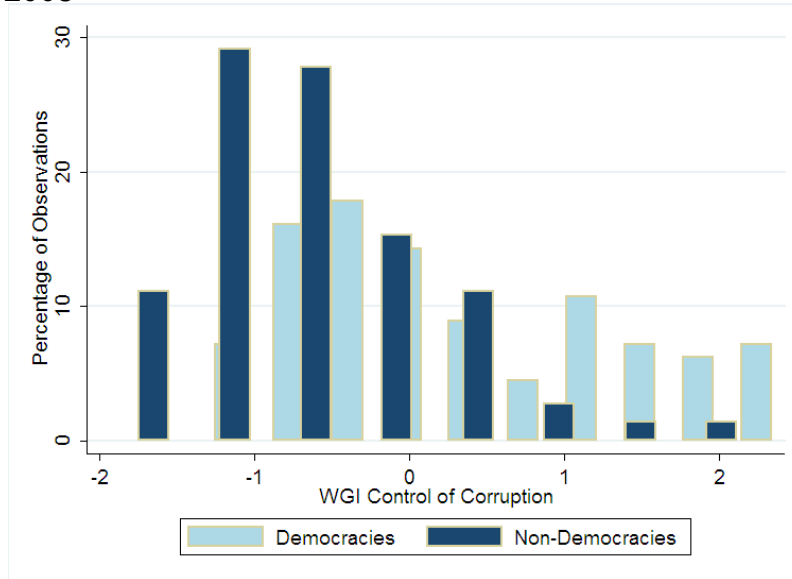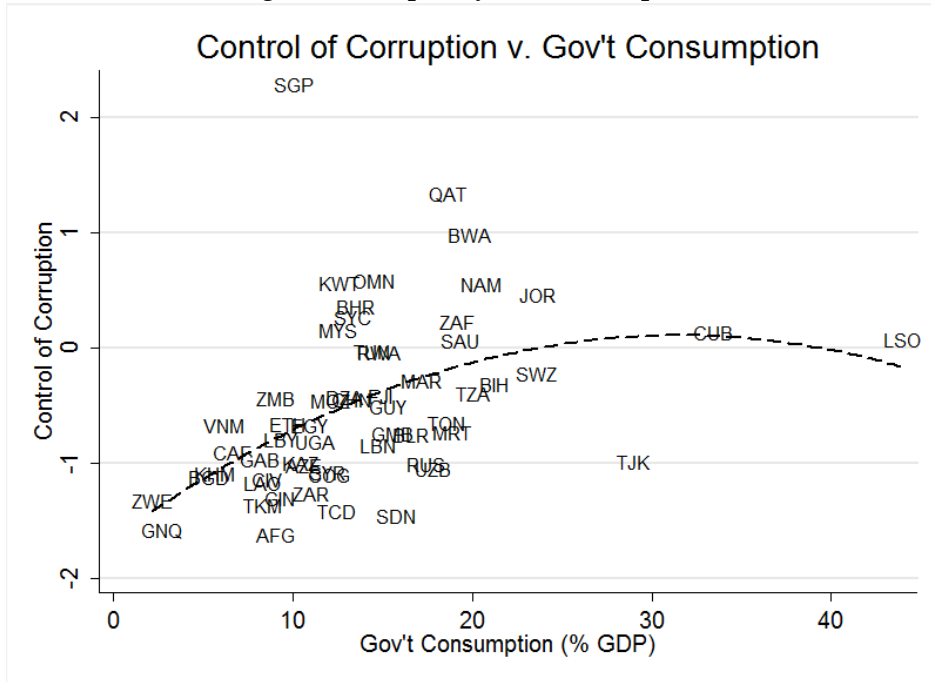

The distribution of WGI control of corruption scores among democracies and non-democracies in 2008. WGI control of corruption values range between -2.5 and 2.5, with higher values denoting lower levels of corruption (WorldBank, 2006). (WGI reports both estimated scores and standard deviations, here just the mean scores are used.) The definition of democracies and non-democracies is that from Przeworski et al. (2000), as coded by Cheibub, Gandhi and Vreeland (2010).

with inadequate fiscal capacity may rely on corruption to ensure that civil servants receive sufficient wages that their participation constraint is met (Besley and McLaren, 1993).

All these results suggest that very low capacity states may experience high levels of corruption. But, once a minimal threshold of capacity is crossed, state power looses its explanatory power. Figure 2 plots WGI control of corruption scores against a crude measure of state capacity – government consumption expenditures as a percentage of GDP – in non-democratic governments in 2008. Clearly a linear model fits these data quite poorly. Rather the best fit appears to be a quadratic curve: capacity matters greatly for corruption outcomes at the lower levels of capacity (consumption below 15% of GDP), but matters far less at higher levels. Indeed, the relationship between capacity and corruption appears slightly negative at the highest levels of government consumption.

In what follows, we present a model that can better explain this variation in levels and types of corrupt activities in authoritarian regimes. This model stresses the role corruption

Figure 2: Capacity and Corruption

A scatterplot of WGI control of corruption scores against government consumption expenditures as a percentage of GDP amongst non-democratic governments (as coded by Cheibub, Gandhi and Vreeland (2010).

can play in motivating low-level officials to act on the behalf of their political superiors. Our results emphasize the importance of the public's ideological attachment to the ruling élite.

2 Argument

Authoritarian states have an incentive to *systematically* rely on corruption as a means to motivate bureaucratic agents and ruling party members.[4] As noted above, such parties face little threat of electoral sanction for corrupt behavior – either because elections are absent or because of a lack of credible electoral challengers. Even if the public is aware of corrupt

---

[4]In this paper, we refer to the systematic manipulation of corruption by the ruling party as a means of rewarding or punishing its agents. We do not discuss petty corruption conducted in defiance of the leadership – i.e., corruption as a moral hazard problem – which all governments have reason to reduce. To the extent that authoritarian states also face this type of corruption, the adverse selection problem described above will be worsened – and the government will face stronger incentives to make anti-corruption commitments.

activities – and its knowledge of such activities may, in some instances, be constrained by an unfree press – it does not possess sufficient means to punish perpetrators. While corruption may impose large economic costs (Shleifer and Vishny, 1993); it may prove an opportune means of providing pecuniary benefits to those carrying out the rulers' will.

Such corruption may be systematic in the sense that it can be manipulated by the government to provide high-powered incentives to officials.[5] For instance, the government may assign high-performing officials to posts made lucrative by access to corruption rents.[6] Loyal bureaucrats may be assigned to customs or procurement offices where there are ample opportunities to solicit bribes. By enhancing the value of higher office in this manner, the élite effectively increases the career concerns of lower-level officials, heightening the power of bureaucrats' incentives to assiduously serve the interests of their rulers.

Alternatively, the government may tolerate corruption by officials that serve the party-line, but punish it by those that do not. The Soviet Union, for instance, would implicitly encourage officials to engage in prohibited – corrupt – behaviors, and would selectively prosecute those that did not show sufficient zeal in serving their superiors (Urban, 1985). In the early 1990s, the Shanghai prosecutors' office announced that differential criteria would be applied in corruption cases involving the prosecution of 'able individuals' – and that such officials would be granted leniency if they repented for their acts (Sun, 2001). This selective manipulation of corruption – or of the punishments officials may expect to face for corrupt activities – may be seen as equivalent to the use of an efficiency wage. Corruption serves to increase the benefits from office and heightens the expected costs from removal.

The manipulation of corruption in this manner thus serves as a substitute for the use of high powered wage incentives. Rewarding officials through access to corruption rents may be preferable to wage incentives for a variety of reasons: First, such rewards can be provided at relatively low cost to the élite. The rulers need only turn a blind eye to the corrupt activities of productive or high-level officials rather than raising and distributing the funds for their payment. Second, corruption incentives can be manipulated in a non-

---

[5]A prominent argument in economics holds that bribery may induce efficient performance by corrupt officials as bribes constitute an equivalent to a piece wage for bureaucratic performance (Leff, 1964). Here we are less concerned with the incentives corruption introduces for bureaucratic performance with regards to the public, and more concerned with effects on bureaucrats' and ruling party members' incentives to serve the ruling élite.

[6]For the manipulation of assignment to posts as a means of controlling bureaucrats, see Iyer and Mani (2009). Lazarev (2007) documents how non-democratic regimes may use the assignment of plum positions – those attracting large rents from office – as a means of attracting large numbers of new recruits.

transparent manner. This opacity may be useful insofar as it provides a shield from public scrutiny – and an autocratic élite may wish to encourage officials to behave in a manner not viewed as desirable by the public. It also avoids scrutiny by other bureaucrats, and so is unlikely to be subject to any form of attempts to collectively bargain – whether explicitly through unions or implicitly through informal networks. Access to corruption can therefore more readily be manipulated to target the behavior of individual bureaucrats than can wage contracts.

The ability of the élite to manipulate access to corruption rents in this manner serves to increase the pecuniary rewards the average individual can anticipate from entering office. Officials may prove able to supplement their wages through illicit activities. Thus, members of the public will expect that loyal government servants will escape corruption prosecutions, regardless of the extent of their corrupt acts. They will believe that the government will assign lucrative posts as a reward for previous behavior. And these beliefs will drive their expectations about the potential rewards of government service.

As a result of these beliefs, government service will likely seem an attractive option to a broad swath of the public. This may include those that have no particular love for their rulers. Those who oppose – or at least do not share – the rulers' ideological goals may be drawn into government service. Since the ruling élite cannot directly observe the ideological predilections of those seeking government posts – such feelings may be correlated with observable characteristics or past behaviors, but are otherwise unknowable[7] – and because those seeking such posts have every incentive to disguise their true beliefs, individuals disaffected with the ruling regime may enter government service and crowd out true ideological adherents.

In theory, the ruling élite could avoid such a problem if it could commit to rein in corruption. Should the élite crack down on corrupt behavior and cease to tolerate or suborn illicit activities by high-performing subordinates, the pecuniary benefits from seeking bureaucratic office would decline and opportunists may be deterred from entering these posts. But, we argue that, absent constraining institutions, the ruling élite can not commit to such behavior, giving rise to an adverse selection problem.[8]

---

[7]We develop an extension in which such characteristics are correlated with ideology below.

[8]It may reasonably be asked how such governments might commit to any form of incentive scheme – yet alone one financed by corruption rents – with bureaucrats and party officials. Our explanation for the leadership's ability to commit to such incentives is twofold: First, interactions between the élite and lower-level officials are repeated over time and across a large number of individuals. Should the élite violate its incentive agreement with any one official, it is likely that it will find it more difficult to sustain interactions with others – a typical folk theorem result. Second, lower-level officials are likely to possess information

This inability of the élite to commit to combat corruption arises from two underlying causes: First, under an authoritarian system, the ruling élite faces few constraints in its pursuit of its own self-interest. It faces little or no threat from electoral sanction. Legislative and executive bodies are unlikely to hold one another in check. And since corrupt acts are covert, no single act is likely to provide the focal point necessary to induce collective action to remove the government from power (on the role of such focal mechanisms in controlling the behavior of autocrats, see Fearon, 2006). Ironically, this unbridled power – when coupled with the élite's sequential rationality – gives rise to the adverse selection problem described above.

Second, attempts to combat corrupt behavior are likely to be costly for the élite. Greater resources are likely necessary to deter and punish corrupt behavior by lower-level officials than are necessary when simply assigning lucrative posts to high performing officials. More subtly, the punishment of lower-level bureaucrats for corrupt deeds may involve substantial costs. The prosecution and replacement of sitting officials engaged in corruption is likely to sacrifice skill-specific human capital built up over time served in office (Gailmard and Patty, 2007). Given the imperfect nature of monitoring technologies, such prosecutions may result in the accidental removal of less corrupt zealots from official positions, with negative effects on both the composition of and incentives faced by the bureaucracy. Finally, the prosecution of sitting officials is likely to cast a negative light on those responsible for their appointment, potentially jeopardizing the standing of at least some members of the élite. Once officials are in place, therefore, the élite would prefer to manipulate the stream of rents officials can obtain from corruption rather than seeking to limit corrupt behavior altogether.

Consequently, the public will not find autocratic threats to limit corruption credible, unless these threats are backed by the creation of constraining institutions. Members of the public will believe that government service is likely to be richly rewarded – in part through access to corruption – and ideologically disaffected members of the populace may therefore seek entry into government offices.

The willingness of ideologically distant members of the public to enter its service may prove costly to the ruling élite. Optimally, the government would prefer to staff the ranks

---

about élite complicity in corrupt acts. Should the élite violate the terms of its agreements with its subordinates, details of these activities may be revealed to the public. While we contend that the public is generally aware of the level of corruption, authoritarian regimes are concerned with concealing the details of specific corrupt transactions. This is likely because the release of such details may serve as a focal mechanism for coordinating opposition activity.

of the bureaucracy with officials who intrinsically support its aims. Such officials would require slight incentive to act on the rulers' behalf (Besley and Ghatak, 2005). But, the ideological predilections of potential recruits are not readily observable and candidates have every incentive to disguise their true beliefs. The presence of disaffected members of the public in the recruitment pool may serve to crowd out ideological supporters from official posts.

