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UNIVERSITY OF CALIFORNIA, SAN DIEGO

**Transparency, Sanctioning Capacity, and Corruption Displacement:
Multi-Method Evidence from Local Government in Malawi**

A dissertation submitted in partial satisfaction of the
requirements for the degree
Doctor of Philosophy

in

Political Science

by

Brigitte Zimmerman

Committee in charge:

Professor Clark Gibson, Chair
Professor Karen Ferree, Co-Chair
Professor Stephan Haggard
Professor Edmund Malesky
Professor Craig McIntosh

2014

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The dissertation of Brigitte Zimmerman is approved, and it is acceptable in quality and form for publication on microfilm and electronically:

Co-Chair

Chair

University of California, San Diego

2014

DEDICATION

Dedicated to Hans Zimmerman. Your unconditional, unwavering belief in me will always be my primary inspiration in all I do.

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Chapter 6, in part, is currently being prepared for submission for publication of the material. The dissertation author was the principal investigator and author of this material.

All remaining errors are my own.

VITA

2005	B. A. in Public Policy <i>with honors</i> , Stanford University
2009-2012	Graduate Teaching Assistant, University of California, San Diego
2009-2012	Graduate Student Researcher, University of California, San Diego
2014	Ph. D. in Political Science, University of California, San Diego

PUBLICATIONS

- Brigitte Zimmerman, “Patient’s Sister, Seeking Job”, *Journal of the American Medical Association*, 309 (19): 2003-2004, 2013.
- Brigitte Zimmerman, “Orphan Living Situations in Malawi: A Comparison of Orphanages and Foster Homes.”, *Review of Police Research*, 22 (6): 881-917, 2005.

ABSTRACT OF THE DISSERTATION

**Transparency, Sanctioning Capacity, and Corruption Displacement:
Multi-Method Evidence from Local Government in Malawi**

by

Brigitte Zimmerman

Doctor of Philosophy in Political Science

University of California, San Diego, 2014

Professor Clark Gibson, Chair
Professor Karen Ferree, Co-Chair

In my dissertation, I investigate the strategic behavior of politicians engaging in corruption. Specifically, I consider how local government officials in Malawi choose between different forms of corruption, and how anti-corruption interventions such as those that increase transparency or sanctioning capacity condition these choices. I argue that the corruption space has two dimensions: a detectability dimension, capturing the degree to which a given form of corruption is detectable; and an immediacy dimension, capturing the likelihood that citizens will be affected by a given

form of corruption enough to sanction it. My primary hypothesis is that corrupt political officials strategically respond to anti-corruption interventions by displacing their corruption along these dimensions to other forms, not by reducing their overall involvement in corruption. These displacement effects are not random, but occur in predictable patterns shaped by policy.

In studying corruption dynamics, I employ four data sources from Malawi, a country with widespread low-level corruption yet active anti-corruption efforts. A citizen survey and media content analysis demonstrate that citizens in Malawi have diverse avenues for sanctioning corruption and that citizen willingness to enact sanctions varies across corruption forms. I generate an index of the sanctioning capacity of citizens across the districts of Malawi using data from the Anti-Corruption Bureau and National Statistics Office. A first person, nationally representative survey of local government officials provides a measure of corruption. Finally, I conduct a survey experiment on district officials that manipulates the level of top-down and bottom-up transparency they face.

I provide support for the corruption displacement hypothesis that anti-corruption interventions cause some forms of corruption to become less prevalent and others to become more prevalent. Specifically, transparency interventions displace corruption to low-detectability forms. Officials exposed to a bottom-up transparency intervention experience greater displacement along the immediacy dimension. The displacement effect is greatest when the transparency intervention occurs in an area with high sanctioning capacity. This research sheds light on how transparency and sanctioning capacity can be used to influence government official corruption choices outside elections.

Chapter 1

Introduction

In the early years of the fertilizer subsidy programme, politicians would take the fertilizer bags at distributions in the presence of the people. This was discovered and there was outrage, so then fertilizer started to go missing on the journey to distributions. This was discovered and there was more outrage, so then beneficiaries who did not exist received fertilizer for a time, until this was also discovered and there was more outrage once again. Lately, the fertilizer is distributed to real beneficiaries during real distributions, but in advance the bags of fertilizer have been opened and diluted with sand. Some officials, seeing the anger over the subsidy program, have stopped their corruption there and have begun corruption in areas that do not anger the people, such as manipulating district bank accounts.

- Anti-Corruption Bureau Official, Discussing District Government Corruption in Malawi

Corruption is pervasive, not only across contexts but over time. Extensive funding, comprehensive interventions, and persistent policy makers have been allocated to the problem of corruption. Yet, officials persist in their corrupt ways. This dissertation examines the puzzle of corruption's resilience: How does corruption endure even when extensive resources are devoted to eliminating it?

Scholars and policymakers argue that increasing transparency and improving

sanctioning capacity reduces corruption.¹ Transparency captures the level of information about the existence and extent of corruption, and sanctioning capacity captures the avenues available to punish these officials.² For example, transparency increases when an auditing agency provides a report on corrupt transactions in government. One of the most widely studied sanctioning institutions for reducing corruption is the democratic election (Humphreys & Weinstein 2012; Besley & Prat 2006; McCubbins & Kiewiet 1991). However, non-electoral sanctioning institutions exist as well, including embarrassment in the media, demotions in the party, or loss of moral standing in the community (Ferejohn 1986; Besley & Prat 2006; Figueiredo & Limongi 2000; Tsai 2007a). However, in spite of clear theoretical expectations and carefully designed interventions, corruption persists. Corruption occurs at diverse levels of transparency and sanctioning capacity, and interventions that increase transparency or improve sanctioning capacity do not always reduce corruption (Chong et al. 2011; Olken 2005; Treisman 2000).

In this dissertation, I assert that we can begin to understand corruption resilience by shifting focus from ending corruption to understanding how it evolves. As the quote above illustrates, one reason anti-corruption efforts fail to eliminate corruption may be that politicians strategically respond to interventions by displacing their corruption to other forms. Caught incontrovertibly engaging in corruption, officials shift from a more obvious form of corruption to a more hidden one. Punished by angry constituents for one form of corruption, officials then choose forms more removed from citizens' lives.

¹This dissertation discusses the effect of “sanctioning capacity,” which is a precisely defined attribute of the political environment very similar to “accountability.” Therefore, much of the literature on accountability is cited throughout this dissertation.

²Note that throughout this dissertation, “sanction” implies a negative response, as opposed to an alternate definition of “sanction,” which is about a positive, condoning response.

I argue that corruption forms can be mapped onto two theoretically relevant dimensions: a “detectability” dimension that captures the degree to which a form is detectable in government records; and an “immediacy” dimension that captures the degree to which citizens care enough about a form to sanction it. Stealing large portions of central government transfers is high-detectability whereas taking bribes when handing out fertilizer is low-detectability. Stealing fertilizer subsidies is high-immediacy whereas inflating receipts for attending government training is low-immediacy.³ Politicians choose corruption forms from a “menu” of options that can be mapped in this two-dimensional corruption space.

Citizens play a critical role in shaping corruption choices. They are in an ongoing relationship with their political officials. This relationship is punctuated by periodic elections, but is ongoing in between elections. At many points in this relationship, citizens choose whether or not to take action against corruption. They base this choice on the punishment options available to them (sanctioning capacity), the level of information about corruption (transparency), and the degree to which the corruption affects their community in direct and immediate ways (immediacy). A wide range of actions can sanction officials, in that officials incur a cost that they would prefer to avoid. For example, citizen protests about corruption can affect an official’s professional reputation.

Political superiors also play a critical role in shaping corruption choices. They are in an ongoing relationship with the officials as well. In a democracy, their interests

³All relative placements on the two dimensions throughout this dissertation were determined in partnership with the Anti-Corruption Bureau. Separate and collective discussions with three ACB managers illuminated which dimensions of the corruption space were most salient. Then, once established, an officer at the ACB edited a draft of the theory and provided feedback on the dimensions and their definitions. Next, the same ACB officer assisted in placing various forms of corruption on these two dimensions by repeatedly exchanging a spreadsheet of corruption forms with columns for placements on the detectability and immediacy dimensions. Finally, he edited a complete draft of this dissertation.

are aligned with those of citizens; when citizens are enraged and sanctioning their representatives for corruption, superiors may be held accountable for the actions of the officials under them. However, as they are farther removed from the effects of local corruption, they are not as sensitive to revealed information or improved opportunities for sanctioning corruption as citizens are. This interaction between officials and citizens and officials and political superiors is repeated many times between elections.

I hypothesize that there is a “displacement effect” of anti-corruption interventions and that the shifts between corruption forms are not random. Instead, they occur in predictable patterns conditioned by two things: the level of information in their political environment (transparency) and the options for taking action against corruption (sanctioning capacity). Both transparency and sanctioning capacity are necessary conditions to realize effects of anti-corruption efforts. When faced with an intervention that increases transparency, political officials choose low-detectability forms of corruption. When faced with an intervention that increases sanctioning capacity, political officials choose low-immediacy forms of corruption. When an intervention addresses both transparency and sanctioning capacity, and when citizens are involved in the intervention rather than only political superiors (what the literature often calls “bottom-up” and “top-down” interventions), displacement effects are greatest. As politicians innovate and evolve their corrupt behavior, they are forced into a corruption corner, where they are only engaging in hidden corruption that affects citizens in a removed, long-term way.

To explore corruption dynamics in response to anti-corruption initiatives, I conducted field research in the district governments of Malawi. Malawi provides a typical case for the puzzle addressed in this dissertation; Despite robust anti-corruption efforts from citizens, political superiors, and the international community, corrup-

tion in Malawi is rampant. Rather than interpreting the persistence of corruption in Malawi as a failure, Malawi offers the opportunity to examine how corruption may be evolving in response to anti-corruption efforts. Malawi is a consolidating democracy with decentralized government that provides opportunities for corruption to local government officials. Local government officials are appointed rather than elected, yet still face sanctions from above and below. For example, citizens in Malawi report corrupt officials to the Anti-Corruption Bureau, organize protests against corruption, and engage the media. Political superiors can transfer problematic district officials or arrange for them to be demoted in the party. These non-electoral sanctions impose costs on officials, and therefore the officials take care to avoid them.

To test my hypotheses, I deliberately combine qualitative and quantitative, experimental and observational data collected from Malawian citizens, government officials, and institutions. As Snyder (2001) notes, subnational analysis is valuable for mitigating the challenges of small-N research design, enables accurate coding of cases, and allows for the spatially uneven processes that are common in comparative politics. This combination provides opportunities for estimating the parameters depicting causal relationships as well as understanding the causal mechanisms behind corruption choices. It allows me to present statistics about corruption patterns as well as rich individual narratives about specific corruption incidents. Finally, including qualitative data lends credibility to the depiction of the interaction between citizens and officials presented in this dissertation: qualitative interviews tell a dynamic story rather than simply revealing comparative statics.

There are five original data sources in this dissertation, including a survey of citizens examining their options for sanctioning corruption and the circumstances under which they sanction it, a nation-wide survey of political officials that pro-

vides a measure of corruption, a constructed index measuring sanctioning capacity at the sub-national level, and a survey experiment among officials manipulating the level of transparency in their district. The first data source is an original survey conducted with over 600 citizens across Malawi. The data from this survey provide evidence that citizens of Malawi engage in sociotropic corruption sanctioning. Corruption affecting the community in a tangible and immediate way is sanctioned at a significantly higher rate than corruption affecting individual welfare. The immediacy dimension is corroborated by a content analysis of media coverage of district-level corruption, showing that the media also focuses on high-immediacy corruption. Next, a district-level five-year panel dataset combining Anti-Corruption Bureau records, National Statistics Office reports, and a content analysis of media in Malawi results in a comparative ranking of districts according to their bottom-up sanctioning capacity. Evidence from structured interviews demonstrates that political officials are aware of this sub-national variation and try to avoid bottom-up sanctions, even without the institution of elections. To construct a measure of corruption, I conducted an independent, nationwide survey of a random sample of district officials to obtain first-person measures of corruption in the districts of Malawi. Employing a variety of questions about corruption – about individual corruption (directly and through list experiments), district-level corruption, assets, corruption earnings, and temporal variation in corruption – provides a rich dataset with multiple measures across multiple corruption forms. Finally, a survey experiment on district officials manipulates the level of transparency, both bottom-up and top-down, facing political officials. Answers to questions about corruption choices after the level of transparency shifts provides a measure of officials' strategic responses to anti-corruption initiatives.

In analyzing these data sources, I find evidence for the corruption displace-

ment hypothesis. Transparency interventions displace corruption to low-detectability forms. Officials exposed to a bottom-up transparency intervention are more likely to anticipate displacement to low-immediacy forms of corruption. The displacement effect is greatest when both transparency and sanctioning capacity are high. Together, these findings validate the assertion that corruption displacement partially explains the puzzling combination of robust anti-corruption efforts and persistent corruption. Considering the multi-dimensionality of the corruption space reveals that anti-corruption efforts may be affecting corruption choices, even if not eliminating corruption. Displacement may not be the only explanation for corruption persistence, but it reassures scholars and policy makers that efforts have not been wasted.

1.1 Transparency, Sanctioning Capacity, and Corruption in the Literature

The theoretical link between transparency, sanctioning capacity and corruption has been the foundation for policymaking for decades. Donors routinely funnel tremendous amounts of aid to projects designed to improve transparency and sanctioning across the world.⁴

Despite the importance of sanctions in disincentivizing corrupt behavior, there is extremely limited literature about the effect of non-electoral sanctioning capacity on corruption. Fox (2000) suggests that citizens working through civil society can reinforce institutional sanctions. One study, by Gottlieb (2012), considers the sanction of challenging leaders at town hall meetings. Gottlieb concludes that citizens

⁴For an overview of the growth in focus on corruption in policy work and evolution of anti-corruption interventions in development, see Harrison (2007).

are more likely to use this sanction when they receive information about the responsibilities of government. Tsai (2007a) studies how “solidary” groups in China can improve accountability by affecting the moral standing of local government officials. The solidary groups in her study include clans, tribes, temple groups, community festival groups, community self-help groups, public advocacy groups, philanthropic organizations and charities, and environmental groups (Tsai 2007a, p. 17).

The role of transparency in mitigating corruption has been more widely studied. Increases in transparency are theorized to reduce corruption by decreasing information asymmetries between citizens and their officials (Winters & Weitz-Shapiro 2013; Humphreys & Weinstein 2012; Besley & Prat 2006; Brunetti & Weder 2003; McCubbins & Kiewiet 1991). Such increases can either directly improve behavior while still in office – the “accountability channel” – or simply enable the removal of officials who fail to perform – the “agent selection channel” (Humphreys & Weinstein 2012). The critical difference between these two mechanisms is that the latter relies on elections, whereas the former acknowledges that other types of sanctions may incentivize political officials to improve their behavior while in office. One transparency intervention that has been widely studied is the audit, in which a third party agency gathers and disseminates information about the actions and decisions of officials (Banerjee et al. 2010; Chong et al. 2011; Ferraz & Finan 2008; Humphreys & Weinstein 2012; Olken 2005).

Despite the theoretical predictions, the empirical evidence presents a mixed relationship between transparency and corruption (Vivyan et al. 2012; Adsera et al. 2003). Some transparency interventions providing information to citizens about corruption remove the corrupt from office (e.g. Ferraz & Finan (2008) in Brazil or Banerjee et al. (2010) in India), whereas others do not (e.g. Chong et al. (2011) in

Mexico, Reed (1996) in Japan, Eggers & Fisher (2011) in the UK, Golden & Picci (2006) in Italy, and Humphreys & Weinstein (2012) in Uganda).

Citizens are a critical part of the story in these studies of transparency and its effect on corruption. Recent studies have considered how citizen responses to information about corruption might differ depending on a variety of factors. Some focus on the characteristics of the citizens, finding that citizen reactions to information about corruption can be affected by a copartisan bias, where corruption among officials of the citizen's party is considered to be less serious (Anduiza et al. 2013). Other researchers focus on the citizen reactions to different categories of corruption. Fernández-Vázquez et al. (2013) finds that "welfare-enhancing" corruption that provides a positive externality for the constituency is not punished by citizens at the polls, whereas "welfare-detracting" corruption is punished. Similarly, others have found that corruption that comes with pork barrel benefits (Winters & Weitz-Shapiro 2013) or patronage (Manzetti & Wilson 2007) is rewarded. This dissertation contributes to this literature by acknowledging that citizens may be more or less likely to enact a sanction depending on the form of corruption in question. I call the underlying dimension that maps to this proclivity for sanctioning "immediacy."

Another recent trend in research on transparency, accountability, and corruption is to consider the relationship between bottom-up and top-down interventions. For example, Tsai (2007a) differentiates between "democratic" (in this dissertation "bottom-up") and "bureaucratic" (in this dissertation, "top-down") accountability interventions. In studying China, she ultimately concludes that this differentiation is too stark, and that accountability mechanisms can include both bottom-up and top-down features. Similarly, Singh & Vutukuru (2010) and Shankar (2010) study "social audits" in India that were designed to involve citizens and civil society or-

ganizations in audits implemented by the central government, concluding that social mobilization is the key element in ensuring accountability in the program (Singh & Vutukuru 2010). Beginning with the observation that bottom-up monitoring often “lacks bite,” Fox (2014) differentiates between “tactical” and “strategic” social accountability interventions. Strategic interventions involve multiple tactics, provide an encouraging environment for collective action, and ensure the citizens’ concerns are translated into government responses, whereas tactical interventions are narrower, more individual, and not necessarily linked to results. Fox (2014) reframes several prominent accountability interventions to assert that the success rate of tactical interventions is mixed whereas the strategic interventions have been largely successful. This dissertation fits into this body of literature as well, showing that bottom-up and top-down interventions are most effective when they occur in tandem.

My dissertation aims to improve upon previous studies of transparency, sanctioning capacity, and corruption in five ways. Where most are unable to estimate an absolute decrease or increase in corruption after anti-corruption interventions (e.g. Olken (2005) or Fernández-Vázquez et al. (2013)), this research project allows for substitution of corruption forms. I consider variation in attitudes of citizens and superiors towards corruption based on on the form of corruption, rather than expecting information about corruption, no matter what form is revealed, to have an effect (e.g. Humphreys & Weinstein (2012)). Studies examining transparency interventions often only consider the effect of a transparency intervention on the agent selection channel, but not the accountability channel (e.g. Banerjee et al. (2010)), whereas this study considers primarily the accountability channel.⁵ (A summary of the predom-

⁵This nuance is particularly important in the Malawi context. In an interview, a manager at the Anti-Corruption Bureau told the following story: “Khwauli Misiska, a Member of Parliament for Karonga Nyungwe constituency, took a bribe to back a motion to remove term limits. This came to light, the people got mad, and they voted him out of office in the next election. Then, he went back

inant audit research pieces considering the accountability channel appears in Table 1.1.) While previous research considers the effect of improving transparency without establishing if sanctioning is possible (e.g. Olken (2005)), I only expect transparency interventions to have an effect when sanctioning capacity is non-zero (and vice versa). Finally, rather than confounding bottom-up vs. top-down effects (e.g. Ferraz & Finan (2008)), this research isolates the influence of a bottom-up treatment in addition to a top-down treatment through randomized vignettes in a survey experiment.

Table 1.1: Audit Studies Considering Accountability Channel

Citation	Context	DV	Intervention
Olken (2005)	Village Projects in Indonesia	Missing Funds and Materials	Audits
Humphreys & Weinstein (2012)	MPs in Uganda	Attendance, Participation, Initiative, Committee Work, Position, Peer Assessment	Report Cards
Ferraz & Finan (2008)	Municipalities in Brazil	Fraud in Procurement, Diversion of Funds, Overinvoicing	Audits

1.2 Structure of the Dissertation

Chapter 2 presents my theory of corruption displacement. I more thoroughly define the detectability and immediacy dimensions underlying the corruption forms menu available to officials. I present the logic regarding how officials make decisions to the community and apologized, and they voted him back in. Now, he is focused and objective in office.” This story illustrates how the interaction between citizens and political official changed one individual’s corruption.

over the menu of corruption options, and formally presents an interaction between citizens and officials. I conclude this chapter by presenting my five main hypotheses regarding corruption displacement.

In Chapter 3, I discuss the context of the research – local government in Malawi – and provide a typology of the primary forms of corruption based on two dimensions underlying the corruption space, detectability and immediacy. I discuss what we can learn about the case of Malawi from the recent corruption scandal, Cashgate, and show how this scandal provides a timely example of the dynamics studied in this dissertation.

Chapter 4 discusses the role of citizens in sanctioning corruption. Specifically, I discuss the spectrum of non-electoral sanctions available to citizens and show the decision to sanction corruption is made based on the immediacy of the form of corruption in question. A survey experiment tests whether citizens are more responsive to corruption that affects their community or corruption that affects only their household. In analyzing the data from the experiment, I find evidence that citizens are “sociotropic” in their corruption sanctioning, that indeed corruption affecting the community is sanctioned at significantly higher rates than corruption affecting the household. The chapter then presents a content analysis of media reports on corruption, demonstrating that the dimension of immediacy is salient in predicting media coverage as well. Combining a dataset of reports about district corruption obtained from the Anti-Corruption Bureau of Malawi with common proxy measures of civic engagement and capacity, I develop a measure of sanctioning capacity at the district level in Malawi.

In Chapter 5, I review common issues in measuring corruption and the prevailing solutions in the literature. I present my approach to these challenges: a

survey of political officials about corruption in their district. I discuss the instrument and sampling strategy. I compare measures obtained from direct questions to those obtained through list experiments, which offer estimates of social response bias in answering questions about corruption. Questions about asset ownership and income allow for an indirect measure of corruption, and I provide evidence that these measures of wealth correlate with the measures of corruption. This chapter concludes by analyzing sub-national patterns of corruption in Malawi.

Chapter 6 tests of my hypotheses and results, based on the survey experiment on district officials and the sanctioning capacity index developed in Chapter 4. I find support for non-random corruption displacement: The results indicate that corruption detectability decreases after transparency interventions. Corruption immediacy decreases more significantly after bottom-up transparency interventions and more significantly in high sanctioning capacity areas. Finally, transparency interventions have a greater displacement effect in areas with higher sanctioning capacity.

In Chapter 7, I review the main arguments and results of the dissertation, and discuss the policy implications of the findings. I return once again to the comparative case studies from the introduction and discuss policy implications for each of these cases.

Chapter 2

A Theory of Corruption

Displacement

This dissertation considers the relationships between three constructs: transparency, sanctioning capacity, and corruption. Specifically, I theorize about the conditions under which shifts in transparency and sanctioning capacity result in corruption displacement. All three constructs have been defined in a myriad of ways in the political science literature, and, to borrow a term from Sartori (1970), are particularly vulnerable to “conceptual stretching.” Because of this, I begin the discussion in this chapter by clearly and precisely defining these three constructs as they will be used in this dissertation.

The next section of this chapter proposes a revised conceptualization of corruption and presents the theoretical logic surrounding the relationship between transparency, sanctioning capacity, and corruption displacement. I then formalize the decision theoretic of the government official regarding how she chooses among corruption forms, and the interaction between officials and citizens, which I call a “Corruption-

Sanction Game.” The next section overviews the hypotheses surrounding corruption displacement tested in this dissertation, and the conclusion of this chapter considers the implications of my theory of corruption displacement for the overall effect of anti-corruption interventions on the welfare of society.

2.1 Theoretical Constructs

While many definitions of corruption exist, most scholars agree that the motivation for corruption is a political official’s preference for private gain over public welfare (Barro 1973; Bardhan 1997). This definition of corruption in the literature aligns with the definition provided by citizens in my case country of Malawi: they report to the Anti-Corruption Bureau about behaviors as far-reaching as using government vehicles after hours to privately selling fertilizer subsidies intended for poor farmers. Indeed, they even report on excessive private gain while in office, without specifically identifying the corresponding loss in public welfare: to Malawians, the tradeoff between public service and private gain is so thoroughly accepted that accumulating wealth while serving as a political official is evidence of corruption.

There are also many definitions of transparency in the literature. I use the definition in Prat (2002): the ability of a principal to observe an agent’s behavior and the consequences of the agent’s decisions. Note that the critical characteristic of transparency according to this definition is *access to information*. Transparency is a continuous trait; as the quantity and quality of information available increases, transparency increases. Transparency can be top-down, when political superiors (party leaders, higher level elected officials, central government representatives) access information about lower levels of government, or bottom-up, when citizens receive infor-

mation about their political officials.

Finally, the definition of sanctioning capacity comes from Fearon (1999)’s definition of accountability, or the degree to which “[one person] is empowered by some formal institutional or perhaps informal rules to sanction or reward [another person] for her activities or performance” (Fearon 1999, p. 55). I call this construct “sanctioning capacity” for precision: the term “accountability” has been used to refer to the *use* of sanctioning avenues, whereas I focus narrowly on the *access* to sanctioning avenues. This definition of sanctioning capacity is similar to the definition of “representative” accountability in Brown & Jagadananda (2007). As with transparency, sanctioning capacity is also a continuous trait; it can be lower or higher, rather than merely being present or absent. It can be top-down or bottom-up, depending on whether political superiors or citizens are doing the sanctioning.

Scholars studying sanctioning capacity often focus on democratic elections, but others note that there are non-electoral sanctioning institutions that can both substitute for and complement the sanctioning that occurs in a democratic election.¹ For example, Tsai (2007a) shows that solidarity networks in China provide an avenue for sanctioning poor-performing officials, and Besley & Prat (2006) show that an independent media provides citizens with a sanctioning outlet. Interpersonal relationships, reputation building, and society’s value orientation can also be used effectively to enact sanctions on poorly performing officials (Beu & Buckley 2001; Brass et al. 1998). As long as they impose a cost on officials and officials take care to avoid them, even less invasive citizen actions (e.g. reporting corruption to the media) can contribute to sanctioning capacity.

