THE POLITICAL ECONOMY OF CORRUPTION IN AFRICA: URBANIZATION, TRUST, AND MOTIVATIONS

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The undersigned, appointed by the dean of the Graduate School, have examined the dissertation entitled

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and hereby certify that, in their opinion, it is worthy of acceptance.

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DEDICATION

I dedicate this dissertation to the “I AM”, thank you for Grace and Manah. To my wife Ines Rebeca, thank you for your unwavering love and support. I would like to thank Dr. Nathaniel Terrence Cogley—my undergraduate academic advisor—for believing and investing in me for this day to happen.

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ABSTRACT

The modernization paradigm has shaped development policies in African countries for decades since the 1960s. In this tradition, urbanization is presented by conventional wisdom as a strong correlate of development with mostly positive effects. However, this claim has been only tested in a restricted setting, primarily developed nations. Moreover, few studies have theoretically and empirically considered the drawbacks of urbanization on development outcomes, even when growing evidence suggest that African countries have urbanized at rapid rates in recent decades but achieved little to no economic development. This dissertation departs from conventional wisdom by arguing that urbanization—the most prominent sign of modernization—lowers the costs and raises the benefits of corruption in Africa such that it is a contributing factor to corruption. Unlike in most developed countries, the transition from the community-based life in the village to an individualistic lifestyle in the city decreases the costs and increases the benefits of being corrupt. Using a broad range of methodologies, including time-series cross-sectional data analysis, survey experiments, and interviews, the findings here show that contrary to conventional narratives, urbanization may pose a threat to development by encouraging corruption. This dissertation thus suggests that policymakers should be more cautious in approaching urbanization in development planning. Further, it brings empirical evidence that reveals that anti-corruption campaigns appealing to traditional African values such as collectivism and altruism may be a promising route.

CHAPTER

1. INTRODUCTION

Generally defined as the misuse of public office for private gain (Bardhan, 1997; Rose-Ackerman, 1975), corruption is a significant development problem (Mauro, 1995; Gyimah-Brempong, 2002) that tends to be most severe in developing countries (Svensson, 2005). As an outcome variable, corruption has attracted considerable research. Since the seminal work of Mauro (1995), the empirical literature on corruption has exploded with most studies looking at its determinants using observational data (e.g., Treisman, 2000; 2007; Serra, 2006). Recent years have seen an increase in experimental studies[1], which allows the possibility to flesh out the intricacies inherent to the study of corruption. Despite this progress, there still a big gap in our understanding of corruption, especially in developing countries.

Corruption has generally been studied at the macro level mainly because of data availability. Decades of research has established some economic and institutional variables as its most robust predictors. The institutional variables among others comprise democracy[2] (Montinola and Jackman, 2002; Bueno De Mesquita et al., 2001; Drury et al., 2006; Goldsmith, 1999) and colonial legacy (Serra, 2006). In turn, GDP per Capita (Treisman, 2000; Ades and Di Tella, 1999), aid (Ahmed, 2012; Asongu, 2012), trade, and

[1] Serra and Wantchekon (2012) provide an excellent account of the state of the literature in corruption using experimental methods.
[2] See Rock (2009), Serra (2006), Treisman (2000), and Mcmann (2020) for a more nuanced discussion of the effect of democracy on corruption.

natural resources (Ades and Di Tella, 1999; Ross, 2015) constitute the most prominent economic predictors.

Besides these explanations, there are other factors labelled as sociocultural variables (Serra, 2006). These are ethnic fractionalization and religion. Existing studies show that the more ethnically diverse a country is, the more likely is corruption. The theoretical idea is initially proposed by (Easterly & Levine, 1997) who see ethnic diversity as a source of sub-optimal policy options directed at ethnic members. But this variable has been proven to be very sensitive to specifications (Treisman, 2000; Serra, 2006). There is robust evidence however that religion matters in determining the level of corruption. Protestant culture is shown to decrease corruption while Catholicism increases it (Serra, 2006; Treisman, 2000; La Porta, de-Silanes, Shleifer, & Vishny, 1999).

A variable that received little attention, if any at all, is urbanization. Research on this variable is scant, despite its importance in developing countries, especially those in Africa. As a byproduct of modernization, it is often analyzed with the unjustified assumption that it only positively impacts development outcomes, including corruption. This dissertation brings urbanization as a determinant of corruption under the spotlight in the literature. It argues that urbanization is a vector of corruption, contrary to conventional wisdom. It suggests that the conception we have of the urbanization-corruption relationship from the political science (Lipset, 1959) and economic transitions (Rostow, 1960; Davis and Henderson, 2003) literature is victim to a simplistic modernization mythology.

1.1. Corruption, Modernization, and Urbanization

The modern conception of modernization theory emerged during the Cold War with the economist Walt Rostow's book describing the different stages of economic growth (Rostow, 1960). Rostow's work was founded on an anti-communist ideology as the title indicates[3]. He supported that all societies should go through five stages of economic growth before reaching the economic level of industrialized nations such as the USA, and the UK. This economic strand of the modernization theory has been at the foundation of several international financial institutions including, the World Bank. However, Subsequent works criticized the Rostow's approach for being too simplistic (See Gwynne, 2009, p164-66 for a review of the economic variants of modernization theory). A sociological approach of modernization emphasizes that social and cultural variables are more important than economic variables that tend to ignore many societal dynamics. One of the main contributions of this sociological approach that originates from Max Weber is that it clearly defines two types of opposite societies: traditional and modern. Each system has their expectations, rewards, and retributions (Gwynne, 2009). Modernization thus implies the progressive transition from the so called predated traditional society to a modern society (Huntington, 2006).

A core assumption of modernization theory is that it promotes development and is, therefore, perceived to be a desirable process that mostly brings positive outcomes. As a byproduct of modernization (Huntington, 2006; Coquery-Vidrovitch, 1991), urbanization is presented as a strong correlate of development (Davis and Henderson, 2003; Njoh, 2003; Quigley, 2009) with very few exceptions (Henderson, 2003). Yet, this

[3] The full title of the book is "*The stages of economic growth. A non-communist manifesto"*

assumption has been tested only in a limited number of settings, mainly developed nations. Very few studies have theoretically and empirically analyzed the drawbacks of modernization on political outcomes, especially in Africa (Fox, 2013) where modernization theories present several puzzles to solve (Patel, 1988). The debate has instead focused on how modernization leads to factors and conditions considered desirable such as democracy (Lipset 1959; Przeworski and Limongi, 1997; Inglehart and Welzel, 2010).

Despite the praises of urbanization as a trigger and accelerator of development, several studies find that African countries have urbanized at high rates in recent decades but achieved little to no economic development. Thus, the conventional wisdom does not reflect realities in developing countries, especially those in Africa. Meanwhile, many development policies in these countries are based on programs that believe this story is true. Shedding light on this unexamined story of modernization theory, this dissertation argues that by removing the checks embedded in traditional life and by disrupting the bonds of public versus private life, urbanization in Africa deters development because it creates the space for corruption to flourish. I specifically investigate how it affects incentives, trust, and motivations as they pertain to corruption. Using a broad range of methodologies including time series cross-sectional data analysis, survey experiments, and interviews, I show that one should not consider the movement away from traditional village communities as a guarantee for development. Academics and development institutions should pay explicit attention to the fact that urbanization has consequences that inhibits the very purpose of the development it promotes.

1.2. The Novelty of this Dissertation

Several lacunae exist in the current literature on corruption. First, besides Ekeh (1975), no study to my knowledge have tried to provide a holistic theory about the occurrence of corruption on the African continent. While Ekeh's work has implications for corruption, it does not explicitly address the topic. This dissertation is thus one of the rare studies to theorize about the political economy of corruption in Africa. Second, existing studies especially those at the macro-level largely assume unit homogeneity among countries. However, a close observation shows that the African continent has a peculiar history. It has been under colonial influence until the first half of the 20th century. Major events such as slavery, colonization have transformed the continent in unique ways. Notable studies such as Ekeh (1975), Englebert (2000), and Nunn and Wantchekon (2011) clearly show this. It is therefore unrealistic to assume that a complex phenomenon such as urbanization will have the same effect on society as in OECD countries that have a long history of democracy, industrialization, and an extremely individualistic society.

Albeit multi-cultural and far from being homogenous, Sub-Saharan African countries share a recent history of modernization that has affected and continues to affect how people live. The overarching argument of this dissertation that modernization through the urbanization process increases corruption because it threatens traditional values reasonably affects most of these countries. This dissertation, thus, contributes theoretically and empirically to African studies and the literature on the determinants of corruption.

First, corruption is a major threat to development in Africa, and it is essential to understand the causes behind it. This dissertation enhances our understanding of corruption, showing that urbanization is critical in how we think about and understand corruption in Africa. The rosy idea we have about urbanization is far too simplistic and does not fit the narrative in Africa. Second, it shows that the massive urbanization the continent is going under may represent a severe threat to essential values such as trust, which is a lubricant for several development outcomes. Thus, this dissertation cues policymakers about how to approach urbanization in development planning and be cautious about how it can affect corruption. Third, this dissertation brings empirical findings that suggest that anti-corruption campaigns appealing to traditional African values such as collectivism and altruism may be a promising route to help fight this gangrene.

1.3. Roadmap

Centered on three academic articles, this dissertation reconceptualizes our understanding of the relationship between urbanization and related development variables by presenting urbanization as a vector of corruption. The central theoretical argument of this dissertation is that urbanization is positively related to the level of corruption because it removes community mechanisms able to inhibit it. The evidence presented in the following chapters suggest that by pushing urbanization through growth, development experts might be unleashing the forces that make corruption more likely and thus undermine the development process they want to promote in the first place.

Beginning with the first article, this dissertation argues that urbanization reduces the cost of being corrupt as there are fewer social sanctions and peer pressure in cities

than community-based traditional life. Using a cross-section of countries to challenge the conventional wisdom that urbanization decreases corruption at the country level, I find that higher levels of urbanization are associated with higher levels of corruption in Africa.

The second article investigates the urbanization-corruption link in-depth in a sub-national analysis. The main argument is that trust erosion is one of the causal pathways through which urbanization increases corruption. With urbanization, individuals tend to have less trust in one another because they interact and do less of activities that can strengthen bonds, which in turn increases the probability of corruption. This chapter adopts a multi-method approach, including a combination of survey data and in-depth interviews with traditional chiefs, villagers, and heads of youth associations to test the impact of modernization on trust and, ultimately, corruption.

The third and last article examines the impact of urbanization on corruption at the micro-level, testing whether intrinsic motivations through negative externalities influence the degree of corruption. The core argument is that the collectivist culture of African societies makes negative externalities from corruption morally heavy to bear and thereby decreases the probability of condoning corrupt behaviors. It further argues that this effect is more potent in a rural context where collectivism is more vital than in cities. This article investigates the impact of intrinsic motivations on corruption using a survey experiment conducted in West Africa.

In sum, this dissertation presents a novel way to look at the effect of urbanization on development in Africa. The portrayal of urbanization by policymakers and academics

as a virtuous circle is probably confined to developed countries and does not fit the institutional realities in African countries. In the urbanization process, cultural features such as collectivism and trust disappear in the profit of an individualistic society where corruption incentives tend to be higher. This dissertation presents evidence that the fight against corruption can benefit from further consideration of traditional values.

2. The Hidden Story of Modernization: Urbanization and Corruption in Developing Countries

2.1. Abstract

How does urbanization affect corruption? Modernization theory suggests a negative relationship. Existing empirical studies tend to confirm this hypothesis, showing that urbanization is inversely associated with corruption. In this paper I provide an alternative perspective on corruption, focusing especially on sub-Saharan Africa. I argue that the modernization process, ironically, can exacerbate rather than ameliorate corruption. Urbanization is conducive to corruption in an African context because urbanization is characterized by a more individualistic lifestyle reducing thus the cost of being corrupt as there are fewer social sanctions and peer pressure compared to community-based traditional life. A time series cross-sectional analysis (1972-2015) shows across several regression models and estimators that urbanization is directly associated with corruption in a sample of African countries, but it has mixed effects on a global sample. Re-conceptualizing how urbanization shapes political culture in Africa is important for a continent that is rapidly urbanizing, working to control corruption, and in need of further development.

2.2. Introduction

Very few theories in the social sciences have amassed the scholarly attention as has modernization theory. Considering the amount and quality of work building on it (Lipset, 1959; Przeworski & Limongi, 1997; Boix & Stokes, 2003; Acemoglu, Johnson, Robinson, & Yared, 2009; Kennedy, 2010; Inglehart & Welzel, 2010), modernization theory is arguably one of the most influential theories in political economy. Part of the influence is that its central claim is simple: economic development is associated with mostly predictable changes in political, social and cultural life (Lipset, 1959; Inglehart & Baker, 2000). Being one of the most prominent signs of modernization (Huntington, 2006, p. 32), urbanization is praised and encouraged by development experts in developing countries who see in it a path to economic development as it encourages and supports the transition from a primitive agricultural economy to a more sophisticated economy that relies on industries and services (Davis & Henderson, 2003; Njoh, 2003; Quigley, 2009; Brett, 2009; OECD, 2015).

However, instead of promoting economic development, developing countries in Africa are the most corrupt in the world and happen to be urbanizing at fastest and higher rates (Svensson, 2005; Fox, 2013). Is there a connection between urbanization and corruption? Despite the extensive literature that exists on the determinants of corruption (Treisman, 2000; 2007; Serra, 2006), we have a limited and unclear understanding of how urbanization influences corruption. A recent review of the determinants of corruption by Dimant and Tosato (2018) shows that we have contradictory findings. Theoretically, scholars have paid little attention to the relationship between the two variables, albeit the modernization story suggests that the relationship should be negative because urbanization

is part of the social changes engendered by modernization, which taken together are conducive to democratization and democratic values (Lipset, 1959; Przeworski & Limongi, 1997) and by extension less corruption.