For instance, after assuming power in 1933, the Nazi Party was deluged with new members, many of whom were current civil servants or those seeking bureaucratic posts. Many of these new recruits had no particular sympathy for the Nazis' ideological aims. As Caplan (1988) notes:

> ... as civil servants sensibly flocked to join a party that put such a premium on political affiliation, so they devalued the meaning of membership as well as altering the character of the party itself. ... By 1935, ... civil servants were vastly overrepresented in the NSDAP: 20 per cent of them were members, and 80 per cent of these had not joined until after the seizure of power. Their membership was more likely to be evidence of prudence than of persuasion; they were liable to be not *alte Kämpfer* but *Konjunkturritter*.

These opportunistic recruits were unlikely to zealously support the NSDAP leadership's aims. And their large numbers ensured that party membership was no longer a valid indicator by which officials could be recruited. Opportunists served to crowd out true ideological adherents.

Credible anti-corruption institutions offer one mechanism through which the élite may address its adverse selection problem. Independent anti-corruption institutions may credibly act to limit corrupt behavior without interference by the ruling élite. The leadership may create an anti-corruption office with officers appointed for long terms or selected by virtue of their reputation for integrity. It may staff such offices with individuals unaffiliated with the ruling elite. The government may subscribe to anti-corruption programs sponsored by foreign governments or IFIs. Failure to cooperate with such interventions may jeopardize other aspects of the government's relationship with these foreign institutions – making such agreements relatively credible. Or the government may preserve the freedom of the press, in the hope that press investigations would uncover corrupt activities by its officials (Egorov, Guriev and Sonin, 2009). Such institutional reforms create powerful and independent actors with an incentive to check corrupt behavior. Their enactment

consequently serves as a credible commitment by the élite to limit the pecuniary rewards to bureaucratic or party office.

Independent anti-corruption bodies thus enable the élite to screen job-seekers by restricting corruption rents. They offer a public means for the élite to demonstrate its commitment to refrain from corrupt behavior and to discourage corrupt activities on the part of its subordinates. As members of the public and party adjust their expectations regarding the rewards from office following such a commitment, those less ideologically aligned with the leadership's positions will leave or refrain from entering the bureaucracy.

Analogously, leaders of fractious ruling parties may use similar tactics as a means of removing their internal opponents. The leadership of such parties may be unable to act directly against an internal opposition, but it may make the occupation of party posts less attractive to its opponents. Such behavior is likely to be optimal for large coalitional ruling parties – such as those that assumed power following national liberation movements in much of Africa.

But, this strategy comes with a cost. To the extent that these anti-corruption institutions are truly effective and independent, they will serve to constrain the corrupt activities not only of lower-level officials, but also of the political élite. Were the élite to grant itself immunity from such bodies, the credibility of its commitment to restrain corrupt activities by its subordinates would be correspondingly weakened. If the leadership is immune from investigations or prosecutions, it is incredible to believe that candidates for future leadership posts will be vigorously prosecuted for corrupt activities. If high-ranking subordinates are exempted, what about high-performing officials lower in the political hierarchy? Any loosening of the enforcement mechanism with regards to the élite is likely affect beliefs about anti-corruption commitments all the way down the political hierarchy.

Thus, élites that value their own enjoyment of corruption rents sufficiently highly are unlikely to ever establish anti-corruption institutions. Regimes that are less concerned with the leadership's access to corruption rents may adopt such institutions.

As we demonstrate below, anti-corruption institutions are most likely to be adopted when the élite enjoys the zealous support of a small portion of the population, and very little support amongst the broader populace.[9] The reason for this is straightforward: The adverse selection problem grows increasingly extreme as the size of the pool of ideological zealots shrinks. In any given pool of recruits, a large portion are likely to be opportunists.

---

[9]Extending the analogy above, this strategy is likely to be popular for fractious ruling parties where the leadership enjoys the support only of a small portion of the ruling party.

When the pool of zealots is small and highly supportive of the leadership, the creation of anti-corruption institutions is likely to result in a large shift in the ideological composition of the recruitment pool.

3   Related Literature

This paper builds on an emerging literature on the functioning of non-democratic states and the role of institutions therein. Traditionally, most analysts have viewed non-democratic regimes as constrained only by the effects of their present actions on future consumption (see, for instance McGuire and Olson, 1996), or by the threat of mass revolution (Acemoglu and Robinson, 2000). However, a more recent literature suggests that non-democracies may rationally seek to build institutions to constrain their power – usually to overcome some commitment problem. Myerson (2008) argues that an autocrat may promote the creation of institutions that allow subordinates to coordinate his ouster – as this allows the autocrat to credibly commit to reward these subordinates for their support (for a similar argument, see Gehlbach and Keefer, 2007). Gandhi and Przeworski (2006) argue that dictatorships may commit to share rents with opposition groups by including the opposition in a legislature. We build on these arguments by suggesting that autocratic governments may seek to limit their ability to reward officials to shift the ideological composition of recruits to these positions.

We also build on the literature on principal-agent problems in non-democratic governments. Egorov, Guriev and Sonin (2009) and Egorov and Sonin (2004) examine problems of moral hazard in dictatorships. These papers argue, respectively, that some dictatorships may have an incentive to encourage freedom of the press to increase monitoring of bureaucratic agents and that dictatorships have an incentive to promote less competent agents than democracies, given the danger that competent bureaucrats will stage a coup. Dixit (2010) introduces a model of moral hazard in bureaucracies and compares results in autocracies and democracies. He argues autocratic governments are less willing to share policy rents with bureaucrats than democratic governments, and hence derive less effort from officials. In a model applicable to both democracies and autocracies, Besley and McLaren (1993) introduce problems of both adverse selection and moral hazard in preventing corruption. They argue that governments may have an incentive to allow wholesale corruption if the funds available for wages are lacking – as bureaucrats can meet their participation constraint through corrupt activities rather than wages. We build on this lit-

erature by examining problems of adverse selection – and particularly adverse selection with respect to ideology – in non-democratic governments.

Finally, we borrow from the literature on principal-agent problems with motivated agents. Besley and Ghatak (2005) examine the phenomenon in which bureaucrats develop a formal sense of mission, and note that the existence of such ideological interests allows the principal to relax high powered incentives. Prendergast (2007) examines the ideological motivations of regulators and characterizes the situations in which biased bureaucrats are preferred over non-ideological alternatives. Prendergast also notes that ideological motivations may lead to adverse selection problems in recruiting agents. We characterize just such a problem here. In our example, pecuniary rewards may attract agents without intrinsic ideological motivations to office. The ruling élite always prefers to attract zealots who favor of its policies – but cannot adequately screen agents based on ideology. Consequently, the government may have an incentive to limit the incentives provided to agents to ensure that only ideologically motivated agents are willing to seek office.

4   Model

4.1   Model Primitives

Consider an interaction between two classes of players: a government leadership (L) and an pool of potential bureaucratic recruits indexed over the unit interval $[0, 1]$, with each individual potential recruit denoted i.

Potential recruits are characterized with by their level of ideological affinity with the party in power, $\iota_i \in \{\underline{\iota}, \bar{\iota}\}$, $\bar{\iota} > \underline{\iota} \geq 0$. We label individuals with values of $\iota_i = \bar{\iota}$ as zealots and values of $\iota_i = \underline{\iota}$ as opportunists. The fraction of zealots in the recruitment pool is given by the parameter p, and the fraction of opportunists is given by $1 - p$.

Potential recruits must determine whether or not to enter office and – conditional on entering office – the level of effort they wish to devote to serving the leadership. Should she choose not to enter the bureaucracy, each potential recruit earns a private sector wage $y_i = y \geq 0$, and will enjoy a disposable income comprised of the private sector wage net of taxes $(1 - \tau)y$. If she enters the bureaucracy, a recruit obtains a linear wage $w \geq 0$ for her services. When in office, a bureaucrat must devote energy $e_i \geq 0$ to her duties, at cost κe_i, $\kappa > 0$. And she produces goods for the party according to the function $g(e_i) = Ae_i^\alpha$ where $A > 0$ and $\alpha \in (0, 1)$.

Potential recruits value both income and the ideological returns to government service. If she enters office, each recruit i will therefore enjoy ideological returns from service equal to $\iota_i g(e_i)$. Using this function, and the linear wage rate $wg(e_i)$, we can denote each potential recruit's utility function:

$$u_i(\iota_i, e_i) = \begin{cases} (w + \iota_i)g(e_i) - \kappa e_i \text{ given entry} \\ (1 - \tau)y \text{ otherwise.} \end{cases}$$

(1)

The leadership determines the wage at which officials will be paid w, and may raise the funds to cover these expenses via taxation or corruption. Tax revenues are derived from a linear tax rate $\tau \in [0, \bar{\tau}]$, $\bar{\tau} \leq 1$ imposed on private sector income $Y = \int_0^1 y_i di$. For simplicity, we assume that the marginal cost to taxation is zero for all tax rates $\tau \leq \bar{\tau}$.

The leadership may also raise funds to reward officials through corruption. This is best thought of as a reduced form representation of the leadership's ability to manipulate bureaucrats' and party-members' access to corruption rents. For instance, the leadership may place high performing members in positions wherein they are able to benefit greatly from corruption. Alternatively, it may choose to turn a blind eye to the corrupt activities of high performing officials. As these forms of behavior serve to increase the ability of the party in power to reward official performance, we choose to model such behavior as simply increasing the ability of the leadership to provide incentive wages.[10] The leadership may thus raise corruption rents of size $R \geq 0$. The government faces a cost to raising levels of R, according to the function $c(R)$ where $c(0) = 0, c' \geq 0, c'(0) = 0, c'' > 0$.

Finally, the leadership may choose whether or not to enter into anti-corruption commitments. This may be thought of as representing a government's decision of whether or not to establish an independent anti-corruption office, or to enter into an internationally sponsored anti-corruption program. This choice will be denoted by the indicator function $s \in \{0, 1\}$. If the leadership enters into an anti-corruption commitment, it will increase its marginal cost to engaging in corrupt activities. The cost to engaging in corruption will thus be represented by $\lambda c(R)$ where λ is a constant strictly greater than one.

The leadership derives utility from the activities of officials – which may include, but

---

[10]The parameter w thus reflects the share of corruption rents devoted to lower-level officials. This might be interpreted as a reflection of the level of petty corruption. Alternatively, one may think of this term as reflecting the share of corruption rents earned by low-level officials from activities involving both political and petty officials. (We would like to thank Alberto Simpser for raising this point.)

are not limited to, their official duties. Additional activities might include efforts to mobilize support for the leadership amongst the general populace, informing the leadership of potential sources of unrest, or expropriating from the public on behalf of the leadership. The political élites also derive utility from their consumption of tax revenues and corruption rents. The sum total of revenues devoted to élite consumption will be denoted r, and the leadership's utility from such consumption will be given by $\rho v(r)$ where $v(0) = 0$, $v' > 0$, $v'' < 0$, $\rho > 0$.[11],[12]

There is thus a conflict between lower-level officials and the élite over the distribution of state resources. This may be explicit in the nature of corrupt transactions – lower-level officials may be required to funnel some portion of the proceeds of corruption to their political superiors (for a detailed description of this practice, see Wade, 1984). Alternatively, one may conceive of petty corruption as sapping the tax revenues consumed by the senior leadership, as bribery suppresses both tax collection and business activities.

The leadership's utility function is thus given by:

$$u_L(s, w, \tau, R) = g(e_i) + \rho v(r) - [s\lambda + (1-s)]c(R) \tag{2}$$

which it must maximize subject to a balanced budget constraint $\tau Y + R \geq wg(e_i) + r$.

In the event that the leadership is unable to staff the open post, we assume that it receives an arbitrarily large negative utility as a penalty.

The order of play of the game is as follows:

1. The party leadership chooses whether or not to make anti-corruption commitments $s \in \{0, 1\}$

2. A potential recruit is drawn from the pool of potential recruits, and given the choice of whether or not to enter office. This process will continue until one candidate agrees to enter office.

---

[11]We additionally assume that $\rho v(r)$ assumes a functional form such that the leadership will always prefer a positive wage rate in equilibrium. Let R' be defied as the value of R such that $\rho v'(\bar{\tau} Y + R') = c'(R')$. We assume that $\rho v'(\bar{\tau} Y + R') < \frac{\alpha}{(1-\alpha)\bar{\iota}}$. This assumption ensures avoids a corner solution in which wages are set at zero for bureaucrats of all ideological types. When this is the case, implementing anti-corruption commitments will not have any effect on the entry decision of opportunists, and our results thus would not hold. Assuming away this corner solution serves to simplify our comparative statics without imposing implausible restrictions on the model.