In summary, the relationship between these three constructs – transparency,

¹Some of the many who have argued democratic elections allow voters to sanction or reward: Barro (1973); Ferejohn (1986); Fearon (1999); Besley & Burgess (2002); Lassen (2005)

sanctioning capacity, and corruption – can be thought of as follows: The actors in a given society are the political officials, the political superiors, and the citizens. Transparency and sanctioning capacity exist at baseline levels in society, determined by *de jure* and *de facto* norms and institutions. However, interventions can increase the levels of transparency and sanctioning capacity as well. Corruption choices are conditioned by transparency and sanctioning capacity, both top-down and bottom-up.

2.2 A Revised Concept of Corruption

I argue that the construct of corruption should be disaggregated. I posit that the corruption space is multi-dimensional, composed of two dimensions, “detectability” and “immediacy.” In response to anti-corruption interventions that increase transparency or improve sanctioning capacity, non-random displacement effects occur along these dimensions.

Detectability is a dimension capturing the degree to which a corruption form is visible when scrutinizing the government’s financial records. Some forms of corruption have high-detectability: they are highly visible, even when transparency is low. Examples of high-detectability forms of corruption would be stealing government benefits for the poor or confiscating funds intended for government materials. Even a very weak transparency intervention would discover these forms of corruption. Some forms of corruption have low-detectability: they are not visible even at high levels of transparency. Examples of low-detectability forms of corruption would be collecting an additional per person fee when providing government services or colluding with contractors to inflate prices charged to government. Even a very rigorous transparency intervention with comprehensive audit methods would fail to discover

these forms of corruption.

Political officials are incentivized to care about the detectability of their corruption in two ways. They desire to avoid detection, which compels them to gravitate towards low-detectability corruption. However, they also desire to minimize the costs they bear when engaging in corruption. In this dissertation, I make the simplifying assumption that there is an inverse relationship between detectability and transaction costs.² Less detectable forms of corruption are less visible partially because they require more transactions, documentation, or groundwork to result in a payoff, making them less efficient (Olken & Pande 2011).³ For example, extracting bribes from those applying for jobs is less detectable but is also less efficient than simply stealing government program funds as they are transferred into the district coffers. Though the direct relationship between detectability and efficiency may not hold for all forms of corruption, interviews with political officials in Malawi provided some evidence that it is valid to make this simplifying assumption. As one interviewee said, when engaging in low-detectability corruption, “politicians resort to using agents other than themselves.” In other words, hiding corruption takes effort that results in higher costs for the political official. Because of this efficiency consideration, *ceteris paribus*, unconstrained political officials prefer to engage in high-detectability forms of corruption.

Immediacy is a dimension capturing the degree to which a corruption form imposes a tangible and immediate cost on citizens and their community, which in turn determines whether citizens will sanction the form. Since sanctioning is a costly action, citizens will not sanction everything with equal probability. They sanction

²I use Dahlman’s (1979) conceptualization of transaction costs: costs involved in making an economic exchange, including search and information costs, bargaining costs, and policing and enforcement costs.

³Shleifer & Vishny (1993) make a similar argument when they say that corruption is more distortionary than taxation because it focuses on secrecy.

only when the corruption affects them in ways that incentivize them to do so, which occurs with high-immediacy corruption.⁴ A survey experiment conducted among citizens in six districts of Malawi in July of 2012 demonstrated that citizens are indeed willing to sanction high-immediacy corruption, even controlling for other potential factors influencing political participation. Further, they are sociotropic in their decision to sanction: when corruption affects the greater community, they are more willing to sanction it than when the same corruption cost is imposed only on their household. The citizen survey will be explored in greater detail in Chapter 4. Examples of high-immediacy forms of corruption would be stealing government benefits or collecting an additional per person cash fee (i.e. bribe) when providing government services. Even when sanctioning capacity is low, when there aren't ample sanctioning options, affected individuals will attempt to do something about these forms of corruption. In contrast, examples of low-immediacy forms of corruption would be falsifying receipts for attending government workshops or confiscating funds intended for purchasing government materials (e.g. computers, office supplies). Even individuals with a great deal of sanctioning options may not bother to sanction these forms of corruption because they don't affect them as tangibly or immediately. As one District Social Welfare Officer summarized in an interview: "People would react instantly if they are directly affected but would be passive if they are not directly affected."⁵

As with detectability, political officials are incentivized to care about the im-

⁴The implied assumption here is that citizens value outcomes more than actions (Fernández-Vázquez et al. 2013), and that they have preferences over forms of corruption based on these outcomes.

⁵Fernández-Vázquez et al. (2013) consider variation in citizen reactions to different forms of corruption as well. They differentiate between "welfare-enhancing" and "welfare-detracting" forms of corruption. It is possible that this distinction could be an input into the immediacy dimension. However, none of the forms of corruption that Fernández-Vázquez et al. (2013) deem "welfare-enhancing" are possible in Malawi's district government. Malawian citizens rarely, if ever, experience less "selfish" forms of corruption or have the opportunity to share in the spoils, so these concerns do not enter into the immediacy dimension in the case study for this dissertation.

mediacy of their corruption in two ways. On one hand, they desire to avoid sanctions, which compels them to gravitate to low-immediacy corruption.⁶ On the other hand, they desire to maximize their payoff from corruption, and I make the simplifying assumption that there is a direct relationship between immediacy and size of the potential corruption payoff. High- immediacy forms of corruption affect many citizens tangibly, which means the potential corruption payoff is larger. Low-immediacy forms of corruption are those that affect fewer citizens abstractly, which means the potential corruption payoff is smaller. For example, stealing benefits from a huge program intended for many citizens is high-immediacy and efficient. On the other hand, falsifying receipts for reimbursement for workshops is low-immediacy but inefficient. Though not true for absolutely every form of corruption in the theoretical space, it is generally the case that the immediacy dimension is directly proportional to the payoff of corruption and that the detectability dimension is inversely proportional to the costs of corruption, and that together, immediacy and detectability are directly proportional to the efficiency of the corruption. Therefore, *ceteris paribus*, unconstrained political officials prefer to engage in high-immediacy forms of corruption: those forms that mean immediate theft from huge programs.

For illustration purposes, Figure 2.1 places some common forms of corruption in local government in Malawi on the dimensions of immediacy and detectability. As can be seen in the diagram, these two dimensions are not strongly correlated: they capture different underlying components of the corruption space.

⁶I assume that officials can generally predict the reaction of their citizens to various forms of corruption. Fernández-Vázquez et al. (2013) make the same assumption. This assumption does not need to hold in every case for the theory to have the same implications.

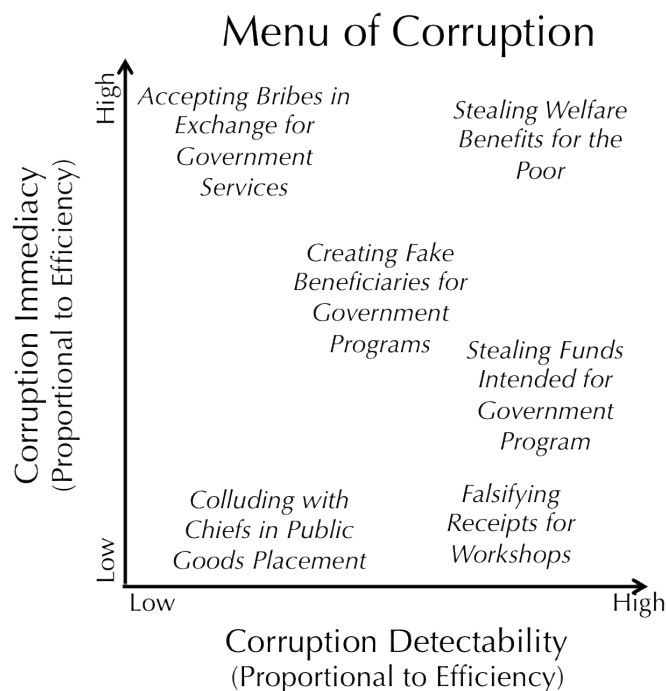


Figure 2.1: Detectability/Immediacy Corruption Space

2.3 Theory Linking Transparency, Sanctioning Capacity, and Corruption

In this section, I present the logic of the theory linking transparency, sanctioning capacity, and corruption. The political official chooses forms of corruption off a “menu of corruption,” similar to Schedler’s (2002) “menu of manipulation.”⁷ I assume that the political official chooses forms of corruption that maximize net utility from corruption: payoff less cost. Each form of corruption on the menu has a given level of detectability and immediacy, such that the menu can be depicted in

⁷Fernández-Vázquez et al. (2013) reference the “menu” of corruption as well.

the two-dimensional space of immediacy and detectability.

As mentioned above, I make the simplifying assumption that both immediacy and detectability are directly proportional to corruption efficiency. Given this, a political official without any constraints on her behavior would prefer to select efficient forms of corruption, which would be those high in both immediacy or detectability. In other words, when transparency and sanctioning capacity are both zero, neither citizens nor political superiors are able to receive any information about corrupt acts, and neither citizens nor superiors are able to do anything to sanction corruption. The political official is corrupt in the most efficient way, stealing large figures from many people with very few transaction costs decreasing her corruption earnings. Many interviewed officials agreed with this assessment of the politician's unconstrained optimal choice. For example, as one political official said, "If politicians see that people are ignorant of processes, even if they know that the malpractice can be detected, they take advantage and engage in corruption, knowing the community will be helpless."

When transparency is greater than zero but sanctioning capacity is zero, I assert that the political official's choice is the same as if both conditions were zero. Similarly, I assert that the political official is effectively unconstrained when sanctioning capacity is greater than zero but transparency is zero. Transparency pertains to access to information and sanctioning capacity pertains to the ability to act on the information. If information is present but no citizen or superior has the ability to translate information into action, then the information does not pose a threat to the political official and she can choose whatever corruption form is best for her. If citizens or superiors are able to act on information but no information is available, then the ability to take action does not pose a threat to the political official either. As both transparency and sanctioning capacity are necessary to mitigate corruption,

political officials are unconstrained in their corruption choices when *either* of these properties is zero.

The political official is incentivized to choose different forms of corruption when transparency and sanctioning capacity are both above zero. Interventions that increase transparency or improve sanctioning capacity result in displacement effects, whereby some forms of corruption become less appealing but others become more appealing. Holding sanctioning capacity constant at some non-zero level, let us first consider how the level of transparency conditions corruption choices. The level of transparency determines the point on the detectability dimension above which all forms of corruption will be detected. I call this point the “visibility threshold.” When there is a relatively low level of transparency, the visibility threshold is high on the detectability axis and a small percentage of the corruption space is being detected. As the level of transparency increases, the visibility threshold shifts to the low end of the detectability axis, meaning that more of the menu of corruption will be detected. For example, an anti-corruption intervention rolled out by the central government that increases the level of transparency would shift the visibility threshold down the detectability axis and expose more of the menu of corruption to detection.⁸

Holding transparency constant at some non-zero level, let us now consider how the level of sanctioning capacity conditions corruption choices. The level of sanctioning capacity in the political environment determines the point on the immediacy dimension above which all forms of corruption will be sanctioned. I call this point the “sanctioning threshold.” Recall from earlier in the chapter that sanctioning capacity has to do with access to sanctions. As access improves, the costs citizens bear to sanction corruption decrease. And as the level of sanctioning capacity increases,

⁸I would argue that Olken (2005) finds evidence of this effect when a transparency intervention displaces corruption from obvious wage theft to easier-to-hide materials overbilling.

sanctioning costs go down, and the sanctioning threshold shifts to the low end of the immediacy axis, meaning that more of the menu of corruption will be sanctioned, once detected.

Let us consider how the effects of top-down interventions (those that involve political superiors in anti-corruption efforts) might differ from the effects of bottom-up interventions (those that involve citizens in anti-corruption efforts). Even when bottom-up transparency and sanctioning capacity are low, political superiors will be concerned about possible shifts in transparency and sanctioning capacity that will make the corruption known and activate the citizens – a sort of “If word of this gets out...” concern. However, there are three reasons to believe the effects of shifts in top-down transparency and sanctioning capacity are smaller compared to the effects of shifts in bottom-up transparency and sanctioning capacity. First, corruption in local government affects citizens more than political superiors, who are often not members of the communities. Second, though political superiors could be punished for local government corruption by way of the electoral accountability chain, bottom-up transparency and sanctioning capacity would both have to be high for this to happen. Finally, political superiors often receive payouts from the corruption, which might dampen their inclination to take action against it, despite the fear of citizen action. Accordingly, the shifts that appear in Figure 2.2 would be proportionally smaller under top-down interventions as compared to bottom-up interventions.

As stated previously, I make several simplifying assumptions in developing this theory. I assume that government officials are income maximizing. I also assume that they are able to anticipate the reactions of their citizens and superiors to different forms of corruption. I assume that there is a direct relationship between corruption detectability and efficiency, and that there is also a direct relationship between

corruption immediacy and efficiency. My interviews with officials, discussed earlier in this chapter, provide evidence these assumptions are reasonable, at least in the case of Malawi.

The theoretical logic rests on one more critical assumption: that forms of corruption are substitutable. In my case country of Malawi, this assumption is reasonable: interview and survey evidence demonstrate that political officials can access many forms of corruption, and that they don't choose to access all forms at any given point in time. In other contexts, even if it is the case that not all forms are available to all officials, as long as there are multiple forms available to a given political official, the theoretical logic holds. Olken & Pande (2011) begin to push in this direction when they use case studies to argue that political officials respond strategically to institutional changes to shift their forms of corruption to affect different people or evade certain monitoring mechanisms.

Considering the empirical tests specific to this dissertation, I depict anticipated comparative statics following from the logic depicted above in Figure 2.2. Panel 1 depicts the chosen corruption forms under low transparency and low sanctioning capacity. Since the official prefers to engage in high-efficiency corruption, an official facing low transparency and low sanctioning capacity is in the upper right corner of the space, where immediacy and detectability are both high. Panel 2 depicts the result of increasing sanctioning capacity but holding transparency constant. Desiring to avoid the sanctions that would occur if corruption was discovered, the official chooses corruption forms that are low-immediacy. Panel 3 depicts the reverse: increasing transparency but holding sanctioning capacity constant. In this case, the official avoids detection by shifting to low-detectability forms. Finally, Panel 4 demonstrates that an official in a high transparency, high sanctioning capacity environment is pushed

into a corruption corner, where only low-immediacy, low-detectability, low-efficiency corruption forms are chosen. The complementarity of transparency interventions and sanctioning interventions can be seen in Figure 2.2 as well, as the vertical shift from Panel 1 to Panel 2 or the horizontal shift from Panel 1 to Panel 3 are not as great as the diagonal shift from Panel 1 to Panel 4.

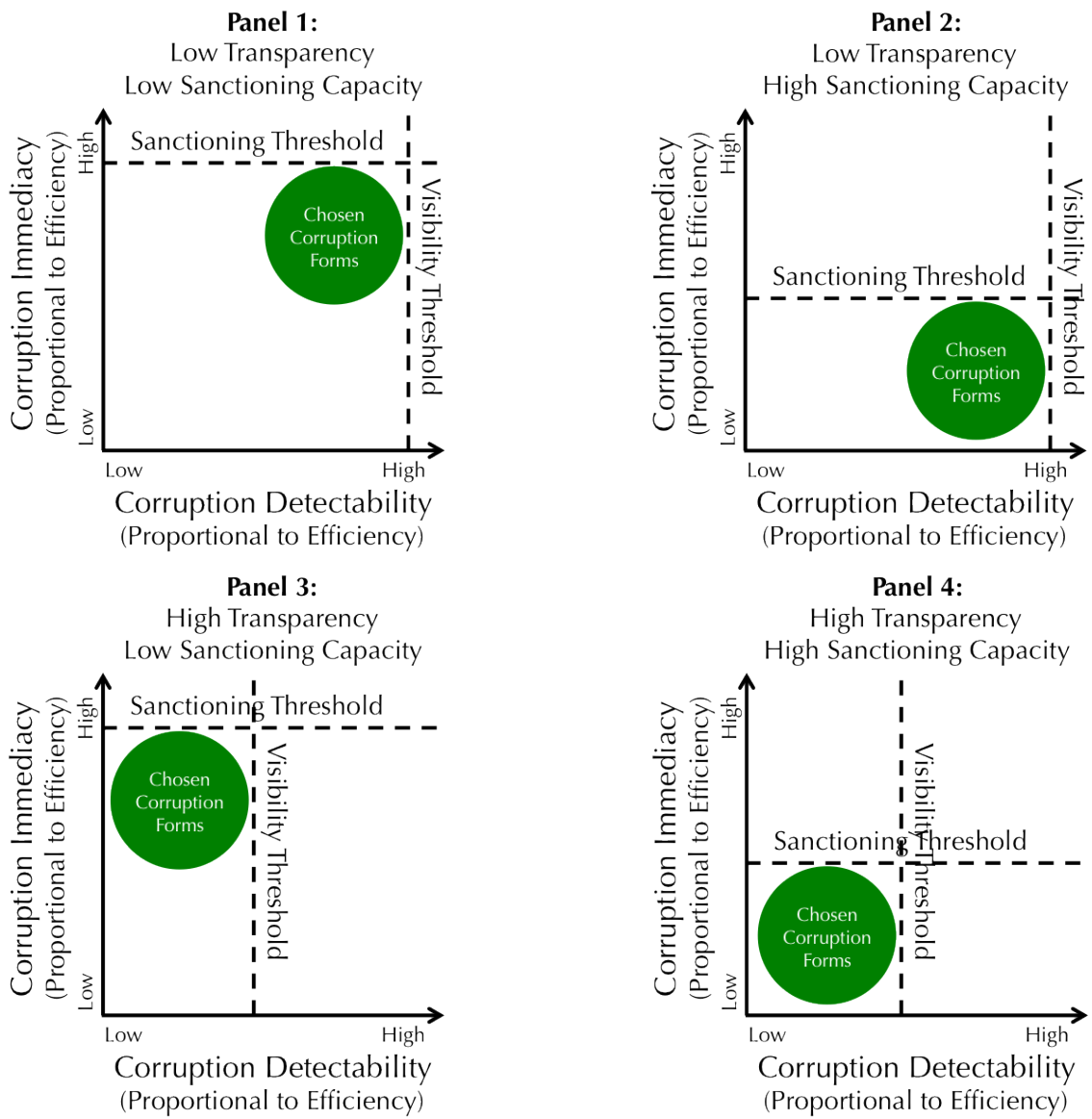


Figure 2.2: Comparative Statics in Chosen Corruption Forms

2.4 Formal Model of Decision Theoretic

I now formalize the logic linking transparency and sanctioning capacity to corruption choices along the detectability and immediacy dimensions.

2.4.1 Decision Theoretic for Corrupt Official

Consider an official who is choosing among N different possible forms of corruption, where each form of corruption is denoted $n \in 1, 2, \dots, N$. The official can devote effort e_n to each corruption form subject to the constraint $\sum_{i=1}^N e_n \leq 1$. The official derives a benefit from each form of corruption equal to $e_n \theta_n$, where θ_n is the efficiency of corruption form n . This function is monotonically increasing and linear. Without loss of generality, assume that the forms of corruption are indexed such that $\theta_j > \theta_k$ iff $j < k$.

Corruption of form n can be caught with probability $p_{t,n}(e_n, \tau, D_n) \in (0, 1)$, where τ is the transparency level of the political environment and D_n is the detectability of corruption form n . I assume that $p_{t,n}$ is increasing and convex in e_n , increasing and separable in τ and D_n , and that $\frac{\partial p_{t,n}}{\partial e_n \partial \tau} > 0$. In addition, $p_{t,n}(e_n, 0, D_n) = 0$ for any e_n, D_n . Further, $\frac{\partial p_{t,n}}{\partial e_n} \rightarrow 0$ as $e_n \rightarrow 0$ and $\frac{\partial p_{t,n}}{\partial e_n} > \theta_1$ as $e_n \rightarrow 1$ when $\tau > 0$. Finally, I assume that $\frac{\partial^2 p_{t,n}}{\partial e_n \partial D_n} > 0$.

If caught, the politician can be sanctioned with probability $p_{s,n}(\sigma, I_n) \in (0, 1)$, where σ is the sanctioning capacity level of the political environment and I_n is the immediacy of corruption form n . I assume that $p_{s,n}$ is increasing and separable in both arguments and that $\frac{\partial p_{s,n}}{\partial \sigma \partial I_n} = 0$. In addition, $p_{s,n}(0, I_n) = 0$ for any I_n . Indexing of D_n and I_n follows that of θ_n , i.e., $D_j > D_k$ and $I_j > I_k$ iff $j < k$.

If sanctioned, the official bears a cost, κ , which is constant for all corruption

forms n . Together, $p_{t,n}$, $p_{s,n}$, and κ form the cost function ζ_n :

$$\zeta_n = p_{t,n}p_{s,n}\kappa$$

The official's utility from any given form of corruption is:

$$u_n = \beta_n(e_n, \theta) - \zeta_n(p_{t,n}p_{s,n}\kappa)$$

We assume that the official aims to maximize her expected utility across all types of corruption:

$$u_i = \sum_{i=1}^N (\beta(e_n, \theta) - \zeta_n(p_{t,n}p_{s,n}\kappa))$$

This maximization is subject to the effort constraint $\sum_{i=1}^N e_n \leq 1$. We form the Lagrangian auxiliary function:

$$\mathcal{L}(\beta_n, \zeta_n, \lambda) := \sum_{i=1}^N (\beta(e_n, \theta) - \zeta_n(p_{t,n}p_{s,n}\kappa)) - \lambda(\sum_{i=1}^N e_n - 1)$$

The first order conditions with respect to e_n are:

$$\beta'_1(e_1, \theta_1) - \zeta_1(p'_{t,1}p_{s,1}\kappa) - \lambda$$

$$\beta'_2(e_2, \theta_2) - \zeta_2(p'_{t,2}p_{s,2}\kappa) - \lambda$$

$$\beta'_3(e_3, \theta_3) - \zeta_3(p'_{t,3}p_{s,3}\kappa) - \lambda$$

⋮

$$\beta'_n(e_n, \theta_n) - \zeta_n(p'_{t,n}p_{s,n}\kappa) - \lambda$$

These are in turn equivalent to:

$$\beta'_1(e_1, \theta_1) - \zeta_1(p'_{t,1} p_{s,1} \kappa) = \lambda$$

$$\beta'_2(e_2, \theta_2) - \zeta_2(p'_{t,2} p_{s,2} \kappa) = \lambda$$

$$\beta'_3(e_3, \theta_3) - \zeta_3(p'_{t,3} p_{s,3} \kappa) = \lambda$$

⋮

$$\beta'_n(e_n, \theta_n) - \zeta_n(p'_{t,n} p_{s,n} \kappa) = \lambda$$

This implies:

$$\beta'_1(e_1, \theta_1) - \zeta_1(p'_{t,1} p_{s,1} \kappa) = \beta'_2(e_2, \theta_2) - \zeta_1(p'_{t,2} p_{s,2} \kappa) =$$

$$\beta'_3(e_3, \theta_3) - \zeta_3(p'_{t,3} p_{s,3} \kappa) = \dots = \beta'_n(e_n, \theta_n) - \zeta_n(p'_{t,n} p_{s,n} \kappa)$$

In other words, the official is going to devote effort to whatever yields the highest marginal returns. Remember the corruption forms are indexed by θ_n . Therefore, form 1 is the most efficient (has the highest θ_n) and will have the highest marginal return to e . However, since immediacy (I_n) and detectability (D_n) increase with corruption efficiency, then corruption form 1 will also have the highest $p_{t,n}$ and $p_{s,n}$, all else equal.

So how does the official choose to allocate e ? Consider the situation where transparency τ is zero. Then $p_{t,n}$ is zero, and the official chooses to put all effort in the form of corruption with the highest marginal return, which is corruption form 1. In this case, the official maximizes her utility when when $e_1 = 1$. The same outcome

is obtained when sanctioning capacity is zero, or when $\sigma = 0 \implies p_{s,n} = 0$. These solutions show that both transparency and sanctioning capacity must be nonzero in order to expect an increase in either to have an effect.

When $\tau > 0$ and $\sigma > 0$, then the decision becomes more complex. Consider the situation where sanctioning capacity is greater than zero but constant, or where $\sigma = s > 0$. Remember that $\frac{\partial^2 p_{t,n}}{\partial e_n \partial D_n} > 0$. Therefore, as τ increases, the official will displace her corruption to forms with low detectability, D_n , so as to minimize $p_{t,n}$.

Similarly, since $\frac{dp_{s,n}}{d\sigma} = f(I_n) > 0$, when transparency is greater than zero but constant, or where $\tau = t > 0$, as σ increases, the official will displace her corruption to forms with low immediacy, I , so as to minimize $p_{s,n}$.

The cross partial derivatives of the cost function, ζ , convey an important point regarding the complementarity of anti-corruption initiatives targeting transparency and those targeting sanctioning capacity:

$$\begin{aligned}\frac{\partial \zeta}{\partial e_n} &= p'_{t,n} p_{s,n} \kappa \geq 0 \\ \frac{\partial^2 \zeta}{\partial e_n \partial \tau} &= \frac{\partial^2 p_{t,n}}{\partial e_n \partial \tau} p_{s,n} \kappa \geq 0 \\ \frac{\partial^3 \zeta}{\partial e_n \partial \tau \partial \sigma} &= \frac{\partial^2 p_{t,n}}{\partial e_n \partial \tau} p'_{s,n} \kappa > 0\end{aligned}$$

This result shows that the effectiveness of increasing transparency, τ , in order to raise the cost of corruption increases with the level of sanctioning capacity, σ .