The empirical research, however, largely is made up of country-specific studies that mostly address the question using corruption conviction rates in the United States (Meier & Holbrook, 1992; Goel & Nelson, 2011). A few cross-country empirical findings show that urbanization is indeed associated with lower levels of corruption (Billger & Goel, 2009; Goel & Nelson, 2010). This conclusion is questionable because the existing studies assume unit homogeneity between the developed and developing countries and offer limited theoretical expectations as to why urbanization should reduce corruption especially in a developing country context.

In Africa and across the developing world, the inverse relationship between urbanization and corruption is unlikely to hold, and instead urbanization is likely to increase corruption in these countries. With relatively weak political institutions, and most undergoing a massive urbanization process, although still about half urban and half rural (World Bank, 2017), the process of urbanization in Africa is much different than it is in the world's developed countries especially the close connection between the lifestyle and urbanization. As such, one should not expect the impact to be the same in these two groups of countries especially given that developed countries have a longer urbanization history and stronger political institutions. Urbanization, as I explain, will cause more corruption in the developing world.

To test these arguments, I use a time-series cross-sectional analysis on a broad number of countries and a sub-sample of 51 African countries over a period of 44 years.

The results show that urbanization is negatively associated with corruption as suggested by modernization theory when unit homogeneity is assumed in the analysis, although this effect disappears with fixed effects estimates. However, the findings also suggest that urbanization is positively associated to corruption with a sample based on African countries. This theoretically and empirically contradicts existing cross-country studies.

This paper makes at least two contributions to the literature on development broadly defined. First, it shows that our understanding of corruption and development is still victim to a simplistic modernization mythology, by showing that modernization does not always create a virtuous circle as suggested by existing findings. By encouraging urbanization as part of the development process and weakening social bonds embedded in traditional life, modernization contributes to more corruption in the developing world and is in that sense an impediment to the objective it promotes in the first place. It therefore calls policymakers to pay greater attention to the phenomenon of urbanization and its effects on development outcomes.

Second, this study furthers our understanding of the determinants of corruption in the developing world, which is especially important as one of the main causes of economic stagnation in these countries is corruption (Mauro, 1995; Gyimah-Brempong, 2002). To address this problem, it is imperative to first understand the causes of corruption, and here this analysis enhances our understanding of corruption showing that urbanization is an important part of how we think about and understand corruption in Africa and other parts of the developing world.

The rest of this paper is structured around four sections. First, I review the literature tying modernization and urbanization to corruption. Second, I present a theoretical

discussion of the social, institutional, and political conditions under which urbanization leads to more corruption in the developing world, with a focus on Africa. Next, I introduce and describe the data I am using to test my hypothesis—a panel data from 1972 to 2015—considering a number of control variables both descriptively and in multivariate models. Finally, the last section concludes the study, discusses the implications of the findings, proposes some policy avenues, and directions for future research.

2.3. Urbanization and Corruption

It is difficult to find studies with fully fleshed out theories explaining the impact of urbanization on corruption. This is surprising because following modernization theory's central claim, one assumes the relationship to be negative (Lipset, 1959; Inglehart & Baker, 2000; Inglehart & Welzel, 2010), even when there are not many direct empirical findings to corroborate this relationship. Urbanization is generally seen as desirable because it is part of the modernization process that brings mainly good political, social, and economic outcomes (Lewis, 1954; Pye, 1969, p. 401; Njoh, 2003; Davis & Henderson, 2003; Brett, 2009; Quigley, 2009; Boone, 2012; Fox, 2013). Huntington (2006, p. 59) is one of the first scholars to explicitly address the possible connection between the two variables. Specifically, he argues that the social changes that come with the urbanization process, may weaken social norms, create new sources of wealth, and lead therefore to more corruption. However, Huntington addresses the issue with a broad conceptualization of modernization and without providing empirical evidence to support his claim.

Aside from Huntington, it is hard to find explicit studies theorizing about the impact of urbanization on corruption with a few exceptions including Meier and Holbrook (1992),

Billger and Goel (2009), and Goel and Nelson (2010). Of these existing studies, only a few mention urbanization and do so mainly as a control variable providing limited if any discussion about the relationship (Benito, Guillamón, & Bastida, 2015; Glaeser & Saks, 2006; Alt & Lassen, 2003). Among the studies theorizing about urbanization mentioned above, only Meier and Holbrook (1992)[4] uses urbanization as a central variable to explain corruption. But this study—as many others[5]—is country-specific, addressing features of political corruption that are specific to the American political context (Meier & Holbrook, 1992, p. 138). For a more thorough assessment of the state of our knowledge on the question, however, it seems more logical to look at the cross-country studies that take a more systematic approach.[6]

The most empirically rigorous studies analyzing the impact of urbanization on corruption reach the same conclusion, such that it is reasonable to call this conclusion the conventional wisdom. In fact, the two studies taking a systematic approach in analyzing the impact of urbanization on corruption, Billger and Goel (2009) and Goel and Nelson (2010), find that urbanization decreases corruption. In a cross-sectional OLS regression (n = 98) supplemented by a quantile regression, Billger and Goel (2009) find that urbanization is negatively related to corruption. They argue that this finding can be explained by the fact that urban concentration deters corruption via government oversight or social stigma

[4] They argue that urbanization loosens social controls of family and religion. Note that one of my arguments is related to theirs, but different. I emphasize the role of social ties and how they affect rational calculations.

[5] See Benito et al. (2015); Goel & Nelson (2011); Glaeser & Saks (2006); Alt & Lassen (2003).

[6] Country specific studies are largely dominated by the U.S with the exception of Benito et al. (2015) conducted in Spain. U.S studies use states corruption conviction rates and states levels of urbanization as measures of the outcome and explanatory variables respectively. While it is important to know actual corruption conviction rates, this measure cannot be externally valid for other countries, especially developing ones, as they are too different across a number of dimensions, but perhaps most importantly in terms of corruption itself.

attached to corruption practices. Their sample is very limited (2001-2003) with no explanation why they chose this period. Further, the mean of urbanization in their sample is about twice the mean in Africa (i.e., 59.98% vs. 34.47%) signaling that more developed countries dominate their sample.

Using a random effects model, Goel and Nelson (2010) offer a similar finding with a greater emphasis that urbanization "strongly" reduces corruption. Urban concentration, they argue, makes corrupt practices easier to detect, which deters potential corrupt acts. Yet again their sample is similar to the one of Billger and Goel (2009), with a slightly different period under consideration. With these two empirically rigorous studies reaching the same conclusion, it is thus not an exaggeration to say we are left with a conventional wisdom that urbanization reduces corruption.

Nevertheless, there are several caveats in the existing arguments and assumptions that may make them irrelevant in a developing country context. To this point, consider Goel and Nelson's (2010) claim that corrupt acts would be easier to stigmatize in urban settings and Billger and Goel's (2009) conclusion that urban concentration deters corruption via government oversight. These seem to be unrealistic in contexts such as those found in African countries. In fact, in an African context corruption will be relatively easier to stigmatize in a rural setting because community life is inherently more accountable due to small size and ethnic connections, and more difficult in the city because of the impersonal and individualistic lifestyle (Ikuenobe, 2006). Furthermore, government oversight over corrupt practices in African countries is non-existent because government institutions and democracy are not strong enough for effective control. It is clear that these

existing explanations fail to account for the urbanization-corruption dynamics in developing countries.

Building on these points, this study represents a significant contribution in filling the gap in our understanding of the impact of urbanization on corruption by showing that the unit homogeneity assumption is not reasonable, and by providing new explanations and expectations about the relationship in a developing country context. Doing so, it also makes a contribution to the broader literatures on modernization and its effects, and the determinants of corruption. In the next section, I theorize about the effects of urbanization on corruption in the developing world, focusing on Africa.

2.4. Urbanization and Corruption in Africa

Corruption is commonly defined as the misuse of a public position for private gain (Bardhan, 1997; Rose-Ackerman, 1975). Yet as Helman (2007) notes, culture is the lens through which we understand and interpret events, and therefore corruption should take contextual differences into account, especially factors that influence the costs and benefits associated with it. Following Johnston (1996, pp. 331-334), corruption here is "the abuse, according to the legal or social standards constituting a society's system of public order, of a public role or resource for private benefit". This definition accounts for the fact that informal rules, social norms and preferences may be different from one context to the other (Torsello & Venard, 2016; Bontis, Bart, & Seleim, 2009; Bukuluki, 2013).

This is especially important because urbanization and corruption in Africa are certainly different processes when compared to what happens elsewhere, specifically the developed world. In addition of the high executive embezzlement and bribery, corruption

in Africa tends to be public and petty such that it is easily seen and usually a low level in terms of the amount exchanged. Many first-time visitors to Africa are often surprised to see their taxi or car pulled over by a police officer in which a quick handshake takes place, a process that is unusual if not never seen in developed countries.

Likewise, it is important to understand how urbanization and life in an urban area differ from life in a rural area. In developed nations, material success may come with movement away from the city while in developing countries, modernization and success means moving to the city. This reality makes individuals associate each setting with specific expectations. Ekeh's (1975) work on this point is especially important and helps us to better understand the dynamics of corruption in Africa in the era of modernization. Individuals, according to Ekeh (1975), establish a clear distinction between two political systems, the primordial public, life in the community, in which morality is expected, and the civic public in which the individual is incentivized to be amoral with financial gain being the prime motive. Within each sphere there are costs and benefits associated to behavior among peers, and as I explain, this makes corruption more attractive in one space than the other. This distinction is closely intertwined with the process of urbanization as it significantly impacts the costs and benefits associated with corruption. I turn next to explain how each setting affects incentives to be corrupt.

2.4.1. Corruption in Rural Areas

Many scholars believe that corruption is part of the African culture, with gift-giving the example used most often to justify this allegation (De Sardan, 1999; Egbue, 2006). However, as Ayittey (2018) notes, this is a “confusion and bastardization of the traditional

practice." Life in rural Africa, away from modernization, has strong mechanisms of social control for the leaders and populations that make deviant practices, including corruption costly. Norms of social exclusion and other measures of punishment are easy to enforce and make corruption a costly activity. Ayittey (2018, p. 195) supports that historical evidence suggests that Africans make the difference between gift-giving and corruption even in the modern days. Examples of rebellions that destroyed dynasties and removed chiefs from office for corruption exist (Ayittey, 2018, p. 195; Diop, 1988, p. 65). Africa is therefore not intrinsically corrupt.

Life in rural Africa is lived under well-defined traditions in geographically delimited clans (Epstein, 1967; Ekeh, 1980, p. 15; Ayittey, 2006). In a rural community, the individual has a duty to make traditions endure because they represent their life, and therefore a powerful constraint for individualistic endeavors either good or bad. Obligations associated with community life require one to act in the best interest of their family and village more generally. This mode of life has a deep sense of community and reciprocity as captured by Mbiti (1990) when he states "I am because we are. And since we are, therefore I am." In this environment, individuals strive to be exemplary people who do not deceive others since deception can be consequential for their own well-being and members of their own group. Individuals who are corrupt are easily seen and punished, and they will not be taking bribes from people of their own ethnic group as it is immoral.

Moreover, even if one was successful and able to bribe people, the funds from any corrupt act would not be for the individual's sole benefits. Rather, the expectation is that funds generated from corruption must be used for the community at-large because each member is expected to contribute to the group's survival (Ekeh, 1975; Ikuenobe, 2006;

Bukuluki, 2013). Thus, the ability to use funds from corrupt activities for personal purposes is severely circumscribed in rural areas. In the end, this lowers the benefits of corruption as one must dedicate their funds collected from corruption for others rather than themselves alone.

In rural areas, then, the costs of corruption are quite high as one must either figure out how to extract bribes from their own community members or somehow extract them from outsiders. Collecting from outsiders is the most likely source, but it is likely to be costly as it is unpredictable and inconsistent since outsiders are not that frequent in rural areas. Additionally, on the benefit side, one is going to be forced to share the proceeds from corruption with the community. The costs of corruption are thus high while the benefits are low making it unlikely that people will engage in corruption in rural areas.

2.4.2. Corruption in Urban Areas

In contrast to the rural setting, urban life alters the costs and benefits of corruption thus making it more appealing. In contrast to rural life, urban life is individualistic such that the group loses its importance in favor of the individual. Albeit, there is a tendency now to see a blending of social norms in rural and urban areas, the factors determining life, such as "self-identification," are still fundamentally different in the two settings (Epstein, 1967; Stephens, 2015). Interactions in urban areas are usually open, secular, and farther from traditions and religion (Huntington, 2006, p. 72; Meier & Holbrook, 1992). In such conditions, the cost of corruption go down in considerable ways. When engaging in corrupt activities, people will see this illicit behavior happening, but the costs are different because in an urban setting life is busy, crowded, and mixed with people from different parts of the

country and even the region (Epstein, 1967). African modern states do not have strong formal institutions that can provide an alternative to community checks. Indeed, in an urban setting, individuals are less likely to interact with the same people several times, and the chances that they are from the same ethnic group are considerably lower than in rural areas. Thus, the ex-communication threat is much lower if not nonexistent. Relatively, then, the costs of being corrupt in an urban setting are much lower than they are in a rural setting.