[12]Note that R thus denotes the level of corruption, and r denotes the level of grand/political corruption. Levels of petty corruption are a function of the difference between total corruption R and grand corruption r (which may be negative).

3. The entrant's value of ι_i is revealed and the government sets a wage contract.

4. The party member makes her effort decision, all production takes place, and all payoffs are realized.

This game is solved using backwards induction, applying the Bayesian equilibrium solution concept (Fudenberg and Tirole, 1991). An equilibrium will consist of a mapping of the distribution of ideology p, $\bar{\iota}$, $\underline{\iota}$ and the cost of anti-corruption institutions λ into the élite's decision of whether to adopt anti-corruption institutions $s \in \{0, 1\}$; a mapping of each value of ι_i and of the élite's value of corruption rents ρ into a wage rate w; a mapping of ideological affinity into an entry decision; and a mapping of ideological affinity into an effort level e_i.

4.2 Equilibrium

Once in office, a bureaucrat will devote effort to maximize equation 1, conditional on the wage level w and on her ideology ι_i. This maximum will be given by the level of e that solves the following:

$$e_i^* = \left[\frac{A\alpha(w + \iota_i)}{\kappa}\right]^{\frac{1}{1-\alpha}}.$$

The party leadership will set the values of w, τ, r, and R in light of the effort decision by the party member. The leadership thus seeks to maximize the following:

$$\max_{s,w,\tau,\rho} g(e_i^*) + \rho v(r) - [s\lambda + (1-s)]c(R)$$

$$\text{s.t } \tau Y + R \geq wg(e_i^*) + r$$

$$w \geq 0$$

$$r \geq 0$$

$$R \geq 0$$

$$\tau \in [0, \bar{\tau}]. \tag{3}$$

From these maximization conditions, we can conclude that the equilibrium wage rate will be falling in the ideological affinity of the party member for the leadership's positions ι_i. More precisely, we can rewrite the equilibrium wage rate as a decreasing function of ι, $w^* = w(\iota)$.

We can further state the following lemma:

Lemma 1. *For a given value of ι_i, the equilibrium level of wages $w(\iota)$ are (weakly) lower when anti-corruption commitments are in place ($s = 1$) than when anti-corruption commitments are absent ($s = 0$). For a given value of ι_i, the equilibrium level of wages are weakly declining in the value the leadership places on its consumption of corruption rents ρ.*
Proof: *See appendix.*

The wages of lower-level officials are therefore (weakly) lower when anti-corruption institutions are in place than when they are absent. Because these wages are provided, in part, via corruption rents, and because anti-corruption bodies serve to increase the marginal cost faced by the leadership from engaging in corruption, wages decline once these institutions are put in place. In practical terms, we would expect political élites to be less willing to collude in the corrupt behavior of their underlings, or to suborn corrupt acts, when there is a real danger that independent anti-corruption bodies may investigate and prosecute these activities.

Similarly, lower-level officials' wages are (weakly) declining in the value the élite places on its own consumption of rents. Rapacious leaders are unlikely to tolerate the redistribution to subordinate officials implied by the acceptance of bribes to ignore tax or customs violations. Arrangements to distribute corruption rents between different officials in the political hierarchy are likely to be skewed towards the leadership when these these élite officials value their own consumption highly.

Based on the party's choice of wages, and on their ideological affiliation, potential recruits must determine whether or not to enter the party. Potential candidates must compare their equilibrium private sector incomes $(1 - \bar{\tau})y$ to their anticipated rewards from office. If the rewards from office exceed those possible from this outside option, the potential candidate will choose to enter the party – i.e., the candidate will enter if and only if:

$$[w(\iota_i) + \iota_i]g(e_i^*) - \kappa e_i^* \geq (1 - \bar{\tau})y. \tag{4}$$

Based on the entry condition stated in inequality 4, we are able to conclude that all candidates with a sufficiently high degree of ideological affiliation with the party will choose to enter.

Lemma 2. *If opportunists (candidates for whom $\iota_i = \underline{\iota}$) are willing to enter office, then so too*

are zealots (candidates for whom $\iota_i = \bar{\iota}$).
Proof: *See appendix.*

Using this lemma, we can now sate the following proposition:

Proposition 1. *If opportunists are willing to enter office absent anti-corruption commitments ($s = 0$), then there exist values of λ such that opportunists are deterred from entering office when anti-corruption commitments are in place ($s = 1$), while zealots continue to enter.*
Proof: *See appendix.*

This proposition states that the leadership may limit its adverse selection problem by constricting its ability to raise corruption rents. As the government becomes less able to motivate its officials through corrupt practices, potential candidates for official posts see their expected returns to office decline. As a result, only the most ideologically fervent candidates will seek to enter the party. In essence, this proposition establishes the claim made in the introduction that unaccountable ruling élites may ensure the ideological unity of their government by limiting corruption.

Inequality 4 further implies that the degree of ideological sympathy the average recruit feels for the leadership will be increasing in the degree to which the élite values the consumption of corruption rents ρ. The more predatory the élite, the less willing it is to share the rents of office with lower-level officials – regardless of their efforts on the rulers' behalf. Ironically, the rapaciousness of the élite serves as a commitment device by which the expected pecuniary returns from office are reduced, ensuring that only ideologically motivated officials enter into service.

Proposition 2. *If opportunists are willing to enter office for a given value of $\rho = \rho'$, then there exist greater values of $\rho = \rho''$, $\rho'' > \rho'$, such that opportunists will be unwilling to enter office while zealots will continue to do so.*
Proof: *See appendix.*

It remains to be specified when the ruling party would choose to bind its hands by creating anti-corruption institutions. We must specify when the ruling party would choose to set $s = 1$ by establishing an independent anti-corruption agency or by participating in internationally sponsored anti-corruption programs. The leadership will be willing to enter into anti-corruption commitments when its expected utility from doing so exceeds the expected utility form proceeding without any such institutions in place. Note that the expectations operator must be used in this instance because the government is uncertain of

the ideology of the potential recruit who will enter office. Moreover, this expectation must be conditional on the presence or absence of anti-corruption institutions (i.e., conditional on s) because – as established in Proposition 1 – the ideology of those willing to enter office will depend on whether or not anti-corruption institutions are in place. We can denote this condition as follows:

$$E[g(e) + \rho v(r) - \lambda c(R)|s = 1] \geq E[g(e) + \rho v(r) - c(R)|s = 0] \tag{5}$$

If this condition holds, then the party will choose to commit itself to anti-corruption practices. If it does not hold, then no such commitment will be made.

4.3   Comparative Statics

To derive our comparative statics, it is first helpful to note that anti-corruption institutions only improve the leadership's welfare insofar as they serve to address an adverse selection problem in the recruitment of lower-tier officials. If those potential recruits that feel a low level of ideological affinity for the leadership ($\iota_i = \underline{\iota}$) desire to enter service even after anti-corruption institutions are put in place, then the leadership derives no benefit from so-tying its hands. Conversely, if opportunists are unwilling to enter office even when anti-corruption institutions are absent, then anti-corruption institutions provide no benefit. This claim is stated formally in Lemma 3.

Lemma 3. *If opportunists are willing to enter office when anti-corruption institutions are in place, then anti-corruption institutions will never be created. If opportunists are unwilling to enter office when anti-corruption institutions are absent, then anti-corruption institutions will never be created.*
Proof: *See appendix.*

However, if anti-corruption institutions can be used to deter opportunists from entering office, the government may benefit from tying its hands by creating such institutions. Whether or not it is willing to do so will depend on the distribution of opportunists and zealots in the population of potential recruits (the parameter p) and on the degree of zealotry exhibited by its ideological adherents (the value of $\bar{\iota}$). So long as anti-corruption commitments can have this deterrent effect, a set of parameter values will exist such that anti-corruption institutions will be created in equilibrium.

Lemma 4. *If opportunists are willing to enter office when anti-corruption institutions are absent, then there exist values of $\bar{\iota}, \lambda$ and p such that the leadership will be willing to create anti-corruption institutions.*
Proof: *See appendix.*

The costs the élite faces from creating anti-corruption institutions are rising in the degree to which the leadership enjoys the consumption of corruption rents (and other resources). As noted above, anti-corruption institutions bodies cannot credibly commit to only restrain the corrupt activities of lower-level subordinates. To the extent that such institutions are so-constrained, the credibility of their enforcement powers declines more generally. The immunity granted to élites is likely to be extended to subordinates with strong career prospects and connections, implying that the use of corruption rents as an incentive mechanism will not be much reduced. Anti-corruption institutions thus reduce both the leadership's ability to motivate agents through corruption rents *and* the ability of élites to enjoy the consumption of corruption rents themselves. The higher the value which the élite places on its own consumption of such rents, the less likely it is to create anti-corruption institutions.

Proposition 3. *If opportunists are unwilling to enter office when anti-corruption institutions are in place, then* – ceteris paribus – *the range of parameter values $(\lambda,\ p\ \bar{\iota}, \underline{\iota})$ for which anti-corruption institutions are adopted is shrinking in ρ.*
Proof: *See appendix.*

If the élite values corruption rents less highly, and if the ideological affinity of true zealots for the leadership is sufficiently high, there exist circumstances such that anti-corruption institutions will be adopted. In these circumstances, the leadership's commitment to combat corruption serves to deter opportunists from entering the ranks of its service. Given that the rewards for service will be constrained, only zealots will be willing to enter office. Since these zealots offer the leadership devoted service at low cost, it is willing to forgo some of its own enjoyment of corruption in order to resolve its adverse selection problem. As the level of ideological affinity of zealots for the leadership $\bar{\iota}$ rises, the leadership is more likely to create anti-corruption institutions.

Proposition 4. Ceteris paribus – *an increase in the value of $\bar{\iota}$ leads to a (weak) increase in the set of parameter values (λ, p, ρ) for which anti-corruption institutions are adopted.*
Proof: *This follows directly from inequality 5 and Lemma 4.*

21

We finally show that anti-corruption institutions are most likely to be put in place when the population of zealots is relatively small. As the government's popularity within the wider pool of potential recruits falls (as p declines), the nature of its adverse selection problem grows worse. Absent any constraint on corruption, it is more likely that ideological hangers-on will crowd out true believers in the pursuit of political and bureaucratic positions. The potential gain from resolving this adverse selection problem – by adopting anti-corruption institutions – rises concurrently.

Contrastingly, when the leadership enjoys widespread popular support (i.e., the value of p is high) anti-corruption institutions are unlikely to be necessary. Levels of corrupt activity will be low even absent such institutions, since recruits are unlikely to require pecuniary motivation to serve the élite.

Proposition 5. Ceteris paribus, *a decline in size of the pool of zealots (a fall in the value of p) (weakly) expands the range of parameter values $(\bar{\iota}, \lambda, \rho)$ for which the leadership will create anti-corruption institutions.*
***Proof:*** *See appendix.*

We present graphical representations of our comparative statics regarding the distribution of ideology in Figure 3 below.

In practice, therefore, we predict that authoritarian regimes should vary in both the types of corruption in which they indulge and the degree to which it is practiced. For a class of regimes in which the élite values corruption rents highly, political corruption should be widespread while petty corruption will be rare. Ironically, lower-level political and bureaucratic officials in such regimes are likely to be true believers in their government's leadership. The very fact that they do not enjoy great pecuniary rewards for their service implies that their ideological returns must be great if their participation constraint is to be met. Petty corruption will only exist insofar as it is necessary to satisfy the participation constraints of even the most zealous of the government's supporters.