2.4.2 Corruption-Sanction Game Between Official and Citizen

Though I have modeled this theory thus far as a decision theoretic, let us consider briefly the interaction between the official and the citizens in a “Corruption-Sanction Game.” Doing so allows an investigation of the assertion that sanctioning is possible, or, in the above model, that $p_{s,n} > 0$.

There are two actors in this model: the official and the citizens. Let us assume that the citizens are a unitary actor and that for each form of corruption they have a strategy profile: $s_{c,n} = \{sanction, overlook\}$. In this model of the interaction considering each form of corruption separately, the official also has a binary strategy profile: $s_{p,n} = \{corruption, honesty\}$. The official’s utility function is the same as in the decision theoretic, but evaluated for only one corruption form, n :

$$u_{p,n} = \beta_n - \zeta_n$$

The citizen’s utility function, $u_{c,n}$, consists of three components: Q , which is the cost - loss of time, cost of transport, risk of repercussions, etc. - of enacting a sanction, and is constant for all n ; $C(I_n)$, which is the cost imposed on the citizen with corruption form n , and is a function increasing in I_n ; and $B(I_n)$, which is the benefit to the citizen of sanctioning corruption form n (avoiding corruption n in the future), and is a function increasing in I_n . $B(I_n)$ can be thought of as a reduced form representation of an infinitely repeated model of deterrence, in which the citizens are attempting to establish a reputation for sanctioning. As the immediacy of corruption increases, the incentive to build up a reputation to deter future violations increases (Milgrom & Roberts 1982). In other words, citizens engage in “prospective” sanctioning, as they

engage in “prospective” voting (Cheibub & Przeworski 1999). Both groups wish to chose the strategy that yields the highest utility. The 2x2 payoff matrix appears in Table 2.1. As can be seen in examining the matrix, *corruption* is the strictly dominant strategy for the official for any given form of corruption n . The best response of the citizens is to mix strategies, choosing *sanction* whenever:

$$B(I_n) - C(I_n) - Q > C(I_n)$$

or when:

$$B(I_n) > Q$$

Citizens will *overlook* whenever:

$$B(I_n) < Q$$

As I_n increases and corruption affects citizens more directly, tangibly, and immediately, citizens want to displace it. In turn, $B(I_n)$ increases, and *sanction* becomes more likely. This demonstrates that, for any given corruption form n , p_{sn} from the decision theoretic above is indeed increasing in I_n .

Table 2.1: Payoff Matrix in Corruption-Sanction Game

	Sanction	Overlook
Corruption	$u_{p,n} = \beta_n - \zeta_n$	$u_{p,n} = \beta_n$
	$u_{c,n} = B(I_n) - C(I_n) - Q$	$u_{pn} = -C(I_n)$
Honesty	$u_{p,n} = -\zeta_n$	$u_{p,n} = 0$
	$u_{c,n} = -Q$	$u_{c,n} = 0$

2.5 Corruption Displacement Hypotheses

An important implication of the model is that we should *only* expect effects from anti-corruption interventions when there is a minimum level of both transparency and sanctioning capacity. When this condition is satisfied, there are five testable hypotheses on the displacement effect following from the theoretical logic, each of which is considered in this dissertation.

Hypothesis 1: Conditional on a minimum level of sanctioning capacity being in place, transparency interventions displace corruption from high- to low-detectability forms.

This hypothesis flows from the logic depicted in Section 2.3 and the decision theoretic depicted in Section 2.4. This hypothesis will be tested using data from a survey experiment on district officials in Malawi. This test and the results will be discussed in Chapter 6.

Hypothesis 2: Conditional on a minimum level of transparency being in place, sanctioning interventions displace corruption from high- to low-immediacy forms.

This hypothesis also flows from the logic depicted in Section 2.3 and the decision theoretic depicted in Section 2.4. A strong test of this hypothesis does not exist in this dissertation, as sanctioning capacity already varies sub-nationally across Malawi and affecting it experimentally would be challenging. Using data from the Anti-Corruption Bureau measuring existing levels of sanctioning capacity across the districts of Malawi and data from a survey of district officials on their corruption choices, I test this hypothesis in a limited way in Chapter 5.

Hypothesis 3: Transparency interventions have a greater displacement effect when

combined with sanctioning interventions (and vice versa).

This hypothesis flows from the logic depicted in Section 2.3 and the decision theoretic depicted in Section 2.4. This hypothesis will be tested using data from a survey experiment on district officials in Malawi and data from the Anti-Corruption Bureau measuring existing levels of sanctioning capacity across the districts of Malawi. This test and the results will be discussed in Chapter 6.

Hypothesis 4: Bottom-up transparency displaces corruption to lower immediacy forms than does only top-down transparency.

I discuss this hypothesis in Section 2.3 but focus only on bottom-up intervention effects in Section 2.4. This hypothesis will be tested using data from a survey experiment on district officials in Malawi. This test and the results will be discussed in Chapter 6.

Hypothesis 5: Bottom-up transparency should cause the greatest displacement down the immediacy dimension in areas with high sanctioning capacity.

I discuss this hypothesis in Section 2.3 but focus only on bottom-up intervention effects in Section 2.4. This hypothesis will be tested using data from a survey experiment on district officials in Malawi and data from the Anti-Corruption Bureau measuring existing levels of sanctioning capacity across the districts of Malawi. This test and the results will be discussed in Chapter 6.

2.6 Conclusion

The theory overviewed in this chapter demonstrates how transparency and sanctioning interventions cause displacement effects within the corruption space, both

individually and in combination with one another. In concluding this chapter, I will briefly consider the effect of transparency and sanctioning capacity on the overall level of corruption, or the cost of corruption to society at large. As transparency and sanctioning interventions cause officials to shift their corruption to less efficient forms, it is possible that such interventions can have perverse effects for society, in that they increase the total cost of corruption. It would be challenging to test this assertion, as the total cost of corruption is extremely difficult to document and counterfactual conditions would be nearly impossible to precisely control. This welfare effect is considered more fully in Chapter 7, when discussing the policy implications of this dissertation.

Chapter 3

Forms of Corruption

This chapter provides information about the case country of Malawi: basic characteristics of the country, the structure and function of local government, and corruption within local government. Malawi provides a compelling case to study sanctioning capacity and corruption in local government partially because of its combination of an elected president, elected legislators, de jure provision for elected local government, and de facto appointed local government. The chapter ends with a discussion of the “Cashgate” corruption scandal in Malawi, which has been unfolding over the past year.

3.1 Case Context: Local Government in Malawi

To test my hypotheses, I conducted field research in Malawi, a country that provides a particularly good case for studying government corruption. Malawi has a population of 16.8 million, but is only 94,080 square kilometers, making it one of the most densely populated countries in the world (CIA World Factbook 2012). It has a GDP per capita (PPP) of \$900 (ranking it 221/229) and a life expectancy of 53

years (ranking it 210/223) (CIA World Factbook 2012). A British colony until 1964, it gained independence and subsequently entered one-party authoritarian rule under Hastings Kamuzu Banda of the Malawi Congress Party for thirty years. It adopted a new constitution in 1993, and held its first multi-party elections in 1994. Since then, Malawi has been a democracy characterized by a weak party system, personalistic rulers, and widespread corruption. Malawi received a 37 out of 100 on Transparency International's 2013 Corruption Perceptions Index, ranking it 91st out of 175 countries (Transparency International 2013), and a -0.45 on a scale of -2.5 (high corruption) to +2.5 (low corruption) on the Worldwide Governance Indicators Control of Corruption Index, placing it in the 40th percentile (Kaufmann et al. 2012).¹ In brief, Malawi is a poor country with a weak democratic system and limited and constrained resources.

Malawi's experience with local government has been tumultuous. The Local Government Act of 1998 mandated that Malawi adopt decentralized government to "further the constitutional order based on democratic principles, accountability, transparency and participation of the people" (Government of Malawi 1998, p. 3). Section 147 of the constitution calls for elected local government officials, and Malawi held its first local government elections in December of 2000. Citizens elected approximately 850 councilors in single-member wards. These councilors sat on local assemblies at the district level, and were given substantial political, fiscal, and managerial power. Corruption in the local assemblies across Malawi was rampant in the term following the 2000 election (Tambulasi & Kayuni 2007).

The second round of local government elections in Malawi were scheduled for 2005, but these elections never occurred. As the time for these elections approached, President Bingu wa Mutharika ordered a "functional review" of local government.

¹WGI data for 2013 is not yet available.

After the review, he initiated a change that transferred authority from the elected councilors to the district commissioners, an office inherited from the colonial period and appointed by the Office of the President. The elected officials left their posts and local government in Malawi assumed the structure it has today: district councils led by appointed district commissioners and consisting of a representative from each Ministry. Based on in-depth interviews conducted in Malawi in 2011, 2012, and 2013, with five civil society leaders and twenty government officials at several levels, after representative local government was dissolved, corruption increased. Malawi Electoral Commission representatives, who agreed to be interviewed only on the condition of anonymity, shared their belief that local government elections were not held from 2005 to 2014 so the central government could better access efficient and diverse fraud channels. Malawi's government hierarchy for the 2005-2014 time period, in which I conducted the field work for this dissertation, appears in Figure 3.1.

Local government in Malawi in the 2005-2014 consisted of 28 district councils and six urban councils. In each of these councils, the District Commissioner led a decision-making body that consists of a representative from each ministry, appointed by the ruling party. These representatives had primary authority for all of the functions of the ministry in the district, and the District Commissioner had oversight over revenue collection decisions in the district, as well as control over spending decisions regarding funds and materials transferred to the district from the central government. Each district council had the same structure, with eighteen offices under the District Commissioner. It was not uncommon for one person to serve in several positions, allowinging some district officials to increase their reach. A list of the positions in each district with the mean tenure in government and the mean tenure in the position

appears in Table 3.2.² Interestingly, these two tenure variables are not correlated ($p = .66$), indicating that some positions attract more experienced individuals whereas other positions face high turnover.

After nearly ten years without elected local government, local government elections were held on May 20, 2014. The Malawi Electoral Commission re-drew the ward boundaries, and approximately 700 local councilors were elected at this time.

Table 3.1: Levels of Government in Malawi

Level	Number Units
Country	1
Region	3
District	28
Constituency	193
Ward	462

3.2 Corruption in District Government

Within Malawi, I focus on district government for both substantive and practical reasons. Substantively, one of the main justifications for decentralization is that local government officials are more tied to the populations they serve and better able to anticipate their needs, which should create more accountable government (O'Donnell 1996; Rose-Ackerman 1999; Seabright 1996). Yet, local government corruption is pervasive in developing countries such as Malawi (Besley & Burgess 2002; Bardhan 2002). Corruption at the local level is on a smaller scale than corruption in

²Data on the tenure in government and tenure in the position come from two questions in the survey of district officials. I asked them how long they have worked for government and how long they have served in their current position. I calculated the mean of their responses by position for Table 3.2.

Table 3.2: District Council Positions

Position	Mean Local Government Tenure (Years)	Mean Position Tenure (Years)
District Commissioner (DC)	24.00	1.00
District Education Manager (DEM)	24.00	3.64
District Forestry Officer (DFoO)	18.18	5.14
Director of Administration (DOA)	16.67	4.67
District Agricultural Officer (DAO)	15.73	5.54
District Labour Officer (DLO)	15.29	7.19
District Health Officer (DHO)	15.00	8.00
District Social Welfare Officer (DSWO)	15.00	6.67
Director of Public Works (DPW)	14.94	7.18
Director of Planning and Development (DPD)	14.33	7.00
District Aids Coordinator (DAC)	11.25	4.13
District Environmental Officer (DEO)	9.78	4.33
District Information Officer (DIO)	9.43	4.65
District Trade Officer (DTO)	9.25	3.68
Director of Finance (DFO)	8.80	4.60
District Youth Officer (DYO)	7.05	4.24
District Monitoring and Evaluation Officer (M&E)	6.90	4.80
District Police Officer In-Charge (OC)	N/A	N/A

the powerful central governments of Africa, but as such it is often overlooked. Even small incremental losses to corruption can accumulate over time to significantly mar the ability of the government to provide goods and services effectively. Ultimately, mitigating national corruption in countries like Malawi will require curbing local government corruption. Practically, the larger number of political officials at the level of local government provides the power necessary identify causal relationships.

There are several pieces of evidence indicating that appointed district officials in Malawi have opportunities to engage in many forms of corruption. First, the diverse functions each official performs provides access to the predominant corruption channels. In the survey of district officials conducted in Malawi, over 90% of the officials reported that their job involves providing government services to citizens, executing government programs, and attending government workshops. Sixty percent of the officials surveyed reported that their job involves maintaining and storing government equipment, 45% reported that their job involves procuring materials for government projects, and 40% reported that their job involves government revenue collection of some form. Due to challenges in phrasing these questions to obtain accurate answers, these proportions are likely higher in reality.

The responsibilities allocated to district government provide another piece of evidence that corruption opportunities are high for district officials. Malawi's district councils manage the majority of the funds allocated for public goods and services, hire most of the government workers, and collect the majority of revenue. The corrupt activities of district officials have high earnings potential and there are many forms of corruption available. As one officer of the Anti-Corruption Bureau stated in an interview, "The local officials make more decisions and have resources readily available in their offices, which means more corruption. People in Malawi think democracy and

decentralization are increasing corruption.” Recent data support this assertion. In a 2010 nationwide survey conducted by the Anti-Corruption Bureau of Malawi, citizens gave local government an “integrity score” of 3, on a scale of 0 to 4. This is above the average for Malawi Government institutions of 2.5, but there are still 15 institutions rated higher, including many of the central ministries that formally employ those in the districts. In a 2011 survey conducted by the UNDP on behalf of the Democracy Consolidation Program of Malawi, 46.3% of citizens stated that corruption in the district councils is “very high” (UNDP, Government of Malawi 2012). In the in-depth interviews conducted for this project, all of the officials confirmed that corruption among district officials is widespread. As one District Monitoring and Evaluation Officer said:

Corruption is there at all levels from the top to the bottom, from the city to the village. There is no denying of that fact. My district is not exceptional. It is also infested with corruption. It has become a norm for some people to engage in corrupt activities. Business licenses are sold corruptly to foreigners, government revenue is being swindled, public land is being sold dubiously, people claim allowances for an activity not undertaken, government resources are being abused and the list is endless. Everybody is corrupt.

Finally, in the nationwide survey of Malawian citizens conducted in 2012 for this dissertation project, when asked what prevents the district council from doing better, the most common answer was “the district officials do not visit communities” (14%), followed by “corruption in the district councils” (11%).

I conducted in-depth interviews with officials at the Ministry of Local Government, National Audit Office, and Anti-Corruption Bureau, and compiled a list of the forms of corruption accessible to every position in the district councils. These representatives then assisted me in scoring these forms of corruption for their level of detectability and immediacy. Table 3.3 presents the resulting list and scores.

Table 3.3: District Corruption Forms

Form	Detectability	Immediacy
Colluding with Chiefs in Allocating Programs to their Area	Low	Low
Colluding with Contractors to Inflate Prices Charged to Government	Low	Low
Creating Fake Beneficiaries for Government Programs	Medium	Medium
Creating Fake Reasons to Travel on Business	Low	Low
Creating Fake Workers for Government Projects	High	Medium
Creating Fake Workshops	Low	Low
Diverting Government Revenue (e.g. taxes)	Low	Medium
Falsifying Receipts	Low	Medium
Falsifying Workshop Receipts	Low	High
Nepotism	Medium	Medium
Stealing Benefits Intended for Citizens (e.g. fertilizer subsidies)	High	High
Stealing Funds Intended for Buying Government Property (e.g. office supplies)	Low	High
Stealing Funds Intended for Program (e.g. public school)	Medium	High
Stealing Public Materials (e.g. building supplies)	Medium	Medium
Bribery in Providing Services	High	Low
Bribery in Allocating Contracts	High	Low
Bribery in Allocating Jobs	High	Low
Bribery in Judiciary Decisions	High	Low
Using Government Property (e.g. cars) for Personal Business	Low	Low

3.3 Accountability in Local Government

Some would argue that local government officials in Malawi are not held accountable to the citizens of Malawi because there are no local government elections. Indeed, the survey evidence from this dissertation indicates that citizens see a link between improved local government accountability and elected local government officials. Forty-eight percent of citizens said that there was less corruption when Malawi had elected local government, and only 3% said there was more corruption.

However, an increase in corruption does not necessarily imply an *absence* of sanctions. Elections provide only one avenue to reward and sanction political officials (e.g. Tsai's (2007) work on solidarity networks). The in-depth interviews indicate that Malawian citizens not only have access to a variety of sanctions to combat local government corruption, they indeed utilize these sanctions, and the sanctions indeed punish officials who are abusing their office. The same is true for political superiors. A list of sanctioning options that have led to formal investigation and removal from district office within the last year in Malawi appear in Table 3.4.

Table 3.4: Non-Electoral Sanctioning Avenues Against District Officials

Sanctioning Avenue	Bottom-Up or Top-Down
Citizen Reporting to the Anti-Corruption Bureau	Bottom-Up
Citizen Providing Information to Local Media Outlet	Bottom-Up
Citizen Meeting with Local Chief	Bottom-Up
Citizen Writing Letter to Local District Council	Bottom-Up
Citizen Writing Letter to Local Member of Parliament	Bottom-Up
Citizen Staging a Protest Outside District Offices	Bottom-Up
Citizen Vandalizing Government Property	Bottom-Up
Anti-Corruption Bureau Initiating an Investigation	Top-Down
Ministry of Local Government Initiating a Transfer	Top-Down
Political Party of Offender Initiating a Transfer	Top-Down

3.4 Cashgate Scandal in Malawi

Since data collection for this dissertation, an immense corruption scandal came to light in Malawi. This scandal provides a compelling portrait of corruption challenges in Malawi. It also indicates that citizens in Malawi, despite the absence of elections, will respond to increased transparency with increased sanctioning.

The scandal broke when Budget Director Paul Mphwiyo was shot on Septem-

ber 13, 2013. A statement from President Joyce Banda claimed that the shooting was an intentional retaliation by officials against Mr. Mphwiyo's planned crackdown on district-level corruption (Malawi Today 16 September 2013). The investigation into the shooting began to unravel a corruption scheme of incredible proportions. Dubbed "Cashgate" by the media, over 60 individuals have been arrested in connection with the scheme, and over \$32million has been stolen (The Economist 27 February 2014). An official audit report by Baker Tilly, published in February of 2014, provides the facts behind the scandal. The audit only covered six months of activity (February - September of 2013), and only specific "high risk" government transactions.

The corruption behind Cashgate is of three forms. The form of corruption accounting for the greatest total amount - MK 6.1 billion (about US\$15 million) - is outright theft. Officials simply transferred government funds into personal accounts or the accounts of friends. The funds stolen came from several ministries and several funds, included many executed at the district level: construction of irrigation schemes; consultancy; rehabilitation of roads and bridges. The involved government officials, "have been unable to provide supporting documentation, such as invoices, contracts, GRNs, or any other evidence of any services or goods being provided to justify the payment made from the government account" (National Audit Office of Malawi 2014, p. 27). There is also no evidence suggesting that these large cash withdrawals or large checks from government accounts were ever challenged by political superiors or bank officials.

The second most common form of corruption is theft of funds transferred to specific "shell" companies. This form of corruption constituted a loss of MK 4.0 billion (about US\$10 million). These companies were contracted for services or goods provided to the government but it does not appear that they provided anything or that

they even exist. The final form of corruption is inflated procurement prices, whereby companies were contracted for services or goods provided to the government, and they did indeed provide these goods or services, but were paid excessively. This form of corruption cost approximately MK 3.6 billion (about US\$9 million).

The audit report details improperly followed controls and loopholes exploited to facilitate the corruption. For example, several transactions requiring three signatures only obtained two. A window was left open in a server room, allowing people access to the room in order to erase records. Officials circulated a few ID numbers and access codes to delete transactions from government bank accounts.

The audit report also provides many recommendations for future anti-corruption efforts. These recommendations are highly specific to the forms of corruption involved in the scandal, and it is easy to see how the reforms will either be quickly circumvented or will result in corruption displacement. For example, one of the recommendations is to prevent government transactions from being approved over personal email accounts, with the assumption that professional email accounts can be monitored. It seems evident that a clever official will simply negotiate a transaction and establish what to say over personal email, and then have the official approval recorded over the professional account. Perhaps a less easily manipulated reform is the recommendation to require authorization for all transactions above a monetary cutoff, regardless of whether the transaction is within budget (the previous requirement was that no authorization was necessary if the transaction was in the budget). This oversight will likely reduce the incidence of corruption forms involving large theft from specific programs. However, it will likely increase the incidence of corruption forms involving small theft from specific programs: theft will occur over a greater number of transactions. It may also increase the incidence of corruption forms involving theft from

general pools of funds or programs that have not been budgeted, where the controls are less rigid.

The auditors recognize the possibility for such displacement. They conclude their summary by stating, “The apparent level of collusion and circumvention, together with limited challenge by those charged with accountability and lack of detailed external audit, would suggest that there is no guarantee or assurances that future occurrences would not happen regardless of any control improvements implemented” (National Audit Office of Malawi 2014, p. 7).

On the one hand, the Cashgate scandal seems to portray fighting corruption in Malawi as a hopeless cause. The corruption behind Cashgate has resulted in an immense loss of public funds, funds that are desperately needed for important programs, public goods, and social services in one of the poorest countries in the world. It is also concerning that fighting corruption has resulted in violence against a government official, both the first non-combat shooting as well as the first incident of violent intimidation of a government official in Malawi’s history since democratization in 1994. It is possible that this will have a deterrent effect on future anti-corruption efforts at the grassroots level. Finally, the proclamation of the audit report that there is essentially nothing to be done to prevent corruption displacement is dismal.

There are a few optimistic findings coming out Cashgate. Building on a survey being executed by Shannon Colin, an undergraduate researcher from the University of California, San Diego, we surveyed market vendors in both urban and rural Malawi in December 2013, four months after Cashgate broke. I asked some of the same questions I asked in the citizen survey in 2012. The sample is not perfectly comparable, but the differences in answers are still striking. Whereas 4.3% of the pre-Cashgate sample said they had taken action after experiencing corruption, 12.1% said they had

in the post-Cashgate sample. While 51.8% said corruption was frequent or extensive in the district assemblies in the pre-Cashgate survey, this figure rose to 63.0% in the post-Cashgate survey. This provides evidence that, in the case of Cashgate, increasing transparency surrounding corruption is associated with an increase in reported instances of sanctioning it.

Another striking difference is in the effect Cashgate has had on the perceived legitimacy of the Anti-Corruption Bureau, which has been highly involved and visible in investigating Cashgate, making arrests, and reporting the progress to the media. In the pre-Cashgate survey, 14.3% of respondents said the ACB was responsible for fighting corruption in Malawi and 12.5% said they would report corruption to the ACB. In the post-Cashgate survey, 46.1% said the ACB was responsible for fighting corruption in Malawi and 26.5% said they would report corruption to the ACB. This pattern seems to suggest that the Anti-Corruption Bureau is increasingly seen as an active and respected anti-corruption institution in Malawi.

Similarly, in a survey I conducted with co-author Nicholas Obradovich on 3,800 citizens across five districts of Malawi in the days leading up to the May 2014 election, over 80% of citizens surveyed said corruption was an important issue when deciding their vote for president. There was no significant difference in this rate across socioeconomic status, gender, district, and age. This finding suggests that Malawian citizens are using information about corruption to determine their actions following the Cashgate scandal in at least one way.

Whether Cashgate is an optimistic or pessimistic sign for long-term anti-corruption efforts in Malawi remains to be seen. Regardless, it provides a timely case demonstrating the importance of considering the possibility for displacement effects resulting from anti-corruption efforts. It demonstrates the importance of in-

volving agents other than the central government in anti-corruption efforts, and it shows that unconstrained officials will default to efficient, large-scale, unconstrained theft unless they are forced to do otherwise. If nothing else, Cashgate has informed scholars and policymakers about future opportunities for anti-corruption efforts in Malawi. These opportunities align with the findings and implications of my research.

3.5 Conclusion

Malawi is a compelling case for examining corruption displacement effects because of its government structure, corruption environment, and accountability mechanisms. It has a decentralized government in which district government officials have extensive control over the management of funds. District officials have many opportunities to engage in corruption, and several sources indicate that corruption in district government is high. Nonetheless, there is also evidence that the citizens of Malawi will take action against corruption when they are aware of it. The public outcry against Cashgate and limited survey data provide some evidence of this. The next chapter, on the dynamics of citizen corruption sanctioning, provides more evidence. I now turn to the data and tests associated with this dissertation.

Chapter 4

Sanctioning Corruption

In this chapter, I make three points regarding sanctioning corruption. Drawing on the literature considering the “accountability channel” in addition to the “agent selection channel” (Humphreys & Weinstein 2012), this chapter uses original survey data and data provided by Malawi’s Anti-Corruption Bureau to demonstrate that there are non-electoral sanctioning mechanisms in Malawi. Building on the theory developed in Chapter 2, a survey experiment conducted among citizens of Malawi provides evidence that citizens’ are willing to take action against corruption under certain circumstances. I also find that Malawians are sociotropic in corruption sanctioning. Corruption affecting the community in a tangible and immediate way is sanctioned at a significantly higher rate than corruption affecting individual welfare. This finding is corroborated by a content analysis of media coverage of district-level corruption, showing that the media also focuses on high-immediacy corruption.

This chapter then explores how sanctioning rates might differ based on the sanctioning capacity of the district. I argue that there is a latent indicator that captures citizen access to sanctions, and I call this indicator “sanctioning capacity.”

I use data from reports of corruption from the Anti-Corruption Bureau to show that sanctioning capacity varies across Malawi. Combining this dataset with common proxy measures of civic engagement and capacity, I develop a measure of sanctioning capacity at the district level in Malawi.