Alternatively, urbanization raises the benefits of corruption. Anonymity in urban areas allows one to freely spend revenues from corruption on oneself without the risk of being stigmatized as in a rural setting. While collecting bribes in an urban area may be easily seen, it will be hard for people seeing the corrupt individual to tell other people so as to force that person to use those funds for a collective group. It is quite likely that one taking bribes in a certain area of the city lives in a distant part of the city making it basically impossible for those seeing the corruption to identify that person as one who has gained money from being corrupt. Without the ability to identify the corrupt individual to the larger community, it will be difficult if not impossible to condition that person to use the funds for the community thus freeing them up to dedicate them to their own personal needs and wants. Urbanization thus raises the benefits to corruption.

In sum, two broad mechanisms explain the positive impact of urbanization on corruption in Africa and by extension developing countries. Urbanization increases corruption by reducing the costs and increasing the benefits associated with bribe taking and other forms of corruption. Losing the eye of the community allows people to easily engage in corrupt practices without the fear of being punished. Further, individuals can

dedicate the resources generated from corruption for their own personal use. Based on this argument, I propose the following hypothesis

Hypothesis: In a comparison of African countries, those with higher levels of urbanization will have more corruption than those with lower levels of urbanization.

2.5. Empirical Analysis

2.5.1. Data and Sample

To test my argument about the relationship between corruption and urbanization, I use a large-*n* multivariate regression analysis on a large sample of countries. The data is organized as a time-series cross-section with time measured on a yearly basis from 1972 to 2015. I run the analysis with two samples. First, I estimate the models with a global sample of 119 countries. This sample is used to test the conventional wisdom that assumes unit homogeneity. It includes all the countries that have data available for the variables under consideration. Second, I estimate the urbanization-corruption relationship with a sample of 51 African countries[7]to test my theory.

Summary statistics for the developing countries sample are presented in Table 1. The unit of analysis is country-year with observations ranging from a high of 4,159 to a low of 742 depending on the control variables and the corruption index used as the dependent variable. A data description in the appendix gives further information about the data sources and other transformations made to the variables. The two samples have important differences in means for both the independent and dependent variables. Urbanization has a mean of 48.10 in the global sample and 34.47 in the African sample (*p*

[7] Note that South Sudan and Somalia are excluded from the study because of their small number of data points.

= 0.000). For corruption, however, Africa takes the lead with a mean of 63.41 while the global sample has a mean of 47.40 (p = 0.000).

Table 2.1: Summary statistics (African countries)

	N	Mean	SD	Min.	Max.
Corruption (Vdem)	2186	63.41	20.67	15.22	96.90
Urban percentage	2182	34.47	17.31	3.10	87.15
Log aid	2160	19.02	1.43	9.90	23.16
Log GDP	2077	6.44	1.08	4.12	10.03
Resources % of GDP	2073	11.97	12.54	0	89.17
Trade % of GDP	1961	72.32	44.07	6.32	531.73
British colony	2186	.38	.48	0	1
Ethnic fractionalization	2186	.63	.26	0	.95
Democracy (Polity)	2012	-2.05	6.11	-10	10
Corruption (ICRG)	1140	3.62	.99	0	6
Control of corruption	867	.068	.61	-1.77	1.32
Population Growth	2182	2.54	1.15	-6.76	11.01

2.5.2. Estimation equation

Following Treisman's (2000) seminal analysis of the determinants of corruption, the core estimable equation for corruption includes democracy, colonizer identity, ethnic fractionalization, trade, GDP per capita, resources export, and multiple additional controls. The general statistical model used in this analysis is presented in the following equation:

$$\text{Corruption}_{it} = \alpha + \beta_1 \text{Urbanization}_{it} + \beta_2 \ln(\text{Aid})_{it} + \beta_3 \ln(\text{GDP})_{it} + \beta_4 \text{Resources}_{it} + \beta_5 \text{Trade}_{it} + \beta_6 \text{Colonizer} + \beta_7 \text{Ethnic Fractionalization} + \beta_8 \text{Democracy}_{it} + \varepsilon_{it}$$

The dependent variable corruption is a continuous variable measured by the Varieties of Democracy's (V-Dem) corruption index on a scale from 0-1 with lower values meaning less corruption (McMann, Pemstein, Seim, Teorell, & Lindberg, 2016). In this case, I convert it to a 0-100 scale for ease of interpretation. While the V-Dem index is relatively new, it has major strengths that makes it preferable to other existing indices that

are usually criticized for their many shortcomings (Treisman, 2007, p. 215). First, because it is the aggregation of several indicators including executive, judicial, and public-sector corruption, it better captures corruption in all its aspects. Second, about 60% of the coders are nationals of the country they code, which is novel and gives to some degree a guarantee that coders have contextual knowledge, therefore, increasing the internal validity. Finally, it offers a larger coverage starting from 1900 when most existing indices start in the late 1990s. In the present study, it thus allows me to test my argument over a longer period of time using a larger number of countries. Finally, a number of prominent studies using corruption as a dependent variable employ it as well (McMann, Seim, Teorell, & Lindberg, 2019; Carbone & Pellegata, 2020).

To operationalize urbanization, the main independent variable, I use the World Bank's World Development Indicators measure of the percent of urban population (World Bank, 2017). Based on the theoretical discussion, I expect the estimate to be positive indicating a positive association with corruption.

Building on the estimation equation, I isolate the effect of urbanization on corruption from other confounding factors. Thus, I include a number of control variables[8] broadly classified into economics variables, and institutional and social variables.

2.5.3. Economic control variables

To isolate the effect of urbanization from wealth, I include a control variable for GDP per capita as wealthier countries have higher rates of urbanization and lower levels of corruption. I therefore anticipate wealth to have a negative estimate. It represents by far

[8] Education is not included as a control variable in the main models presented in the paper because most African countries lack good quality data for it. I still include it as a control to verify whether it changes the results, but they remain consistent.

one of the most consistent predictors of corruption and is consistently found to be inversely associated with corruption (Ades & Di Tella, 1999; Treisman, 2000; Svensson, 2005; Serra, 2006).

In addition to GDP per capita, I include the availability of natural resources, especially oil rents as a percentage of GDP (β_4 in the equation). This is suggested by Ades and Di Tella (1999) who argue that natural resources give greater access to rents for bureaucrats to capture. The expectation is that it has a positive effect on corruption.

I also include trade and aid as part of the economic control variables. The trade variable emerges from the neo-liberalism literature which suggests that it positively influences growth. Treisman (2000) finds a negative correlation of GDP share of imports with corruption. Accordingly, I expect it to have a negative relationship with corruption. In contrast, I expect aid to have a positive effect on corruption. African countries receive large inflows of international aid, and extensive evidence supports that unearned cash helps non-democratic regimes maintain their power and fosters corruption (Ahmed, 2012; Asongu, 2012).

2.5.4. Institutional and social control variables

Following Treisman (2007) and the role of political institutions in the control of corruption, I include democracy and colonial legacy in the regression model. Democracy is measured by the polity IV score, and this variable ranges from a negative 10 to a positive 10 with lower values indicating more autocratic regimes and higher values more democratic regimes. The Polity score is one of the most widely used democracy indices in the literature (Marshall, Gurr, & Jaggers, 2013). This is an important control as democracy

is thought to have a positive influence on accountability through the mechanisms of checks and balances. Drury et al. (2006), for instance, find that corruption has a large negative effect on non-democracies' economic growth, while it has no effect for democracies because electoral competition deters political leaders from engaging in damaging corrupt activities. Moreover, democracy is also correlated with urbanization (Lipset, 1959), although several studies find that dictatorships are associated with urbanization as they promote large dominant single cities (Ades & Glaeser, 1995). Political regime is thus an important confounding factor that should be controlled for in the regression analysis.

Colonial legacy is thought to be an important determinant of institutional quality. Specifically, Britain is thought to have a legacy of more transparent and democratic institutions as compared to other colonizers (Treisman, 2000; Acemoglu, Johnson, & Robinson, 2001; Serra, 2006), albeit empirical evidence shows that the effect is not particularly large. Based on the literature, one shall expect less corruption in ancient British colonies in comparison to French and other European colonies.

Finally, I include ethnic fractionalization as a control variable based on the coding of Fearon and Laitin (2003). In fact, it is established theoretically, and empirically that a country that has a high ethnic fractionalization is subject to higher levels of corruption because the cost of engaging in corruption and for enforcing corrupt contracts is reduced (Easterly & Levine, 1997). It, therefore, represents an important control variable for this analysis.

2.5.5. Estimator

To determine the appropriate methods to estimate my statistical models, I conducted several preliminary statistical tests. A unit root test using the Augmented Dickey-Fuller test shows no sign of unit roots in my main variables of interest, which means the series are stationary and there is thus no need to take first differences. Further tests on the data suggest that there is autocorrelation, heteroskedasticity, and group-wise heteroskedasticity. These problems relate to the fact that errors for units at different times are not independent from one another, errors in panels do not have the same variance, and errors are not independent across units. Ordinary Least Squares (OLS) under these circumstances would likely produce biased results (Beck & Katz, 1995). The most appropriate models for my empirical test are therefore panel-corrected standard errors (hereafter PCSE) (Beck & Katz, 1995), fixed effects, Driscoll and Kraay estimator (Hoechle, 2007), and generalized least squares (Greene, 2003). Addressing the issues mentioned earlier, I use PCSE with the options to fix autocorrelation and panel-level heteroskedasticity as my main estimation technique. Nevertheless, other estimation techniques mentioned are also used as estimators for robustness checks.

2.5.6. Results

To begin, I consider the relationship between urbanization and corruption in a global sample. Here, the objective is to test modernization theory's prediction that the relationship between urbanization and corruption should be negative. Table 2 presents the global sample that considers all the countries that have data, including African. The results show mixed effects for the modernization hypothesis. In the models using PCSE and

Driscoll and Kraay estimators, the results are consistent with the existing literature, namely that urbanization decreases corruption (Billger & Goel, 2009; Goel & Nelson, 2010). The relationship is significant at the 95 percent confidence level in both models. However, once I control for country specific effects, the relationship disappears and the sign turns out to be positive, although it is not significant. This suggests that the existing findings warrant further investigations.

Table 2.2: Effect of urbanization on corruption (global sample)

	(1) Panel-corrected	(2) Drisc/Kraay	(3) FE Robust Stand Errors
Urban percentage	-0.190***	-0.0927**	0.209
	(0.0335)	(0.0416)	(0.136)
Log aid	0.440***	3.602***	2.106***
	(0.118)	(0.268)	(0.540)
Log GDP	-0.624*	-2.882**	-1.629
	(0.355)	(1.240)	(1.214)
Resources % of GDP	0.0321***	0.455***	0.0907
	(0.0114)	(0.0410)	(0.0703)
Trade % of GDP	-0.00463	-0.0252	-0.0230
	(0.00590)	(0.0155)	(0.0252)
British colony	-13.85***	-15.07***	
	(1.413)	(0.723)	
Ethnic Fractionalization	16.87***	8.221***	
	(2.313)	(2.059)	
Democracy	-0.167***	-0.314***	-0.238
	(0.0320)	(0.0587)	(0.187)
Constant	60.41***	14.85*	23.22**
	(3.252)	(8.590)	(11.04)
Observations	4,159	4,159	4,159
R-squared	0.487	0.298	0.060
Number of Countries	119	119	119
Country FE	No	No	Yes

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Perhaps including the African countries in the sample biases the results against the modernization hypothesis. To address this point, I estimate the same models without African countries in the global sample (Table 8 in the appendix). The effect is even stronger with a 1 percent increase in urbanization causing nearly 1/2 of a percent decrease in corruption. Again, once I control for country-specific effects, the relationship disappears.

Based on the results displayed in Tables 2 and 8, one may conclude that urbanization has a negative effect or no effect at all on corruption, depending on the model specification or estimator. However, this conclusion assumes unit homogeneity which is unrealistic especially in Africa. Addressing this point, I now test my theory that ceteris paribus African countries with higher levels of urbanization will experience higher levels of corruption. I start my analysis by looking at the models displayed in Table 3 that includes all countries of the African continent except South Sudan and Somalia that do not have enough data points as mentioned earlier. The urban population percentage coefficients point to the direction of my expectations, namely, positive coefficients that are statistically significant at the 99 percent confidence level in models 4 and 5, and at the 95 percent confidence level in model 6.

On average, a 1 percent increase in urbanization is associated from at least a 1/4 to a nearly 1/2 of a percent increase in corruption depending on the estimator. The PCSE model shows a .25 percent increase in corruption for every 1 percent increase in urbanization. Figure 1 graphs this effect with a margins plot. The Driscoll and Kraay estimator in model 5 suggests that for every 1 percent increase in urbanization, corruption will increase by nearly .38 percent. The coefficients on the fixed effects model (model 6) are the largest in effect with every 1 percent increase in urbanization leading to .44 percent

increase in corruption. Model 6 is probably less reliable for the coefficients since some time invariant variables are omitted from it. However, it does show that the effect of urbanization on corruption is still positive and robust even when one controls for country-specific effects.