In countries in which the leadership values corruption rents less highly, the presence or absence of anti-corruption institutions, and realized levels of corruption, will vary depending on the distribution of ideological support in the population. If the leadership is sufficiently fortunate to enjoy high levels of ideological support from a broad swath of the populace (both $\bar{\iota}$ and p are high), levels of petty corruption will be low even though anti-corruption institutions are largely absent. Recruits to bureaucratic and political service will overwhelmingly enjoy ideological returns from their service, and will requite scant additional motivation to serve the élite. Levels of petty corruption will be low and political

Figure 3: Comparative Static Results From Explicit Functional Forms
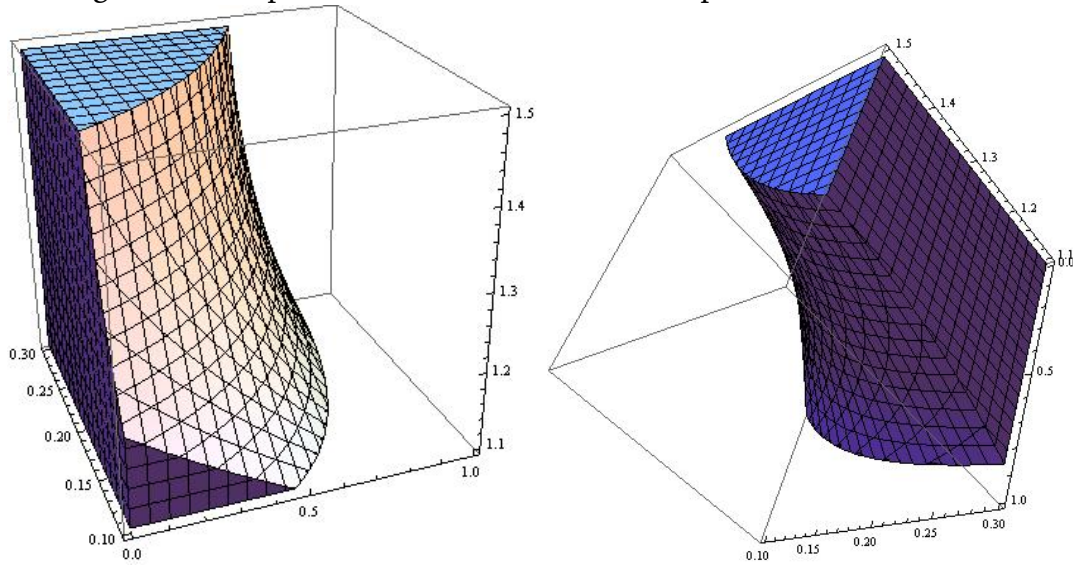
Plots of comparative static solutions from explicit functional forms of the model. Shaded regions represent parameter values for which anti-corruption institutions are created (i.e., $s = 1$). Values of $\underline{\iota}$ are fixed at zero and parameter values are such that opportunists would be unwilling to enter office for all values of λ graphed. Values of $\bar{\iota}$ range from 0.1 to 0.3. Values of λ range from 1.1 to 1.5. Values of p range from 0 to 1.

corruption will vary according to the value the leadership places on the consumption of corruption rents (ρ).

As the size of the pool of zealots declines, realized levels of petty corruption will begin to rise (and political corruption to fall). So long as some portion of the populace maintains its ideological zeal for the government, the élite will be increasingly likely to create anti-corruption bodies to combat its rising adverse selection problem. These bodies will serve to ensure that the ranks of bureaucracy will continue to be staffed with true believers – though they restrain the élite from indulging in its taste for corrupt activities. Interestingly, this implies the presence of a possible selection problem in the analysis of the effects of anti-corruption programs – the creation of anti-corruption institutions takes place in precisely the situations where corruption is likely to be a problem.

If the government's popularity declines such that even zealots feel scant affinity for the élite ($\bar{\iota}$ is low), levels of petty corruption will rise and anti-corruption institutions will *not* be created in response. In this instance, such institutions do little to address the adverse

selection problem. Even if they are created, corruption will need to be employed simply to meet officials' participation constraints. Petty corruption will be rife and government effectiveness low. This situation corresponds to that described in Besley and McLaren (1993), and was witnessed in Mobutu's Zaire, where low-level officials systematically relied on plunder to meet their participation constraints even as the élite plundered their official payrolls (Wedeman, 1997).

4.4   Extension: Observability of Ideology

Until this point, we have considered the ideology of a potential candidate for bureaucratic or political office ι_i as wholly unobservable. This assumption seems a reasonable one: the political élite is unable to observe the thoughts of those seeking posts. Moreover, those wishing to obtain a position within the government have every incentive to disguise their true beliefs – all who value government positions at levels above their reservation wage will attempt to convince the élite that they are true ideological zealots and, consequently, candidate statements about their ideology (at least in the interesting equilibria in which opportunists are willing to seek office) are not credible.

But, in many instances, the ideological beliefs of potential candidates for government posts are correlated with observable factors. For instance, cues such as ethnicity, place of birth, or parental occupation may correlate highly with ideological affiliation with the ruling élite.[13] Ethnicity may play a particularly important role in this regard: Ethnic identities are observable and difficult to change or conceal (**?**) and in many polities – particularly in Africa – both democratic parties and authoritarian regimes rely heavily on ethically-based appeals to maintain popular support.

As we demonstrate below, the existence of observable characteristics that correlate highly with ideology lessens the adverse selection problem faced by the ruling élite. Consequently, the élite will only hire candidates whose 'type' indicates that they are likely to be ideologically supportive. And, as ideology grows more strongly correlated with observable types, the élite grows increasingly less likely to erect anti-corruption institutions.

To incorporate observable types, we consider an interaction between the leadership and potential candidates for government posts that proceeds exactly as above. Only now, candidates can be characterized by their observable type $T_i \in \{T_1, T_2\}$. Let us assume that there exists a parameter $t \in (0,1)$ such that if $i < t$, $T_i = T_1$ and if $i \geq t$ $T_i = T_2$. Type

---

[13]See, for instance, the discussion of factors influencing military promotions in Syngman Rhee's Korea, below.

may thus represent one of two ethnic groups, or residents from one of two regions of the country.

Further assume that the proportion of ideological zealots may differ across observable candidate types. Let q_1 denote the faction of potential job-candidates of type T_1 who are zealots, and let q_2 denote the same with regards potential job-candidates of type T_2, $q_1 \geq q_2$ ($tq_1 + (1 - t)q_2 = p$).

The game proceeds exactly as before, only in the first stage the government may credibly commit to refuse to hear bids from potential job-candidates of any type $T \in \{T_1, T_2\}$. It follows that, when it is given this option, the élite will always refuse to hear bids from candidates with type $T = T_2$. If opportunists are unwilling to enter office (whether because anti-corruption institutions are in place, or because of values of $\underline{\iota}$ and y), the élite is guaranteed that a zealot will take the government post. This is true regardless of any restrictions on the bidding process, and the élite is consequently indifferent between restricting bids to those of type $T = T_1$ or $T = T_2$, or simply allowing all candidates seek to enter office. If, on the other hand, opportunists are willing to enter office, the élite's expected utility is (weakly) higher from imposing restrictions on candidates, as doing so (weakly) raises the probability of obtaining a zealous bureaucrat ($q_1 \geq p \geq q_2$).

The remaining model results are unchanged, except insofar as q_1 replaces the value p with respect to all comparative statics. Recall, however, that Proposition 5 holds that – *ceteris paribus* – the adoption of anti-corruption institutions is more likely as the value of p falls. Since $q_1 \geq p$ it therefore follows that the range of values of $\bar{\iota}$, λ and ρ for which anti-corruption institutions are adopted weakly shrinks given the partial observability of ideology relative to the case when ideology is wholly unobservable. In practical terms, the creation of anti-corruption institutions grows less likely as ideology becomes more closely correlated with type (q_1 rises and q_2 declines for a given value of p).

Relative to the case in which ideology is wholly unobservable, levels of political corruption unambiguously rise. Fewer resources are necessary (in expectation) to motivate low-level officials, leaving more for political rents. And anti-corruption institutions are less likely to be created, reducing the cost faced by the élite in satiating its taste for the consumption of such rents.

This result may therefore explain (1) Why government positions are frequently awarded to members of certain ethnic groups in polities characterized by ethnic politics, and (2) The infrequency with which such polities adopt credible anti-corruption institutions.

5 Illustrative Cases

Our theory thus advances several hypotheses. First, we argue that levels of corruption in authoritarian countries should initially rise as ideological support for the countries' leadership grows less widespread (as either $\bar{\iota}$ or p falls). Corruption is grows more common not because of some ideological anomie, but rather because the leadership must increasingly rely on pecuniary incentives to motivate disaffected officials, who enter service only for monetary reward. If a small pool of ideological stalwarts remains, the government may create anti-corruption institutions to deter such opportunists from seeking office.

This pattern will prevail in states where the leadership does not highly value its own consumption of corruption rents. If the value the élite attaches to its own corruption is sufficiently high, it will starve the bureaucracy and party of both official and corrupt revenue. Under such circumstances, only ideological zealots – or those with very low reservation values – will be willing to enter into bureaucratic or political service.

Unfortunately, these hypotheses to not readily lend themselves to large-N analysis. Measures of the distribution of ideological support for autocratic leaders are few and of dubious quality. Few measures allow for a ready comparison of élite-level (political) and petty corruption across countries. We therefore choose to demonstrate our argument through a discussion of several illustrative cases. We leave further empirical investigations to later work.

Our empirics focus on changes in levels of ideological affiliation with the ruling élite *within* a small sample of countries. We thus attempt to minimize confounding covariates – to the extent possible in a qualitative analysis – by holding time invariant characteristics constant within each case we examine. Our examples focus on three different types of changes in the ideological support enjoyed by the ruling regime: We argue that post-reform China experienced a decline in both the breadth and intensity (in both $\bar{\iota}$ and p) of affinity for the ruling élite relative to Maoist times; that the transition from the Rhee to the Park regime in South Korea resulted in an increase in the intensity ($\bar{\iota}$) of support for the leadership, but not in its breadth (p); and that Kagame's assumption of an increasingly authoritarian role in Rwanda led to a decrease in the breadth of the regime's support (p), but no change in its intensity ($\bar{\iota}$). Consistent with theoretical expectations, the latter two cases also saw the establishment of credible anti-corruption institutions coupled with – in the Korean case – a substantial decline in levels of corruption. The Chinese case, by contrast, demonstrates skyrocketing levels of corruption coupled with late – and less substantial – attempts to create credible anti-corruption institutions.

5.1 Post-Reform China

Following the transition from Mao's rule, the Chinese Communist Party (CCP) lost much of its ideological coherence as the nominally socialist Party advocated a transition to a market economy. The loss of the Party's *raison d'être* naturally led to a decline in the both the breadth and depth of its ideological appeal ($\bar{\iota}$ and p). Recruits to bureaucratic posts tended, therefore, to be increasingly motivated by pecuniary ends, rather than simply supportive of the Party. Our model predicts that, under such circumstances, the political élite will increasingly come to rely on the manipulation of corruption rents to provide incentives to low ranking officials. Indeed, this is precisely what took place. As noted by Manion (2004, 85), "the volume of corrupt activities in China exploded in the early 1980s, [and] continued to grow in the 1980s and 1990s." This was in contrast to relatively low levels of corruption in the Maoist era (Yu, 2008). While changes in the levels of corruption were in part a response to new rent extraction opportunities that emerged in the wake of the transition to a market economy; it is also widely argued that higher levels of official corruption resulted a decline in the ideological appeal of the CCP. Our model further predicts that, if p falls sufficiently relative to $\bar{\iota}$, the élite will come to rely on anti-corruption institutions to solve its adverse selection problem in bureaucratic recruitment. There is some evidence that this has taken place in China, as the government has lately increasingly come to rely on institutional solutions to the problem of corruption.

Levels of petty corruption under the Maoist regime were generally perceived to be low. In part, this was due to the degree of ideological support the Party enjoyed amongst potential recruits to lower-level offices. Much of this support originated from a population that had been "mobilized through agrarian reform and anti-Japanese nationalism" (Manion, 2004, 156). Ideological imperatives against corrupt behavior were stressed in political campaigns – such as the "Three Anti" campaign launched in 1951 (Manion, 2004) – and were reinforced through a personnel system that stressed ideological purity, education and self-criticism (Sun, 2004). Even without independent anti-corruption institutions, the Party would take serious action against those found to be guilty of corrupt acts (Yu, 2008). In terms of the model above, values of both $\bar{\iota}$ and p were high and consequently levels of petty corruption were low.

Circumstances began to change following Deng Xiaoping's liberalizing reforms in the late-1970s and early-1980s. As the ideology promoted by the political élite shifted, ideological motivations diminished as a factor legitimating the CCP's rule. According to Sun (2004, 177), "Chinese analysts of all ideological persuasions see the rise of several 'inter-

nal' driving forces that have disarmed many officials ideologically and morally." Yu (2008, 168) notes that, despite official rhetoric, many within the Party have abandoned Marxism as an ideology. The number of pro-CCP zealots (p) has declined, and the degree of their zealotry ($\bar{\iota}$) has also diminished.

Consistent with our theoretical expectations, as popular ideological support for the political élite in China declined, levels of corruption rose. In large part, this reflected the political élite's tolerance, and even promotion, of corruption as a means to reward high-performing lower officials. As noted by one observer (Sun, 2004, 165):

> Individuals who can apparently generate economic growth, bring in projects and funds, and find investors and revenues are considered as "competent individuals" (*nengren*) to be promoted and championed. Noneconomic issues such as personal integrity and political orientation are brushed aside.

Indeed, as noted above, the Shanghai prosecutor's office announced, in early 1992, that 'key personnel' would receive lenient terms when convicted of corruption (Sun, 2001). In effect, the manipulation of punishments for corrupt activity served to enhance officials' incentives to serve the interests of the Party – namely in furthering economic growth.