4.1 Citizen Sanctioning of Corruption in the Literature

The vast majority of the literature on sanctions against corruption focuses on elections, through which frustrated citizens can vote the corrupt out of office. For example, studies such as Banerjee et al. (2010), Ferraz & Finan (2008), and Chong et al. (2011) all examine how increasing the transparency of corruption affects turnout and vote choice among citizens in an election. Pande (2011) reviews this body of work and concludes that information about corruption can indeed change who is elected into office in low income countries.

Electoral outcomes are only one possible set of effects of anti-corruption interventions. It is possible that citizens use the information provided in anti-corruption interventions to sanction corruption outside of elections. Tsai (2007b) demonstrates that officials in China are held accountable by their citizens through community solidary networks. A large-scale experiment conducted in Uganda examines the accountability channel of contacting elected officials via text message, concluding that citizens are sensitive to the availability and price of such channels (Grossman et al. 2014). In general, however, studies focusing on non-electoral sanctions of corruption are rare.

Further, few datasets capture the availability and use of non-electoral sanction-

ing mechanisms. The Worldwide Governance Indicators’ “Voice and Accountability” indicator captures “the extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media” (Kaufmann et al. 2012). On this scale, Malawi has hovered around -.25 for the past seven years (on a scale of -2.5 (low accountability) to +2.5 (high accountability)), placing it at the 40th percentile mark (Kaufmann et al. 2012). The Varieties of Democracy (V-Dem) project will include indicators capturing citizen participation and deliberation in the political process, asking questions about political participation outside of elections. Instead of using such country-level panel datasets, I feature sub-national data to identify more precisely the relationship between citizen sanctions and corruption choices.

4.2 Sanctioning Data Sources

I use three data sources to examine citizen sanctions against corruption in Malawi. In an original survey of 607 citizens across six districts of Malawi, I provide evidence that citizens are aware that district-level corruption is a problem affecting Malawi’s development. As district officials substitute forms of corruption, the citizens of Malawi have substituted various sanctioning options for the democratic elections that were taken away less than a decade ago. The survey data show that citizens feel empowered to enact a range of non-electoral sanctions against corruption. A survey experiment embedded in the citizen survey shows that citizens are more likely to take action against corruption when the corruption affects citizens immediately and tangibly, providing evidence that the immediacy dimension introduced in this dissertation is salient. A five-year content analysis of Malawi’s two main newspapers

and broadcasts from the primary radio station supplements this point by showing that the media also primarily report on high-immediacy corruption in district government. It is not clear whether there is a causal relationship between media coverage and citizen action against corruption, and if so, what direction. However, the attention shown by both the media and the citizens to high-immediacy forms of corruption highlights the salience of the immediacy dimension. Finally, a five-year database of reports to the Anti-Corruption Bureau about district corruption demonstrates that the ability of citizens to sanction district corruption varies dramatically across Malawi. Analyzing this database along with data on root causes of sanctioning capacity from the National Statistics Office and Demographic and Health Surveys, I construct of an index of sanctioning capacity at the sub-national level in Malawi. This index will be used in Chapter 5 and Chapter 6 when considering corruption choices among officials.

4.2.1 Survey of Malawian Citizens

The citizen survey was conducted in July of 2012, and consists of 75 questions about citizen perceptions of and responses to district-level corruption in Malawi. After collecting relevant covariates, the primary goal of the survey was to verify one key assumption in my theory linking transparency and sanctioning capacity to corruption: that when provided with information about high-immediacy corruption that affects them immediately and tangibly, citizens would report taking action. A survey experiment embedded in the survey explores the idea of “sociotropic” corruption sanctioning: whether citizens are more likely to take action against corruption that affects their community as compared to corruption that affects only their household.

The surveys were translated and back-translated from English into Chichewa and Tumbuka, and then read aloud to the subjects, who verbally answered the ques-

tions. A total of 302 subjects were surveyed in Chichewa and 305 in Tumbuka, the primary native languages of Malawi. Two districts in the Northern Region, two districts in the Southern Region and then two districts in the Central Region were randomly selected. Within each district, one traditional authority (T/A) was selected, and then within each T/A, one enumeration area (EA) was selected.¹ A map of the sampled T/As appears in Figure 4.1.

Five enumerators and one manager worked in each EA for a day. After the manager chose a central landmark as a starting point, the enumerators worked in a random walk pattern to sample a total of 50 households per EA (10 per enumerator). The manager surveyed the chiefs in the EA, in addition to overseeing the other enumerators. Only one adult was sampled per household, including in polygamous households, and the enumerators alternately asked for the male or female heads of household. Every other household was sampled, although households without a head of household present were not counted in this skip pattern. Enumerators were permitted to circle back to households if the male/female head of household was meant to return shortly. They were also permitted to find the male/female head of household elsewhere, take them aside, and then interview them in a private location. If the enumerators walked to the edge of the EA, they were permitted to spin a bottle and resume the walk pattern in the direction of the open side of the bottle. The manager kept a map of the walk patterns and sampled households in each T/A.

Verbal consent was obtained at the beginning of the survey, after informing the subject about the purpose of the study, the organization conducting the study, the confidentiality of their answers and their right and ability to refuse to participate. In my experience, when a survey in Malawi asks about household welfare and

¹Due to the unreachable nature of one of the originally selected districts, we had to re-sample to replace it.



Figure 4.1: Sampled Traditional Authorities in Citizen Survey

issues facing the community, subjects will often attempt to get information about the researchers and funding behind the survey, often derailing the survey's progress. Therefore, enumerators were instructed not to reveal any further details about the project, beyond the sponsoring organization: the University of California, San Diego. Finally, the enumerators were encouraged to refrain from revealing any of their own characteristics or opinions, although they were also encouraged to build and maintain a friendly rapport with the subjects.

4.2.2 Media Content Analysis

For a five-year period (2008-2012), I conducted a content analysis of the two main newspapers in Malawi (*The Nation* and *The Daily Times*) and the news bulletins read aloud on the main radio station of Malawi (Zodiak). I compiled a dataset of all of the newspaper articles or radio broadcasts about district-level corruption in this period. There were 40 in total across the five-year period, with the majority (18) occurring in 2012. The stories did not overlap in the content covered: news outlets in Malawi chose to focus on different district corruption stories over this period. I analyzed each article or broadcast to extract seven pieces of information:

1. *The level of immediacy of the corruption form in question* - Coded in partnership with officials from the Anti-Corruption Bureau on a qualitative scale of low, medium, high
2. *The level of detectability of the corruption form in question* - Coded in partnership with officials from the Anti-Corruption Bureau on a qualitative scale of low, medium, high
3. *Whether or not the article or broadcast discussed an informal, citizen-imposed*

- sanction (e.g. protest, meeting with a chief* - Independently coded as yes or no
4. *Whether or not the article or broadcast discussed a formal sanction (e.g. arrest, trial)* - Independently coded as yes or no
 5. *Whether or not the article or broadcast discussed the involvement of the Anti-Corruption Bureau* - Independently coded as yes or no
 6. *Whether or not the corruption in question pertained to the fertilizer subsidy program* - Independently coded as yes or no
 7. *Whether or not the corruption in question pertained to public goods provision (e.g. constructing schools, providing healthcare)* - Independently coded as yes or no

The goal of this content analysis is to capture information about the forms of corruption the media evaluate as salient enough to be in the news. Specifically, I investigate the level of immediacy of corruption discussed in the news, and ascertain whether non-electoral citizen sanctions are covered in the media.

4.2.3 Database of Reports on Corruption

Although data about all the possible forms of bottom-up sanctioning in Malawi does not exist, there are high-quality data regarding one: the sanction of reporting a district official to the Anti-Corruption Bureau (ACB). Until 2012, all reports of district corruption received by the ACB office resulted in formal investigations. In 2012, 94% of them resulted in formal investigations.² Since an investigation involves

²Due to the lack of an ACB director in mid-2012, there is currently a delay in evaluating the reports. The rate of recommendation for investigation reported here is based only on those reports considered by a committee at the ACB, not those that have not yet been considered.

restricting the official’s mobility, access to bank accounts, use of assets, interdiction at work, and performance of official duties, and since the majority of corruption reports are recommended for investigation, reporting corruption to the ACB is a *de facto* sanction of the abuse of political power.

To assist in this project, the ACB provided five years (2008-2012) of data on reports of corruption in local government across all 28 districts of Malawi.³ The dataset includes information about the date of the report, the form of the report (i.e. letter, phone call, etc.), the district of the corruption, the involved parties in the corruption, the details of the corruption, and whether or not the report was investigated. After some data preparation, there are 597 bottom-up reports of corruption in district government across five years, with the vast majority (403) of these reports occurring in 2012. Collapsing this data into a district-year dataset provides 140 district-year observations. The minimum number of corruption reports against a district in one year is zero, the maximum is 59, and the average is 4.3 with a standard deviation of 8.1 reports.

One might be concerned that those who report corruption are elites, not average citizens. Though I was not given access to identifying information about those who reported corruption to the ACB, my interviews with its officials reported that the individuals who report vary along the socioeconomic, educational, urban/rural, ethnic, and occupational dimensions in Malawi. No “typical” individual calls in with a report of corruption to the ACB. In the 2008-2011 data, all reports were treated

³There are three offices that collect these reports: one in each region (Northern, Central, Southern) of Malawi. The reports are stored electronically in the Northern and Central regions, and I was given free access to a cleansed and parsed version of the electronic files in these two regions. However, the server in the Southern region has been down for months, ever since I first began discussions to obtain this dataset. After an extensive analysis of the costs involved, I determined it was less expensive to pay officers of the ACB to work after hours to generate the electronic files from the paper files than to pay to fix the server. Accordingly, I paid five officers \$100 each and one manager \$300 to compile the data in the Southern Region.

equally, and no information about the complainants was recorded. In the 2012 data, however, reports of corruption could also be submitted anonymously or “on record,” and of those “on record,” the ACB recorded whether or not the complainant was a chief or another government officials: seven of the 364 “on record” reports came from chiefs and 11 came from other government officials. Since my interviews reveal that chiefs may be perceived as a political superiors as well as citizens, and since they may have access to sanctioning possibilities other citizens might not, these reports were removed from the analysis of bottom-up sanctioning vulnerability. I am unable to parse the 2008-2011 and anonymous 2012 reports this way. I argue that including all 2008-2011 reports as well as all anonymous 2012 reports to measure sanctioning ability by district makes the estimates noisy, but not biased: in 2012, the level of reports from chiefs or other political officials is uncorrelated with the level of reports from citizens ($p=.93$). Furthermore, for 2012, the rate of reports from chiefs or other political officials is relatively constant across districts: all districts have between none and two reports from these sources except for Dowa, which has four.

4.3 Citizen Avenues for Sanctioning Corruption

The citizens of Malawi are aware that corruption is a problem. When asked what prevents the district assembly from doing better, 27.9% cited corruption as the main barrier. Only 3.7% of respondents said that corruption never occurs in the district, and 65% are able to name a specific form of corruption they believe exists in their district. Finally, 71.9% of respondents said corruption was less prevalent in local government when Malawi had elected local councilors, and only 4.2% said there was more corruption. These figures provide some evidence that the citizens of Malawi

are at least somewhat dissatisfied with their local government, aware corruption is a problem in local government, and believe that democratic institutions resulted in lower corruption.

Citizens are willing to take action to fight corruption. The survey asks the respondent whether she agrees with the statement: “Community members in Malawi are empowered to do something about corruption in the district assemblies.” The rate of agreement in response to this question was 57.9%. Then 66.1% agreed with the statement: “My actions to combat corruption in the district assemblies will reduce corruption over time.” Finally, 83.6% of citizens are able to name at least one non-electoral avenue for taking action against corruption.

4.3.1 Survey Experiment on Corruption Sanctioning

Past literature has often confused an absence of citizen action against poorly performing politicians with citizen apathy (see Pande (2011) for a review of this literature). Yet, it is possible that citizens are strategic actors when it comes to sanctioning poor performance, including corruption. Perhaps certain forms of corruption are not salient enough to elicit citizen action, whereas other forms of corruption garner a response. For example, while Humphreys & Weinstein (2012) conclude, “Greater transparency about the performance of MPs appears to have little impact on the strength of accountability relationships between politicians and their constituents,” they acknowledge that the scorecards provided to citizens about MP performance may not have been “relevant to individuals’ political calculations” (Humphreys & Weinstein 2012, p. 32). The scorecards include technical information about the MP’s percentile on indicators such as plenary and committee attendance, peer assessment of the MP on various factors such as “oversight” and “intra-party influence,” and a

bar graph depicting how the MP allocates spending across development categories compared to the parliament as a whole. It seems possible that citizens in Uganda do not vote based on these performance indicators, but that they may indeed vote based on other measures of candidate performance.

I argue that the immediacy dimension proposed in Chapter 2 can be used to anticipate the willingness of citizens to sanction corruption. As there is a cost associated with enacting a sanction against corrupt officials - resources and reputation - citizens are only willing to bear this cost when the potential benefit of doing so is sufficiently high. In interviews, citizens noted that the potential benefits arising out of sanctioning corruption are not limited to recouping corruption losses or preventing future corruption. Citizens view making corruption more challenging or marring the reputations of the corrupt as benefits as well.

I extend the logic from the sociotropic voting literature to argue that citizens are motivated to sanction corruption based on the effect it has on their community, not only when the corruption affects them personally. In other words, the immediacy dimension relates to the direct and immediate effects of the corruption on the community, not on the individual. As citizens in a variety of contexts vote based on the health of the overall economy more so than their own economic circumstances (Kinder & Kiewiet 1981; Ansolabehere et al. 2012), citizens may sanction corruption when it affects the broader community more so than when it affects their own circumstances. Canache et al. (2013) provide evidence of this when they analyze data from 24 countries to find that the level of bribery in an individual's region is a more significant predictor of corruption perceptions than the individual's personal experiences with corruption.

Experiment Design and Variables

A survey experiment embedded of the survey of citizens provides a test of the sociotropic corruption sanctioning mechanism. I randomly assigned citizens to receive one of two vignettes in the survey that discuss a hypothetical corruption situation in the district. The text of the two vignettes is as follows:

Treatment of High-Immediacy Corruption Affecting Community: I will describe a situation. Please think about what you would do in this situation. You learn that the LDF includes funds for building schools and that the district assembly will soon build schools in the neediest communities around the district, which includes providing K200,000 for a school in your village. You wait for the school project to start, but it never does. You learn that the funds for the school were stolen by a member of the district assembly and used for his own purposes.

Treatment of High-Immediacy Corruption Affecting Household: I will describe a situation. Please think about what you would do in this situation. You learn that your household has been approved to receive K200,000 in fertilizer coupons. You wait for notification that you can pick up the coupons, but it never arrives. You learn that the coupons were stolen by a member of the district assembly and used for his own purposes.

Note that the vignettes are similar in that both forms of corruption are high-immediacy. Stealing from the Local Development Funds (LDF) and the fertilizer subsidy program are two of the most tangible and immediate forms of corruption in Malawi, and corruption in these areas has been vulnerable to a variety of sanctions in the past, including reporting to the Anti-Corruption Bureau and reporting to the media. The vignettes are also similar in that both incidences of corruption have the same monetary magnitude of theft today (MK200,000) and also have monetary ramifications far into the future (e.g. loss of future farming income, loss of future returns to education). Finally, both vignettes hold constant the corrupt individual (member of the district assembly), her corrupt action (stealing), and her use of the

funds (for his own purposes). The primary difference between the two vignettes is the group affected by the corruption; theft of LDF funds intended for a school affects the entire village whereas theft of fertilizer coupons affects only the individual's household.

Between three and five questions followed after reading the randomly assigned vignette. First, subjects were asked if they would anticipate taking any action against the corruption in the hypothetical situation. This question was open response, and the answers were coded into categories after data collection. Those who said they would do nothing were asked the follow-up question of, "Why wouldn't you do anything?" Then, subjects were asked how angry they would be in the hypothetical situation, and provided with possible answers of, "Not angry at all" (coded as 1) "A little angry" (coded as 2) "More angry" (coded as 3) and "Very angry" (coded as 4). Finally, subjects were asked if they believed the corrupt official described in the hypothetical situation should be punished. Once again, this question was open response, and the answers were coded into categories after data collection. Those who said they did not think he should be punished were asked the follow-up question of, "Why do you think punishment is inappropriate?"

Survey Experiment Hypotheses

As asserted in Chapter 2 and throughout this chapter, citizens of Malawi are willing to sanction corruption when the corruption is high-immediacy, affecting them immediately and tangibly. We might expect corruption sanctioning to be influenced by predictors of individual-level political participation, including: age (Alexander 2010; Resnick & Casale 2011); gender (Inglehart & Norris 2000); income (Bratton 2008; Gandhi & Lust-Okar 2009); education (Finan & Schechter 2012; Bratton 2008); civil society membership (Hearn 2001; Bratton 1989; Tsai 2007a); ruling party

membership (Cornwall & Coelho 2007); and ethnicity (Leighley & Vedlitz 1999). I argue that high-immediacy corruption is vulnerable to sanctions from all citizens, even after controlling for these factors. Further, I argue that citizens of Malawi engage in sociotropic corruption sanctioning. They are more willing to sanction corruption when it affects their community than they are when it affects only the individual and their family. As with the sociotropic voting, there are several possible mechanisms that would explain this dynamic. When corruption affects the community, citizens may believe that others are more likely to take action and therefore that their action is more likely to reduce corruption. They may also believe that corruption affecting the community is more shameful and therefore politicians will be more likely to take responsibility. I do not test different mechanisms explaining sociotropic corruption sanctioning, but rather test whether it is a significant factor associated with higher rates of taking action against corruption.

Specifically, the hypotheses are:

Hypothesis 4.1: Malawian citizens will anticipate taking action after being provided with information about high-immediacy corruption.

Hypothesis 4.2: Corruption affecting the broader community will be sanctioned by Malawian citizens at higher rates than will corruption affecting one family.

Hypothesis 4.3: A citizen of Malawi is more likely to state punishment is justified when corruption affects the broader community, compared to corruption that affects only his family.

Covariate Balance

Before discussing the analysis and results, we consider whether or not the randomization resulted in two probabilistically equivalent groups. To determine this, I conduct a Komolgorov-Smirnov (KS) test on the distributions of 11 covariates across the two treatment groups. The results appear in Table 4.1, which show that the two groups are equivalent at the 95% significance level with the exception of the distribution of Chewa and married individuals throughout the population. The population that received the survey vignette about corruption in the LDF funds are 20.5% Chewa whereas the population that received the survey vignette about corruption in the fertilizer program is 30.4% Chewa. The population that received the survey vignette about corruption in the LDF funds are 86.3% married whereas the population that received the survey vignette about corruption in the fertilizer program is 77.7%. Data for these covariates come from other questions on the survey.

Table 4.1: Covariate Balance Across Treatment Groups in Survey Experiment

	Subjects with Community Corruption Treatment	Subjects with Household Corruption Treatment	KS Test p-value
Female	50.4%	50.9%	.94
Married	86.3%	77.7%	.09
Age Bracket (out of six)	2.27	2.47	.39
Income Bracket (out of five)	0.74	0.68	.85
Attended School	88.1%	85.8%	.61
CSO Member	19.6%	19.6%	.99
Ruling Party Supporter	54.7%	61.6%	.29

Analysis and Results

To test each of these hypotheses, I run a series of t-tests and regressions. In the regressions, I include the possible causes of anti-corruption citizen actions mentioned above - age, income, education, civil society membership, ruling party membership, and ethnicity - as control variables, as well as district and enumerator fixed effects.⁴ The dependent variable when testing Hypothesis 4.1 and Hypothesis 4.2 is a binary variable for whether or not the citizen reports they would sanction the corruption via some action. The dependent variable when testing Hypothesis 4.3 is a binary variable for whether or not the citizen views some punishment as appropriate in the hypothetical situation. Both of these dependent variables come from responses to the questions posed after the survey experiment vignette.

There is support for Hypothesis 4.1. Across both vignette treatments, 83.6% of respondents state they anticipate taking action after discovering the corruption in the hypothetical situation. The most common actions suggested are reporting the corruption to the police (21.6%), submitting a report to the district (20.9%), and meeting with a chief (18.4%). Approximately one-fifth (21.3%) of the respondents listed more than one action. None of the respondents discussed voting or elections in their anticipated action.

Hypothesis 4.2 is strongly supported in the analysis. The difference in proportions test shows that survey subjects are 10.0% more willing to take action against corruption when it involves stealing funds from a village school than they are when the corruption involves stealing fertilizer coupons from the respondent's household

⁴Many citizens were unwilling to answer the question about party membership, which explains the lower number of observations in the regressions compared to the t-tests. The results discussed in this section are stronger and more significant when ruling party membership is omitted from the regressions.

(Table 4.2, model (1)). The result is more significant in the regression, which controls for the respondent's age, income, education, civil society membership, ruling party membership, and ethnicity (Table 4.2, model (2)). As depicted in Figure 4.2, 78.6% of citizens state they will take action against the high-immediacy corruption affecting their household, but 93.1% of citizens state they will take action against the high-immediacy corruption affecting their community.

One might be concerned that this result is driven by different attitudes towards farming or education, not by a sociotropic corruption sanctioning value: perhaps those with children are much more willing to sanction corruption when it interferes with schooling in their community. However, an interaction term between the treatment and being married is insignificant, as is an interaction term between the treatment and the number of children. The married and those with children are not reacting to corruption stealing from a school more strongly. Though this would bias against finding an effect in the hypothesized direction, there could also be an effect in the opposite direction, whereby those whose primary income is farming react more strongly to corruption in the fertilizer subsidy program. An interaction term between the treatment and being a farmer is insignificant as well.

The salience of corruption does not appear to explain the result either. Running a regression in which the dependent variable is the level of anger over the corruption actually shows a highly significant difference between the two forms of corruption in the opposite direction from the hypothesis tests: citizens become much more angry over the corruption in the fertilizer subsidy program (Table 4.2, column (5)). Similarly, 32.1% of citizens surveyed named some type of corruption in the fertilizer subsidy program as one of the top three corruption forms affecting them personally. Though they are nonetheless much angrier over the corruption affecting their house-

hold and they are aware that it is personally affecting them, citizens take action over the corruption affecting their village.

Finally, there is some support for Hypothesis 4.3. The difference in proportions test shows that survey subjects are 2.3% more likely to support punishing the corrupt when it involves stealing funds from a village school than they are when the corruption involves stealing fertilizer coupons from the respondent's household (Table 4.2, model (3)). However, this result disappears when controlling for the respondent's age, income, education, civil society membership, ruling party membership, and ethnicity (Table 4.2, model (4)).

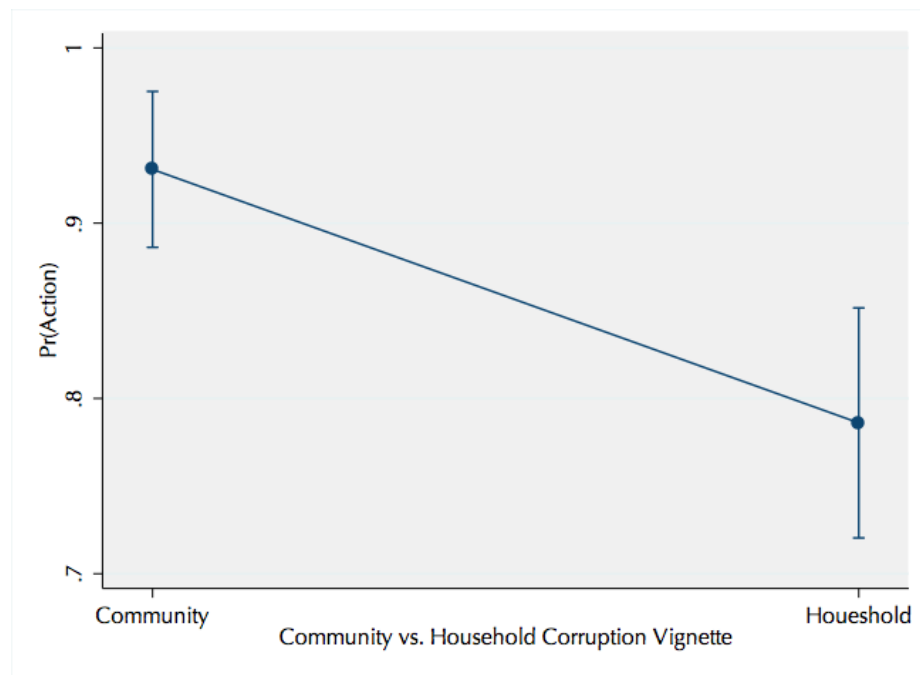


Figure 4.2: Sociotropic Corruption Sanctioning

Table 4.2: Regression of Citizen Sanctioning on Corruption Form

	DV: Anticipated Action (0 or 1)		DV: Punishment Appropriate (0 or 1)		DV: Anger (1-4)
	(1) ttest	(2) Probit	(3) ttest	(4) Probit	(5) OLS
Community Corruption	0.100*** (0.030)	0.929*** (0.294)	0.023* (0.018)	-0.313 (0.393)	-0.190* (0.098)
Female (0/1)		-0.376 (0.278)		-0.220 (0.395)	-0.037 (0.103)
Age Bracket (0-5)		-0.131 (0.111)		-0.005 (0.170)	0.063 (0.040)
Income Bracket (0-4)		0.045 (0.190)		0.282 (0.247)	0.091 (0.063)
Attended Formal School (0/1)		0.340 (0.436)		0.522 (0.645)	0.008 (0.150)
Married (0/1)		0.639* (0.340)		0.165 (0.531)	0.141 (0.137)
Member of CSO (0/1)		-0.026 (0.336)		0.686 (0.568)	-0.069 (0.126)
Ruling Party Supporter (0/1)		-0.421 (0.287)		0.068 (0.428)	-0.168 (0.105)
Chewa (0/1)		-0.197 (0.691)		0.786 (1.047)	0.167 (0.239)
Tumbuka (0/1)		-0.478 (0.618)		-0.242 (0.524)	-0.020 (0.174)
Yao (0/1)		0.394 (0.938)		2.439 (308.355)	0.335 (0.294)
Lomwe (0/1)		-0.008 (0.798)		<i>omitted</i>	0.299 (0.287)
Observations	603	228	607	133	228

All models include district and enumerator fixed effects.

Standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1

4.3.2 Corruption Immediacy in the Media

The media content analysis validates the immediacy dimension, showing that the forms of corruption considered salient by citizens are also those highlighted in the media. Although newspaper and radio coverage of district-level corruption considers a range of forms, nearly all the articles and broadcasts discuss high-immediacy corruption. To establish this, I examined each article or broadcast about district corruption, coding the level of immediacy and detectability of the form of corruption discussed.⁵ Figure 4.3 shows a histogram of media reports based on their level of immediacy. Sixty percent of newspaper articles and radio broadcasts about district corruption focus on high-immediacy corruption, and less than 10% focus on low-immediacy corruption. As discussed in Chapter 5, this is not because district officials are exclusively engaging in high-immediacy corruption; officials across the districts of Malawi engage in a portfolio of corruption forms. By far the most commonly indicted realm of corruption in the media is any corruption form involving the fertilizer subsidy program. Thirty-five percent of all media coverage of district-level corruption is about corruption within this program. Further, 58% of all media coverage of district-level corruption is about corruption within public goods programs more generally. For example, many articles and broadcasts mention officials stealing funds or materials intended for building schools or ciphening off the Constituency Development Funds, a substantial yearly central government transfer to the districts. After public goods, articles and broadcasts often focus on bribery in exchange for government services: releasing suspects on bail; processing deceased estates; or allowing immigrants into the country.

⁵This coding was based on the the relative values established in consultation with the Anti-Corruption Bureau in 2013.

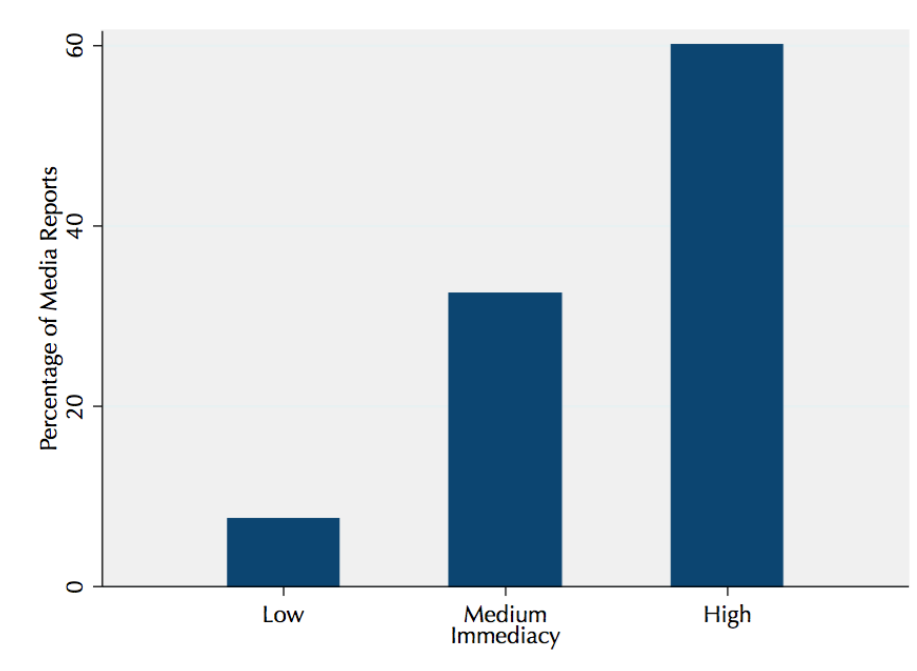


Figure 4.3: Immediacy of Corruption Discussed in Media Reports

There does not seem to be a similar pattern regarding the detectability of corruption forms discussed in Malawi’s newspapers and radio broadcasts (Figure 4.4). Perhaps this is because the level of transparency across Malawi is relatively low, and therefore the investigations and arrests reported in the media are based on idiosyncratic reports of corruption from citizens and political officials, not on a widespread transparency intervention that would disproportionately discover the more detectable forms (Figure 4.4).

The media content analysis supports the earlier claim that citizens of Malawi take action against corruption outside of elections. Though 2009 was an election year, no media reports discuss the issue of corruption and its place in informing voting in the election. Instead, several of them discuss citizen actions outside of the election. As examples, three of the media reports read as follows:

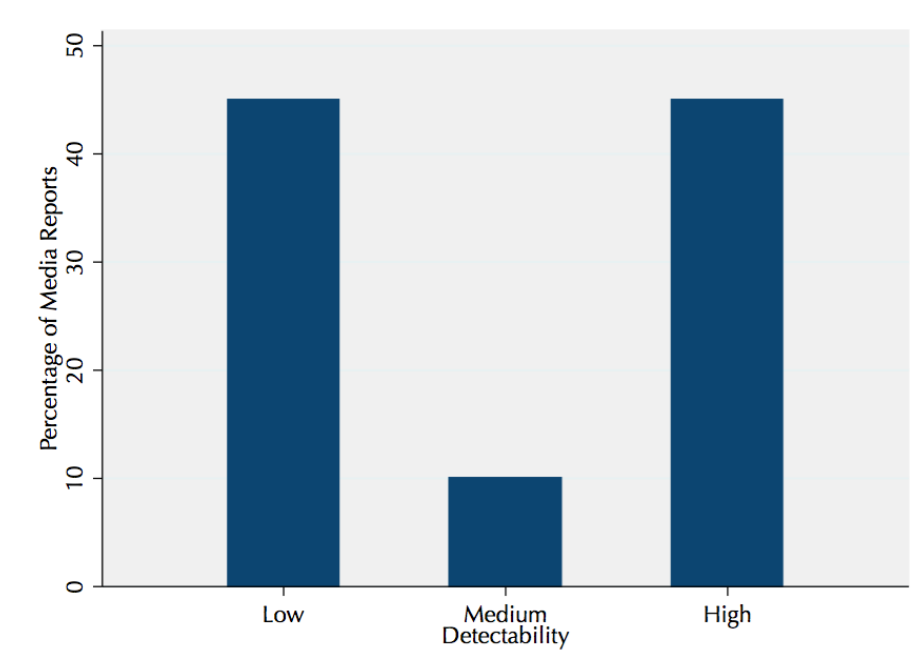


Figure 4.4: Detectability of Corruption Discussed in Media Reports

Vendors at Limbe market apprehended two police officers for extortion of money from a businessman Charles Denja. The vendors locked the two police recruits in the market before handing them over to Limbe Police. - Daily Times, p. 3, June 29, 2012

Angry villagers besieged the office of the District Agriculture Development Officer in Dowa in protest against alleged malpractice in the distribution of coupons for subsidised fertilizer. - Zodiak Broadcasting Station, 6 PM News, December 5, 2012

Angry villagers in Mchinji burnt down a police unit at Mkanda after police had arrested and detained a villager suspected to be a criminal in a mistaken identity. They accuse police of corruption. - Zodiak Broadcasting Station, 12 PM News, December 31, 2012

4.4 Measuring Sanctioning Capacity

Beyond variation in the *willingness* to sanction corruption, there may exist variation in the *ability* to sanction corruption, even at the sub-national level. This section combines the Anti-Corruption Bureau data on citizen corruption reports with data on underlying determinants of political participation and civic engagement to show that sanctioning capacity varies across Malawi. This variation will be used in Chapter 5 to test the relationship between sanctioning capacity and the immediacy of corruption choices.

4.4.1 Integrity of Anti-Corruption Bureau Data

In order to use reports against district officials as a measure of the sanctioning capacity of citizens in that district, we need to consider whether the number of reports instead measures any other omitted variables. Two possible confounds loom large: the level of corruption and ACB presence and credibility. First, it is possible that the number of corruption reports is actually a measure of the perceived level of corruption: citizens have the same sanctioning ability, but they only use it when they believe corruption is high. Second, it is also possible that the number of reports to the ACB is actually a measure of the credibility or presence of the ACB: citizens have the same sanctioning ability, but different levels of information about how to report corruption to the ACB or different levels of faith in the ACB as a sanctioning option determine whether or not they utilize this particular sanction. If the number of reports is indeed a measure of a district's sanctioning ability rather than corruption or knowledge about the ACB, then the number of reports should not correlate with corruption levels or ACB knowledge levels.

Quantitative analysis indicates that there is no correlation between the number of reports and the level of corruption. The Afrobarometer Round 5, a nationwide survey of Malawian citizens conducted in 2012, asked citizens about the level of corruption among government officials. Collapsing the data across citizens by district provides a district-level measure of corruption as perceived by citizens. On a scale of one to four, where one is that no government officials are corrupt and four is that all government officials are corrupt, citizens in the district give the government officials an average score of 2.2. The measure of reports and the measure of corruption are uncorrelated, indicating that the variation in the level of reports is not capturing variation in the level of citizens' perceptions of corruption.⁶

Anti-Corruption Bureau presence is also uncorrelated with the number of reports. Afrobarometer Round 5 also includes a question asking citizens whether the ACB is a neutral government agency or whether it is biased in its actions. I use this question as a proxy indicator of ACB credibility in the community. Once again, there is no correlation between the level of reports and the mean score of ACB credibility, indicating that the variation in the level of reports is not capturing variation in the level of citizens' respect for and knowledge of the ACB. Furthermore, in a 2010 nationwide survey conducted by the ACB, the Anti-Corruption Bureau was rated as the second most helpful institution in combatting corruption, with 73% of citizens saying it has helped. Only the media was rated higher, with 74% of citizens saying it has helped. The ACB bested several other government institutions, including the Parliament and the Police, as well as non-governmental organizations, academic

⁶There is also no relationship between the number of reports and the average number of forms of corruption district officials observe (as reported in the survey). However, the survey data capture actual corruption levels, not citizen perceptions of corruption. Since transparency is low in the district governments of Malawi, the *perceived* level of corruption is more relevant in determining what a citizen report of corruption means rather than the *actual* level of corruption.

institutions, and civil society.

There is also a positive correlation between this sub-national measure of sanctioning and another sub-national measure of sanctioning: reports of district corruption in the media. I created a count variable for the sum of the newspaper articles and radio news bulletins about corruption in a given district in a given year. In interviews, media representatives noted that these articles and news bulletins arise after citizens provide “tips” on the stories, so this variable should correlate with other citizen sanctions. The resulting variable and the level of reports about district corruption to the ACB are highly correlated ($p=.0002$). However, the level of media reports is not correlated with the perceived level of corruption in the district, indicating that the number of media reports is related to sanctioning capacity, not to corruption.

4.4.2 Underlying Causes of Sanctioning Capacity

The count variable of the number of reports against a given district in a given year may be a useful measure of sanctioning, but we also might be interested in the characteristics of the district that lead to this sanctioning. In other words, we might be interested in the root causes of sanctioning capacity more than one particular manifestation of sanctioning capacity. Separate from the political institutions in place, there are several factors that might affect sanctioning capacity:

- **Wealth** - Wealth has been robustly linked to higher levels of accountability at the cross-country level, though the mechanisms behind this correlation are not entirely understood (Acemoglu et al. 2005; Lijphart 1997). In this study, population density, electricity penetration, iron rooftops usage, time to public transport, and life expectancy are proxy measures for wealth.

- **Education** - Education facilitates the exchange of ideas and access to information, which, scholars argue, increases accountability among a highly educated population (Lijphart 1997; Besley et al. 2007). In this study, literacy rate is a proxy measure for education. In a related mechanism, whether or not the district is on the border is included as a proxy for the population's exchange of ideas with those from other countries.
- **Media** - By providing a source of information and new ideas, media can enhance the sanctioning capacity of an area (Besley & Burgess 2002; Besley et al. 2007). In this study, the percentage of households with a radio, whether or not there is a dedicated radio station in the district, and the number of media reports of district corruption are proxy measures of media presence.
- **Local Leadership Strength** - Local elites may be more influential in increasing accountability in their area, but also in undermining it (Acemoglu 2010; Simpser 2008). In this study, the number of senior chiefs and the number of MPs serve as proxy measures of local leadership strength.⁷

I compile a dataset of these proxy variables for possible determinants of sanctioning capacity over five years (2008-2012).⁸ The variables, data sources, and descriptive statistics appear in Table 4.3.

Using this dataset, I regress the number of corruption reports in a given district-year on the potential underlying factors that could contribute to a high

⁷Chiefs sitting at the highest level, that of Traditional Authority, are included in this measure.

⁸In this analysis, it is not possible to compile data for every variable for every year, but the missing years are filled in with the data from the years closest to it. For example, there are not data on literacy rate for all five years, so 2009 data is used for 2008 and 2009, and then 2011 data is used for 2010, 2011, and 2012.

Table 4.3: Variables Included in Sanctioning Capacity Analysis

Variable	Source	Mean	SD	Min.	Max.
# Corruption Reports	ACB 2008-2012	4.26	8.05	0	59
Average Corruption Rating	Afrobarometer Round 5 2012	2.20	0.20	1.71	2.52
Population (log)	National Census 2008	12.73	0.94	9.25	14.46
Pop. Density (log)	National Census 2008	4.95	0.99	2.89	7.62
Literacy Rate	NSO 2009, DHS 2010	0.72	0.10	0.46	0.93
% Households with Electricity	NSO 2007, DHS 2010	0.12	0.10	0.00	0.41
% Households with Iron Rooftops	NSO 2009, DHS 2010	0.39	0.18	0.14	0.95
Average Minutes to Public Transport	NSO 2007, 2009	15.25	5.52	7	36
Life Expectancy	National Census 2008	45.75	9.46	0	53
% Households with Radio	National Census 2008, NSO 2011	0.55	0.09	0.21	0.83
Dedicated Radio Station (0/1)	-	0.21	0.41	0	1
Number of Members of Parliament	Malawi National Assembly	6.79	4.07	1	22
Number of Senior Chiefs in District	Ministry of Local Government	7.93	3.46	1	18
Border District (0/1)	-	0.68	0.47	0	1
Number Media Reports of District Corruption	<i>Nation, Daily Times, Zodiak</i>	0.29	0.64	0	3

sanctioning capacity environment. An inclusive model is run first. Then, given the collinearity of the variables, a more parsimonious model is run.⁹ The parsimonious model includes the variables most exogenous to the relationship between government corruption and citizen sanctioning options. Population density, electricity penetration, iron rooftops usage, and time to public transport are all highly correlated, so ultimately only the variable capturing the percentage of homes with iron sheets is included in the regression. Purchasing iron sheets for a rooftop is a decision made within a family, and no government funding, permits, or partnerships are required. Electricity or public transport locations, on the other hand, are variables that can be influenced by the government. Similarly, literacy and life expectancy are included on their own, since they aren't correlated with anything else in the model and since these are both slow-moving variables that are plausibly exogenous to the relationship between citizens and officials in office today. The level of radio ownership and whether or not there is a dedicated radio station in the district are, surprisingly, not correlated, so both of these variables are included as proxy measures of network connectedness. The number of media reports on corruption in the district is included for the same reason. Since the number of chiefs and the number of MPs are highly correlated, only the number of chiefs is included, as the number of chiefs in a given area of Malawi was determined many years ago, and is not adjustable by those currently serving in government. Whether or not the district is on the border is also included. The inclusive model is an OLS regression, and the first parsimonious model is also an OLS regression. After re-running both of these models as a logistic regression (results not presented), a likelihood ratio test does not indicate that the full model is a significantly better fit than the nested model ($p=.31$). A second parsimonious model

⁹Correlations determined using a Bonferroni correction for multiple tests.

is a negative binomial regression. The Pearson goodness of fit test demonstrates that the negative binomial is more appropriate than the Poisson in this case ($p=.0000$). A dummy variable for the year 2012 is included as a control variable in all regressions. All models include robust standard errors, which provides a correction for the heteroskedasticity in the data.¹⁰ District fixed effects are omitted because of collinearity with the other variables. Calculating the Cook's Distance to test for outliers reveals none. The results from these regressions appear in Table 4.4.

Interpreting these results paints an interesting picture of the relationship between these district factors and the level of citizen action against corruption. Wealth (proxied for using the percentage of homes with iron rooftops), health (proxied for using life expectancy), a dedicated radio station, a larger chiefs network, and the number of media reports on corruption are all significant predictors of the level of reports in a district. Wealth, the presence of a a dedicated radio station, the number of senior chiefs in the district, and the number of media reports on corruption are all variables associated with a higher numebr of citizen corruption reports to the Anti-Corruption Bureau. This is in line with previous studies. However, life expectancy results in more reports in linear regression, but higher life expectancy results in fewer reports in the negative binomial regression. There are many possible explanations for this, but one possibility is that there is a non-linear relationship between life expectancy and its effect on sanctioning capacity.

¹⁰A Breusch-Pagan / Cook-Weisberg test rejects the null hypothesis of constant variance with a chi-square of 270.7 and a p-value of 0.000.

Table 4.4: Regression of Number of Corruption Reports on District Covariates

	(1) OLS	(2) OLS	(3) Negative Binomial
log(Population Density)	2.468*** (0.54)		
Literacy Rate	-0.341 (3.05)	-0.475 (4.57)	0.154 (0.82)
% Homes with Electricity	2.571 (3.95)		
% Homes with Iron Rooftops	3.81 (2.46)	7.915** (3.49)	0.888** (0.44)
Time to Public Transport (min.)	0.06 (0.04)		
Life Expectancy	0.041* (0.02)	-0.042 (0.03)	-0.011** (0.01)
% Radio Ownership	14.528** (5.88)	7.802 (6.01)	0.066 (0.76)
Dedicated Radio Station (0/1)	2.062*** (0.64)	3.442*** (1.29)	0.492*** (0.16)
Number MPs	0.186* (0.10)		
Number Senior Chiefs	0.283** (0.14)	0.553*** (0.11)	0.088*** (0.02)
Border District (0/1)	1.393** (0.66)	0.242 (0.94)	0.114 (0.15)
Number Media Reports on Corruption	0.689 (0.91)	1.011 (0.91)	0.189*** (0.07)
ln(alpha)			-1.581*** (0.33)
Observations	130	135	135

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

4.5 Predicting Sanctioning Capacity

Using the results of the negative binomial regression, it possible to compare the predicted number of reports in a low sanctioning environment compared to a high sanctioning environment (Table 4.5). A map depicting variation in sanctioning capacity, based on the predicted level of reports for 2012, appears in Figure 4.5. Based on interviews, this map accurately depicts variation in sanctioning capacity. Districts such as Kasungu are perceived to have more involved and resourceful citizens, and districts such as Dowa have the opposite.¹¹

Table 4.5: Predicted # Corruption Reports for Sanctioning Capacity Environments

Variable	Low Sanctioning Capacity	High Sanctioning Capacity
Literacy Rate	0.62	0.82
Life Expectancy	36	55
% Homes with Iron Sheets	21%	57%
% Homes with Radios	46%	64%
Dedicated District Radio Station	0	1
Number Chiefs	4	11
Border District	0	1
# Media Reports	0	1
Predicted Reports	6	30

¹¹Officials at the Anti-Corruption Bureau advised on the relevant variables to consider for this analysis, and the steps included. They have confirmed that the predicted reports index accurately captures variation in bottom-up sanctioning capacity across Malawi.

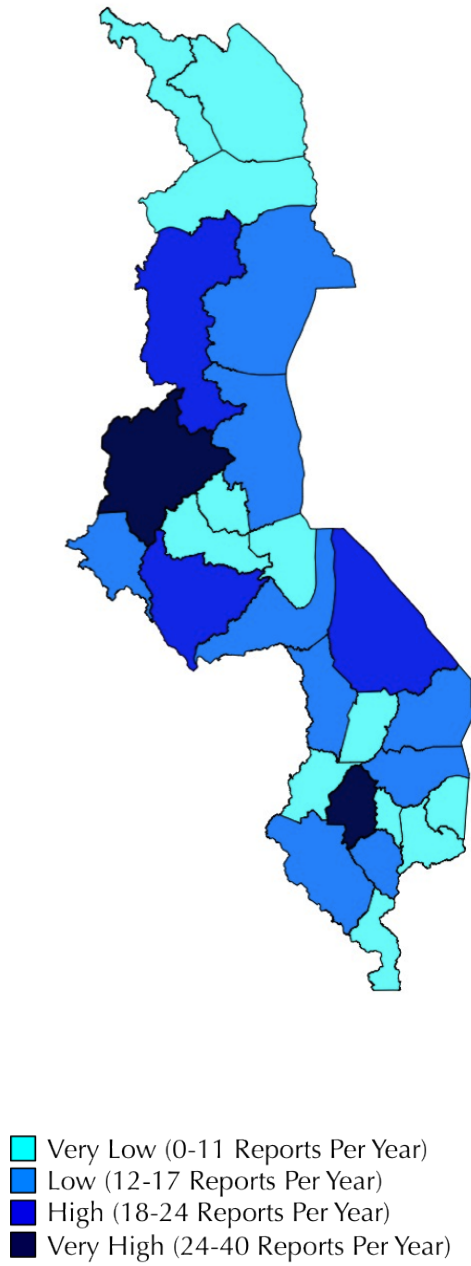


Figure 4.5: Sanctioning Capacity Across Malawi

4.6 Conclusion

This chapter of the dissertation made three points regarding sanctioning corruption. In Malawi's district government, non-electoral sanctions against corruption are available and citizens respond to information about corruption by anticipating their use. This finding offers one possible explanation as to why past transparency interventions have not had an effect on voter behavior at the polls (Humphreys & Weinstein 2012). Perhaps voters are using the information provided in such anti-corruption interventions to guide other political choices and actions. This finding is also important because, as Hollyer (2012) notes, citizens in elections are choosing between two alternatives, and their willingness to punish the incumbent politician for his corrupt behavior is a function of their belief about the corruptibility of the alternative and the value they place on other issues at play in the election. Citizens can also sanction corruption in between elections. Similarly, in between elections, officials care about how citizens perceive them, because their reputation helps them secure citizen compliance, accomplish things in office, and secure other political opportunities, corrupt or otherwise (Tyler 1998; Tsai 2007a). In brief, "non-electoral mechanisms give citizens leverage over officials and a voice in the political decision-making process on a day-to-day basis" (Tsai 2007a, p. 16).

This chapter also provided evidence that the citizens of Malawi engage in sociotropic corruption sanctioning. Corruption affecting the community in a tangible and immediate way is sanctioned at a significantly higher rate than corruption affecting individual welfare. This result has important implications as well, informing those studying the economics of corruption that community-level - not just individual-level - costs and benefits may need to be modeled to more accurately explain corruption choices.

Finally, this chapter demonstrated that the ability to sanction - or “sanctioning capacity” - varies across Malawi in line with predictors of political participation. This analysis is not intended to portray a causal model: the regressions presented are underpowered and endogeneity remains an issue. Nonetheless, it provides some compelling evidence as to characteristics of communities in Malawi that are likely to sanction their officials for corrupt behavior. Furthermore, demonstrating sub-national variation in the level of sanctioning capacity within an African country without elections challenges several widely held beliefs in the political science literatures: that government cannot be held accountable without an electoral link; that citizens in Africa do not reward and sanction political officials based on performance (rather than factors such as ethnic ties); and that citizens in Africa are unwilling to engage in costly actions to express political beliefs.¹² Since reporting to the ACB is only one of many possible actions citizens can take to sanction their political officials, since district government is only one of the many branches of government that is the subject of reports to the ACB, and since the ACB as an institution is still a growing presence, even these low levels of activity are a promising sign for civic engagement in Malawi.

4.7 Acknowledgements

Chapter 4, in part, is currently being prepared for submission for publication of the material. The dissertation author was the principal investigator and author of this material.

¹²Reporting corruption to the Anti-Corruption Bureau is indeed costly. More than one entry in the database is about intimidation or threats by a political official after a previous report.

Chapter 5

Measuring Sub-National Corruption

Corruption is notoriously hard to measure, both because the definition commonly used in the literature - the use of public office for private gain - is very general, and because of its sensitive nature. Measures of corruption suffer from three primary problems. National measures of corruption often fail to adequately capture within-country variation over time. Corruption is often measured using third party reports from “experts,” which may be noisy or biased. Finally, most measures of corruption focus on bribery, which does not depict the full space of corruption forms.

This dissertation offers an approach to measuring corruption that resolves some of these problematic issues of past measures. It provides a first-person, sub-national measure of multiple forms of corruption based on a survey of 250 local government officials in Malawi and in-depth structured interviews with 16 additional officials.¹

¹Asking district officials directly about their corruption, a sensitive topic, is challenging in Malawi, as it would be anywhere, but there are a few reasons why it was a more manageable undertaking in this context. First, many Malawians are familiar with academic research processes and trustful of researchers. The research for this dissertation was conducted by experienced enu-

This dataset facilitates analysis of causal relationships across the districts of Malawi, an investigation that has not been possible with measures focusing on the country as the unit of analysis. By surveying the corrupt, we gain insight into the “hidden” forms of corruption that have not been previously examined, in addition to the more obvious forms of corruption that are often studied. This chapter of the dissertation discusses the instruments I use for measuring corruption, the sampling procedures for recruiting officials, and some of the most compelling overall findings resulting from this investigation.

After this overview, this chapter delves into the sub-national variation of corruption within Malawi. Building on the theory developed in Chapter 2 and the analysis of district sanctioning capacity produced in Chapter 4, I examine whether different levels of district sanctioning capacity are associated with different corruption choices. Specifically, I consider whether high sanctioning capacity districts experience lower rates of high-immediacy corruption and whether their overall level of corruption immediacy is lower. I conclude the chapter by presenting the sub-national patterns in corruption immediacy and detectability across the districts of Malawi.