Table 2.3: Effect of urbanization on corruption in African countries (Including North Africa)

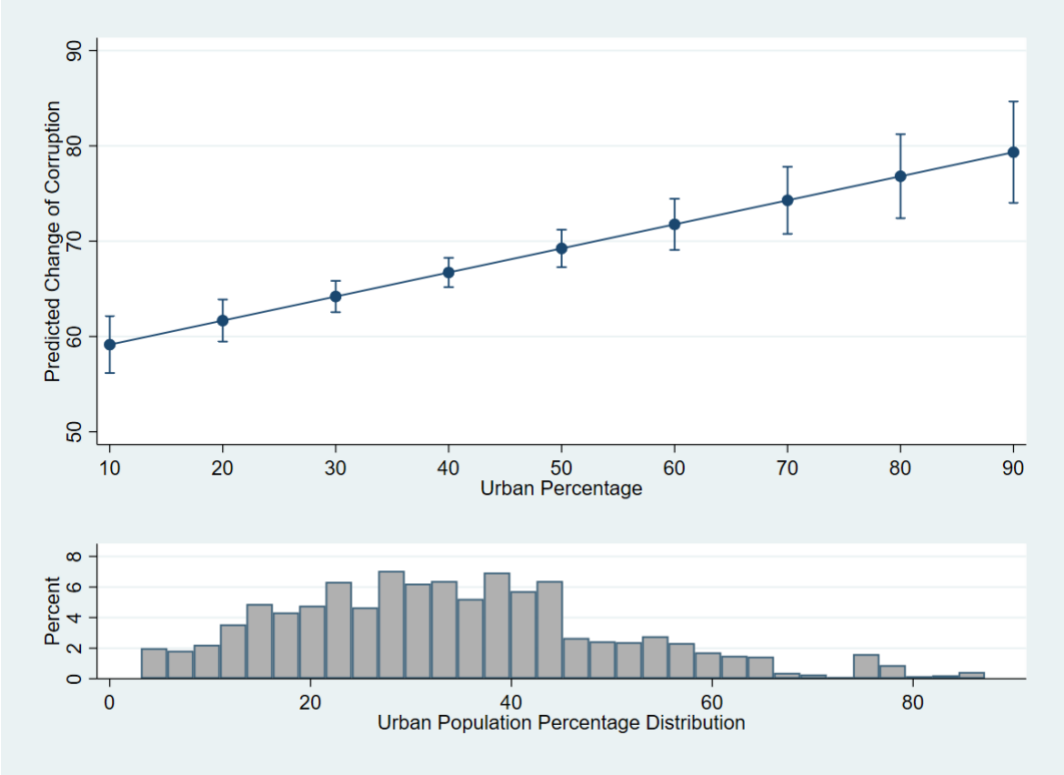
	(4) Panel-corrected	(5) Drisc/Kraay	(6) FE Robust Stand Errors
Urban %	0.252***	0.378***	0.444**
	(0.0489)	(0.107)	(0.195)
Log aid	-0.0386	0.868***	1.530
	(0.188)	(0.242)	(1.067)
Log GDP	-0.808	-3.803***	-2.508**
	(0.495)	(1.111)	(1.239)
Resources	0.0645***	0.618***	0.114
	(0.0156)	(0.0465)	(0.0885)
Trade % of GDP	0.000592	-0.0678***	-0.0497**
	(0.00518)	(0.0124)	(0.0233)
British colony	-5.544***	-1.789	
	(1.733)	(1.141)	
Ethnic Fractionalization	19.67***	8.623**	
	(3.061)	(3.340)	
Democracy	-0.182***	-0.572***	0.139
	(0.0587)	(0.0635)	(0.309)
Constant	51.00***	51.40***	38.88**
	(4.879)	(9.658)	(16.45)
Observations	1,799	1,799	1,799
R-squared	0.585	0.284	0.142
Number of Countries	49	49	49
Country FE	No	No	Yes

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

The control variables included in the models behave more or less as predicted, with the PCSE, and Driscoll and Kraay estimators showing the most consistent results. Looking

first at the economic control variables, GDP per capita shows a negative effect in models 4, 5, and 6. Albeit statistically insignificant in model 4, it shows a strong effect in the other two models thus confirming previous findings (Treisman, 2000; Svensson, 2005; Serra, 2006). International aid shows a mixed effect with only model 5 being consistent with the prediction that it positively affects corruption. This is not surprising especially that there is a renewed debate about the direction of the effect (Okada & Samreth, 2012; Asongu, 2012). Exports of natural resources as a percentage of GDP positively influences corruption. The effect is statistically significant at the 99 percent confidence level in models 4 and 5 and insignificant in model 6. Finally, trade has a negative effect and significant at the 99 and 95 percent confidence level in models 5 and 6 respectively.

Figure 2.1: Predicted Impact of Urbanization on Corruption



Considering the institutional and social variables, the results show that democracy has a strong negative effect in models 4 and 5. The sign turns positive in the fixed effects estimation, however (model 6). This mixed finding is somehow consistent with the contemporary debate around the effect of democracy on corruption (McMann, Seim, Teorell, & Lindberg, 2019; Rock, 2009; Treisman, 2000).

Being a former British colony negatively affects corruption, which is consistent with the findings of Serra (2006) who presents this variable as one of the most stable predictors of corruption. Ethnic fractionalization shows a consistent strong positive effect statistically significant at least at the 95 percent confidence level in models 4 and 5 as previous studies find (Serra, 2006).

In Table 4, I estimate the same models excluding the 5 countries of North Africa (Egypt, Morocco, Tunisia, Algeria, and Libya). The results are unchanged, with

urbanization being statistically significant at the 99 percent confidence level for the Panel-corrected model, at the 95

percent confidence level for the Driscoll and Kraay estimator, and the fixed effect robust standard errors model. The goodness of fit is much better in this restricted model, and it appears that there is not a significant difference between North African and Sub-Saharan Africa when it comes to the effect of urbanization on corruption. The control variables included behave the same way as in the main models. International aid and resources rents have a positive and statistically significant effect on corruption as predicted by the literature. GDP and trade have the opposite effect on corruption and statistically significant, which is consistent with my expectations. Being a British colony seem to have a strong negative effect on corruption, which counters Treisman's (2000; 2007) findings suggesting a weak relationship. Ethnic fractionalization has the sign predicted in the literature (positive), and the estimate is statistically significant.

Table 2.4: Effect of urbanization on corruption in African countries (Excluding North Africa)

	(7) Panel-corrected	(8) Drisc/Kraay	(9) FE Robust Stand Errors
Urban percentage	0.217***	0.300**	0.436**
	(0.0521)	(0.113)	(0.198)
Log aid	-0.125	0.0109	1.923
	(0.212)	(0.407)	(1.154)
Log GDP	-0.991*	-3.420***	-3.221***
	(0.527)	(1.113)	(1.191)
Resources % of GDP	0.0690***	0.639***	0.137
	(0.0172)	(0.0519)	(0.0965)
Trade % of GDP	0.00157	-0.0638***	-0.0560**
	(0.00555)	(0.0109)	(0.0221)
British colony	-7.605***	-3.337***	
	(1.701)	(1.140)	
Ethnic Fractionalization	24.40***	14.84***	
	(3.536)	(1.178)	
Democracy	-0.157**	-0.453***	0.145
	(0.0614)	(0.0873)	(0.313)
Constant	51.92***	63.56***	36.49**
	(5.253)	(13.71)	(17.70)
Observations	1,606	1,606	1,606
R-squared	0.604	0.302	0.159
Number of Countries	44	44	44
Country FE	No	No	Yes

Notes: Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

2.5.7. Robustness checks

To check the robustness of the findings, I estimate my main models using an alternative measure of corruption, the International Country Risk Guide (ICRG) corruption index. Compiled by the Political Risk Services Group, it is one of the most used indices in the empirical study of corruption. The results (displayed in Table 5) are unchanged and thus robust to using this alternative measure of corruption. Specifically, the urbanization

estimates are statistically significant across several specifications including the PCSE and fixed effects robust standard errors.

Table 2.5: Effect of urbanization on corruption in African countries (ICRG Corruption Index)

	(10) Panel-corrected	(11) FE Robust Stand Errors
Urban percentage	0.0132**	0.0394***
	(0.00564)	(0.0139)
Log aid	0.0272	-0.100
	(0.0261)	(0.0594)
Log GDP	-0.105	0.112
	(0.0646)	(0.144)
Resources % of GDP	0.00280	0.00225
	(0.00224)	(0.0106)
Trade % of GDP	-0.00184	0.00537
	(0.00119)	(0.00357)
British colony	0.0962	
	(0.157)	
Ethnic Fractionalization	0.621*	
	(0.332)	
Democracy	-0.00621	0.0138
	(0.00640)	(0.0158)
Constant	2.941***	2.914**
	(0.710)	(1.289)
Observations	986	986
R-squared	0.434	0.146
Number of Countries	35	35
Country FE	No	Yes

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Following Asongu (2013), there are reasons to believe that the extent to which different governments fight corruption (existing levels of corruption) and population growth may represent confounding factors. Indeed, governments with good corruption control mechanisms may mitigate the negative externality of urbanization underlined in this article. Also, he finds that population growth positively influences corruption in low

income countries. To take these findings into account, I estimate the models controlling for government control of corruption using the World Bank's World Governance Indicators index (Kaufmann, Kraay, & Mastruzzi, 2009), and population growth. The results are reported in Table 6 and 7 respectively.

Including the control of corruption makes the estimates smaller but the effect is much stronger with the estimates being statistically significant at the 99 percent confidence level in both models (12 and 13). This suggests that the existing control of corruption in a given country is important (Asongu, 2013). Controlling for population growth makes my estimates slightly stronger with bigger coefficients significant at the 99 percent confidence level. As one can see, the results are unchanged. The results are therefore robust to alternative model specifications and further theoretical considerations.

2.6. Conclusion

In this study, I challenged the conventional wisdom that modernization creates a virtuous circle that ultimately lowers corruption. For a typical African country, urbanization—the most prominent sign of modernization—lowers the costs and raises the benefits of corruption such that it is a contributing factor to corruption. Unlike in most developed countries, the transition from the community-based life in the village to an individualistic lifestyle in the city decreases the cost and increases the benefits of being corrupt because of the significant reduction in peer pressure and associated community checks. This process is especially true in Africa where modern political institutions are so fragile and unable to provide a viable alternative to community checks. Using a time-series cross-section analysis across several samples, models, and estimators, I find that

urbanization is associated with higher levels of corruption in Africa. These results contradict the existing systematic empirical studies and re-conceptualizes the impact of urbanization on corruption.

While my developing countries sample was only made up of African countries, it is reasonable to argue that these findings can also apply to developing countries in other parts of the world albeit some exceptions may apply given the mechanism explored here. The collectivist life in African societies is not necessarily the same in other parts of the world. In addition, major events such as slavery and colonization has transformed the continent in significant ways that affect how the modern state is perceived (Ekeh, 1975).

This study makes a number of contributions to further our understanding of modernization outcomes and the determinants of corruption. The traditional rhetoric espoused by development experts has been to advocate for economic prosperity, often praising urbanization (OECD, 2015) as a process that causes economic growth and promotes well-being (Davis & Henderson, 2003; Njoh, 2003; Quigley, 2009). Yet, after decades of incredibly high rates of urbanization, many developing countries, especially those in Africa are still very poor (Beegle & Christiaensen, 2019). Economic growth did not follow urbanization trends as many development experts predicted (Fox, 2013; OECD, 2015). Instead, urbanization seems to work against the major objective it was supposed to promote. This analysis shows that it does so because urbanization increases corruption, which as we know is a major determinant of economic growth and social well-being (Mauro, 1995; Gyimah-Brempong, 2002; Doces, 2020). This finding is consistent with Henderson (2003) who posits that urbanization is not a synonym of development, and also

Fox (2013) who shows that economic growth does not follow urbanization in Sub-Saharan Africa as it does in other parts of the world.

As Turok and McGranahan (2013) argue, it seems that the way forward is not about encouraging or discouraging urbanization per se, but urbanization policies and the integration of the new urban population should be re-thought carefully. Specifically, development projects should be decentralized to avoid the massive rush to cities. Decentralization will help create jobs in places close enough to village community structures so that moving towards better opportunities does not represent a drastic change in an individual's social life. This recommendation cannot be emphasized enough, especially as Fisman and Gatti (2002) find that decentralization is negatively associated with corruption. Lastly, the modern state should not ignore the traditional leaders as it has been the case until now. The lack of legitimacy of the modern state in the eyes of the rural world can be mediated if traditional leaders are incorporated more fully in the governance process. Doing so will make the rural world less suspicious of the modern state, and therefore facilitate the transition to a more modern and democratic state where institutions will be strong enough to effectively control corruption.

The implications of this analysis are especially important for development policies of western countries and international institutions like the International Monetary Fund, United Nations, and World Bank. Efforts to promote development by these external actors have often looked to increase growth and improve health indicators, as outlined in the U.N.'s Millennium Development Goals, with an emphasis on improved governance as a means to achieving these objectives (Lopez-Calva, et al., 2017). However, in encouraging African countries to modernize, these policies might in the process be sowing the seeds of

their own demise. By pushing urbanization through growth, they might be unleashing the forces that make corruption more likely and thus undermine the development process they want to promote in the first place. This could be why many African countries have experienced rapid growth over the last twenty years yet extreme poverty remains a serious problem across the region. Understanding the possible side effects of these development programs is especially important if they are to accomplish their goals.

Future work can extend this research in several ways. One consideration is whether urbanization causes corruption indefinitely or if it is just a transitional stage. It seems likely that it is more transitional, as the urban population continues to grow it will eventually reach the level where many OECD countries are at today. At this stage, a new equilibrium is more likely to establish itself. Future research may shed some light at this critical point where urbanization may help curb corruption as it does in the developed world. Research on how democracy mitigates the downside of modernization is also an important contribution to the literature on corruption.