Such incentives also manifested themselves in the processes by which officials were promoted and rotated through offices. As power over economic decisions was decentralized, opportunities for corruption became rife at the level of regional Firsts-in-Command (*yibashou*) (Yu, 2008). These officials were subjected to scant regulatory oversight and had extensive decision-making powers, placing them at the center of much of the corrupt activity in China (Sun, 2004; Yu, 2008). The existence of such lucrative middle-ranking positions in the political hierarchy created strong incentives for lower-level officials to serve the will of their political superiors, who possessed the power of appointment (Sun, 2004). Indeed, the process of promoting corrupt officials to higher positions, wherein they have greater opportunities to engage in corrupt behavior, became sufficiently common that a term was coined to describe this practice – *bianfu biansheng* or 'promotion while engaging in corruption' (Sun, 2004).

Our analysis suggests that these higher levels of corruption were a product of the diminishing ideological appeal of the CCP. As lower-ranking officials within the state and Party became less ideologically supportive of the political élite, the leadership manipulated their incentives by allowing some to grow rich off of corruption rents, provided their service to the Party was sufficiently diligent. Our model further suggests that these pecuniary incentives would give rise to an adverse selection problem: As levels of petty corruption rose,

28

those individuals seeking Party and bureaucratic office would increasingly consist of those interested only in the potential monetary reward. Part of the decline in the ideological support lower-level officials expressed for the Party leadership was likely due to just such a selection problem. So long as some portion of the pool of potential recruits remained zealous in support of the CCP's rule, our model would predict that the CCP should erect anti-corruption institutions to address this issue of selection.

There is some evidence that such attempts at institutional solutions have been adopted of late. While many of the early attempts to combat corruption relied on uninstitutionalized anti-corruption campaigns (Manion, 2004); the CCP began to enhance the independence of disciplinary committees beginning in 1992 (Manion, 2004). Yu (2008, 173) notes that recently efforts to develop anti-corruption institutions have strengthened:

> Since 2002, the Party has implemented a series of institutional-oriented policies such as new legislations and regulations concerning administrative ethics of civil servants and the enhancement of the transparency of Party affairs. ... These policies indicate that the government has been moving from periodic crackdowns [on corruption] to institutional building.

These patterns are consistent with model predictions if the regime faced a decline in both the breadth and depth of ideological support (p and $\bar{\imath}$), but a non-trivial portion of potential bureaucratic recruits remained loyal to the CCP's rule (i.e., the decline in p outpaced that in $\bar{\imath}$).

5.2   Korea Under the Rhee and Park Regimes

In contrast to the transition from Maoist rule in China, the shift from the Rhee to the Park regime in South Korea resulted in an increase in the intensity of ideological fervor in support of the regime (an increase in $\bar{\imath}$). There was not, however, an increase in the breadth of support for the government – Park's rule sharply polarized Korean society. Park's nationalistic and developmentalist ideology drew strong adherents, but even in rigged elections Park was never able to secure a majority of the popular vote. Consistent with theoretical expectations, the Rhee regime widely manipulated access to corruption to ensure the continued loyalty of lower level officials – particularly those in the police and military services. Park, by contrast, created Korea's first anti-corruption agency and sharply curtailed petty corruption, even if grand corruption continued to exist.

Syngman Rhee was elected to office in 1948, while running as a member of the Korean Democratic Party (KDP). Rhee was a former president of the Korean government in exile, and was selected as a candidate by the KDP – which largely consisted of business élites and bureaucrats who amassed money and power under the Japanese colonial administration – because of his national stature and his willingness to forgo punitive measures against former Japanese collaborators (Kim, 1971). While elections continued during Rhee's rule (1948-1958); ballot rigging was common and assassinations of political opponents were carried out. Several constitutional amendments weakened the role of the legislature vis-à-vis the executive (Haggard, 1990; Kim, 1971; Moran, 1998). In short, the government became highly autocratic and only minimally accountable to the people.

Rhee's rule was notable for its lack of ideological underpinnings and the disconnect between the executive and any mass political movements. Kim (1971, 22) notes that "Unfortunately, Rhee failed to conjure up any meaningful political ideology." Rhee remained disconnected from any mass political movements throughout his rule. Immediately after assuming power, his dissociated himself from the KDP and appointed a cabinet all but devoid of KDP members (Han, 1974). To help alleviate the president's declining popularity, a party of government – the Liberal Party – was created in 1951. Rhee, however, only adopted this political organization from necessity, and it never developed a grass roots following (Cole and Lyman, 1971; Han, 1974). Rhee thus lacked stalwart ideological supporters – levels of both $\bar{\iota}$ and p were low.

Corruption, both petty and grand, flourished under Rhee's rule. At the élite-level, this corruption largely consisted of the preferential allocation of export licenses and funds from US-sponsored aid to political backers (Haggard, 1990; Moran, 1998). In exchange for this access, businessmen would pay kickbacks to the ruling party. For instance, Moran (1998, 165) notes that "...any allocation involving foreign exchange over $500" required Rhee's personal approval. Wedeman (1997, 466) argues that state lending was used to solicit support from economic interests. For instance, "During the 1956 presidential election ... Rhee had the state-owned banks issue 17 million won in loans to his business allies, who immediately kicked back the entire amount in 'contributions' to the Liberal [ruling] Party."

Corruption was also rife at the petty-level, particularly in the police and military – institutions whose activities were crucial to the continuance of the Rhee regime in power. Members of the military – particularly senior members – could profit from their positions in power by selling equipment on the black-market. In one particularly horrifying instance – known as the National Defense Corps scandal – some 90,000 men in the army reserves

died on a forced march due to lack of food, medicine and equipment, which had been embezzled by senior military officials (Han, 1974, 16). Such graft was widespread, particularly during the period of the Korean War. One general was said to have commented on corruption: "Everyone is in it. Privates steal on foot. Officers steal in jeeps. Generals steal by trucks" (Clifford, 1998, 91). Military and police officials were placed in positions to benefit from such graft by virtue of their reputation for loyal service to the Rhee regime. Kim (1971) notes that "...promotions [within the military] were based not on merit necessarily, but on arbitrary factors such as geographical background, preliberation military background, and the decisions of the President of the government, who had direct power to promote and assign the key high-ranking officers."[14] In keeping with our theoretical predictions, it seems that Rhee tolerated corruption by senior officials to encourage their activities on behalf of his regime. A reliance on high-powered pecuniary incentives, funded largely through corruption, was necessary precisely because even those relatively supportive of the Rhee regime did not strongly identify with his rule (levels of $\bar{\iota}$ were low).

These conditions persisted until 1960, when a student demonstration set off a series of evens leading to Rhee's resignation from office. Following a brief democratic interlude, a military coup installed a *junta* headed by Park Chung Hee in power in 1961. The leadership of this coup primarily consisted of lower-tier military officers possessed of a nationalistic and developmentalist ideology. Kim (1971, 100) claims that "The military revolution of May 16 can be viewed as the culmination of the nationalistic revolution started by the students [who ousted Rhee] a year earlier." The Park regime relied on a revolutionary-nationalist rhetoric that emphasized the importance of work, clean government, and development. In a series of six pledges released immediately after assuming power, the military government swore that:

> 3. All corruption and past evil practice in this country will be wiped out and fresh and clean morality will be pursued in order to redress the degenerated national morality and spirit.
> 4. The condition of national life which is on the brink of despair and starvation will be quickly ameliorated and all-out efforts will be made for the reconstruction of a self-reliant national economy. (as cited in Kim, 1971, 94)

The revolutionary ideological fervor of the Park regime drew upon nationalist sentiments in the public at large, and particularly within the lower tiers of the military. The

---

[14]The former two considerations were seen as highly correlated with a willingness to support the regime.

government joined in campaigns against the import of foreign luxuries, such as cigarettes and coffee (Kim, 1971). Park promoted development at all costs and established a 'cult of national austerity' (Clifford, 1998). Indeed, following Park's assassination in 1979, an estimated 9.5 million Koreans turned out to pay respects at his funeral alter (Clifford, 1998).

However, this support was not universal. Han (1974) notes that Korean society was ideologically polarized at the time Park assumed power. In the 1963 elections that cemented Park's grip on power – which were widely seen as rigged – Park barely received a plurality of votes (Kim, 1971). In short, in terms of the model above, the parameter $\bar{\iota}$ was high and the value of p was intermediate.

Our theory would therefore suggest that (1) petty corruption should have declined under the Park regime, relative to its levels under Rhee; and (2) anti-corruption institutions would be established under Park. Park had an incentive to discourage opportunists from entering political and bureaucratic office, given the zealotry of his ideological backers. By committing to forgo the manipulation of petty corruption to reward bureaucratic and political agents, Park could dissuade opportunists from entering the ranks of the bureaucracy, ensuring places remained for his more fervent supporters. The polarized nature of popular support for the Park government created the appropriate conditions for institutional reform.

And Park did set about implementing such institutional reforms. Immediately after assuming power, the Park regime dislodged and jailed a number of corrupt officials and military officers, and expropriated the wealth of several profiteers under the Rhee regime (Haggard, 1990; Wedeman, 1997). Park established Korea's first anti-corruption agency – the Board of Audit and Inspection (BAI) – in 1963 (Quah, 1999). Regulations on many business practices were relaxed, reducing the room for bureaucrats to solicit bribes. These reforms led to a decline in petty corruption – ultimately increasing the technocratic nature of the Korean bureaucracy (Haggard, 1990).

Political – or grand – corruption, persisted. The Park regime put and end to the sale of currency and export licenses, but instead relied on the state's dominance of the financial sector to solicit bribes from business.[15] Preferential terms on loans would be granted to

---

[15]It is difficult to say from secondary sources whether levels of grand corruption declined under Park – as the model predicts would result from the creation of anti-corruption institutions – or if such corruption maintained or even increased in prevalence. This calls into question our modeling assumption that élites cannot create anti-corruption institutions that only serve to deter petty corruption. This assumption can be relaxed, however. Even were it possible to create anti-corruption institutions without limiting political corruption, our theory predicts that some élites would refrain from doing so. In our model, such institutions

business associations in return for kickbacks to the ruling party (Clifford, 1998; Haggard, 1990; Moran, 1998, 1999; Wedeman, 1997). However, levels of corruption amongst lower-level officials remained low. As noted by Wedeman (1997, 467), "Park kept a tight grip on 'big graft' and vigorously prosecuted corruption among low-ranking officials ...".

5.3   Rwanda Under the Kagame Regime

In our final case study, we examine changes in corrupt behavior in Rwanda during the period in which Paul Kagame tightened his grip on power, gradually forcing out members of the rebel coalition that brought him to power. In our previous examples, we have examined the effects of diminution in both the breadth and depth of ideological support for the ruling regime (China); and an increase in the intensity, but not the breadth, of support (Korea). In Rwanda, by contrast, Kagame alienated a substantial portion of his initial coalition (reduced the level of p) even as he retained the steadfast support of a core group of backers ($\bar{\iota}$ remained high). Under such circumstances, our model would predict that the ruling élite would become inclined to rely on anti-corruption institutions to protect itself from a severe adverse selection problem that might emerge were corruption tolerated. Levels of corruption should remain at low levels. As we shall argue below, these predictions are quite consistent with developments in post-genocide Rwanda.

Following the 1994 genocide, the Rwandan government came under the control of the Rwanda Patriotic Front (RPF) – a former rebel group led by Tutsi exiles from the previous (Habyarimana) regime. Though the RPF initially ruled in a national coalition with other parties under the terms of the Arusha Accords (which put an end to the Rwandan civil war) (Golooba-Mutebi, 2008); by the end of the 1990s, the RPF assumed an increasingly dominant and autocratic position (Reyntjens, 2004). Its leader, Paul Kagame, became president following the resignation of several political opponents in April 2000 and his position was reaffirmed by elections (widely criticized for irregularities) in August 2003. While in power, the RPF has enjoyed the strong support of a group of former Tutsi exiles – particularly those who found exile in Uganda. Its support in the wider Rwandan populace, and indeed even within the Tutsi minority[16] however, was far more tenuous (ICG, 2002; Rafti, 2004; Reyntjens, 2004).

---

are only valuable insofar as they resolve an adverse selection problem. Where they do not achieve this task, no such institutions will be created – even if these bodies could be created at low cost to the élite. The lower the cost to the élite (in terms of forgone grand corruption) of creating anti-corruption institutions, however, the more common their adoption.

[16]Tutsis comprise roughly 15 percent of Rwanda's population (ICG, 2002).