5.1 Alternative Survey Measures of Corruption

Measures of corruption fall into four categories: 1) Measures based on survey data (either of “experts” or of citizens); 2) Measures based on observing corruption (e.g. McMillan & Zoido (2004) in Peru, Barron & Olken (2007) in Indonesia, or Sequeira & Djankov (2010) in Mozambique and South Africa); 3) Measures based

merators who had undergone extensive training for each component of the research. Also, Malawi’s culture is open to discussing sensitive topics and to giving time for these discussions. Finally, the central government of Malawi is accessible and it is possible to partner with government institutions, who then provide letters of support for the enumerators to carry.

on estimating corruption by subtracting budget allocations from actual receipts (e.g. Reinikka & Svensson (2003) in Uganda, Olken (2005) in Indonesia, or Niehaus & Sukhtankar (2013) in India); and 4) Measures based on audits of government accounts (e.g. Ferraz & Finan (2008)). This dissertation contributes to the first category by surveying in-office government officials about their own corruption and that of their peers.

There are three primary issues with existing measures of corruption generated using survey data. First, existing measures of corruption are largely based on third party reports of corruption, which means they may be noisy or biased (Lambsdorff 2003; Treisman 2000, 2007). For example, the Worldwide Governance Indicators (WGI) “Control of Corruption” measure incorporates household surveys such as the Afrobarometer and “expert”-coded datasets such as Freedom House in developing the index. These sources introduce their biases and measurement errors to the index (Treisman 2007).

Further, measures of corruption are often taken at the country level, where comparisons across countries often come at the expense of comparisons over time. For example, the WGI “Control of Corruption” measure is calculated such that the global average is the same every year, meaning that changes in the level of corruption within a country are not revealed unless the change is so great as to move it up or down in the comparative rankings (Lambsdorff 2007). For example, Figure 5.1 shows a relatively flat trend in corruption within Malawi from 1996 through 2012, in contrast to the widespread perception among citizens and country experts that corrupt activity in Malawi spiked in Bingu wa Mutharika’s second term in office, 2009-2012. Kaufmann & Kraay (2002) estimate that half the variance in the WGI’s Control of Corruption index over time is the product of changes in the sources and coding rules used rather

than actual changes in corruption levels. The trend over time for Malawi’s score on the Corruption Perceptions Index from Transparency International is similarly flat during this time period (Transparency International 2013).

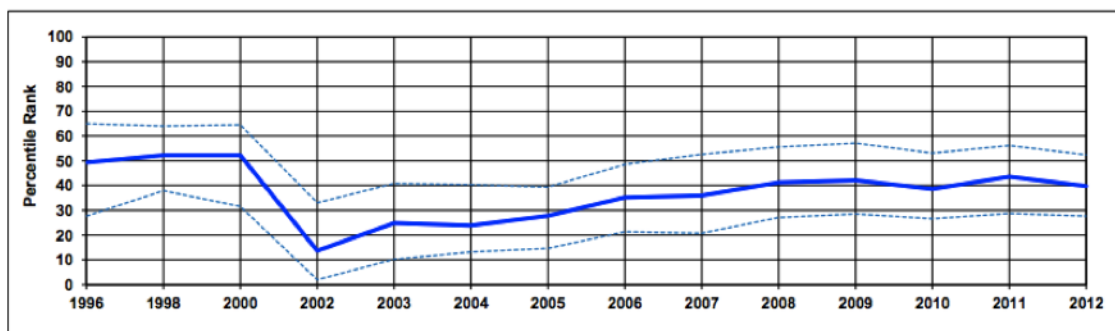


Figure 5.1: WGI Control of Corruption Index for Malawi, 1996-2012

Another challenge with cross-country measures is that measuring corruption at the national level often requires a focus on corruption within the central government and ruling party, overlooking decentralized corruption. For example, none of the data sources used to create Transparency International’s Corruption Perceptions Index for Malawi in 2013 asked about decentralized or local government corruption explicitly (Transparency International 2013).

The final issue with existing measures of corruption is that many survey questions about government corruption focus on the subject’s experience with bribery or clientelism, or simply ask about “corruption” without reviewing the definition of the concept. For example, the World Economic Forum Global Competitiveness Survey, used as one of the sources to generate the WGI Control of Corruption Index, asks about “irregular payments” in export and import, public utilities, tax collection, public contracts, and judicial decisions. As another example, the Interantional Crime Victims Survey, conducted in 49 countries, asks only about exposure to bribery

(Kennedy 2014). This problem implies that the variables supposedly measuring corruption and included in many studies actually have poor construct validity in that they capture a very narrow slice of the universe of all corruption forms falling under the definition, “the use of public office for private gain.”

The Anti-Corruption Bureau (ACB) of Malawi has attempted to provide more nuanced measures of corruption in the country than do the cross-country indices, but their efforts do not resolve all of the issues. They conducted a baseline survey of citizens, businesses, and government officials in 2006 with a follow-up in 2010. In addition to gaining general information about the perceived causes of corruption in the country, they specifically asked about corruption in 28 government institutions, facilitating a ranking of these institutions according to their level of corruption (Centre for Social Research, University of Malawi 2010). These surveys represent an important first step in understanding corruption in Malawi. However, there are still issues with the ACB surveys. These surveys did not consider any geographic variation in corruption patterns, and they did not consider forms of corruption beyond bribery.

5.2 Instruments

This study draws on two original instruments designed to measure corruption and shed light on the relationships between corruption, transparency, and sanctioning capacity. These instruments ask respondents to discuss their own experiences with corruption, which provides a first-person measure of corruption. They also ask the respondent to comment on corruption levels among their peers in government, which is a measure of corruption based on perceptions, though the perceptions of those embedded in corruption.

5.2.1 Structured Interviews with Government Officials

First, I conducted in-depth interviews with district government officials using a structured interview protocol.² The goals of the interviews were to:

1. Gauge the face validity of the impact and detectability dimensions
2. Evaluate the politician's perception of the current transparency environment in each district: who is observing their actions, and how does this person or organization use the information they gather?
3. Gauge the level of interaction among the district officials, between the district officials and the chiefs, between the district officials and their political superiors, and the district officials and their constituents. Determine how each of these groups sanctions the district officials
4. Learn about the mechanisms linking transparency and sanctioning capacity environments to corruption choices

To achieve these goals, the interview protocol included 16 questions and drew on interview techniques for encouraging extensive responses, such as experience recall and "walk-me-through." The interview began with questions to gather general information about the background and experiences of the official, then transitioned to ask questions about the the relationships and incentives guiding the official's choices, and then finally broached the topic of corruption, asking questions that specifically ascertained the mechanisms behind corrupt choices. The information collected in these interviews is interspersed throughout this dissertation.

²After extensive discussions with government officials, other researchers, and the enumerators, I decided not to complete the interviews or the survey myself. Everyone agreed that my presence would have a strong Hawthorne effect. A research manager conducted the interviews, and he worked with two other enumerators to conduct the survey.

5.2.2 Government Officials Survey

The second instrument was a survey of half of the district officials in every district of Malawi. To write this survey, I relied heavily on previous survey work on corruption in Malawi, vetted the survey multiple times with Anti-Corruption Bureau officials, civil society representatives, and experienced researchers, and piloted the survey in one district (Dedza) before rolling it out nationwide. The survey contains 68 questions, drawing many questions from past surveys on corruption in Malawi conducted by the Anti-Corruption Bureau and civil society organizations. The survey was executed in English, as English skills are required to hold public office in Malawi. In addition, enumerators practiced conducting the survey in Tumbuka and Chichewa in the event that the officials would need clarification on questions in a native Malawian language.

Two behavioral games completed at the end of the survey provided not only a means to compensate the officials for their time but also two behavioral measures. The first game asked officials to choose between a certain payoff and a lottery in which the expected value of earnings was the same as the certain payoff. This game provides a behavioral measure of preferences over risk, and it is expected that a given population of individuals would have both individuals who prefer the lottery (risk accepting individuals) and individuals who prefer the certain option (risk averse individuals) (Holt & Laury 2002). The second game asked political officials to choose between receiving a set amount of money for themselves or receiving a smaller amount of money for themselves but contributing the same amount of money to a public primary school in their district. The second option resulted in a greater payout in total. This game provides a behavioral measure of preferences over private-public tradeoffs, sometimes referred to as “altruism”, and once again it is expected that a

given population of individuals would have both individuals who prefer the selfish option and those who prefer the altruistic option (Andreoni 1990).

5.3 Sampling

5.3.1 Structured Interviews with Government Officials

To sample for the interviews, four districts were selected using a “most different” case design that would allow me to interview officials in districts with different top-down and bottom-up sanctioning capacity levels. I compiled a dataset of district-level variables that could affect either top-down or bottom-up sanctioning capacity. Using the set of variables thought to affect top-down sanctioning capacity, I then calculated the Mahalanobis distance between each pair of districts, and chose the most different pair. Finally, I did the same for the set of variables thought to affect bottom-up sanctioning capacity. Lilongwe was included in the “most different” pair for the analysis including top-down sanctioning capacity variables, but I eliminated it because it is the capital city and district officials in Lilongwe face many unique constraints not found in the other districts. Blantyre and Dowa were “most different” when considering factors that might affect top-down sanctioning capacity, and Kasungu and Karonga were “most different” when considering factors that might affect bottom-up sanctioning capacity.³ A map of the sampled districts appears in Figure 5.2. In each of these districts, four officials not completing the survey were selected for an interview. Each interviewee was compensated for his or her time by receiving

³Using the Mahalanobis distance allows me to select a pair of districts that are far apart from each other in a n-dimensional space where the dimensions are based on theoretically meaningful variables, but does not tell me anything about the relative rankings of the districts in these pairs (e.g. which has higher accountability).

the standard lunch allowance of MK4000, which equated to between \$9.60 and \$12.35 over the two months in which the interviews took place.⁴

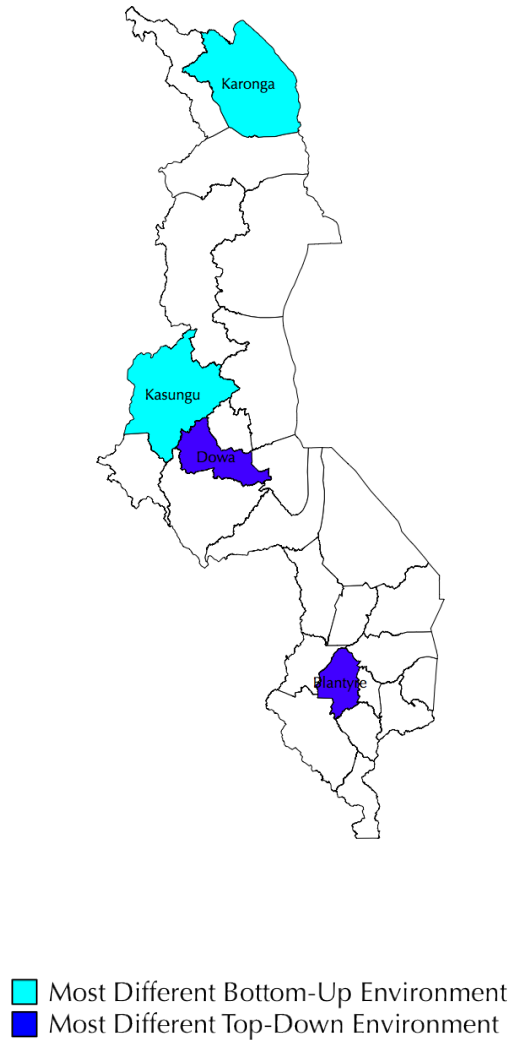


Figure 5.2: Districts Sampled for Structured Interviews

⁴The appropriate amount for a lunch allowance is determined by the central government. We procured a rate sheet and paid subjects accordingly.

5.3.2 Government Officials Survey

To select officials to take the survey, half of the officials in each district were randomly selected by position. I also prepared a randomly selected replacement list. When arriving in a district, the Research Manager contacted the District Commissioner to introduce the research team. The District Commissioner assisted in scheduling interviews with the selected officials by providing their direct phone numbers. When the sampled officials were not available, the replacement list was used. When both the sampled official and his replacement were unavailable, the Research Manager had selected another person to replace that position without using random selection.

The sampling procedure resulted in a sample of 243 respondents from 27 districts of Malawi, which exceeds the threshold for a representative sample at this theoretical population size (Krejcie & Morgan 1970).⁵ Of those 243 officials selected, 133 (55%) participated. Of the 110 (45%) who could not be interviewed, 63 (57%) were replaced by their randomly selected replacement, and 47 (43%) were replaced by another official. In a survey asking political officials to give about an hour of their time to answer questions about the sensitive topic of corruption, there are many possible reasons for attrition. The Research Manager asked respondents who could not participate to give a reason. Of those 157 officials either sampled or on the replacement list who could not be interviewed, 15 were unreachable, 56 were busy with other appointments or other visitors or other work, 40 were ineligible for the interview (they were serving a position as a temporary replacement, or they were Police District Officer-in-Charge, who required permission from their chief to be interviewed), 33 were out of town (for unknown reasons), eight had personal reasons (maternity,

⁵Dedza was not included in the sample because it served as the pilot district.

student, sick leave, etc.), and five refused. It is reasonable to claim that the people who were unreachable, were ineligible, or had personal reasons (n=63) are missing at random.⁶

The officials contacted who were either busy or out of town (n=89) are interesting, because it is possible that this population of people as a whole might give different answers to the survey questions than those who were not busy and were in town.⁷ Supporting evidence for this assertion seems to be found in the fact that certain positions – specifically the District Health Officers, Directors of Administration, Directors of Finance, and Directors of Planning and Development – were more likely to be busy or out of town. I argue that busier officials and officials who are more frequent travelers are likely more strategic when answering questions on this type of survey, meaning that attrition of this sort would cause attenuation bias in measuring corruption and would bias against finding a result in the survey experiment. There is not a significant difference in attrition rates across the districts, which means a correlation between attrition and other district-level variables (specifically the level of sanctioning capacity) is not a concern.

Once the Research Manager contacted the officials, he obtained their consent to participate in the survey. We did this by conveying the general purpose of the research and then informing them that their data would be kept anonymous and confidential. Due to the sensitive nature of this survey, we walked them through the data management policies and procedures that would preserve their anonymity

⁶This use of “missing at random” pertains to the class of data that are missing from a dataset due to a common underlying variable that is unrelated to the variables under consideration in the research (King et al. 2001).

⁷It is also possible that those who said they were busy were attempting to refuse to participate in a slightly more palatable way. The Research Manager noted that these officials often stated the specific prior engagement that kept them busy, which seems to indicate an actual time conflict, not merely a standard excuse.

in detail. The subjects often had follow-up questions, both initially as they were consenting to the research and later as they progressed through the survey. The fact that subjects needed reassurance regarding the purpose of the study and the safety of their data indicates that corruption is still a sensitive topic in Malawian society, that it is not, as some have suggested, accepted to the extent that all feel free to discuss it openly.

5.3.3 Nonresponse Bias

One might be concerned about bias introduced by item nonresponse, if we believe that “refuse to answer” is correlated with the respondent’s level of corrupt behavior. However, this does not seem to be an issue in this dataset, partially because item nonresponse is extremely low and partially because the questions with high item nonresponse are not the ones related to corruption, which suggests that the officials may not have found the questions about corruption to be as sensitive as we might expect. The questions with the highest nonresponse are those for which the political officials honestly may have not known the answer: a question about the level of literacy in their district, the level of corruption in the district eight years ago, or the percentage of kickbacks given to different individuals or groups from different forms of corruption. Twenty-four out of 243 respondents refused to estimate the percentage of officials in their district who are corrupt, and only between one and three of the 243 respondents refused to answer questions about the prevalence of different forms of corruption in the district or their individual engagement in different forms of corruption. There is no significant difference in these nonresponse rates across districts.

5.4 Results

Some of the most compelling statistics are overviewed in Table 5.2. The findings generally demonstrate that corruption is widespread among district officials in Malawi. First, I asked the respondents generally how great of a problem corruption is in local government in Malawi and in their district specifically:

Please evaluate the prevalence of corruption in each the following: Currently in local government

1. Corruption is non-existent
2. Corruption is rare
3. Corruption is moderate
4. Corruption is prevalent
5. Corruption is very common
6. Don't know
7. Decline to answer

Please evaluate the prevalence of corruption in each the following: Currently in [name of district] District

1. Corruption is non-existent
2. Corruption is rare
3. Corruption is moderate
4. Corruption is prevalent
5. Corruption is very common
6. Don't know
7. Decline to answer

Eighty-one percent of respondents said that corruption is at least a moderate problem in local government generally, and about the same percentage (82%) said that corruption is at least a moderate problem in their district.

I then asked about the causes of corruption, posing nine causes cited by the Anti-Corruption Bureau in their work:

How important are the following as causes of corruption in [name of district] District, on a scale of “very unimportant” to “very important”?

1. Accepted practice: i.e. bribes have been a custom for a long time
2. Lack of effective incentive mechanism for public officials, such as lack of promotions based on merit
3. Poor economic policies
4. Low salary of public officials
5. Lack of transparency: i.e. information on local government decisions is not disseminated
6. Lack of accountability to citizens: i.e. citizens cannot or will not hold district officials accountable for corruption
7. Lack of accountability to higher government: i.e. political superiors cannot or will not hold district officials accountable for corruption
8. Lack of independent and effective judiciary
9. Lack of independent and effective media

Among these potential causes, low salaries and a lack of transparency were the most important causes: 90% of respondents agreed each of these contribute to corruption in district government.

I next shifted from questions about the prevalence and causes of corruption generally to some questions asking the respondent to estimate figures on corruption in the respondent’s districts. When asked, “In your best estimate, what percentage of the district officials in [name of district] District do you think are engaged in corruption at some point over the course of a year?”, the average response was 37%.

I subsequently asked about the percentage of transactions that involve corruption, asking specifically about seven different forms of corruption:

In the past six months, in your estimate, what percentage of the following situations in [name of district] District resulted in corruption?

1. A citizen attempted to obtain a government service that should be available to all

2. A citizen attempted to receive a government benefit available to the needy
3. Local government decides where in the district to administer a new project
4. A firm was hired for a government contract
5. A government position was filled
6. A district official was reimbursed for materials purchased on behalf of a government project
7. A district official attended a workshop

The results of this section indicate that many transactions in Malawi's district government involve corruption:

- 28% of reimbursements for workshops
- 15% of government hires of companies
- 14% of distributions for government programs intended to benefit the needy
- 14% of decisions about the placement of public goods
- 13% of distributions for government programs intended to benefit all citizens
- 9% of reimbursements for the purchase of government materials
- 8% of government hires of individuals

These frequencies indicate that less immediate and detectable forms of corruption are generally more pervasive. For example, the officials report that corruption in obtaining reimbursement for workshop attendance is twice as prevalent as corruption in distributing government services. This supports the assertion I made in Chapter 2 that low-immediacy and low-detectability forms become more prevalent when

high-immediacy and high-detectability forms are displaced by transparency and sanctioning interventions.

When asked “What would you say is the average percentage of the total income that supplemental income through corruption represents for a typical district official in [name of district] District?”, the average response was 40.1%, with a standard deviation of 20.9%. A histogram of the responses to this question appears in Figure 5.3. Considering the average monthly income of these officials is MK83,200 and there are 18 officials in 28 districts, Malawi may be losing MK201 million or US\$500,000 per year for corruption among appointed district officials.

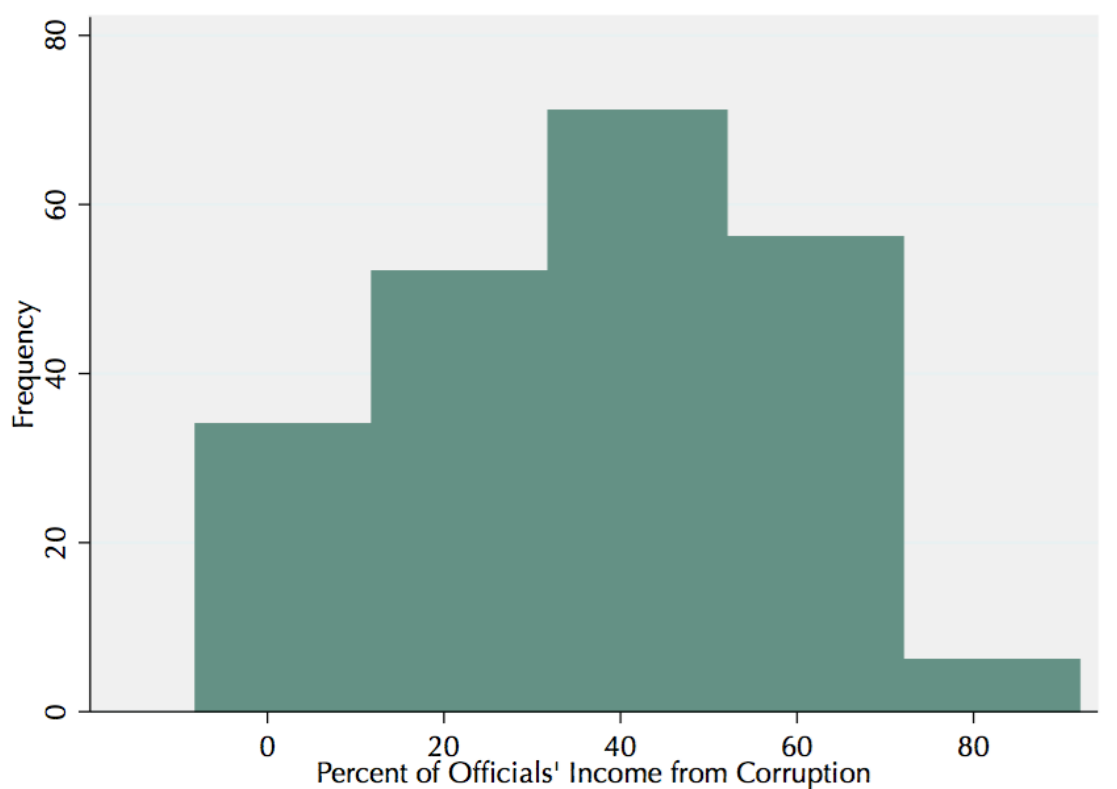


Figure 5.3: Percent of Income from Corruption

5.4.1 Corruption, Income, and Asset Ownership

We might reasonably expect there to be a correlation between the level of income reported among officials and their reported rates of corruption. This expectation indeed bears out in the data. A simple regression with robust standard errors corrected for the small number of clusters with a wild bootstrap procedure (Cameron et al. 2008; Webb 2013) shows that moving up one income bracket is associated with a 6% increase in the likelihood of being corrupt in a six month period (Table 5.1). There is also a positive and significant association between the official's reported income bracket and the number of forms of corruption they admit to engaging in in the last six months.

Similarly, the officials were asked about their assets - houses, land plots, computers, phones, and cars - to analyze whether there is a correlation between the number and value of an official's assets and his level of corruption. We might expect this to be the case, especially in Malawi, as corruption increases earnings, which are often used for purchasing luxury goods.⁸ Since assets are substitutive, it is not particularly informative to consider the relationship between an individual's level of corruption and the number of one type of good he owns, without considering the other things he may own. I use the survey data about asset ownership to construct a binary measure of consumption. As the median number of assets owned is 3, those who reported owning three or more valuable assets are given a consumption score of one, and those who reported owning 0-2 valuable assets are given a consumption score of zero. Owning more than two valuable assets is associated with a 10% in-

⁸The Anti-Corruption Bureau's data discussed in Chapter 4 demonstrate how widespread this behavior is. Many of those who contact the ACB to report corruption actually report unexplained or unusually valuable assets owned by a government official. For example, one such entry reads, "Some officials from the District Council (District Commissioner, land clerks, and others) ...have accrued unexplained property."

crease in the likelihood of being corrupt in a six month period, and there is a positive and significant association between this binary consumption variable and the number of forms of corruption they admit to engaging in in the last six months (Table 5.1). Although both of these variables are reported, not observed, this relationship nonetheless suggests that asset ownership and corruption are related. A constructed index calculating the *value* of assets owned is not significantly correlated with an individual's level of corruption. However, precisely valuing assets in this context is challenging, especially considering the variation across the subject pool in urban environment and the economic fluctuations Malawi has recently experienced, both of which would dramatically affect the prices of goods.

Table 5.1: Association between Corruption, Income, and Assets

	OLS			
	DV: Corrupt (0/1)		DV: # Forms Corruption	
	(1)	(2)	(3)	(4)
Income Bracket	0.057***		0.122***	
Consumer (0/1)		0.108**		0.208*
Observations	236	237	236	237

Standard errors corrected using wild bootstrap.

*** p<0.01, ** p<0.05, * p<0.1

5.4.2 Forms of Corruption

The next section of the survey honed in on the prevalence of 12 specific forms of corruption (discussed in Chapter 3), asking about both the district at large and the individual respondent:⁹

⁹The survey also included questions about using government vehicles for personal use, but as so many of the surveyed officials said that this is not considered to be a corrupt act, it is removed from

- Bribery in providing services that should be available to all
- Bribery in providing services that are targeted at the needy
- Bribery for allocating a project to a specific village
- Bribery for hiring a certain firm for a government contract
- Bribery for hiring a certain person for a government job
- Diverting government funds transferred from the central government
- Diverting government revenue collected in the district
- Stealing government benefits
- Falsifying receipts for excess reimbursement
- Adding ghost workers to government projects
- Nepotism
- Falsifying workshop attendance for excess reimbursement

For example, the district-level question would ask:¹⁰

In the past six months, how likely is it that a district official in [name of district] District received a payment in exchange for giving a government contract to a certain firm?

1. Highly Likely: the chances of this happening in the past six months are near certain
2. Fairly Likely: the chances of this happening in the past six months are high, but not certain

the subsequent analysis.