3. Modernization, Trust, and Corruption: Evidence from West Africa

3.1. Abstract

Modernization as a framework has guided development initiatives in the developing world for decades. The increasing number of studies on sub-national variations in corruption has considered one of its proxies, urbanization, with mixed findings. Little, if any work at all considered the African continent that is actively struggling with corruption. This study considers the factors that explain the difference in corruption levels within a country focusing on modernization. In a mixed methods approach using factual survey questions about people's everyday interactions and in-depth interviews with traditional chiefs, village community leaders, and average citizens from Ghana and Côte d'Ivoire, I find that individuals living in urban areas are more likely to be corrupt than their rural counterparts. Further, I find that urban individuals are less trusting in others, suggesting that "reduced trust" is one of the causal pathways through which urbanization increases the likelihood of corruption. These findings represent an important addition to the existing literature that barely theorizes about this relationship and presents economic factors to be the main predictors of within-country variations in corruption.

3.2. Introduction

Quantitative empirical research in Comparative Politics has traditionally been at the country level. Recent decades, however, have seen an increasing interest in studying sub-national variations. The most recent works have looked at democratization (Gibson, 2013; Giraudy, 2013; Hiskey & Bowler, 2005), Public goods provision and accountability (Tsai, 2007) and how we could improve methodological leverage when studying subnational units (Snyder, 2001). Scholars studying corruption are trying to follow this trend with a handful of works analyzing corruption variation in subnational units (del Monte & Papagni, 2007; Ferraz & Finan, 2008; Libman & Kozlov, 2013). The Quality of Government Institute especially boosted this trend with a series of working papers looking at subnational variation of corruption in India (Charron, 2010), Mexico (Wängnerud, 2010) and Europe (Charron et al., 2010).

Despite these efforts, it is reasonable to say that subnational inquiry of corruption is still at its infancy. Very little if any of these studies have been done in Africa, a continent where the problem of corruption is particularly severe. In addition, existing studies can hardly claim causality as survey questions used are generally broad and do not tap in facts lived in respondents' everyday interactions. Further, the bulk of the existing studies have mostly focused on economic variables and have ignored dynamics of social interactions and how they affect corrupt behaviors. Indeed, as the review below shows, what we know on subnational corruption comes from a correlation of overwhelmingly economic variables (e.g., income, bureaucracy growth, employment…) with corruption without an in-depth investigation of how such processes affect the behavior of individuals toward corruption in their daily lives. Looking specifically at the

effect of modernization on corruption, the topic is severely understudied with findings contradicting each other about how urbanization, a prominent sign of modernization, affects subnational variation of corruption along with a minimal theorization.

This study fills in these gaps by asking the following question: How does the degree of modernization affects the variation of corruption levels within a country? By considering this question, this paper touches two threads of literature simultaneously: (i) it addresses the nascent endeavor of understanding the subnational variation of corruption and (ii) engages the somehow older but under-theorized line of inquiry of the effects of modernization on corruption. I argue that in Africa, modernization through its urbanization proxy represents a significant predictor of the regional differences in corruption. By disrupting the social accountability systems established in different customs, urbanization reduces trust, and therefore increases the likelihood of corruption. Using factual questions about people's everyday interactions from the 7th round of the Afrobarometer survey, and in-depth interviews with traditional chiefs, village community leaders, and average citizens in Ghana and Côte d'Ivoire, I find that respondents living in low urbanized areas are less likely to say people can pay bribes to get away with wrongdoings. Further, they are more likely to have faith in institutions and to trust others in their daily interactions than individuals living in highly urbanized areas. The findings from the statistical results hold even after I control for the economic variables usually advocated as the main predictors of subnational variation in corruption. In addition, the in-depth interviews reveal that reduced trust is a credible causal pathway through which urbanization affects corruption.

The present study makes several contributions to our knowledge on the subnational variations of corruption as well as how modernization affects corruption. First, it expands our knowledge of the determinants of subnational corruption by considering this question in an African context. Most works studying the subnational variation of corruption have mainly considered developed countries, India, and Mexico to some extent. This paper studies the question where it is most likely needed. Second, this study provides a credible causal mechanism of how urbanization affects corruption and actually testing it. Which is a novel contribution as existing studies have been satisfied with only showing correlation or the lack thereof accompanied by a minimal theorization. By providing a clear mechanism for the relationship and by also testing the causal mechanism linking the two variables, this study shows that it is theoretically and methodologically sound to argue that modernization increases corruption in developing countries. Finally, at a broader level of consideration, these findings send a message to the different stakeholders in the numerous development projects across the African continent to consider how a disruption in the established social interactions affect one's behavior vis-à-vis others and their effect on the outcome of such projects.

The rest of this paper is structured as follows. I present in the next section a general review of the burgeoning literature on the subnational variation of corruption looking at the broad categories of corruption predictors and then the specific relationship between urbanization and corruption. The theory section follows with an explanation of why urbanization breeds corruption and why it is invertedly linked to trust in Africa. After the theory section, I present the data followed by the empirical results to test my theoretical claims with several Ordered Probit models and in-depth interviews. The last

section concludes the paper, discusses implications and provides avenues for future research.

3.3. Literature

3.3.1. Determinants of subnational variation in corruption

The literature on the determinants of corruption has been overwhelmingly cross-sectional, looking at variation across countries (Serra, 2006; Treisman, 2000, 2007)[9]. This of course has made many of the findings so far very fragile to different indices and model specifications (Serra, 2006) since some variables such as rule of law and press freedom can be complex to measure and difficult to control for. One of the major strengths of sub-national analysis is thus the ability to hold all these country level variables constant (Charron, 2010).

Taking advantage of this major strength, subnational studies have established two broad categories of predictors that explain subnational variation in corruption. The first category and undeniably the most powerful set of predictors is socio-economic factors. Most findings in this category so far support that wealthier regions tend to be less corrupt on average. Works on American states (Alt & Lassen, 2003), India (Charron, 2010), Russsia (Dininio & Orttung, 2005), and European OECD[10] countries (Charron et al., 2010) provide evidence in favor of this intuition. Charron (2010) finds that "fiscally decentralized" states in India are on average less corrupt, this is consistent with what Fisman and Gatti (2002) find. Long-term employment is also suggested to be conducive

[9] These authors provide excellent literature reviews.

[10] Organization for Economic Co-operation and Development

to less corruption (Charron et al., 2010). In the same logic, regions with better access to the media, especially the Internet and radio are more likely to be tough on corruption. Ferraz and Finan (2008), Francken et al. (2005), and Charron et al. (2010) highlight this reality with evidence from Brazil, Madagascar, and Europe respectively. The exception to the economic hypothesis is Del Monte and Papagni's (2007) study of Italy's regions that shows that economic development and government expenditure on consumption and services lead to corruption.

Gender is another social variable proven to be robust in many studies. Wängnerud's (2010) study among Mexican states shows that women are most likely to refrain from corruption. Same conclusion with Charron et al. (2010). Lastly, high levels of education in a region are usually associated with lower levels of corruption (Charron, 2010).

The second broad category is the group of variables that one can qualify as specificities of subnational politics and historical legacies (Libman & Koslov, 2013). Libman and Obydenkova (2013) show that Russian regions with strong communist legacy tend to be more corrupt while Dininio and Orttung (2005) find that Russian regions with larger bureaucracies are more prone to corruption.

3.3.2. Urbanization and Corruption

The relationship between corruption and urbanization is often neglected in existing studies. A handful of studies have considered the relationship usually as a part of control variables with little explanation about what the causal mechanism is. In cross-sectional studies, the conventional wisdom is that higher levels of urbanization lead to

lower levels of corruption. Billger and Goel (2009) argue that bribe takers and bribe givers are most likely to be intimidated in urban concentration areas due to state oversight or stigma attached to corrupt practices. Goel and Nelson (2010) corroborate this finding in a subsequent study and argue that corruption is deterred in urban areas because it is easier to detect in such context.

At the subnational level that is of my interest here, the least one can say is that the existing findings are inconclusive. Meier and Holbrook (1992) is one of the earliest studies to empirically consider the relationship between urbanization and corruption. Their study of the corruption level within U.S states show a positive relationship. Their explanation is that urbanization favors the loosening of social controls of family and religion. Alt and Lassen (2003) and Goel and Nelson (2011) study the same sample with similar results. Glaeser and Saks (2006) however find no relationship while using the same sample (i.e., US states). Moving away from the Unites States, Belousova et al.'s (2016) study of Russian regions find that urbanization has a modest negative and statistically significant (.1 p-value) impact on corruption incidence while it does not affect the population perception of corruption. Benito et al.'s (2015) study of Spain's local governments finds a positive relationship.

Our current understanding of the relationship between corruption and urbanization at the subnational level is therefore that one can expect the effect to be either positive, negative, or no effect. What is most troubling is the little theorization that makes it difficult to draw clear conclusions. The present study contributes to this discussion by theorizing the relationship between the two variables and by providing empirical tests of the causal mechanism. In the next section, I argue that urbanization should be taken more

seriously in subsequent studies of the determinants of corruption because it modifies many social dynamics that are consequential for corrupt behaviors.

3.4. Theoretical Foundation

3.4.1. Defining corruption

The most popular definition of corruption is undoubtedly the misuse of a public position for private gain (Bardhan, 1997; Rose-Ackerman, 1975). This definition qualifies an act as corrupt when it involves an abuse of trust from someone—generally—in a public position for their private gain (Johnston, 2005). I however agree with Johnston's (2005, p. 12) contention that in the definition of corruption as the "abuse of public roles or resources for private benefit", "public", "private", and "benefit" are contentious terms that are disputable in different societal contexts.

I move a step further away from the strictly public official to a more sociological and anthropological perspectives that try to understand corruption through a state-society relation perspective (Rothstein & Varraich, 2017), and where the collective good has more weight than the individual good. This is consistent with the African society that is a collectivist society at large (Ayittey, 2006; Bukuluki, 2013; Ekeh, 1980; Ikuenobe, 2006). I, therefore, adopt Hussain's (1968) model of corruption and emphasize the following characteristics as defining corruption in this paper: "i) a betrayal of trust; ii) deception of a public body, private institution, or society at large; and iii) deliberate subordination of common interests to specific interests".

3.4.2. Modernization and Trust in African Societies

My thesis in this paper is that modernization through its urbanization proxy positively affects corruption. Specifically, regions that are highly urban will be more likely to be corrupt because they have lower levels of trust in comparison to low urban regions. Before exploring the causal mechanism, it is important I explore how the traditional African society is organized around trust and different from what the literature usually portrays. Indeed, existing evidence show that African societies have extremely low levels of trust. For instance, the World Values Survey for 1999–2002 shows that the trust level is as low as 19%, while North America is around 35%. Further, existing studies suggest that a prominent reason for this lack of trust is ethnic diversity (Alesina & la Ferrara, 2002; Bjørnskov, 2007; Delhey & Newton, 2005; Stolle et al., 2008).

Nevertheless, considering that African societies are vastly collectivist and organized by tribes (Ayittey, 2006, p. 43; Ekeh, 1980, p. 15), they can only work with strong trust mechanisms and expectations from others. Looking at African history and indigenous institutions, Ayittey (2006, p. 24) supports that the clan is one's identity and "often served an important function of social and behavioral control as a person would desist from acts likely to bring shame to the clan as a whole". This code of lifestyle Ayittey (2006) describes can only be a reality if individuals expect "regular and honest behaviour" from others (Fukuyama, 1996, p. 153). It is therefore reasonable to argue that African societies are inherently organized around trust.

Etang et al. (2011) experimental evidence from South-West Cameroon provides further evidence that trust is quite high in traditional African societies. In their trust game, they find that people are ready to put themselves at risk even for individuals coming from

villages they have never been, suggesting that their level of trust is high even in strangers (Etang et al., 2011, p. 25). This goes against what one would believe reading the current literature on trust in Africa.

Nevertheless, in addition to historical events such as slavery that Nunn and Wantchekon (2011) find to be a cause of low levels of trust, I argue that modernization is also conducive to low levels of trust in African societies. Indeed, with the exposition of African societies to modernization, village communities are penetrated by individuals from different clans, ethnic groups, and even countries. Individuals move to big cities for economic opportunities where they are free from the social control, they are used to be subject to in a village. In these conditions, it becomes more likely that the level of trust will be lower since the expectations of others' trustworthiness (Barr, 2003) will be somehow weaker in comparison to kin or intra-ethnical ties. This intuition finds support with Barr's (2003) showing that "resettled communities are less trusting than communities with kinship tie". With modernization, one would expect resettlement to be the norm as people move around to seek economic opportunities. It follows that modernization, specifically urbanization, leads to low levels of trust.

However, it will be a mistake to assume that there is homogeneity of the level of trust within a given country. Indeed, it is reasonable to think that there will be a difference between cities that have a larger number of people coming from different parts of the country, diverse ethnic groups (Epstein, 1967), and therefore have a lower frequency of interactions than village communities that are usually more heterogenous, smaller in size, and where individuals are more likely to interact with each other on a regular basis. Following Fukuyama (1995), we know that people have more trust toward

people they interact with on a regular basis, it is therefore a logical claim to say that people in rural areas will tend to be more trusting than those living in cities where interaction with the same people will be less frequent. It is beyond the scope of this paper, however, to affirm whether or not this situation is permanent. The only claim I am making here is that given the social arrangements, people living in rural areas will tend to have more trust in others than those living in cities.

To the question of what type of trust—personalized versus generalized (Rothstein & Uslaner, 2005)—one should consider while studying African countries, I agree with Robinson (2020) that one should emphasize on the "…more theoretically appropriate measures of group-based trust" rather than generalized trust. In fact, Africans tend to coalesce around groups wherever they are. This has the power to create moral commitments over time. Albeit the new ties knotted in their "resettled" communities may not be as strong as the ones from their community of origin, they tend to be stronger than the trust one will have in total strangers that defined generalized trust. But I argue that my theory is valid for both types of trust because as I will show in the empirical section, people living in rural areas are more trusting even in their economic transactions than urban dwellers although for the most parts small grocery stores are detained by foreigners (including in the village) in the two countries I study here.