The RPF – and its military arm, the Rwandan Patriotic Army (RPA) – were founded by Tutsis forced into exile under Habyarimana and (his predecessor) Kayibana, both of whose rules were based on Hutu dominance (Golooba-Mutebi, 2008). It grew out of putative political organizations within the exile community, which were created with the aim of facilitating exiles' reentry into their home country. More precisely, the RPF developed from a coalition of exiles that became involved in the Ugandan civil war of the early- and mid-1980s, which backed the eventual victor, Yoweri Museveni. Tutsi exiles participated directly in combat on Museveni's behalf. These armed units, with Museveni's backing, would coalesce into the RPF/RPA (Golooba-Mutebi, 2008). As noted by Eriksen (2005, 1101), the experience of exile and combat caused the RPA to develop into "a cohesive army with a strong sense of common purpose...". This sense of purpose would be even further reinforced by the 1990 civil war and 1994 genocide (Eriksen, 2005). In short, the RPF enjoyed the strong ideological backing of its militant supporters and the intensity of their support remained high over time.

By the end of 1994, following the genocidal violence earlier that year, order was re-stored in Rwanda and the government was placed in the hands of a national coalition of parties, excluding only Hutu militants blamed for the genocide (Golooba-Mutebi, 2008). The coalition pact was constructed in accordance with the 1993 Arusha Peace Agreement, which had ended the civil war sparked by the RPF's 1990 invasion. Over time, however, the RPF increasingly came to dominate the governing coalition. For instance, Reyntjens (2004) contends that,

> ... a number of amendments made unilaterally by the RPF to the Fundamental Law profoundly modified the political regime agreed in Arusha. They intro-duced a strong executive presidency, imposed the dominance of the RPF in the government, and redrew the composition of parliament. The amended Funda-mental Law was, in effect, a subtle piece of constitutional engineering which attempted to mask the consolidation of the RPF's hold on political power.

By the end of the 1990s, many opposition leaders had stepped down from the coalition government and were forced into exile (Rafti, 2004). Kagame was able to assume *de jure* control over the government as President, rather than simply exercising the *de facto* power he possessed as head of the RPF. And, as noted by the International Crisis Group, "The press, associations, and opposition parties [had] been silenced, destroyed or co-opted," (ICG, 2002). The RPF had assumed autocratic control over the government and had effec-tively silenced the opposition, destroying any pretense of democratic accountability.

As noted above, the Tutsi minority comprises a relatively small proportion of the Rwandan population. Consequently, the Tutsi-dominated RPF has long been concerned with its levels of popular support and distrustful of electoral politics, given the danger that parties could form along ethnic lines (ICG, 2002). The RPF's concern about the breadth of its popular support was further magnified by the formation of Tutsi-led and multi-ethnic opposition parties – particularly those that supported the reinstatement of the former (Tutsi) monarch – in the late-1990s (Rafti, 2004). These opposition groups began to coalesce during the mid- to late-1990s, as former allies were sidelined from the coalition and alienated from the RPF dominated government. Fears even emerged regarding Kagame's support within the RPF itself – Rafti (2004, 15) notes that "A significant proportion of monarchists [were] found in the RPF, mainly stemming from those who followed Kigeri V into exile and their descendants." These opposition groups were largely forced into exile, but their creation led to a wave of defections from the RPF/RPA, including from the intelligence services and military (Rafti, 2004). The Kagame regime, therefore, had to be increasingly concerned about its narrow base of popular support (the low values of the parameter p).

Our model predicts that the creation of independent anti-corruption institutions is likely to take place when the ruling élite is backed by a small minority of ideological zealots, but the majority of potential political and bureaucratic recruits have little ideological sympathy for their rulers. It is under these circumstances that the creation of anti-corruption institutions is most likely to produce a large shift in the ideological composition of recruits to bureaucratic and political office. This is precisely the situation that prevailed in Rwanda at the end of the 1990s and the beginning of the 2000s. In keeping with our model's predictions, Rwanda has created a host of anti-corruption institutions. Notably, the 2003 constitution granted extensive protections for the independence of the judiciary and created the Office of Ombudsman charged with rooting out corruption. Judges are granted lifetime tenure – they cannot be transferred without consent, even for promotions (Rugege, 2007). In 2003, the year the constitution was adopted, Rwanda also passed an anti-corruption law that both delineates offenses and punishment and requires that "every institution and public establishment" establish an internal auditing body.[17]

Levels of petty corruption in Rwanda declined in the years following the chaos of civil war and have remained quite low relative to peer states. The Mo Ibrahim Foundation

---

[17]Law Aimed at Preventing, Suppressing, and Punishing Corruption and Related Offenses. `http://www.ombudsman.gov.rw/Documents/AMAT.URW.ENGa/Law%20No%2023-2003%20on%20Prevention%20Suppression%20and%20Punishment%20of%20Corruption.pdf`

ranked Rwanda 10th in Africa on its measure of 'Accountability and Corruption' in 2010.[18] The World Bank's Doing Business Survey found that only 20 percent of firms ranked corruption as a 'major constraint' to business in 2006 (as opposed to 52 percent in the Gambia, 84 percent in Guinea, and 11 percent in Namibia).[19]

5.4   Summary of Illustrative Cases

We have thus examined the association between changes in the distribution of ideological support for autocratic governments and levels of corruption in a examples that cover a broad range of time periods and geographic areas. We find that governments that enjoy broad and deep levels of ideological support need not rely on corruption to motivate their bureaucratic agents, and consequently levels of petty corruption tend to be low. When governments in these countries enjoy intense support from a core group of zealots, but enjoy little love from other segments of society, anti-corruption institutions are established and levels of corrupt behavior remain low. When governments lack even a narrow coalition of support, they rely heavily on the manipulation of access to corruption rents to ensure the service of their inferiors. Consequently, levels of petty corruption rise.

Each case we examine draws upon variation in key explanatory parameters over time, ensuring that time-invariant factors that differ across countries are held constant. While these examples constitute a small and selected sample, we nonetheless believe our empirical examinations offer support for the contentions presented in our theoretical model. While large-N analyses would no doubt offer more compelling tests of our theoretical propositions – given the difficulties in obtaining reliable cross-national measures of the ideological support for autocratic governments – we leave such tests for future work.

6   Conclusion

In this paper, we have advanced an argument that predicts (a) when authoritarian governments are likely to tolerate or engage in petty and grand corruption and (b) when such governments are likely to construct anti-corruption institutions. Our argument offers several novel contributions to the literature on corruption: First, we contend that corruption may not always be the result of, indeed sometimes it is a solution to, problems of moral

---

[18]http://www.moibrahimfoundation.org/en/section/the-ibrahim-index.

[19]All data are retrieved from the World Bank's African Development Indicators, available at http://databank.worldbank.org/ddp/home.do.

hazard. Authoritarian governments are able to manipulate access to corruption rents in a manner that provides high-powered incentives targeted to specific lower-level officials in a manner that is not transparent to the public. While other authors have suggested that corruption may have some role in solving principal-agent problems between the government and officials – Besley and McLaren (1993) note that corruption rents can be used to meet officials' participation constraints, Lazarev (2007) notes that the rents to high office made Party membership attractive in the Soviet Union – we are the first, to our knowledge, to suggest that governments may systematically manipulate corruption as a means to address the moral hazard problem inherent in motivating lower-level officials.

Second, we argue that corruption results in an adverse selection problem in the recruitment of agents. Because authoritarian governments are sequentially rational and large amounts of turnover in bureaucratic ranks are likely to be costly, and because such governments face no checks on their ability to tolerate and suborn corruption, they cannot commit to refrain from rewarding high-performing officials with access to corruption rents. This inability to commit implies that those who feel little ideological sympathy for the ruling élites' aims may be drawn into office.

Third, we offer an account – based on ideology – of when authoritarian governments are likely to adopt anti-corruption institutions. Such governments will seek to tie their hands and restrict their ability to manipulate corruption when they enjoy the zealous support of a small cadre of zealots, but the broader portion of the population is ambivalent – or even hostile – to their rule. Under such circumstances, the costs of the adverse selection problem described above are at their greatest, and the incentive to adopt anti-corruption institutions is consequently high.

A natural question that emerges from this line of research is whether the mechanisms identified here are also at work in democracies. We believe that they are; though to a more limited extent. As in many autocratic political systems, party élites in democratic party 'machines' routinely manipulate access to corruption to provide incentives for lower level officials.[20] And, logically, any political system that relies on such a system of incentives may encounter similar adverse selection problems to those described in this paper.

The willingness and ability of democratic governing élites to employ such an incentive system is weakened, however, as a system of checks and balances or competing political parties becomes developed. Democratic governments are unlikely to be able to disburse

---

[20]See Carpenter (2001) on patronage practices in the US federal government before the Pendleton reforms. For more journalistic accounts, see Royko (1971) and Ackerman (2005).

corruption rents at low cost when opposition parties may notice and publicize their illicit activities, or when independent judicial bodies investigate and sanction corrupt acts.

To the extent that political parties in democracies develop coherent ideologies, corruption levels are likely to fall. Given that democracy implies a certain degree of uncertainty over who will assume power (Przeworski, 2005), seekers after bureaucratic posts are unlikely to affiliate themselves with a party whose ideology they do not share. Party identification may, therefore, act as a reliable proxy for the ideological affinity of bureaucratic job-seekers. Since this is the case, the adverse selection problem identified in this paper could be more easily resolved. Party élites could rely less heavily on corruption as a coherent political ideology emerges. Our paper's mechanics therefore offer a very similar prediction to that advanced by Keefer and Vlaicu (2008) – that ideologically coherent political parties are crucial in preventing patronage and corruption.

More broadly, our paper offers insight into the debate as to whether political institutions are primarily responsible for corruption. This view is often advanced in the literature and is contrasted by findings that emphasize the importance of culture (Fisman and Miguel, 2007). Our findings suggest that political institutions may play a somewhat more subtle role that that emphasized elsewhere: Legal institutions play a role in limiting corruption, but their emergence is conditional on ideology. Moreover, the gap in levels of corruption between democratic and autocratic regime-types will also be conditioned by ideology – autocratic regimes that inspire intense ideological support are likely to experience low levels of corrupt activity.

References

Acemoglu, Daron and James A. Robinson. 2000. "Why Did the West Extend the Franchise? Democracy, Inequality, and Growth in Historical Perspective." *The Quarterly Journal of Economics* 115(4):1167–1199.

Acharya, Avidit and Rainer Schwabe. 2011. "Electoral Accounatability and the Quality of Government." Presented at the 2011 MPSA Confernece.

Ackerman, Kenneth D. 2005. *Boss Tweed: The Rise and Fall of a Corrupt Pol Who Conceived the Soul of Modern New York*. Carroll & Graf Publishers.

Adserà, Alícia, Carles Boix and Mark Payne. 2003. "Are You Being Served? Political Ac-

counatability and Quality of Government." *The Journal of Law, Economics & Organization* 19(2):445–490.

Alt, James E. and David Dreyer Lassen. 2008. "Political and Judicial Checks on Corruption: Evidence from State Governments." *Economics & Politics* 20(1):33–61.

Barro, Robert J. 1973. "The Control of Politicians: An Economic Model." *Public Choice* 14(1):19–42.

Besley, Timothy and John McLaren. 1993. "Taxes and Bribery: The Role of Wage Incentives." *The Economic Journal* 103(416):119–141.

Besley, Timothy and Maitreesh Ghatak. 2005. "Competition and Incentives with Motivated Agents." *The American Economic Review* 95(3):616–636.

Caplan, Jane. 1988. *Government without Administration: State and Civil Service in Weimar and Nazi Germany*. Clarendon Press.

Carpenter, Daniel P. 2001. *The Forging of Bureaucratic Autonomy: Reputations, Networks and Policy Innovations in Executive Agencies, 1862-1928*. Princeton University Press.

Cheibub, José Antonio, Jennifer Gandhi and James Raymond Vreeland. 2010. "Democracy and Dictatorship Revisited." *Public Choice* 143:67–101.

Clifford, Mark L. 1998. *Troubled Tiger: Businessmen, Bureaucrats, and Generals in South Korea*. M.E. Sharpe.

Cole, David C. and Princeton N. Lyman. 1971. *Korean Development: The Interplay of Politics and Economics*. Harvard University Press.

Dixit, Anivash. 2010. "Democracy, Autocracy, Bureaucracy." *Journal of Globalization and Development* 1(1).

Egorov, Georgy and Konstantin Sonin. 2004. "Dictators and their Viziers: Agency Problems in Dictatorships.".

Egorov, Georgy, Sergei Guriev and Konstantin Sonin. 2009. "Why Resource-poor Dictators Allow Freer Media: A Theory and Evidence from Panel Data." *The American Political Science Review* 103(4):645–668.

Eriksen, Stein Sundstø l. 2005. "The Congo War and the Prospects for State Formation: Rwanda and Uganda Compared." *Third World Quarterly* 26(7):1097–1113.