¹⁰In constructing binary measures of whether or not a form of corruption is observed (used in Chapter 6), “Highly Likely” or “Fairly Likely” answers are considered to be affirmative answers.

3. Likely: there is a chance that this happened, but an equal chance that it didn't happen
4. Fairly Unlikely: the chances of this happening in the past six months are low, but not zero
5. Highly Unlikely: the chances of this happening in the past six months are close to zero
6. Don't know
7. Decline to answer

The analogous individual-level question would ask:

Since you assumed this position, have you received a payment in exchange for giving a government contract to a certain firm?

1. Yes
2. No
3. Don't know
4. Decline to answer

Ninety-seven percent of respondents said officials in their district have engaged in at least one form of corruption in the last six months, and 70% said they themselves had engaged in corruption in the last six months. Of the 12 specific forms of corruption discussed, 57% of respondents said that their district has accepted bribes in exchange for services that should be available to all (e.g. connecting homes to electricity, executing estates of deceased citizens, etc.) in the last six months. Only 22% of respondents said that nepotism has occurred in their district in the last six months. Twenty-two percent of respondents admitted to falsifying receipts for reimbursement in the last six months, but less than one percent of respondents admitted to accepting a bribe in exchange for placing a public good or starting a government project in a certain village. When asked whether there were any forms of corruption they had engaged in in the last six months that we didn't ask about, 15 respondents said

yes and told us about other forms. (Table 5.2 includes the primary findings from the survey.)

5.4.3 Underreporting of Corruption

Despite these surprisingly high rates of admitting to corruption, it is possible that the officials are still underrepresenting the prevalence of corruption in their district as well as their own involvement. To test to see if this is the case, I used list experiments to ask about four forms of corruption in an indirect way. In a list experiment, the subject is asked how many things off a list of items he has done. List experiments rely on the law of large numbers to get significant differences in means. This method allows subjects to reveal sensitive information without explicitly stating it, enabling accurate answers to sensitive questions (Coutts & Jann 2011; Ahart & Sackett 2004), and has been successfully used to obtain information about corruption (Gueorguiev & Malesky 2012). Half of the subjects are randomly assigned a “treatment” of a list with one additional item – the sensitive item under study. The difference in means between the control group and the treatment group is the percentage of respondents who have done the sensitive item. The items on the lists in the list experiments appear below. The four items marked “treatment” were included on the list for only half of the respondents, randomly assigned based on last digit of ID number.

Please tell us how many of the following things you have done in the last six months. You do not need to tell us which of the things you have done, only the total number of things.

- Travelled to another district for government work
- Attended a training program
- Diverted funds intended for hiring government workers (TREATMENT)

Table 5.2: Findings from Survey of District Officials

Description of Statistic Collected in Survey	Nationwide Finding
Percentage of respondents that said corruption is a moderate, prevalent, or common problem in local government	81%
Percentage of respondents that said corruption is a moderate, prevalent, or common problem in the respondent's district	82%
Percentage of respondents that said a lack of transparency is an important cause of corruption	90%
Percentage of respondents that said a lack of bottom-up sanctioning capacity is an important cause of corruption	86%
Percentage of respondents that said a lack of top-down sanctioning capacity is an important cause of corruption	83%
Percentage of income coming from corruption for a typical district official	40%
Percentage of reimbursements to district officials that involve corruption	28%
Percentage of firms attempting to secure a government contract that pay a bribe	15%
Percentage of citizens receiving government benefits that pay a bribe	14%
Percentage of respondents that said district officials had engaged in at least one form of corruption in the last six months	97%
Percentage of respondents that said they had engaged in at least one form of corruption in the last six months ¹¹	70%
Most common form of corruption in district government	Bribes in exchange for govt. benefits
Most common form of self-reported corruption among respondents	Falsifying receipts for reimbursement

- Met with citizens in your district about district issues

Please tell us how many of the following things you have done in the last six months. You do not need to tell us which of the things you have done, only the total number of things.

- Travelled to another district for personal business
- Attended a government workshop
- Accepted a bribe in exchange for hiring a certain government worker (TREATMENT)
- Met with chiefs in your district about district issues

Please tell us how many of the following things you have done in the last six months. You do not need to tell us which of the things you have done, only the total number of things.

- Travelled to another country for government work
- Attended a meeting with district officials from another district
- Diverted government benefits from beneficiaries for personal use (TREATMENT)
- Met with media in your district about district issues

Please tell us how many of the following things you have done in the last six months. You do not need to tell us which of the things you have done, only the total number of things.

- Travelled to another country for personal business
- Attended a meeting with a political party official
- Falsified beneficiaries for government services in order to divert the benefits for personal use (TREATMENT)
- Met with NGOs in your district about district issues

Three of the four list experiments used in this dissertation did not result in statistically significant differences between the treatment population and the control population, which could be explained in one of two ways. It is possible the true underlying rate of engaging in the sensitive item (the form of corruption) is zero. It is also possible the list experiment design was plagued by one of the common problems

associated with this method: ceiling effects, floor effects, or low sample size (Glynn 2013). Given the ample evidence from the interviews and the rest of the survey that officials are indeed engaging in these forms of corruption, the latter explanation seems most likely to explain the null results on three of the list experiments.

The list experiment that included “diverting government benefits from the intended recipients” resulted in a significant difference between the treatment and control groups of .268, which gives reason to believe that approximately 27% of respondents have done this form of corruption in the last six months. This is significantly higher than the 9.1% who admitted to doing so when asked via direct question, indicating that the subjects may indeed be underrepresenting their corrupt behavior, by approximately 18%. However, as long as this bias downward is constant across districts and not correlated with other variables of interest, this underreporting will not confound the results of the survey experiment.

5.4.4 Corruption, Risk, and Altruism

The behavioral games in the survey were designed to measure traits that might underlie corrupt behavior: risk acceptance and a preference for private over public welfare. The payments in these games ranged from MK2000 to MK3500 (between \$4.80 and \$9.38 over the two months in which the survey took place). On the first game, which provided a behavioral measure of preferences over risk, slightly less than half the respondents (45%) chose the lottery option rather than the certain choice. On the second game, which provided a behavioral measure of preferences over private-public tradeoffs, slightly less than half the respondents (46%) chose the option that provided a smaller amount of money entirely to the political official. There is no correlation between either of these variables and sanctioning capacity in a district

(measured in Chapter 4), indicating that risk-accepting or private-minded officials are not selecting into certain districts where they are unlikely to face sanctions for certain behaviors. Finding such a correlation would confound the analysis of the relationship between sanctioning capacity, transparency, and corruption discussed in Chapter 6.

5.5 Sub-National Corruption Patterns

As stated earlier in this chapter, one of the benefits of having sub-national data on a sensitive and hidden phenomenon such as corruption is the ability to assess patterns for their alignment with other phenomena. In this dissertation, my theory is about how corruption varies across districts according to their level of transparency and sanctioning capacity. The effect of transparency is examined closely in Chapter 6, which analyzes the results of the survey experiment. Without considering the survey experiment, however, we can examine the relationship between sanctioning capacity and corruption choices. As discussed in Chapter 2, transparency is a necessary condition for sanctions to be possible: citizens require information about corruption to take action. In Malawi, transparency is low across the country, which is why we might expect an intervention designed to increase transparency to be effective. Still, transparency levels are not zero. Therefore, following the theory laid out in Chapter 2, we might expect there to be a relationship between the level of sanctioning capacity and officials' current corruption choices.

Hypothesis 2: Conditional on a minimum level of transparency being in place, sanctioning interventions displace corruption from high- to low-immediacy forms.

Though there is no intervention in place, it is reasonable to extend this hypoth-

esis to assert that high sanctioning capacity districts should experience low-immediacy forms of corruption at lower rates, and that low sanctioning capacity districts should experience high-immediacy forms of corruption at higher rates.

To test this hypothesis, I combine the survey data with the sanctioning capacity index constructed in Chapter 4. Using the questions asking about the existence of 12 specific forms of corruption at the district level and the detectability and immediacy rankings established in partnership with the Anti-Corruption Bureau and listed in Chapter 3, I construct two variables: 1) the average level of immediacy of observed forms of corruption in the district; and 2) the average level of detectability of observed forms of corruption in the district.¹² As a measure of high-immediacy corruption presence, I also create a count variable adding together the number of high-immediacy forms of corruption that an official has observed in the district in the last six months. The forms of corruption included in the high-immediacy variable are:

- Bribery in providing services that should be available to all
- Bribery in providing services that are targeted at the needy
- Stealing government benefits
- Adding ghost workers to government projects

These are the forms of corruption asked about in the survey that are *most* likely

¹²The survey asked the respondent whether or not each of the 12 forms of corruption had occurred in the district in the last six months. The answers were coded as either ‘no’ (0) or ‘yes’ (1). I then multiplied each ‘yes’ (1) answer by its immediacy weight (0.5, 1.0, or 1.5) and then added them together and took the average over all ‘yes’ (1) answers to get an average immediacy score. I completed the same process with the detectability weights to obtain the detectability score. The resulting scores varied from 0.5 to 1.5, with an average of 1.03 for immediacy and 0.85 for detectability.

to elicit sanctions from citizens, were citizens to be provided with perfect information about their officials' corrupt actions.

Maps of the average immediacy and detectability of observed corruption forms in each district appear in Figure 5.4 and Figure 5.5. Officials in some districts observe more corruption forms of high-immediacy, whereas officials in other districts observe more corruption forms of low-immediacy. Officials at the Anti-Corruption Bureau agree that the variation in the data accurately captures how corruption varies by district across Malawi. Districts such as Dowa, where much of the population is low income and not well educated and there is little infrastructure, have high-immediacy and high-detectability corruption, whereas districts such as Mulanje, where the population is high income, well educated, and there is extensive infrastructure, have low-immediacy and low-detectability corruption.¹³

¹³Since Dedza was the pilot district, the “low” value indicated here is simply due to missing data.

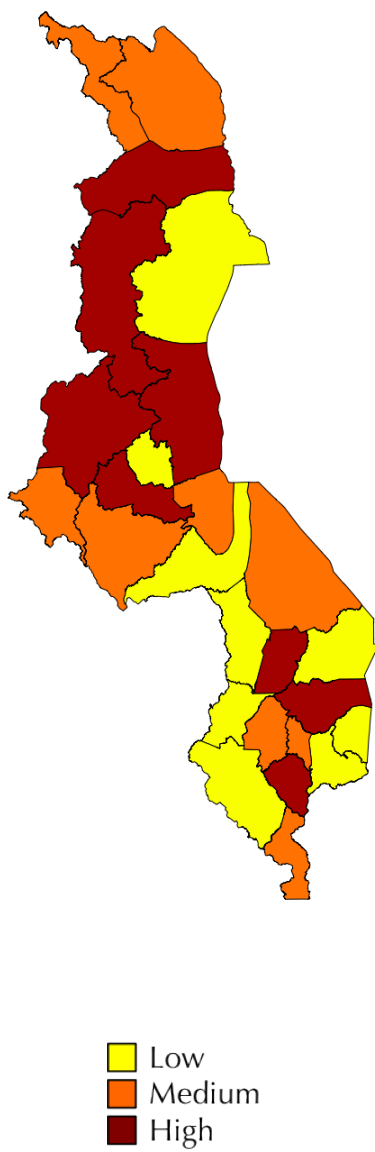


Figure 5.4: Immediacy of Corruption in Districts

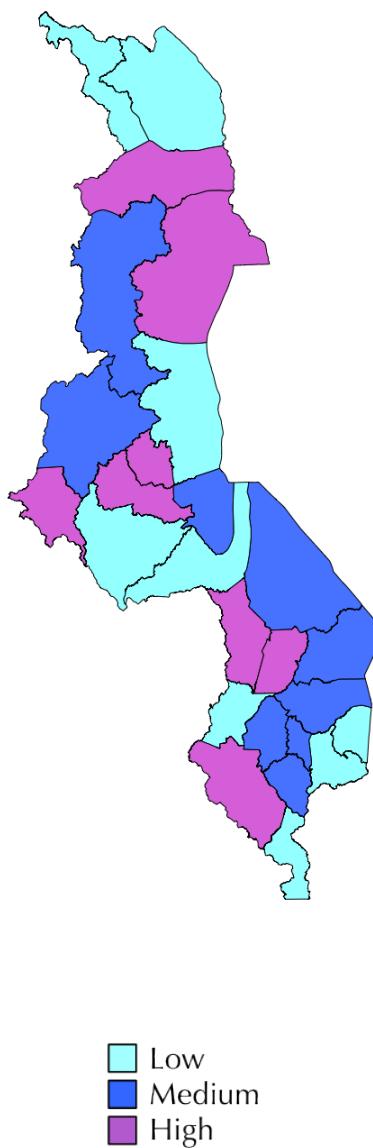


Figure 5.5: Detectability of Corruption in Districts

To test the relationship between district sanctioning capacity and the immediacy of corruption forms in the district, I regress the average immediacy score on the binary (high or low) sanctioning capacity variable. As a robustness check, I also regress the high-immediacy count variable on the the binary (high or low) sanction-

ing capacity variable. I include a set of covariates in both regressions, controlling for other factors that should shape both corruption choices and district residency. Both regressions are run using the wild bootstrap to adjust standard errors for the small number of clusters in the dataset.

We would expect a negative coefficient on both variables, which would imply that high sanctioning capacity districts experience lower-immediacy corruption on average and fewer high-immediacy forms in total. However, the regression results do not provide support for this expectation. The coefficient on the sanctioning capacity variable is not significant in either regression, although it is close to significant at conventional standards ($p=.12$) and in the anticipated negative direction in the regression considering the relationship between sanctioning capacity and the number of high-immediacy forms of corruption (a count variable). Regression results appear in Table 5.3.

It is important to emphasize that these effects are likely weaker than they would be if sanctioning capacity were affected via an intervention instead of being merely observed as a feature of the political environment. Interventions are powerful because they interrupt an ongoing process, highlighting changes in the environment for officials, citizens, and superiors, and reducing information asymmetries for all involved. Similarly, as asserted in Chapter 2, these effects would likely be stronger if transparency were higher, making the sanctioning of corruption possible for more forms. We explore the interaction effect of transparency and sanctioning capacity working together in the next chapter.

Table 5.3: Corruption Immediacy and District Sanctioning Capacity

	OLS	
	DV: Number High-Immediacy Forms (1)	DV: Average Immediacy (2)
High Sanctioning Capacity	-0.250	0.016
High School Education	0.173	-0.021
District Native	0.095	-0.001
Years in Government	0.009	-0.001
First Position in Government	0.227	-0.017
Number Owned Assets	-0.022	0.010
Consumers	-0.074	-0.053
Chewa Ethnicity	-0.325*	-0.027
Reliant on Government Income	-0.290	-0.038
Strong Ruling Party Member	0.268*	0.015
Strong Opposition Party Member	0.513**	0.070**
Risk Accepting	-0.357*	0.010
Private Minded	-0.193	-.011
Corrupt	0.367	.032
Observations	224	213

Standard errors corrected for limited number of clusters using wild bootstrap.
 *** p<0.01, ** p<0.05, * p<0.1

5.6 Conclusion

This chapter presented the instruments I use to measure corruption in this dissertation. I presented the results from the survey of government officials and analyzed the relationship between this data and the sanctioning capacity data presented in Chapter 4. In testing H2, there does not appear to be a significant relationship between the level of sanctioning capacity and the level of corruption immediacy, but this could be because transparency is too low for officials to believe that citizens will access information and then be able to sanction them. The other four hypotheses are tested in the next chapter, analyzing the results of the survey experiment.

5.7 Acknowledgements

Chapter 5, in part, has been submitted for publication of the material as it may appear in *Politics, Groups, and Identities*. The dissertation author was the primary investigator and author of this material.

Chapter 6

A Test of Corruption Displacement

Previous chapters of this dissertation present my theory of corruption displacement, discuss measures of sanctioning capacity and corruption, and demonstrate that sanctioning capacity varies across the districts of Malawi. The data from the citizen survey indicate that citizens are willing to take action against corruption, and that this willingness is stronger when the corruption affects their community. The data from the politician survey provide nuanced information on corruption in Malawi, including the prevalence of different forms of corruption across the districts.

This chapter examines the responses of political officials to anti-corruption initiatives. I examine how corruption choices shift along the two dimensions of immediacy and detectability, and how these shifts are conditioned by the levels of sanctioning capacity and transparency in their environment. This chapter provides tests of the hypotheses regarding corruption displacement outlined in Chapter 2, finding evidence that corruption is displaced in line with these predictions: Transparency interventions displace corruption to low-detectability forms. Officials exposed to a bottom-up transparency intervention via a survey experiment are more likely to an-

anticipate displacement to low-immediacy forms of corruption. Analyzing the data from the survey experiment with the sanctioning capacity index generated in Chapter 4 indicates that displacement is anticipated most when both transparency and sanctioning capacity are high.

The most thorough and valid test of the hypotheses would be a randomized intervention that varies both transparency and sanctioning capacity experimentally and collects pre-test and post-test measures of all possible forms of corruption. Such an experiment would determine whether the comparative statics depicted in Figure 2.2 are accurate. As will be discussed further in Chapter 7, a randomized transparency intervention of this kind has been funded and is planned for 2015.

In this dissertation, a survey experiment allows for a limited test of the hypotheses. The survey experiment examined in this chapter was conducted as a follow-up to the in-person survey. A Malawian Research Manager conducted the experiment over the phone with 232 of the district officials who completed the in-person survey in the districts.¹

Due to the institutional environment and features of past anti-corruption interventions in Malawi, the survey experiment randomly varied transparency but did not discuss sanctioning capacity. As shown in Chapter 4, sanctioning capacity varies across districts in Malawi based on features of the districts such as wealth, education, and local leadership. Therefore, the district officials of Malawi face different baseline levels of sanctioning capacity, which would complicate the execution and interpretation of a survey experiment posing a sanctioning intervention. Further,

¹A version of the survey experiment was originally included in the in-person survey, but the enumerators reported that they executed it incorrectly due to lack of understanding on the method. The Research Manager conducted a follow-up survey of the district officials, reaching all but eleven, two of which had phones that were out of service, one of which passed away a few days after the original survey, and eight of which were in Likoma district, whose officials could not be reached because they had just experienced a natural disaster and were evacuated off the island at the time.

Malawi has not experienced sanctioning interventions in the past, and it would be challenging to design and interpret a survey experiment that manipulates sanctioning capacity. Finally, since all districts of Malawi experienced at least some reports about district government corruption in 2012, we can safely say that the requirement for a minimum level of sanctioning capacity is fulfilled across Malawi. Therefore, the sanctioning capacity index is used to test the hypotheses with predictions about the effects of sanctioning capacity, rather than manipulating it experimentally.

Top-down and bottom-up transparency is constant and low across the districts of Malawi, as transparency initiatives have always been executed nation-wide but are infrequent and weak. The National Audit Office (NAO) has conducted audits of every district assembly in Malawi in 2008 and 2010. The treatment of receiving a central government audit is very specific and focused entirely on top-down channels. First, a letter of engagement from the auditing agency is sent to the district. This letter includes an overview of the duties of the districts in cooperating with the audit, what the audit agency will be doing during the audit, what will be done with the results of the audit, and the consequences of failing to comply with the audit as well as the potential legal consequences if corrupt behavior is discovered. After issuing the engagement letter, a group of 4-5 audit agency officials travel to the district for the audit, which takes approximately two weeks of full-time work to complete. In this period, audit agency officials engage frequently with district officials, asking questions, searching for records and generally conveying the message that the central government is monitoring their activities. After the audit is complete, the auditors assemble their findings, a task which typically takes several months to over a year. The findings are presented in a report to Parliament, and the Anti-Corruption Bureau, Office of the President, and Ministry of Local Government also receive a copy. This top-down

transparency initiative has the potential to be an effective anti-corruption strategy, but numerous government representatives indicated in interviews that the NAO is a highly corrupt institution. The auditors accept bribes in exchange for excluding or including pieces of information in their reports, and as a result, none of the report recipients take the findings seriously.

Bottom-up transparency interventions are weak as well. A civil society organization called National Initiative for Civic Education in Malawi (NICE) brought together chiefs, government officials, media and civil society in each district to fill out a survey about district performance. At the end of the survey, the district officials came to the meeting and answered questions posed to them by those present. However, the questions didn't pertain to performance data based on an audit, but rather were based on the perceptions of those present. These interventions also didn't include regular citizens, only elites. Finally, NICE didn't do any follow-up survey or assessment of the political officials to determine the effect of this intervention after the survey was completed.

6.1 Experiment Design

I randomly assign each official to a transparency environment by providing them with one of two vignettes posing a hypothetical transparency intervention. One vignette poses a top-down intervention, such that the officials that receive this vignette treatment are shifted from a low transparency environment to one high in top-down transparency. The other vignette poses a top-down intervention followed by a bottom-up intervention, such that the officials that receive this vignette treatment are shifted from a low transparency environment to one high in both top-down

and bottom-up transparency. The vignette includes a top-down transparency intervention in *both* treatment conditions because this is the most common form of transparency intervention in Malawi. A transparency intervention that provides information to citizens in addition to political superiors is rare, and one that provides information only to citizens and not to political superiors has never occurred. It was important that the vignette approximate actual transparency interventions the officials have experienced.

The text of the vignette and the subsequent questions appear below. The sentence in italics constituted an additional bottom-up transparency component that was read to only half of the subjects, randomized using the last digit of the randomly assigned ID number.

Let us pretend that one day soon, officials from the National Audit Office come to your district to conduct an audit of district financial records. They find that officials in your district are diverting benefits for the needy to resell to make a personal profit, like fertilizer subsidies and medications and school materials. They also find that some officials in the district are falsifying receipts for workshops by colluding with hotel managers, who then get some of the money. They don't know who is doing these things, but they know it must be individuals in high positions in the district. They have found this information honestly and they have proof. They give these findings to the National Assembly, the Office of the President, and the People's Party headquarters. They plan to return in a year and conduct the same audit again. *They also give these findings to the national radio station and national newspapers, as well as to local community-based organizations and civil society organizations in your district.* Based on this story, please answer the following questions about what you think would happen with corruption in your district after the audit and publication of findings.

1. Would the corrupt habit of diverting benefits for the needy such as fertilizer subsidies continue the same, increase, or decrease? Why?
2. Would the corrupt habit of falsifying workshop receipts by colluding with hotel

managers continue the same, increase or decrease? Why?

3. Do you think other kinds of corruption would increase because of this audit and the publication of these findings? If you're willing, can you tell us which habits you think would be likely to increase?

The vignette mimics a transparency intervention that “catches” a high-immediacy, high-detectability form of corruption – stealing benefits intended for the needy – and a low-immediacy, high-detectability form of corruption – falsifying receipts for attending workshops. This pair of forms of corruption was chosen because they are typical forms of corruption revealed in a standard National Audit Office audit in Malawi.

Responses to questions 1 and 2 following the vignette were coded as decreasing (-1), increasing (1), or staying the same (0). The reasons provided were tabulated and provide interesting evidence regarding mechanisms. The third question was coded as to whether or not the political official anticipated an increase in any forms of corruption (0 or 1). Then, the levels of immediacy (high=1.5, medium=1, low=0.5) and detectability (high=1.5, medium=1, low=0.5) of the replacement forms of corruption were coded. It is important to note that the question about possible replacement forms was open-ended; no forms were suggested to the respondents.

In order to determine whether the transparency intervention caused displacement on the immediacy and detectability dimensions, we need a measure of the levels of corruption immediacy and detectability pre- and post-intervention, as reported by the individual official. The survey results provide the data for the pre-intervention levels. The survey asked the respondent whether or not each of the 12 forms of corruption had occurred in the respondent's district in the last six months. The answers were coded as either zero ('no') or one ("yes"). For each corruption form i , I multiplied the yes/no coding by the form's immediacy weight, $I_i \in 0.5, 1.0, 1.5$, and added

the resulting sums together. Finally, I took the average over all “yes” (1) answers. This process resulted in an average pre-intervention immediacy score, I_{pre} , computed at the official level. I completed the same process with the detectability weights to obtain an average pre-intervention detectability score, D_{pre} . The scores varied from 0.5 to 1.5, with an average of 1.03 for immediacy and 0.85 for detectability.

$$I_{pre} = \frac{\sum_{i=1}^N (0or1) * I_i}{\sum (0or1)}$$

$$D_{pre} = \frac{\sum_{i=1}^N (0or1) * D_i}{\sum (0or1)}$$

To obtain the post-intervention levels of corruption detectability and immediacy, I replicated the calculation after posing the vignette and gathering responses to the questions about shifts in corruption patterns that appear above. The difference between the pre- and post-intervention levels measures the shift along the dimensions anticipated by each respondent in response to the transparency interventions posed in the survey experiment. A negative amount indicates a shift lower on the dimension, whereas a positive amount indicates a shift higher on the dimension. The shift variables are continuous, ranging from -0.833 to 2.5 for immediacy (mean=-0.33, sd=0.55) and -2.08 to 1 for detectability (mean=0.01, sd=0.50).

$$I_{shift} = I_{post} - I_{pre}$$

$$D_{shift} = D_{post} - D_{pre}$$

6.2 Covariate Balance

Before discussing the analysis and results, we consider whether or not the randomization resulted in two probabilistically equivalent groups. To determine this, I conduct a Komolgorov-Smirnov (KS) test on the distributions of 19 covariates across the two treatment groups. The results appear in Table 6.1, which show that the two groups are equivalent at the 95% significance level. Data for these covariates come from other questions on the survey and the behavioral games on risk and public-private preferences discussed in previous sections.

6.3 Review of Hypotheses on Corruption Displacement and Overview of Hypotheses Tests

The core hypothesis of this dissertation is that there is a displacement effect resulting from anti-corruption interventions. I test this hypothesis by considering the prevalence of respondents that anticipate a decrease in the forms of corruption caught in the transparency intervention (questions 1 and 2), yet also anticipate an increase in another form of corruption (question 3).