3.4.3. Trust and Corruption

Trust is undeniably an important aspect of harmonious life in society. As a matter of fact, everything we do is somehow based on trust. As Barr (2003) puts it, trust is valuable and represents "an important lubricant of a social system". An important body of

works have looked at the impact of trust on various institutions and variables. Existing empirical findings suggest that trust leads institutions, including governments to work better, and individuals to be more cooperative (Alesina & la Ferrara, 2002; Fukuyama, 1995; Putnam, 2000). There is also an overwhelming amount of evidence pointing to trust being associated with higher economic growth, low transaction costs, and investment (Dincer & Uslaner, 2010; Knack & Keefer, 1997; Lyon, 2000; Overå, 2006; Zak & Knack, 2001).

Looking specifically at corruption, the amount of evidence pointing to the importance of trust is abundant as well. Uslaner (2008) argues that trust leads to better institutional quality specifically by reducing corruption. This is the case because when one is trusting, they are more likely to believe that others play by the rules and will thus also play by the rules in their interactions with others and political institutions (Rothstein, 2003). As Persson, Rothstein, and Teorell (2013) show in their study of anticorruption policies failure in Kenya and Uganda, corruption in Africa is more of a collective action problem than a principle-agent one. In an environment of generalized corruption as in many African countries, acting corruptly has more benefits than costs. This is the contaminating effect Mauro (1998, p. 12) describes in the following terms: *"*You live in a society where everybody steals. Do you choose to steal? The probability that you will be caught is low, because the police are very busy chasing other thieves, and, even if you do get caught, the chances of your being punished severely for a crime that is so common are low. Therefore, you too steal. By contrast, if you live in a society where theft is rare, the chances of your being caught and punished are high, so you choose not to steal*"*

Building on the above section and the body of work about the effect of trust on corruption, I argue that—in Africa—modernization exacerbates this contamination effect Mauro (1998) describes. In fact, it does take time to reach an equilibrium where one has to learn to trust others in an individualistic society that undeniably comes with modernization. If modernization reduces trust as I show in the previous section, and low levels of trust increases corruption, it follows that modernization leads to corruption through reduced trust. The following hypotheses capture this logic:

Hypothesis 1: Respondents living in rural areas will have a lower perception of corruption than those living in urban areas.

Hypothesis 2: Respondents living in rural areas will be more trusting than those living in urban areas.

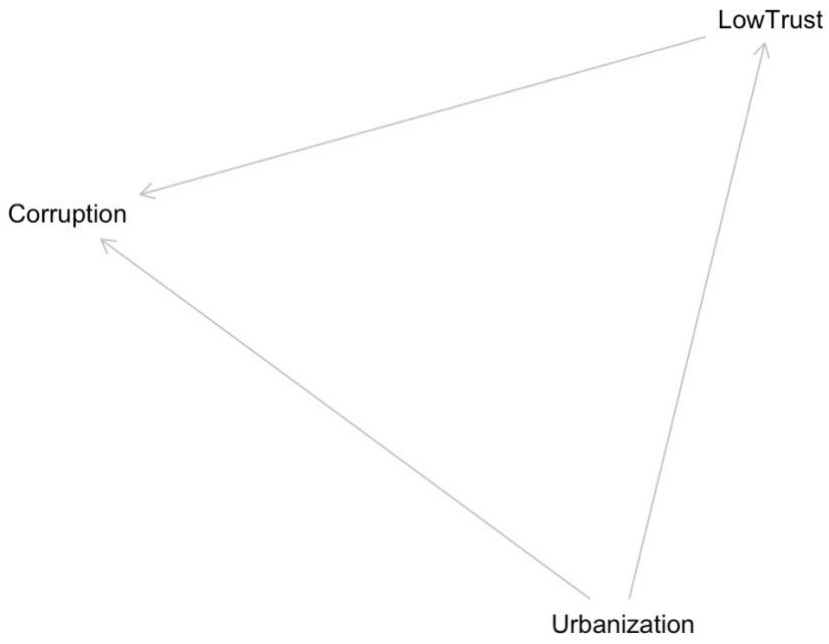


Figure 3.2: Theory Summary[11].

[11] ***Note:*** *Urbanization causes corruption through low levels of trust. The arrow pointing directly to corruption represents the possibility that there may be some other and especially direct ways through*

3.5. Data Sources and Description

3.5.1. Survey Data

To test my theoretical claims in this paper, I partially rely on the individual-level data from the 2017-2018 (7^{th} round) Afrobarometer surveys. I use the survey responses from Côte d'Ivoire and Ghana, two West African countries. I chose these two countries for several reasons. First, these two countries are representative of the two institutional frameworks in West Africa, with Ghana being a former British colony and Côte d'Ivoire being a former French colony. This makes a more interesting comparative study while holding the political institutions constant. Second, focusing on these two countries gives me the opportunity to better explore the causal mechanisms at work in my argument through the in-depth interviews. Using more countries has the potential to increase the confounding factors I have to work around. Third, these are countries where traditional institutions are lively and actively involved in national politics at various capacities, therefore, allowing me to study how this interaction of the traditional with the modern state impacts corruption.

The sample size is 1,200 in Côte d'Ivoire and 2,400 in Ghana for a potential total sample of 3,600 respondents. However, dropping the "I don't know" responses and people who refused to answer the questions on corruption variables leaves me with a final sample of 2,808 observations.

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which urbanization causes corruption. This figure was made using the CausalQueries R package (Humphreys and Jacobs, 2020). Please see https://macartan.github.io/causalmodels/index.html for a full introduction to "causal models" method and how to produce such figures.

The Afrobarometer survey asks a broad range of questions ranging from politics to social life in the given country they interview people in. Some of the questions ask respondents about their real-life experience, which makes the study of topics such as corruption more interesting. For my independent variable, I rely on the coding of whether the sampling unit is urban or rural. Urbanization being one of the most prominent signs of modernization (Huntington, 2006, p. 32), it represents the most appropriate variable in the surveys. Given that the exact locations of where the respondents are selected is available information, I recode this variable in three categories and allow my analysis to consider the full extent of urbanization. Following the definition of geographers and development experts (Dijkstra et al., 2020), I have created an ordinal variable ranging from 1-3. The value 1 designates low urban or rural areas and have a population of no more than 2,500 people. Medium urbanization is coded as 2, with a population comprised between 2,501 and 500,000. A sampling unit that has a population of more than 500,001 is coded as highly urban and designated by the value 3[12].

With the idea to fully explore the causal mechanism of my theory, I use several relevant factual questions on corruption to measure my dependent variable. First, I use the questions asking respondents: i) *In this country, how likely do you think it is that an ordinary/rich person could pay a bribe or use personal connections to get away with registering land that does not belong to them.* This is a relevant question as land grabbing and bribery around land issues are ubiquitous and are realities for both urban and rural dwellers. Although less precise in capturing the reality of corruption, I also look at the

[12] Although having a population of less than 500,000, I coded Tema, Ghana as a 3 because it is attached to the Accra greater area and many people commute to Accra for work.

question asking: ii) *In your opinion, over the past year, has the level of corruption in this country increased, decreased, or stayed the same?*

To measure trust in others, I consider the question: i) *When a vendor sells you a kilogramme of maize, rice or gari, how sure are you that you get the correct amount?* To capture trust in institutions, I use the questions: ii) *How much do you trust your local Government Council/your traditional leaders or haven't you heard enough about them to say?* The full questionnaire and response options are available on the Afobarometer website at this link[13]. Control variables include variables existing subnational studies have found to be relevant. These are *education, job situation, employer* (public or private), *Internet use, Radio, TV, age* and *gender*.

3.5.2. In-depth interviews

To better investigate the impact of modernization on trust and corruption, I conducted nine in-depth interviews including two village traditional chiefs from different ethnic groups, two traditional notables, two youth leaders, one leader of women organization, and two ordinary citizens living in rural areas. The study received the University of Missouri's IRB approval beforehand[14]. The interviews were structured around the themes of respect of traditions, corruption, political power in the village, modernization/urbanization and the village, trust, and relationships with the national government (Only discussed with village chiefs). The full survey instrument and the transcription in French is available in the appendix. Given Covid-19 restrictions, I could

[13] https://afrobarometer.org/sites/default/files/questionnaires/Round%207/gha_r7_questionnaire.pdf

[14] IRB Project Number: 2045424
IRB Review Number: 297466

not make it to Ghana as originally planned, I therefore conducted some interviews close to the Ivorian-Ghanaian border and with ethnic groups that have close traditional practices as those found in Ghana.

3.6. Empirical Results

I begin my analysis by estimating the relationship between urbanization and corruption. Since the responses to my dependent variables are ordered and ranging from (1) *not at all likely* to (5) *very likely*, I estimate Ordered Probit models. I start by looking at the regression results presented in Table 1.

In the first model I estimate the impact urbanization has on the likelihood that a rich person would get away with a land that is not theirs through bribery. As one can observe, the relationship is positive and statistically significant at the 99 percent confidence level. Suggesting thus that in comparison to rural dwellers, living in an urban area makes you more likely to think that rich people can give bribes to get away with possessing a land not pertaining to them. In model 2, I estimate the same relationship but this time the person being an ordinary citizen. The results are similar to the first model with the relationship being positive and statistically significant at the 99 percent confidence level.

Table 3.1: The impact of urbanization on the likelihood of bribery

VARIABLES	(1) Rich land	(2) Ordinary land	(3) Corruption level
Urbanization	0.0949***	0.192***	-0.0498*
	(0.0349)	(0.0299)	(0.0296)
Age	-0.000686	-0.00111	-0.000883
	(0.00179)	(0.00160)	(0.00151)
Gender	0.0455	-0.113**	-0.0187
	(0.0494)	(0.0437)	(0.0426)
Education	0.0147	-0.0347***	0.0275**
	(0.0137)	(0.0118)	(0.0117)
Job	0.146***	-0.0352*	-0.0298*
	(0.0209)	(0.0181)	(0.0179)
Employer	-0.0104	-0.000176	-0.0138
	(0.0112)	(0.00999)	(0.0100)
TV	0.000639	0.0542*	0.0843***
	(0.0336)	(0.0297)	(0.0278)
Radio	0.0837***	0.000974	0.0193
	(0.0323)	(0.0290)	(0.0291)
Internet	-0.0175	0.0167	-0.0305*
	(0.0193)	(0.0167)	(0.0164)
/cut1	-0.820***	-0.301**	-0.735***
	(0.134)	(0.120)	(0.120)
/cut2	-0.472***	0.334***	-0.323***
	(0.135)	(0.120)	(0.120)
/cut3	0.121	0.984***	0.287**
	(0.135)	(0.121)	(0.120)
/cut4			1.533***
			(0.123)
Observations	2,808	2,808	2,808
Pseudo R^2	0.0201	0.0102	0.0029

Notes: Robust standard errors clustered by respondents in parentheses
*** p<0.01, ** p<0.05, * p<0.1

This also suggests that in comparison to people living in rural areas, living in a high urban area makes you more likely to think that ordinary people can get away with bribery in land business. This is a remarkable result because people living in rural communities are more likely to be aware and confronted to land contentions than city

dwellers. As a matter of fact, people living in villages depend highly on agriculture and tend to be more vulnerable to land grabbing. If people living in rural areas are less likely to think that one cannot get away with bribery, it may be that they have a system that respects what is not one's private property. I will explore this idea more in the next section.

Albeit I do believe that asking people what they think about the level of corruption may produce inaccurate results because it is difficult for the ordinary person to know what the real level of corruption is, I still estimate the relationship between urbanization and the likelihood that one would think that the level of corruption has increased or decreased. Model 3 of Table 1 looks at that relationship. As we can see, living in a rural area makes you more likely to believe that the level of corruption has decreased during the past year, in comparison to those living in an urban area. The relationship is statistically significant although it is only at the 90 percent threshold.

To add substantive meaning to these findings, I estimate predicted probabilities of response outcomes under the three urbanization scenarios using Clarify (King et al., 2003). In Table 2, I generate the predicted probabilities on the likelihood that an ordinary person would get away with a land that it is not theirs through bribery. In a rural setting, people have a combined (not at all likely; not very likely) probability of 65.2 percent to say that one is not likely to get away with bribery while a combined (somewhat likely; very likely) probability of 34.6 percent to think one can. In a medium urban setting, the probability to think that one cannot get away with bribery drops to 57.7 percent, a difference of 7.5 percent.

Table 3.2: Predicted Probabilities of the likelihood for an ordinary person to bribe for land				
Scenarios--Probability	Not at all	Not very Likely	Somewhat Likely	Very Likely
Rural	.405 [.367; .444]	.247 [.231; .263]	.198 [.179; .217]	.148 [.125; .174]
Medium Urban	.33 [.299; .366]	.247 [.23; .263]	.22 [.204; .24]	.19 [.172; .224]
High Urban	.268 [.228; .309	.237 [.22; 253]	.24 [.221; .26]	.25 [.21; .29]
Note: 95% confidence interval in brackets				

Likewise, the probability to think that one is likely to get away with bribery increases from 34.6 in the rural setting to 41 percent in a medium urban setting. In the high urban scenario, the probability to think that one cannot get away with bribery drops further to 50.5 percent while the probability to think the opposite increases to 49 percent. That is a probability difference of 7.2 percentage points, and 14.7 percentage points in a medium and rural scenario respectively in the case of thinking one could not get away with bribery. The difference is about the same in the category of thinking that one could get away with bribery. These results provide support to my first hypothesis that respondents living in rural areas will have a lower perception of corruption than those living in urban areas. These results also suggest that there is substantive difference in the three different categories of my independent variable.