Fearon, James D. 2006. "Self-Enforcing Democracy.".

Ferejohn, John. 1986. "Incumbent Performance and Electoral Control." *Public Choice* 50:5–25.

Ferraz, Claudio and Frederico Finan. 2008. "Exposing Corrupt Politicians: The Effects of Brazil's Publically Released Audits on Electoral Outcomes." *Quarterly Journal of Economics* 123(2):703–745.

Fisman, Raymond and Edward Miguel. 2007. "Corruption, Norms, and Legal Enforcement: Evidence from Diplomatic Parking Tickets." *Journal of Political Economy* 115(6):1020–1048.

Fudenberg, Drew and Jean Tirole. 1991. *Game Theory*. The MIT Press.

Gailmard, Sean and John W. Patty. 2007. "Slackers and Zealots: Civil Service, Policy Discretion, and Bureaucratic Expertise." *The American Journal of Political Science* 51(4):873–889.

Gandhi, Jennifer and Adam Przeworski. 2006. "Cooperation, Cooptation, and Rebellion Under Dictatorships." *Economics and Politics* 18(1):1–26.

Gehlbach, Scott and Philip Keefer. 2007. "Investment without Democracy: Ruling-Party Institutionalization and Credible Commitment in Autocracies.".

Gerring, John and Strom C. Thacker. 2004. "Political Institutions and Corruption: The Role of Unitarism and Parliamentarism." *British Journal of Political Science* 34:295–330.

Golooba-Mutebi, Frederick. 2008. "Collapse, War and Reconstruction in Rwanda: An Analytical Narrative on State-Making." Crisis States Research Center Working Paper.

Haggard, Stephan. 1990. *Pathways from the Periphery: The Politics of Growth in the Newly Industrializing Countries*. Cornell University Press.

Han, Sungjoo. 1974. *The Failure of Democracy in South Korea*. University of California Press.

ICG. 2002. Rwanda at the End of the Transition: A Necessary Political Liberalization. Technical report International Crisis Group.

Iyer, Lakshmi and Andandi Mani. 2009. "Traveling Agents: Political Change and Bureaucratic Turnover in India.".

Keefer, Philip and Razvan Vlaicu. 2008. "Democracy, Credibility, and Clientalism." *Journal of Law, Economics, and Organization* 24(2):271–406.

Kim, Se-Jin. 1971. *The Politics of Military Revolution in Korea*. The University of North Carolina Press.

Kunicová, Jana. 2002. "When are Opposition's Lips Sealed? Comparative Political Corruption in Democracies.".

Kunicová, Jana and Susan Rose-Ackerman. 2005. "Electoral Rules and Constitutional Structures as Constraints on Corruption." *British Journal of Political Science* 35.4.

Lazarev, Valery. 2007. "Political Labor Market, Government Policy, and Stability of a Non-Democratic Regime." *Journal of Comparative Economics* 35:546–563.

Leff, Nathaniel H. 1964. "Economic Development Through Bureaucratic Corruption." *American Behavioral Scientist* 8(8):8–14.

Levitsky, Steven and Lucan A. Way. 2002. "The Rise of Competitive Authoritarianism." *Journal of Democracy* 13(2):51–65.

Manion, Melanie. 2004. *Corruption by Design: Building Clean Government in Mainland China and Hong Kong*. Harvard University Press.

McGuire, Martin C. and Mancur Olson, Jr. 1996. "The Economics of Autocracy and Majority Rule: The Invisible Hand and the Use of Force." *Journal of Economic Literature* 34(1):72–96.

Moran, Jon. 1999. "Patterns of Corruption and Development in East Asia." *Thrid World Quarterly* 20(3):569–587.

Moran, Jonathan. 1998. "Corruption and NIC Development: A Case Study of South Korea." *Crime, Law and Social Change* 29:161–177.

Myerson, Roger B. 1993. "Effectiveness of Electoral Systems for Reducing Government Corruption: A Game-Theoretic Analysis." *Games and Economic Behavior* 5:118–132.

Myerson, Roger B. 2008. "The Autocrat's Credibility Problem and Foundations of the Constitutional State." *The American Political Science Review* 102(1):125–139.

Olken, Benjamin A. 2007. "Monitoring Corruption: Evidence from a Field Experiment in Indonesia." *Journal of Political Economy* 115(2):200–249.

Persson, Torsten, Gérad Roland and Guido Tabellini. 2000. "Comparative Politics and Public Finance." *Journal of Political Economy* 108(6):1121–1161.

Persson, Torsten, Gérard Roland and Guido Tabellini. 1997. "Seperation of Powers and Political Accountability." *The Quarterly Journal of Economics* 112(4):1163–1202.

Prendergast, Canice. 2007. "The Motivation and Bias of Bureaucrats." *The American Economic Review* 97(1):180–196.

Przeworski, Adam. 2005. "Democracy as an Equilibrium." *Public Choice* 123:253–273.

Przeworski, Adam, Michael E. Alvarez, José Antonio Cheibub and Fernando Limongi. 2000. *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*. Cambridge University Press.

Quah, Jon S.T. 1999. "Corruption in Asian Countries: Can it be Minimized?" *Public Administration Review* 59(6):483–494.

Rafti, Marina. 2004. "The Rwandan Political Opposition in Exile: A valid Interlocutor Vis-à-Vis Kigali?".

Reyntjens, Filip. 2004. "Rwanda, Ten Years On: From Genocide to Dictatorship." *African Affairs* 103:177–210.

Royko, Mike. 1971. *Boss: Richard J. Daley of Chicago*. New American Library.

Rugege, Sam. 2007. "Judicial Independence in Rwanda." *Global Business & Development Law Journal* 19:411–425.

Shleifer, Andrei and Robert Vishny. 1993. "Corruption." *The Quarterly Journal of Economics* 108(3):599–617.

Sun, Yan. 2001. "The Politics of Conceptualizing Corruption Reform in China." *Crime, Law and Social Change* 35:245–270.

Sun, Yan. 2004. *Corruption and Market in Contemporary China*. Cornell University Press.

Treisman, Daniel. 2007. "What Have We Learned About the Causes of Corruption from Ten Years of Cross-National Empirical Research?" *Annual Review of Political Science* 10:211–244.

Urban, Michael E. 1985. "Conceptualizing Political Power in the USSR: Patterns of Binding and Bonding." *Studies in Comparative Communism* 18(4):207–226.

Wade, Robert. 1984. "The System of Administrative and Political Corruption: Canal Irrigation in South India." *The Journal of Development Studies* 18(3):287–328.

Wedeman, Andrew. 1997. "Looters, Rent-Scrapers, and Dividend-Collectors: Corruption and Growth in Zaire, South Korea, and the Phiippines." *Journal of Developing Areas* 31(4):457–478.

WorldBank. 2006. "A Decade of Measuring the Quality of Governance: Governance Matters Worldwide Governance Indicators." www.govindicators.org.

Yu, Olivia. 2008. "Corruption in China's Economic Reform: A Review of Recent Observations and Explanations." *Crime, Law and Social Change* 50:161–176.

A Proofs of Theoretical Propositions

Proof of Lemma 1

This Lemma holds that the selected official's wage rate will, for any givnen value of ι_i, weakly decline when anit-corruption institutions are in place ($s = 1$), relative to when they are not ($s = 0$). Moreover, for any given value of ι_i, wages will weakly decline in the value the leadership places on it own consumption of corruption rents ρ. To demonstrate that this is the case, we first derive the equliibriu value of wages as a function of the selected official's ideology ι_i.

The Kuhn-Tucker conditions for the leadership's maximization problem – defined in equation 3 – imply that $\frac{\alpha}{w_i^* + (1-\alpha)\iota_i} = \rho v'(r^*) = [s\lambda + (1-s)]c'(R^*)$ for any interior solution.

First, note that we have ruled out corner solutions by the assumption that $\rho v'(\bar{\tau}Y + \hat{R}) < \frac{\alpha}{(1-\alpha)\bar{\iota}}$, where $\hat{R}$ is defined as the value of R such that $\rho v'(\bar{\tau}Y + \hat{R}) = c'(\hat{R})$. The Kuhn-Tucker conditions above imply that, so long as this condition is satisfied, the leadership would always prefer a wage positive wage rate.

Now, consider the relevant interior solutions. Note the conditions from the Kuhn-Tucker conditions described above imply that the equilibrium wage rate can be rewritten as $w(\iota_i) = \frac{\alpha}{[s\lambda + (1-s)]c'(R)} - (1-\alpha)\iota$, or (equivalently) as $w(\iota_i) = \frac{\alpha}{\rho v'(r)} - (1-\alpha)\iota_i$.

Let us first consider what changes in the value of ρ imply for equilibrium wages. The equilibrium wage rate is decreasing in ρ if $\rho'v'(r') > \rho''v'(r'')$ where $\rho' > \rho''$ and r' and r'' denote the equilibrium values of r when ρ is at these respective levels.

Assume (absurd) that $\rho'v'(r') < \rho''v'(r'')$, and thus that equilbrium wages are rising in ρ. Note that the concavity of $v(\cdot)$ implies that $r' > r''$ for this claim to hold, given that $\rho' > \rho''$. Thus, both the rents devoted to the leadership's consumption and the level of official wages must rise under this assumption.

The Kuhn-Tucker conditions from the leadership's maximization problem further imply that $\rho v'(r) = [s\lambda + (1-s)]c'(R)$. Thus if $\rho'v'(r') < \rho''v'(r'')$, then $c'(R') < c'(R'')$. By the convexity of $c(\cdot)$, $R'' > R'$. We thus conclude that r' and w' are greater than r'' and w'', and $R' < R''$. That is, wages and the leadership's rent consumption both rise when when $\rho = \rho'$, and the total level of corruption falls, relative to the case when $\rho = \rho''$. But, this implies that the balanced budget constraint cannot hold at equality in both cases, implying that the Kuhn-Tucker conditions are violated.

Thus, it must be the case that $\rho'v'(r') > \rho''v'(r'')$ in equilibrium. It therefore follows from the Kuhn-Tucker conditions that equilibrium values of w must be declining in ρ.

Let us now consider what changes in s imply for the value of equilibrium wages. Denote the equilibrium values of w, R, e^*, r for a given value of ι_i when $s = 0$ as $\bar{w}$, $\bar{R}$, $\bar{e}^*$, $\bar{r}$. Denote the equilibrium values of w, R, e^*, r for a given value of ι when $s = 1$ as $\tilde{w}$, $\tilde{R}$, $\tilde{e}^*$, $\tilde{r}$.

Recall from the Kuhn-Tucker conditions above, that the equilibrium wage rate is given by $w(\iota_i) = \frac{\alpha}{[s\lambda + (1-s)]c'(R)} - (1-\alpha)\iota$. The equilibrium wage rate for a given value of ι_i is weakly less when $s = 1$ than when $s = 0$ iff $\lambda c'(\tilde{R}) > c'(\bar{R})$.

Assume (absurd) that $\lambda c'(\tilde{R}) < c'(\hat{R})$. By the convexity of $c(\cdot)$, this assumption implies that $\tilde{R} < \hat{R}$. Recall that the equilibrium value of wages is given by $w(\iota_i) = \frac{\alpha}{[s\lambda + (1-s)]c'(R)} - (1-\alpha)\iota$, thus $\tilde{w} > \hat{w}$. Finally, recall that the equilibrium value of leadership rent consumption r is given by $\rho v'(r) = [s\lambda + (1-s)]c'(R)$.

Thus, by the concavity of $v(\cdot)$, $\tilde{r} > \hat{r}$. But this then implies that rent revenues fall even

as wages and rent consumption rise when $s = 1$. Clearly, the balanced budget constraint cannot bind under both sets of proposed equilibrium values, violating the Kuhn-Tucker conditions derived above.

It therefore follows that $\lambda c'(\tilde{R}) > c'(\hat{R})$ in equilibrium. This in turn implies that, for any given value of ι_i, equilibrium wages fall once anti-corruption institutions have been adopted.

If the optimal wage for the government is insufficient to satisfy the participation constraint of either the zealots or the opportunists, then it will offer the minimal wage that satisfies the participation constraint of the zealots. The equilibrium wage rate is thus invarient in ρ or s. $\quad\square$.

Proof of Lemma 2

This Lemma holds that, if opportunists are willing to enter office, then so too are zealots. A sufficient condition for this Lemma to hold is that the returns to office are montonically increasing in ι_i over the interval $[\underline{\iota}, \bar{\iota}]$. We will demonstrate this is the case below.