The other hypotheses laid out in Chapter 2 are as follows:

Hypothesis 1: Conditional on a minimum level of sanctioning capacity being in place, transparency interventions displace corruption from high- to low-detectability forms.

According to H1, a transparency intervention should cause displacement from high-detectability to low-detectability forms of corruption. To test this, I use the survey data and answers to survey experiment questions to examine the change in

Table 6.1: Covariate Balance Across Treatment Groups in Survey Experiment

	Subjects with Only TD Transparency Treatment	Subjects with TD and BU Transparency Treatment	KS Test p-value
Female	16.5%	12.5%	.38
Native of Current District	4.1%	9.2%	.12
Chewa	20.7%	20.0%	.90
Ngoni	19.8%	19.2%	.90
Tumbuka	22.3%	21.7%	.90
Married	79.3%	83.3%	.43
Age	38	40	.06
Traveled Outside Malawi	64.5%	66.7%	.72
Obtained College Degree	55.3%	50.0%	.41
Farming is Primary Income	9.1%	7.5%	.66
Income Bracket (out of five)	2.6	2.7	.27
Number Houses	.83	.74	.75
Number Land Plots	.60	.58	.77
Number Cars	.59	.48	.26
Number Computers	.85	.80	.55
Number Phones	1.7	1.4	.38
Years of Government Work	12.9	13.9	.16
Risky Choice in Behavioral Game	.60	.73	.59
Private Choice in Behavioral Game	.81	1.18	.47

average detectability before and after the transparency intervention.

Hypothesis 2: Conditional on a minimum level of transparency being in place, sanctioning interventions displace corruption from high- to low-immediacy forms.

H2 follows from the theory and is therefore included in the list in Chapter 2. Although this dissertation lacks the ideal data to test it, it is considered somewhat in Chapter 5.

Hypothesis 3: Transparency interventions have a greater displacement effect when combined with sanctioning interventions (and vice versa).

H3 predicts that the greatest displacement effects occur in areas with pre-existing high levels of sanctioning capacity. I test this by analyzing anticipated corruption displacement resulting from the transparency intervention vignette with the sanctioning capacity index developed in Chapter 4 using observational data from Malawi's central government. To evaluate correlations between sanctioning capacity and answers in the survey experiment, I used the predicted corruption reports variable generated in the analysis of district sanctioning capacity. Since I do not have a compelling theoretical reason to expect a marginal effect on anticipated displacement from an additional corruption report, I create a binary categorical variable for whether a district is a high sanctioning capacity (with a predicted reports level above the mean) or low sanctioning capacity (with a predicted reports level below the mean).

Hypothesis 4: Bottom-up transparency displaces corruption to lower immediacy forms than does only top-down transparency.

According to H4, those exposed to the bottom-up transparency intervention will anticipate greater displacement on the immediacy dimension, as citizens armed

with information about corruption are more likely to sanction it than are political superiors on their own. I test this hypothesis by identifying the marginal shift in average corruption immediacy due to the bottom-up transparency intervention. Since exposure to the bottom-up transparency intervention is randomly assigned through the survey experiment, this a particularly strong hypothesis test.

Hypothesis 5: Bottom-up transparency should cause the greatest displacement down the immediacy dimension in areas with high sanctioning capacity.

Finally, according to H5, the effect of bottom-up transparency on the level of immediacy should be greatest among individuals in high sanctioning capacity districts. To test this, I identify sub-group effects of the bottom-up survey experiment treatment across individuals from high and low sanctioning capacity districts.

6.4 Results

Before presenting the results of the hypotheses tests, let us consider the general pattern of responses. Ninety-six percent of respondents state there would be a decrease in stealing benefits after the audit, and 100% state there would be a decrease in falsifying workshop receipts. The reasons given for the decrease in stealing benefits primarily have to do with the fear of sanctions (nearly 80%), whereas only 40% of respondents cite the fear of sanctions as the reason for the anticipated decrease in falsifying workshop receipts. One interpretation of this difference is that political officials understand that low-immediacy forms of corruption will be sanctioned less frequently. The majority of respondents are not specific when they say fear of sanctions would be responsible for the decrease, but of those who are specific, 44% cite bottom-up sanctions (e.g. public protests or angry citizens in their office) and 56%

cite top-down sanctions (e.g. jail time or investigation). Supporting points made earlier in this dissertation about the power of extra-institutional sanctions, many public officials cite “naming and shaming” and “embarrassment in the community” as a sanction that would cause officials to change their behavior.

If 60% of officials do not believe fear of sanctions would cause a decrease in falsifying workshop receipts after the transparency intervention, why then do all of the officials state this form of corruption will decrease? One possible reason is that this form of corruption involves non-politicians, who are potentially more vulnerable to formal punishment and therefore more sensitive to changes in the risks associated with corruption. Thirty-five percent of respondents give some reason for the decrease that effectively describes a prisoner’s dilemma: the political officials would be forced to stop this form of corruption because their partners in this form of corruption (e.g. the hotel managers who provide the receipts) would refuse to participate. In the words of several respondents, “The audit would bust the syndicate.” Though the role of non-politicians is not explored in this dissertation, it may be an interesting dynamic to pursue in future research.

In response to #3, fifty-four percent of the respondents state there would be an increase in another form of corruption. All of those who responded affirmatively to this question subsequently named a specific replacement form. Supporting the idea that displacement effects are not random, there appear to be focal points for the replacement forms of corruption. This clustering of responses occurred despite the open-ended nature of the question, which indicates that the officials were not suggesting a form of corruption at random, but rather that the forms suggested are the most likely replacement forms of corruption.

- 20%: Cooperate with other officials to set up “shell” workshops and out-of-office

work to obtain reimbursements and stipends

- 18%: Collude with contractors to inflate bills for services and goods charged to government
- 13%: Use government property (especially vehicles) for profit
- 10%: Elicit more bribes from those seeking government services, most commonly, for passports (which are low-immediacy, because they are not needed by the majority of the population)

As anticipated, the average level of detectability of these proposed forms of corruption is very low, with an average of 0.69 (where 0.5 is low, 1.0 is medium, and 1.5 is high). The average level of immediacy is also low, with an average of 0.86 (where 0.5 is low, 1.0 is medium, and 1.5 is high). Since transparency, not sanctioning capacity, is the variable manipulated in the vignettes, it makes sense that the shift along the detectability dimension is greater than the shift along the immediacy dimension.

6.4.1 Results of Hypotheses Tests

The core hypothesis of this dissertation is that there is a displacement effect resulting from anti-corruption interventions. The majority (54%) of respondents anticipate a displacement effect: though they anticipated a decrease in the forms of corruption caught in the transparency intervention, they also anticipated an increase in another form of corruption (Table 6.2). The result of 54% is likely the lower bound of corruption displacement. Faced with a real-world intervention, an actual loss of corruption income, and time to strategize, officials will be able to develop displacement options more than they are able when faced with a hypothetical situation in a survey experiment lacking real effects and requiring an on-the-spot response.

According to H1, a transparency intervention should cause displacement from high-detectability to low-detectability forms of corruption. To test this, I consider the change in average detectability before and after the transparency intervention. The results of this test appear in Table 6.2, where it can be seen that the average level of detectability decreases significantly: .362 on a scale of 0.5 (low-detectability) to 1.5 (high-detectability).

Table 6.2: Results of Tests of Core Hypothesis and H1

Hypothesis	Test	Result
Core Hypothesis: Anti-Corruption Interventions Result in Displacement Effects	After a transparency intervention, do political officials anticipate a decrease in audited forms of corruption and an increase in other forms of corruption?	Supported: 98% anticipate decrease in audited forms but 54% anticipate increase in other forms
H1: Conditional on a minimum level of sanctioning capacity being in place, transparency interventions displace corruption from high- to low-detectability forms.	After a transparency intervention, are low-detectability forms of corruption chosen?	Supported: Change in average corruption detectability=-0.362***

*** p<0.01, ** p<0.05, * p<0.1

H2 is considered in Chapter 5.

To test H3, H4, and H5, I use regression techniques. The dependent variables in this analysis are either anticipated corruption displacement (0/1), immediacy score of proposed replacement corruption form (0.5, 1.0, or 1.5), or change in average corruption immediacy. For the models only using data at the individual level from the survey of government officials, I run a probit model with robust standard errors

(3) or a linear model with robust standard errors (5). For the models using the sanctioning capacity data at the district level (models (1), (2), (4), and (6)), I run a linear model with clustered standard errors adjusted for the small number of clusters using a wild bootstrap (Cameron et al. 2008; Webb 2013). Though the coefficients are not presented here, all regressions include the individual-level control variables that appear in Table 6.3. These variables may account for variation in answers to the questions about corruption, separate from the treatment conditions and the level of sanctioning capacity in an area. Regression results appear in Table 6.4.

Table 6.3: Variables Included in Tests of H3, H4 and H5

Variable	Source	Mean	SD	Min.	Max.
Chewa Ethnicity	Political Officials Survey	0.21	0.41	0	1
Received Secondary Degree	Political Officials Survey	0.53	0.50	0	1
Female	Political Officials Survey	0.14	0.35	0	1
Strong Opposition Party	Political Officials Survey	0.08	0.28	0	1
District Native	Political Officials Survey	0.07	0.25	0	1
Consumer	Political Officials Survey	0.70	0.46	0	1
Corrupt	Political Officials Survey	0.70	0.46	0	1
Years in Government	Political Officials Survey	13.49	9.08	1	38

H3 predicts that the greatest displacement effects occur in areas with pre-existing high levels of sanctioning capacity. I test this by regressing anticipated cor-

ruption displacement on the sanctioning capacity index. The results provide support for this hypothesis (Table 6.4). The coefficient on the sanctioning capacity index is significant at the 5% level (model (1)). The significance improves to the 1% level when including a variable indicating exposure to a bottom-up transparency treatment and an interaction between the two (model (2)). Substantively, the marginal effect, shown in Figure 6.1, is that an official in a high sanctioning capacity district is 25% more likely to anticipate a displacement effect from the transparency intervention than is an official in a low sanctioning capacity district. Since this test draws on observational data rather than the data from the survey experiment, this relationship is not necessarily causal. Nonetheless, this association aligns with my theory of corruption displacement.

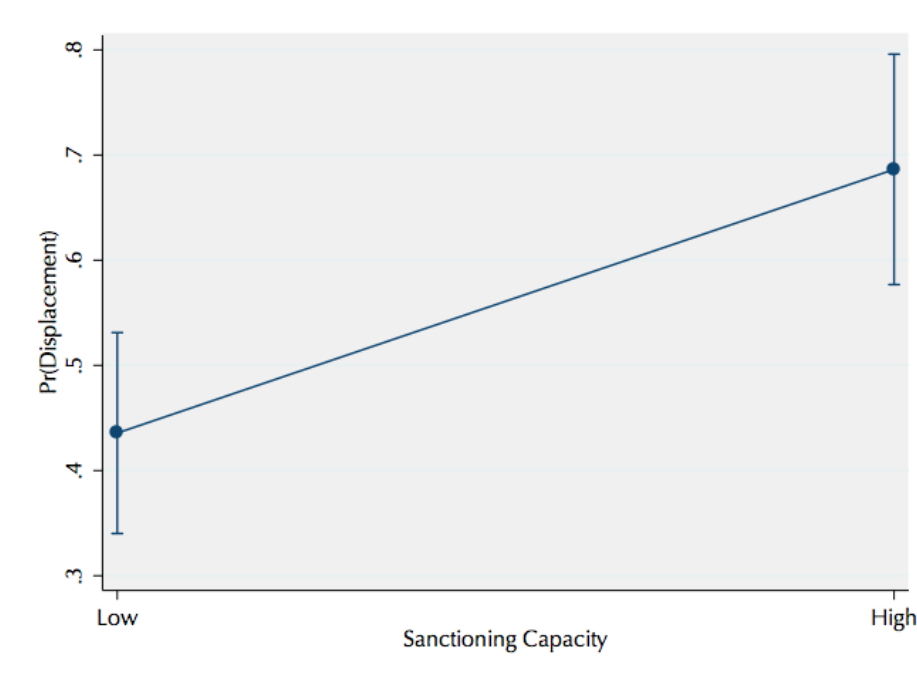


Figure 6.1: Marginal Effects of Sanctioning Capacity on Anticipated Corruption Displacement

According to H4, officials randomly exposed to the bottom-up transparency intervention will anticipate greater displacement on the immediacy dimension, as citizens armed with information about corruption are more likely to sanction it than are political superiors on their own. I test this with two regressions with two slightly different dependent variables. First, I regress the immediacy score of proposed replacement corruption form on the bottom-up treatment variable. Then, I regress the shift in average corruption immediacy pre- and post-intervention on the bottom-up treatment variable. There is support for this hypothesis as well (Table 6.4). The results should be similar across these two models. The coefficient on the bottom-up treatment variable is negative and significant in model (3) at the 10% level and in model (5) at the 5% level (Table 6.4). Substantively, this means that including the bottom-up component in the transparency intervention resulted in a 18% decrease in average corruption immediacy.

Finally, according to H5, the effect of bottom-up transparency on the immediacy of corruption should be greatest among individuals in high sanctioning capacity districts. To test this, I regress the proposed immediacy variable on the bottom-up treatment variable, the sanctioning capacity index, and a variable that interacts the two (model (4), Table 6.4), and then I regress the change in average corruption immediacy variable on those same three independent variables (model (6), 6.4). Though these associations are not significant, they are in the anticipated directions: conditional on exposure to a bottom-up transparency intervention, the marginal effect of going from a low to high sanctioning capacity district is to reduce the level of immediacy of corruption.

Based on the data from the survey experiment, I present a visual depiction of the anticipated displacement effects in the corruption space of immediacy and de-

Table 6.4: Results of Tests of H3, H4, and H5

	DV: Anticipated Displacement (0/1)		DV: Replacement Immediacy (Scale 0-1)		DV: Shift in Immediacy (Continuous)	
	Wild (1)	Wild (2)	Probit (3)	Wild (4)	OLS (5)	Wild (6)
BU Transparency Treatment (0/1)		0.062	-0.476*	-0.134	-0.179**	-0.111
			(0.250)		(0.090)	
High Sanctioning Capacity District (0/1)	0.125**	0.253***		-0.067		0.091
BU Treatment * High Sanctioning		-0.257*		-0.002	-0.133	
Observations	227	227	118	118	101	101

Robust standard errors in parentheses in models (3) and (5).

Standard errors in models (1), (2), (4), and (6) corrected using wild bootstrap.

All models include full set of controls. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

tectability for the two transparency interventions (Figure 6.2). To summarize, when faced with a transparency intervention, all individuals anticipated corruption displacement to low-detectability forms. Those randomly exposed to a bottom-up component of the intervention anticipated displacement to corruption forms significantly lower in immediacy. The officials exposed to a bottom-up component anticipated displacement to corruption forms lower in detectability as well, though this difference is not statistically significant.

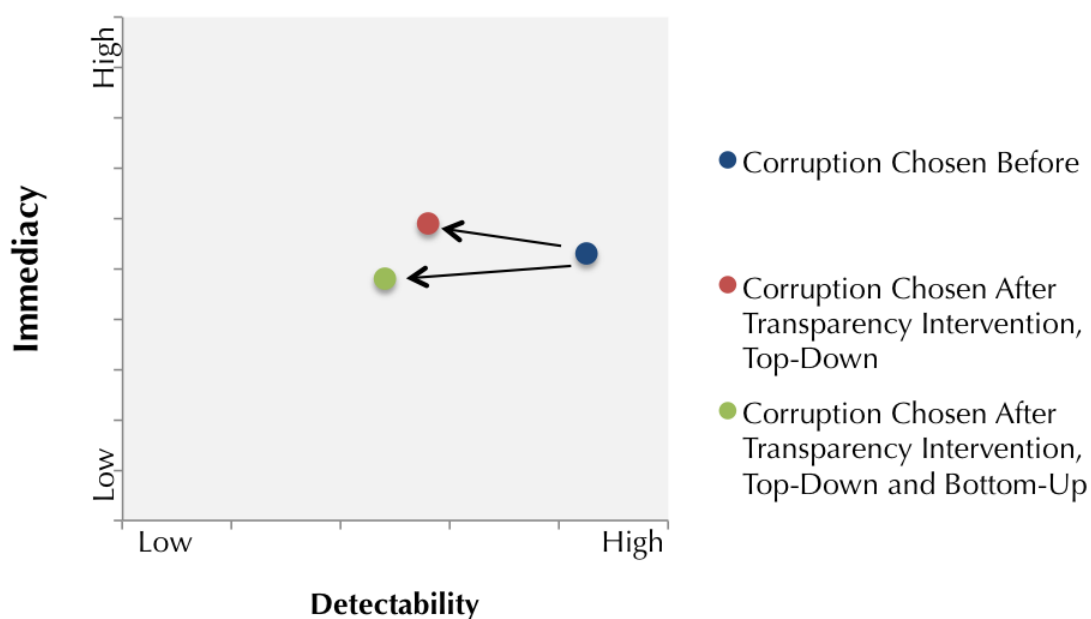


Figure 6.2: Anticipated Displacement Effects in Survey Experiment

6.5 Conclusion

This chapter identified the effects of randomly assigned increases in transparency on corruption choices and provided support that corruption displacement

occurs in response to anti-corruption interventions. The majority of officials anticipate that detected forms of corruption would become less prevalent following a transparency intervention, but that they would be replaced by low-detectability forms. Officials exposed to a bottom-up transparency intervention via survey experiment anticipate displacement to low-immediacy forms of corruption. Analyzing the data from the survey experiment with the sanctioning capacity index generated in Chapter 4 indicates that displacement is anticipated most when both transparency and sanctioning capacity are high.

There are several reasons why this survey experiment likely estimates the lower bound of treatment effects. Survey experiments with vignettes require a respondent to think about a hypothetical situation and evaluate what *would* happen, a challenging task for any busy official in the middle of his workday. Based on my experience conducting research in Malawi, this is a particularly cumbersome task for respondents in the sample used for this dissertation, as Malawians are not often challenged to think in hypotheticals. Furthermore, since real transparency interventions in Malawi audit the entire governing body, not only one official, I asked officials to anticipate effects across their district, rather than only their own hypothetical choices, which would have been easier. Nonetheless, the results of this survey experiment combined with the analysis of the data from the Anti-Corruption Bureau provide evidence that the detectability and immediacy dimensions are relevant, that political officials indeed displace their corruption to other forms along these dimensions according to the level of transparency and sanctioning capacity, and that transparency and sanctioning capacity are more likely to displace corruption when both are high.

6.6 Acknowledgements

Chapter 6, in part, is currently being prepared for submission for publication of the material. The dissertation author was the principal investigator and author of this material.

Chapter 7

Conclusion

7.1 Broader Research Agenda

This dissertation represents a first step in a broader research agenda. It will be followed by the execution of a randomized transparency and sanctioning intervention across Malawi in 2014-2015. Specifically, I am partnering with the National Audit Office and Anti-Corruption Bureau to design and implement a randomized audit experiment in which one-half of the districts of Malawi will be audited. As is typical of audits in Malawi, the results will be compiled and provided as a written report to Parliament, the Office of the President, the Ministry of Local Government, and the Anti-Corruption Bureau. In the treated districts, some of the officials will be selected to undergo an additional bottom-up treatment, in which the results of the audit will be disseminated to civil society groups, local leaders, and the media, and the officials will be called to a meeting to answer for the actions. Varying the saturation of individuals within treated districts will facilitate measuring the spillover effects of transparency interventions onto other officials. The outcome variables in this ex-

periment will be the responses provided in the survey of district officials, as well as the findings of the audit reports. As local government elections occurred in Malawi in May of 2014, both elected and appointed district officials will be included in the interventions. This experiment will address some of the estimation issues involved with survey experiments and explore the relationship between sanctioning capacity, transparency, and corruption more thoroughly.

7.2 Policy Implications

Malawi is a developing country. It is a consolidating democracy with decentralized government that divests many responsibilities to local government bureaucrats. Despite anti-corruption efforts from both citizens and higher levels of government, corruption among these officials is widespread. This research demonstrates that one reason for the failure of previous anti-corruption efforts is that these officials may be strategically responding to anti-corruption interventions by shifting, not eliminating, their corruption. The results of this study could be relevant for any other country with these characteristics.

This work has several important policy implications. It provides insight as to the strategies of political officials and their choices under different constraints. It demonstrates that anti-corruption interventions must be carefully designed with possible displacement effects in mind, specifically considering the immediacy and detectability dimensions when predicting such effects. Although it is tempting to conclude from this work that corruption is impenetrable, there is another valid, and more optimistic, conclusion. By understanding how corruption shifts and why, anti-corruption interventions can be efficiently designed, allowing donors and government

to target their resources to force political officials into a “corruption corner,” where their options for corruption are limited to inefficient, low-detectability, low-immediacy forms. Anti-corruption efforts can evolve as corruption forms evolve.

In considering the characteristics of the most efficient anti-corruption interventions, let us return to the differentiation between strategic and tactical interventions that Fox (2014) makes. Bottom-up and top-down efforts should occur in tandem, complementing rather than competing. They should include multiple tactics for involving citizens - meetings, written reports, radio broadcasts, and other methods of information dissemination and preference aggregation. Such interventions should target *both* sanctioning capacity and transparency: providing avenues for collective action in addition to providing information. Citizen action should be possible between elections, and interventions must acknowledge the power of informal institutions in many contexts in which anti-corruption efforts are currently implemented. Finally, and most importantly, success of anti-corruption efforts should not be measured in the degree to which corruption disappears, but rather in the type of displacement which occurs. If we can force politicians into a corruption corner and constrain their ability to replace old forms with less efficient new forms, we may reduce corruption over time.

This dissertation raises questions about the best methods for controlling corruption, though not the immediate topic of this dissertation, my qualitative research led me to strong opinions on this topic. Drawing on the vast literature on corruption in corporations, corruption requires motivation and opportunity (see, for example, Baucus (1994)). This dissertation demonstrates that political officials are highly persistent and resourceful in finding opportunities for corruption. However, the officials studied in this work are also highly motivated; one thing that was mentioned again

and again in interviews is that the income from corruption constitutes part of the political officials' living wage. Unlike corruption in other parts of the world, corruption for local government officials in Malawi (and, likely, for those in similar environments) often provides for basic needs, such as health care and education. One implication of a finding that new corruption opportunities arise when others are shut down is that combatting corruption by closing off opportunities might not be the most effective approach. It is possible that addressing the motivation side of the equation – the reasons political officials turn to corruption in the first place – may be a more promising strategy. A District Monitoring and Evaluation Officer provides motivation for this potential line of work:

Poor salaries are the root cause that encourages corruption. The rise in the cost of living against the stagnant salaries has forced other people to engage in illegal means of sourcing income for survival...So when an official has nothing in the pocket but a string a responsibilities to take care of, corruption is inevitable.

This quote illustrates a theme of the interviews I conducted. Political officials in low-income countries such as Malawi often have an income constraint to satisfy. They need to make a certain amount of money from corruption to earn a living wage. Because of this constraint, it is possible that rather than anti-corruption interventions resulting in less corruption, they actually result in more corruption, as politicians try to satisfy their income constraint while being forced to engage in less efficient forms of corruption. As transparency and sanctioning capacity increase, the political official is incentivized to choose forms of corruption with higher immediacy and detectability, which are also the lower efficiency forms. To offset the decreasing profits from corruption, the political official may opt to engage in more corruption overall, and corruption will actually become more costly for the public in total.¹ As one District

¹This is not the first work to propose that a reliance on corruption income leads to an inelasticity

Labor Officer stated:

Previously, these types of corruption existed but involved very few people. Now they involve everybody in the system. In the process, the magnitude has increased. Corruption is more prevalent now. They more people talk about it, the more it gets popular and the more culprits get sophisticated in their ways of stealing. Nothing really has been achieved in the fight against corruption and this has only served to worsen the problem.

This “perverse effect” hypothesis cannot be tested with the data in this dissertation, but is rather left as an avenue for future research.

This dissertation began with several propositions. Political officials choose from a variety of corruption forms. They strategically shift among forms in response to anti-corruption interventions that increase transparency or improve sanctioning capacity, and do so in non-random and politically motivated patterns. This is the displacement effect. Specifically, political officials facing a transparency intervention displace their corruption from high-detectability to low-detectability forms, and political officials facing a sanctioning intervention displace their corruption from high-immediacy to low-immediacy forms. Since citizens are affected by corruption more directly than are political superiors, displacement effects to low-immediacy forms should be greatest when the intervention involves a bottom-up component in addition to a top-down one. As *both* transparency and sanctioning capacity are necessary to combat corruption, we should expect null results from anti-corruption interventions unless there is a minimum level of both, and the greatest displacement effects occur when transparency is increased where sanctioning capacity is already high.

After developing a theoretical model of the relationship between corruption, sanctioning capacity, and transparency, I tested my hypotheses in the case of local

of corruption in the wake of anti-corruption interventions: Bussell (2012) finds that the extent to which political officials in India rely on income from corruption partially determines whether anti-corruption reforms occur and how well they are managed.

government in Malawi. This dissertation employed a representative survey, a survey experiment, in-depth interviews and behavioral games with district officials as subjects. In addition, I analyzed data from the Malawian government on corruption reports and completed a content analysis of the main media outlets in Malawi. The tests show initial support for the theory of corruption displacement: transparency displaces corruption to low-detectability forms, and there is a greater displacement effect of transparency interventions where sanctioning capacity is high. Further, involving citizens in a transparency intervention causes displacement to significantly lower immediacy forms of corruption, which aligns with the idea that citizens are more tangibly affected by high-immediacy corruption and therefore more likely to sanction it.

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