Looking at the control variables, we have a mixed of interesting findings. Age does not seem to influence one's perception of corruption. While the relationship has a negative sign in all the three models in Table 1, it is not statistically significant. Gender has a negative sign, which implies that in comparison to females, males have a higher

perception of corruption as predicted in the existing literature (Wängnerud, 2010). But it is only significant in model 2.

People with higher education achievement tend to think that one is not likely to get away with bribery but at the same time think that the level of corruption has increased. This conflicting finding is partially consistent with Charron (2010). Respondents with jobs are more likely to think that the rich can get away with bribery while they are more likely to think the opposite is true for ordinary citizens. This is an interesting and intuitive finding as workers may be closer to rich people and can observe their activities. Workers in the private sector seems more likely to have low perceptions of corruption but the relationship does not show statistical significance. Finally, the media (TV, radio and, Internet) partially has the effect one would expect following the existing literature, namely that the more access one has the more aware one is of corruption, and therefore more likely to be tough on it.

To test my second hypothesis, I estimate Ordered Probit regressions as well. The regressions output displayed in Table 3 are meant to capture the impact of urbanization on trust. The results support my hypothesis as the three indicators of trust point to the direction I would expect. First, respondents living in urban areas are less likely to say that they trust the seller of rice or gari to give them the appropriate amount they are paying for. This relationship is statistically significant at the 99 percent confidence level.

Table 3.1: The impact of urbanization on the likelihood of bribery

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Gender	0.0455	-0.113**	-0.0187
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Education	0.0147	-0.0347***	0.0275**
	(0.0137)	(0.0118)	(0.0117)
Job	0.146***	-0.0352*	-0.0298*
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Employer	-0.0104	-0.000176	-0.0138
	(0.0112)	(0.00999)	(0.0100)
TV	0.000639	0.0542*	0.0843***
	(0.0336)	(0.0297)	(0.0278)
Radio	0.0837***	0.000974	0.0193
	(0.0323)	(0.0290)	(0.0291)
Internet	-0.0175	0.0167	-0.0305*
	(0.0193)	(0.0167)	(0.0164)
/cut1	-0.820***	-0.301**	-0.735***
	(0.134)	(0.120)	(0.120)
/cut2	-0.472***	0.334***	-0.323***
	(0.135)	(0.120)	(0.120)
/cut3	0.121	0.984***	0.287**
	(0.135)	(0.121)	(0.120)
/cut4			1.533***
			(0.123)
Observations	2,808	2,808	2,808
Pseudo R^2	0.0201	0.0102	0.0029

Notes: Robust standard errors clustered by respondents in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Second, looking at trust in institutions, respondents in urban areas are less likely to trust their local government councils and traditional leaders. The relationship is significant at the 99 percent confidence level for both variables.

For the controls, Women are less likely to trust in institutions in comparison to men. This makes sense in an African context where women have been marginalized in the exercise of power. Educated people tend to be less trusting of institutions as well. In

addition, people seem to be more trusting of institutions as they get older. This is an interesting finding but expected since older people tend to depend more on government institutions to survive. Regarding the media, only radio owners seem to be less trusting in traditional leaders. The Internet and TV show no effect.

Table 3.4: Predicted Probabilities of trust in sellers			
Scenarios--Probability	Never	Sometime	Always
Rural	.229 [.198; .261]	.452 [.432; .471]	.31 [.282; .356]
Medium Urban	.268 [.235; .299]	.455 [.437; .473]	.275 [.244; .309]
High Urban	.31 [.266; .35]	.453 [.433; .471]	.236 [.2; .276]
Note: 95% confidence interval in brackets			

I simulate quantities of interest for a more meaningful interpretation of the findings using Clarify (King et al., 2003). In Table 4, I generate the predicted probabilities of trust in sellers across the three scenarios of urbanization. The interesting results here are at the two extremes: absolute trust (always) and absolute distrust (never). The probabilities in the "sometime" category are almost constant across the three scenarios of urbanization. Looking at the predicted probabilities in the "never" response, one could see a clear difference across the three scenarios of urbanization. Indeed, in a rural setting, the probability that a respondent says they do not trust sellers to give them the right amount they pay for is 22.9 percent while it is 26.8 percent in the medium urban scenario and increases to 31 percent in the high urban setting. There is a difference of 3.9 percent from rural to medium urban, and a difference of 4.2 percent from medium to high

urban. Going from rural to high urban gives you a difference of 8.1 percent, which is considerable. These differences are the mirror image of the probabilities that respondents trust sellers to give them the amount they pay for. The statistical results so far support my theoretical claims. I now turn to explore the causal mechanisms further with qualitative evidence.

3.7. Identifying Causal Relationships

The in-depth interviews shed light on the plausibility of the urbanization-corruption argument as well as the reduced trust mechanism. Indeed, when I asked a woman in a "modern" village located at 45 miles from Abidjan, the capital city of Côte d'Ivoire—and clearly influenced by the wave of rapid urbanization—about whether she thinks people trust each other in their community, she responded: "*People don't trust each other, even in the family and in the homes. Even your father may not trust you. And urbanization has had a big impact. The things you see in the city, the drug addicts, you find them in the village"*. This points us to the fact that urbanization has altered the social environment in the village as I argued earlier and people's ability to trust others is reduced. The expectation that they will maintain the community's moral standards have vanished to some extent.

The interviews further reveal how urbanization has impacted family habits such as eating from the same plate that has the ability to reinforce bounds, including trust among individuals. When I asked the chief of a village about whether he thinks urbanization has impacted their village, he replied that education and urbanization changed social rapports a lot. On urbanization, he said: "*urbanization, even in the past we*

lived together according to large families. The father is there, his hut and the hut of his grandsons are there. And in the evening, when the women finish making the food, they group the dishes in the middle, and everyone eats from the same plate. Today, the village is allotted, everyone is in his lot. This will reinforce the climate of individualism compared to the community and family aspect that we had." This sentiment that urbanization has modified social interactions in a negative way is a shared belief among all the interviewees although they recognize that it has positive sides especially when it comes to life comfort.

Modernization is a complex phenomenon that could create many differences between the village and the city (Huntington, 2006, Chapter 1). It will therefore be unreasonable to contend that "reduced trust" is the sole reason for higher corruption in cities. To be clear then, I am presenting reduced trust as a plausible mechanism but not the only mechanism. Indeed, as we can learn from Huntington (2006) and many other scholars, modernization comes with burgeoning economic activities and therefore creates new sources of rents. These rents are more abundant in cities than villages and could therefore justify the higher level of corruption in cities. But even after I control for economic variables, urbanization alone still has an explanatory power.

In addition, as Goel and Nelson (2011) argue, corruption scandals are more open to media scrutiny in cities and could therefore explain why people in the cities have higher corruption perceptions. Again, even after I control for several types of media consumption, my findings still hold. further, recent years have seen an increased use of the Internet, Television and Radio in the rural areas. Life in the village, including access to information is increasingly becoming like life in the city as one interviewee said:

"*Before, they tell you there is a way of life in the city and in the village, but now, everything is developed… I myself returned to the village in 2009. Since then, I don't want to go back to the city because I am here in the village, there is everything and I like it. Why bother again?*". It is therefore reasonable to suggest that there is more to the story than just the ability to capture corrupt stories in the media.

Looking at the statistical results presented earlier, one could also argue that the question on bribing for land may be the result of a greater volume of land sales in urban settings. In general, there may be many more purchase of lands, so even if there is the same share of corruption deals, because there is a bigger denominator, we may hear about it more in urban places.

This is a legitimate point to raise but a closer look at reality in developing countries especially in Africa help us realize that buying a land is not something ordinary citizens in cities can usually afford. Indeed, they tend to be expensive so that it is usually the privilege of rich people or upper middle class income earners. This makes it more difficult for the ordinary person in the city to have knowledge of the corrupt deals in land transactions, especially that corruption is a secretive activity. In contrast, people in rural areas livelihood depends on lands as their income and food come straight from agricultural activities. They are, therefore, more likely to be at the heart of land transactions.

Further, with African economies being agriculture based, people in rural areas will tend to be victims of land grabbing by wealthy elites as several studies show it is the case in Ghana (Cotula et al., 2014; Nyantakyi-Frimpong & Bezner Kerr, 2017). In Côte d'Ivoire, for instance, the most devastating land conflicts involving big corporations have

usually happened in rural areas especially in the cocoa belt. Given this configuration, if anything, people in villages should be more aware of corrupt practices on land transactions than city dwellers. Instead, if rural individuals are less likely to think one could bribe to illegally possess a land, there is therefore a reason to believe that there is something that reassure those individuals and make them confident that it is not happening. My in-depth interviews reveal further on this issue.

In fact, one of the reasons why people in rural areas tend to be more confident in peoples' honesty towards others is the role traditional chiefs play in mediating daily issues including land sales in the village. As the statistical results show, individuals in rural areas tend to be more trusting in their local leaders. This implies individuals have trust in their leaders to make the law and social norms prevail. The trust in local leaders especially traditional chiefs is justified in contrast to what recent studies tend to show. In reality, even though several studies have documented instances where traditional chiefs are involved in corrupt practices (e.g., (Acemoglu et al., 2013; Amanor, 2008)) it is more difficult for them to get away with wrongdoings than it is for public officials. In the interviews, one traditional chief stated that *"well for example, if you violate the sacred forest, you have to pay absolutely, even if you are a chief. If you do, you have to pay for a sheep, a chicken, and a drink."* This quote suggests chiefs are not exempt from following the rules.

Another interviewee who is head of a women organization believes that the chief does not have absolute power as many outsiders think they have. When I asked her how the leaders of the village take the peoples' opinion into account, she answered that "*There is a lot of opposition. When he (chief) wants to do something, he asks. And it's by family*

consultation. Because we have 4 (big) families. If they accept, it means that everyone accepts". Here we can see that there are a lot of veto points to constrain the chief from using his position as the facilitator of most transactions to his own benefits. Not only he should convince heads of all families, but these families will have to take their family members' opinion in consideration before accepting any proposal from the chief. Ayittey (2006) narrates several stories in Ghana where corrupt chiefs have seen the population standing up against them for their misdeeds. In some cases, it led them to lose their position as chief.

Beyond the constraints that keep the chief accountable, the way life is organized in villages does not make corruption the rational thing to do as Mauro (1998, p. 12) describes it. In fact, it is the opposite. This is well captured by what one traditional chief said: "*the least corrupt people are the traditional leaders and the religious... The traditional leaders because in the village, money is not the most important thing. So, corruption can take a back seat. In the village, the most important thing is the dignity of the family and the clan. And this allows corruption not to escalate*." This quote corroborates the narrative Ayittey (2006) gave about African societies and that I reiterated earlier in this paper. This suggests that there is a system in village communities that is self-enforced so that individuals usually trust others to do the right thing. This discourse is totally different from what Persson et al. (2013) relate in their interviews in urban Uganda, and Kenya where respondents did not see dignity nor honesty as the rational thing to do, but corruption rather.

In sum, the in-depth interviews help shed light on the narrative presented earlier in this paper and corroborated by the statistical results. In the process of modernizing,

many African social dynamics have been shaken. Nevertheless, the situation is not heterogenous, especially when it comes to trust and corruption. Rural areas still retain some amount of trust that allows individuals to expect others to play by the rules.

3.8. Concluding Thoughts

The modernization paradigm has dominated development policies in African countries for decades since the 1960s. Economic activities in Africa such as the agricultural sector have been deemed backward and therefore needed to adopt a modernization approach to guide rural land tenure (Ubink & Amanor, 2008). For instance, communities have been pushed to do away with the customary management of their lands, to adopt a modernization framework that favored formal contracts and private property. This paradigm championed by international development institutions such as the World Bank intended to install a system that will create long term prosperity. Decades later, the promised development is still hard to observe. Modernization has not kept it promises (Ubink & Amanor, 2008, pp. 9–10). Despite this failure, literature in political economy has not much considered how the modernization paradigm has affected development variables such as corruption in Africa.

This study took on the endeavor of analyzing the impact of modernization on the extent of corruption within a country. Joining a burgeoning discussion on the determinants of subnational variation in corruption, I argued that modernization through urbanization disrupts social dynamics that helped the African society keep strong morality standards that inhibited corruption. With rapid urbanization, social trust has eroded, and we find ourselves in a collective action problem that makes corruption the

rational thing to do (Persson et al., 2013), in contrast to the traditional society that made of dignity and the survival of the group, the center of its existence.

Far from being an endeavor that aims at taking modernization “down”, this study raises the awareness of development experts and academics of political science to pay more attention to how the rapid urbanization in Africa is related to the poor economic performances we can observe on the continent (Fox, 2013). In that optic, future research may contribute to this debate by investigating how rural communities are moving toward creating a new equilibrium where trust and moral standards are upheld. My in-depth interviews corroborated recent reports about how traditional chiefs’ authority is challenged by the youth coming from cities who intend to impose a new way of governing the traditional society (Le Monde, 2020). An investigation of this phenomenon will also benefit literature.