First, consider the entry conditions described by inequality 4. Substituting equilibrium effort levels and wages into the LHS this inequality 4 yields the following:

$$[A(\frac{A\alpha}{\kappa})^{\frac{\alpha}{1-\alpha}} - \kappa(\frac{A\alpha}{\kappa})^{\frac{1}{1-\alpha}})][\frac{\alpha}{[s\lambda + (1-s)]c'(R)} + \alpha\iota_i]^{\frac{1}{1-\alpha}} \geq (1 - \bar{\tau})y.$$

First, note that the LHS of this inequality is positive iff:

$$A(\frac{A\alpha}{\kappa})^{\frac{\alpha}{1-\alpha}} > \kappa(\frac{A\alpha}{\kappa})^{\frac{1}{1-\alpha}}$$
$$\frac{A}{\kappa} > \frac{A\alpha}{\kappa}$$
$$1 > \alpha$$

which is true by definition.

This expression is thus monotonic and increasing in ι_i if $\frac{\partial}{\partial \iota_i}[\frac{\alpha}{[s\lambda+(1-s)]c'(R)} + \alpha\iota_i] > 0$.

Recall from the proof of Lemma 1 that the equilibrium wage rate is given by $w(\iota_i) = \frac{\alpha}{[s\lambda+(1-s)]c'(R)} - (1-\alpha)\iota$. Therefore, by substitution, we must demonstrate that $\frac{\partial}{\partial \iota_i}[w(\iota_i)+\iota_i] > 0$.

Assume (absurd) that $\frac{\partial}{\partial \iota_i}[w(\iota_i) + \iota_i] < 0$ for some range of values of $\iota_i \in (\underline{\iota}, \overline{\iota})$. Equilibrium effort levels – which are given by $\left[\frac{A\alpha[w(\iota_i)+\iota_i]}{\kappa}\right]^{\frac{1}{1-\alpha}}$ must therefore also be falling in ι_i over this interval.

This would then imply that total expenditures on the production of lower officials is falling as ι_i rises – given that both wages and effort decline. Consequently either the total value of rent extraction R must fall or the total value of leadership rent consumption r must rise concurrently if the budget constraint is to hold at equality. But, if this is true, the Kuhn-Tucker conditions from the government's maximization problem, which hold that $\frac{\alpha}{w+(1-\alpha)\iota_i} = \rho v'(r) = c'(R)$ cannot hold.

It therefore follows that $\frac{\partial}{\partial \iota_i}[w(\iota_i) + \iota_i] > 0$ for all values of $\iota_i \in (\underline{\iota}, \overline{\iota})$, and that the LHS of inequality 4 is increasing in ι_i. Since the RHS of inequality 4 is constant in ι_i, if this condition is met when $\iota_i = \underline{\iota}$, it must also be met when $\iota_i = \overline{\iota}$. $\quad \square$

Proof of Proposition 1

Lemma 1 establishes that, for any value of ι, the value of $w(\iota)$ is weakly decreasing in the level of λ. Lemma 2 establishes that the returns to the potential candidate from securing bureaucratic or party are monotonically increasing and continuous in ι_i. Therefore, there must exist values of λ for which the wage rate for opportunists $w(\underline{\iota})$ is sufficiently low that they are unwilling to enter office, and for which the wage rate for zealots $w(\overline{\iota})$ is sufficiently high that they are willing to enter office. $\quad \square$

Proof of Proposition 2

Lemma 1 establishes that the wages provided the lower-level officials are continuous and declining in the value of ρ. ρ only enters into inequality 4 through its affect on the wage rate. Lemma 2 establishes that the returns to securing office are monotonically increasing and continuous in ι_i. Therefore, there must be values of ρ for which the wage rate for opportunists $w(\underline{\iota})$ is sufficiently low that they are unwilling to enter office, and for which the wage rate for zealots $w(\overline{\iota})$ is sufficiently high that they are willing to enter office. $\square$

Proof of Proposition 3

The creation of anti-corruption institutions only improves the leadership's utility insofar as it deters opportunists from seeking office. If opportunists continue to enter office after anti-corruption institutions are put into place, then the leadership's utility is strictly lower when $s = 1$ than when $s = 0$, given that setting $s = 1$ serves only to increase the marginal costs of engaging in corruption.

Moreover, if opportunists are unwilling to enter office even when anti-corruption institutions are absent, then then there is no benefit to erecting such institutions. The leadership will either set its optimal wage and receive nothing but zealous recruits, or will set wages such that the participation constraint of zealots alone is met. □

Proof of Lemma 4

Note if opportunists are willing to enter office absent anti-corruption institutions, Proposition 2 establishes that there exist values of $\lambda > 1$ such that anti-corruption institutions deter entry by opportunists.

Lemma 2 establishes that the utility from office is monotonically increasing in ι_i. Thus, for any $\bar{\iota} > \underline{\iota}$ there must exist a set of values of $\lambda > 1$ such that opportunists will be deterred from entry if anti-corruption institutions are in place, while zealots will continue to enter.

If the value of λ is within this set of values, then inequality 5 can be rewritten as:

$$g(e_i^*|\iota_i = \bar{\iota}, s = 1) + \rho v(r^*|\iota_i = \bar{\iota}, s = 1) - \lambda c(R^*|\iota_i = \bar{\iota}, s = 1) \geq$$
$$p[g(e_i^*|\iota_i = \bar{\iota}, s = 0) + \rho v(r^*|\iota_i = \bar{\iota}, s = 0) - c(R^*|\iota_i = \bar{\iota}, s = 0)] +$$
$$(1 - p)[g(e_i^*|\iota_i = \underline{\iota}, s = 0) + \rho v(r^*|\iota_i = \underline{\iota}, s = 0) - c(R^*|\iota_i = \underline{\iota}, s = 0)]$$

As the RHS of this inequality is continuous in p and converges to $g(e_i^*|\iota_i = \underline{\iota}, s = 0) + \rho v(r^*|\iota_i = \underline{\iota}, s = 0) - c(R^*|\iota_i = \underline{\iota}, s = 0)$ as $p \to 0$, there exists a value of p for which this inequality holds iff $g(e_i^*|\iota_i = \bar{\iota}, s = 1) + \rho v(r^*|\iota_i = \bar{\iota}, s = 1) - \lambda c(R^*|\iota_i = \bar{\iota}, s = 1) > g(e_i^*|\iota_i = \underline{\iota}, s = 0) + \rho v(r^*|\iota_i = \underline{\iota}, s = 0) - c(R^*|\iota_i = \underline{\iota}, s = 0)$.

Note that the leadership's equilibrium utility is increasing and monotonic in ι and decreasing and monotonic in λ. Moreover, as $\bar{\iota} \to \infty$, then $g(e^*|\iota_i = \bar{\iota}, s = 1) \to \infty$. If λ induces separation between zealots and opportunists for any value of $\bar{\iota} = \bar{\iota}'$, it will also induce separation for a value of $\bar{\iota} = \bar{\iota}'' > \bar{\iota}'$, by Lemma 2. Thus, by the continuity of the leadership's utility function, there must exist a pair of values $\{\lambda, \bar{\iota}\}$ such that this inequality holds. □

Proof of Proposition 3

This proposition contends that, if parameter values $(\underline{\iota}, \lambda, \rho)$ are such that opportunists are unwilling to enter office once anti-corruption institutions have been created, then the range of other values of $(\lambda, p, \bar{\iota})$ for which the leadership establishes anti-corruption institutions is decreasing in ρ.

To see that this is the case, first recall that Lemma 1 holds that wages are a decreasing function of ρ. Thus, an increase in rho leads to a decline in wages and thus a decline in the range of values for which the entry conditions specified in inequality 4 is satisfied. This reduces the range of parameter values for which opportunists are willing to enter even absent anti-corruption institutions (i.e., when $s = 0$). And, Proposition 3 establishes that anti-corruption institutions will never be established if opportunists are unwilling to enter office when $s = 0$.

Now consider values of ρ for which opportunists are sill willing to enter when $s = 0$, but not when $s = 1$. The conditions of inequality 5 require that the leadership's expected value of establishing anti-corruption institutions exceed its expected value to not establishing said institutions. These conditions are given by the following inequality:

$$g(e_i^*|\iota_i = \bar{\iota}, s = 1) + \rho v(r^*|\iota_i = \bar{\iota}, s = 1) - \lambda c(R^*|\iota_i = \bar{\iota}, s = 1) \geq$$
$$p[g(e_i^*|\iota_i = \bar{\iota}, s = 0) + \rho v(r^*|\iota_i = \bar{\iota}, s = 0) - c(R^*|\iota_i = \bar{\iota}, s = 0)] +$$
$$(1 - p)[g(e_i^*|\iota_i = \underline{\iota}, s = 0) + \rho v(r^*|\iota_i = \underline{\iota}, s = 0) - c(R^*|\iota_i = \underline{\iota}, s = 0)].$$

This inequality can be rewritten as:

$$g(e_i^*|\iota_i = \bar{\iota}, s = 1) - \lambda c(R^*|\iota_i = \bar{\iota}, s = 1) + \rho[v(r^*|\iota_i = \bar{\iota}, s = 1) - v(r^*|\iota_i = \underline{\iota}, s = 0)] \geq$$
$$p[g(e_i^*|\iota_i = \bar{\iota}, s = 0) - c(R^*|\iota_i = \bar{\iota}, s = 0)] + (1 - p)[g(e_i^*|\iota_i = \underline{\iota}, s = 0) - c(R^*|\iota_i = \underline{\iota}, s = 0)] +$$
$$p\rho[v(r^*|\iota_i = \bar{\iota}, s = 0) - v(r^*|\iota_i = \underline{\iota}, s = 0)]$$

Note that $v(r^*|\iota_i = \bar{\iota}, s = 1) < v(r^*|\iota_i = \bar{\iota}, s = 0)$ given that $\lambda \geq 1$ and the Kuhn-Tucker conditions from the leadership's maximization problem. Thus, $\rho[v(r^*|\iota_i = \bar{\iota}, s = 1) - v(r^*|\iota_i = \underline{\iota}, s = 0)] < \rho[v(r^*|\iota_i = \bar{\iota}, s = 0) - v(r^*|\iota_i = \underline{\iota}, s = 0)]$, and the magnitude of the difference between the left and the right hand side of this inequality will be increasing in ρ.

Consequently, the range of parameter values for which the leadership is willing to

establish anti-corruption institutions must be declining in ρ. □

Proof of Proposition 5

This proposition contends that as values of p fall, the range of parameter values $(\underline{\iota}, \overline{\iota}, \lambda, \rho)$ for which anti corruption institutions are created weakly rises. To see why this is the case, we must consider the ruling leadership's decision under two circumstances.

First, consider the circumstance in which values of $\underline{\iota}$, ρ, and λ are such that opportunists are either unwilling to enter office even when $s = 0$ or are willing to enter office even when $s = 1$. In either of these instances, establishing anti-corruption commitments (setting $s = 1$) has no effect on the ideology of the expected entrants into bureaucratic or party office. Rather it simply serves to increase the marginal costs the leadership faces from engaging in corruption, reducing the leadership's utility. Consequently, the leadership will not be willing to engage in anti-corruption commitments for any value of p.

Now consdier the circumstance in which values of $\underline{\iota}$, ρ, and λ are such that opportunists are willing to enter office if $s = 0$ and unwilling to enter office if $s = 1$. As established in Lemma 4, the leadership will adopt anti-corruption institutions iff the following inequality (in which the LHS denotes the expected utility from adopting anti-corruption commitments and the RHS denotes the expected utility from not doing so) holds:

$$g(e_i^*|\iota_i = \overline{\iota}, s = 1) + \rho v(r^*|\iota_i = \overline{\iota}, s = 1) - \lambda c(R^*|\iota_i = \overline{\iota}, s = 1) \geq$$
$$p[g(e_i^*|\iota_i = \overline{\iota}, s = 0) + \rho v(r^*|\iota_i = \overline{\iota}, s = 0) - c(R^*|\iota_i = \overline{\iota}, s = 0)] +$$
$$(1-p)[g(e_i^*|\iota_i = \underline{\iota}, s = 0) + \rho v(r^*|\iota_i = \underline{\iota}, s = 0) - c(R^*|\iota_i = \underline{\iota}, s = 0)].$$

Note that the leadership's utility is continuous and increasing the the value of ι_i. Therefore, $[g(e_i^*|\iota_i = \overline{\iota}, s = 0) + \rho v(r^*|\iota_i = \overline{\iota}, s = 0) - c(R^*|\iota_i = \overline{\iota}, s = 0) > [g(e_i^*|\iota_i = \underline{\iota}, s = 0) + \rho v(r^*|\iota_i = \underline{\iota}, s = 0) - c(R^*|\iota_i = \underline{\iota}, s = 0)$, given that $\overline{\iota} > \underline{\iota}$. It therefore follows that the RHS of this inequality is continuous and montonically increasing in the value p. The LHS, by constrast, is constant in p. Therefore the range of other parameter values for which this inequality holds must be falling in p. □