4. The Effects of Non-monetary Costs from Harming Others: A Survey Experiment on Corruption

4.1. Abstract

Why would an individual finding themself in a corrupt situation will decide to be honest or corrupt? Existing research have identified intrinsic motivations—that represent the feelings of shame and guilt associated with the negative externalities of corrupt behavior—as a potentially important determinant. The evidence is scant, however, as most studies have yield null findings. This paper uses a survey experiment from West Africa to investigate whether negative externalities from corrupt acts impact individuals' judgement of corrupt behavior. The findings suggest that respondents are less likely to find corrupt actions with quantified negative externalities acceptable than those corrupt actions with negative externalities not precisely estimated. Further, respondents living in rural areas are less likely to find corrupt behavior less acceptable than urban dwellers, suggesting that they are less likely to engage in corruption. This study has policy implications that can help African countries, battling with corruption, design better anti-corruption campaigns.

4.2. Introduction

It is well documented that corruption is a major development issue (Mauro, 1995; Gyimah-Brempong, 2002) and vastly endemic in developing nations (Svensson, 2005). African nations are especially affected by it so that it runs from high level executives to street-level bureaucrats. It is not unusual for the average African to bribe or to get bribed in the process of accessing a public or even private service. Literature has pointed out that corruption is a collective action problem in African countries to the point that there is an incentive to be corrupt to avoid being taking advantage of. Persson et al's (2013) work in Uganda and Kenya clearly describes this reality. Mauro (1998) more than two decades ago broadly portrayed this reality as well in the following terms: *"You live in a society where everybody steals. Do you choose to steal? The probability that you will be caught is low, because the police are very busy chasing other thieves, and, even if you do get caught, the chances of your being punished severely for a crime that is so common are low. Therefore, you too steal…"* (Mauro, 1998, p. 12; emphasis added).

Despite the context of widespread corruption in Africa, not every single individual gives in to corruption. In fact, some individuals facing a corruption opportunity will not ask or take a bribe. This begs the question of: why when confronted to a corruption situation some individuals decide to be honest while others decide to be corrupt? This question has been analyzed from different angles broadly categorized in two schools of thoughts that emerged to explain why some individuals choose honesty over bribery while others choose bribery over honesty (e.g., Abbink & Serra, 2012). The first explanation that aligns with rational choice theory and quite common among economists is the monetary incentives explanation. The argument is that the choice of corruption is contingent on the economic

benefits of being corrupt (Becker & Stigler, 1974; Rose-Ackerman, 1975). If the costs outweigh the gains, then individuals will choose honesty, otherwise, they will rather choose corruption. The second explanation builds on cultural anthropology and social psychology to argue that deciding to be honest or corrupt depends on one's intrinsic motivations. Intrinsic motivations are captured by the feelings of shame and guilt associated with breaking the rules/ norms, and the negative externalities they may cause to others. These motivations will vary depending on the individual's feelings toward the system and moral values (Benedict, 1934; Grusec & Kuczynski, 1997).

While the first explanation has amassed tremendous evidence to become a conventional wisdom, little attention has been given to the impact of intrinsic motivations on corruption. The most recent work addressing this topic is Barr and Serra (2009), and before their work, the existing studies have yield null findings with contradicting evidence. Concurring with Abbink and Serra (2012) that this literature is at its infancy, this paper aims at furthering our understanding and inform policy making about the extent to which intrinsic motivations matter in determining corruption behavior. Given the uncertainty in existing studies resulting from the sparse, yet null findings, I ask the question of whether intrinsic motivations matter in abstaining from corruption in African context? My answer to this question is that intrinsic motivations will negatively impact the propensity to engage in corruption with an important condition. In fact, I argue that while most Africans will be sensitive to the negative externalities corruption cause to others given the collectivist culture, the effect will be even more pronounced for individuals living in rural areas as they are more likely to keep the authentic African societal values of collectivism while these values are more likely to be eroded in an urban context where individualism prevails.

To test these arguments, I conducted a survey experiment in West Africa, specifically in Cote d'Ivoire to investigate how negative externalities from corrupt acts impact individuals' judgement of corrupt behavior. The findings suggest that respondents are less likely to find quantified negative externalities acceptable than those negative externalities that do not have a precise quantified cost. Further, respondents living in rural areas are less likely to find corrupt behavior acceptable than urban dwellers, suggesting that they are less likely to engage in corruption in general. This study not only contributes to the literature on corruption by providing real life evidence that intrinsic motivations through negative externalities matter in mitigating corruption, but it also has direct policy implications that can help African countries, battling with corruption, design better anti-corruption campaigns. If intrinsic motivations matter, framing anti-corruption campaigns that present the cost associated with corruption actions may appeal to people's responsibility and make them less likely to engage in corruption.

4.3. Background and Theoretical Expectations

Do intrinsic motivations through the effect of negative externalities matter in stopping people from being corrupt? Studies on this question have been scant as Abbink and Serra (2012) recognize. The state of the literature on this topic is better captured by Gans-Morse et al. (2018) in these terms: "the link between intrinsic motivations and corruption has been all but ignored". Only a few studies have seriously considered this question.

Abbink, Irlenbusch, and Renner (2002) pioneered empirical studies in this theoretical current by asking the questions of whether intrinsic motivations matter in acting corrupt and whether guilt coming from perceived externalities affect one's

decision to engage in a corrupt transaction. They report a number of findings and non-findings in their two-player sequential experimental game. On the findings, they report that there is evidence of trust and reciprocity between bribers and bribees, as well as that the threat of punishment has the potential to significantly reduce bribery. They however, found no effect of negative externality and conclude that individuals do not consider the harmful effect that corrupt practices may cause to others. Cameron et al. (2009) also tested whether a corrupt act that decreases society welfare will restrain people from engaging in bribery but fail to find evidence that negative externalities lead to less corrupt exchanges.

Abbink and Hennig-Schmidt (2006) build on Abbink, Irlenbusch, and Renner's (2002) game to test the effect of framing on the propensity to engage in corrupt exchanges. In their one-shot game, they give the first group game instructions loaded with negative connotations and the second group they give more neutral instructions. The intuition being that individuals in the loaded instructions group will be drawn to propose less corrupt transactions given that it is framed as illegal and therefore immoral. The findings suggest that there is no effect of framing on people's decision to offer or accept a bribe.

Following the uncertainty and mainly null findings one notices in the literature, Barr and Serra (2009) pursue two objectives. They first seek to understand the potential experimental design problems that may be the causes of this outcome and subsequently test the effect of both framing and negative externalities on the decision to engage in corrupt exchanges. This paragraph on page 491 summarizes their explanation of the null findings in the current literature:

"…, efforts to identify negative-externality effects in bribery experiments have failed and this could be due to the roles played by trust and reciprocity within briber-bribee pairs, conditional cooperation or negative reciprocity between briber-bribee pairs and the ability of the victims of bribery to punish bribers and bribees given the experimental designs. And efforts to identify framing effects have also failed and this could be due to the mismatch between the frame applied and the life experiences of the experimental subjects."

Their bribery game developed with the objective to work around the caveats mentioned above shows that high negative externalities and framing reduce the propensity of players to engage in corrupt transactions.

It clearly appears that our understanding of the effect of negative externalities on corrupt behavior is very limited and hinges on one study conducted in the lab (e.g., Barr & Serra, 2009). Multiple scholars have called for more research on the issue of intrinsic motivations (Barr & Serra, 2009; Abbink & Serra, 2012; Gans-Morse et al., 2013). This study contributes to the literature by, firstly, answering the call to further clarify our understanding on the question and by, secondly, adopting a different empirical approach to answer the question in a new context.

4.3.1. Hypotheses

The study of non-monetary incentives as a determinant of corruption flows from the theoretical expectation that individuals internalize social norms (Abbink & Serra, 2012; Grusec & Kuczynski, 1997). Corruption has been demonstrated to be to some extent a social norm (Torsello & Venard, 2016; Bontis, Bart, & Seleim, 2009; Bukuluki,

2013)[15] so that honesty over corruption could be a norm enforced by shame, guilt and in some situation excommunication from a social group (Abbink & Serra, 2012). This expectation, I argue, aligns closely with social realities in traditional Africa. Indeed, African societies are vastly portrayed as altruistic. Corruption as taking advantage of a public position to further one's narrow interests (Bardhan, 1997; Rose-Ackerman, 1975) or "deliberate subordination of common interests to specific interests" (Alatas, 1968) is a practice morally repressed by social norms in traditional Africa as corroborated by several scholars (Ayittey, 2018; Ekeh, 1975; Ikuenobe, 2006; Bukuluki, 2013).

Given this reality, Africans in general, I expect, would be sensitive to corrupt behaviors that have negative externalities on others. If intrinsic motivations matter in counteracting corruption, African countries would be a place where one should observe an effect. The following hypotheses capture this expectation.

Hypothesis 1a: *In general, respondents presented with the control group survey will be more likely to find corrupt actions justifiable than those presented with the negative monetary externality treatment.*

Hypothesis 1b: *In general, respondents presented with the control group survey will be more likely to find corrupt actions justifiable than those presented with the negative moral externality treatment.*

In comparing negative externalities in an Africa context, I would expect that negative externalities that have a heavier moral charge will tend to be less acceptable than those having a lighter moral charge especially because African societies are mostly altruists and

[15] See Rothstein and Varaich (2017) for an exception.

strict on community moral standards (Mbiti, 1990). I thus propose the following corresponding hypothesis.

Hypothesis 2: *In general, respondents presented with the negative monetary externality treatment will be more likely to find corrupt actions justifiable than those presented with the moral negative externality treatment.*

It is important to clarify that the effect of intrinsic motivations through negative externalities on corrupt behavior will vary in Africa following different contexts. One of these contexts that it is important to distinguish is the rural-urban difference. While one may expect African societies in general to have such norms as collectivism, there may be a difference in degree. Specifically, one would expect village communities to enforce social norms more than in the city. The reason for this expectation is intuitive. In fact, in villages the population is more homogenous, interactions will tend to be repeated, and social sanctions will have a greater impact (Mbiti, 1990; Ikuenobe, 2006). This last factor makes it even more likely that individuals will follow the social norms of not taking advantage of others. At the contrary, cities tend to be individualistic so that it is difficult to enforce social norms. Consequently, one may expect city dwellers to be less subject to social pressure and therefore less likely to pay attention to the negative externalities caused by corrupt behavior. The following hypotheses captures this expectation.

Hypothesis 3: In general, respondents in rural areas will be less likely to find corrupt actions acceptable than those in urban areas across the different groups.

4.4. Experimental design

The small number of existing studies seeking to investigate the effect of intrinsic motivations on corruption have been conducted in labs and confined to the Western world (e.g., Abbink, Irlenbusch, & Renner's, 2002; Barr & Serra, 2009)[16]. This study departs from existing ones by investigating the question in the field with the everyday citizen, which has the potential to ameliorate external validity. Further, it is conducted in a context that goes beyond the so-called WEIRD sample standing for Western, Educated, Industrialized, Rich, and Democratic (Henrich et al., 2010). This paper thus also contributes to test the existing findings in a different context and doing so helps to assess the robustness of previous conclusions on the topic.

The study utilized a survey experiment designed to test whether intrinsic motivations through negative externalities have an impact on people's judgement of corrupt behaviors and by extension their propensity to engage in corruption themselves (Alhassan-Alolo, 2007, 230). It also aims at drawing a distinction between negative externalities with explicitly estimated and non-estimated cost. To achieve these objectives, I employ a version of an embedded survey experiment, a technique widely used in the field of Political Science to investigate attitudes and choices (Hainmueller, 2010; Chong et al., 2015). This survey technique has the major advantage of helping to uncover causal processes difficult to flesh out in conventional survey methods (Gaines et al., 2007). Following Grant and Rudolph (2003), and the recommendations of Gaines et al., (2007), I include a control group in my design for meaningful comparisons across treated groups.

[16] See Cameron et al. (2009) for an exception.

The survey questionnaires were designed using a modified version of the World Values Survey with built-in prompts to portray different experimental manipulations. The general prompt read as follows, with different versions having slight modifications followed by a description of corruption scenarios according to the experimental manipulation (see Table 1):

Table 4.1: Experimental Questions of the Treated Groups	
Negative Economic Externalities	Negative Moral Externalities
1- A doctor in a public hospital asking a patient to pay 5000 CFA in addition of the prescribed fees before they get treatment. 2- The director of a public high-school asking parents to pay 50.000CFA in addition to the prescribed fees to accept a student. 3- A public worker granting the construction of a public building to a company for a 1.000.000 CFA payment in addition of the government prescribed fees 4- Paying 1.000 CFA to jump the queue in a public service office 5- Claiming 50.000 CFA worth of government benefits to which you are not entitled	1- A patient develops some complications because of a doctor in a public hospital asking a patient to pay some extra fees in addition of the prescribed fees before they get treatment. 2- A student loses 2 months of classwork because of the director of a public high-school asking parents to pay additional fees in addition to the prescribed fees to accept a student. 3- There is an accident in a government building because of a public worker granting the construction of a public building to a company for some additional fees in addition to the government prescribed fees 4- Clients at a public service spend more time than expected because of some people paying money to jump the queue in a public service office 5- Some elderly people lose retirement benefits because of some people claiming government benefits to which they are not entitled
Note: Each question had the following options as answers to choose from: ***never; rarely; sometimes, always.*** *Surveys were conducted in French and local languages as appropriate.*	

Please tell me for each of the following actions whether you think it can always be justified, never be justified, or something in between, using this card. (Read out and code one answer for each statement):

Respondents were randomly selected to receive one of the three versions of the survey: (i) a control version giving the general prompt quoted above and a plain description of given bribery actions, (ii) a negative "economic" externality version describing the financial cost associated with a corrupt action, and (iii) a negative "moral" externality version that portrays the harm done as a result of a corruption situation, but, with no explicit financial lost specified. The experimental questions were preceded by a battery of questions, including socio-demographic ones. A full survey version with the control group is available in the appendix.

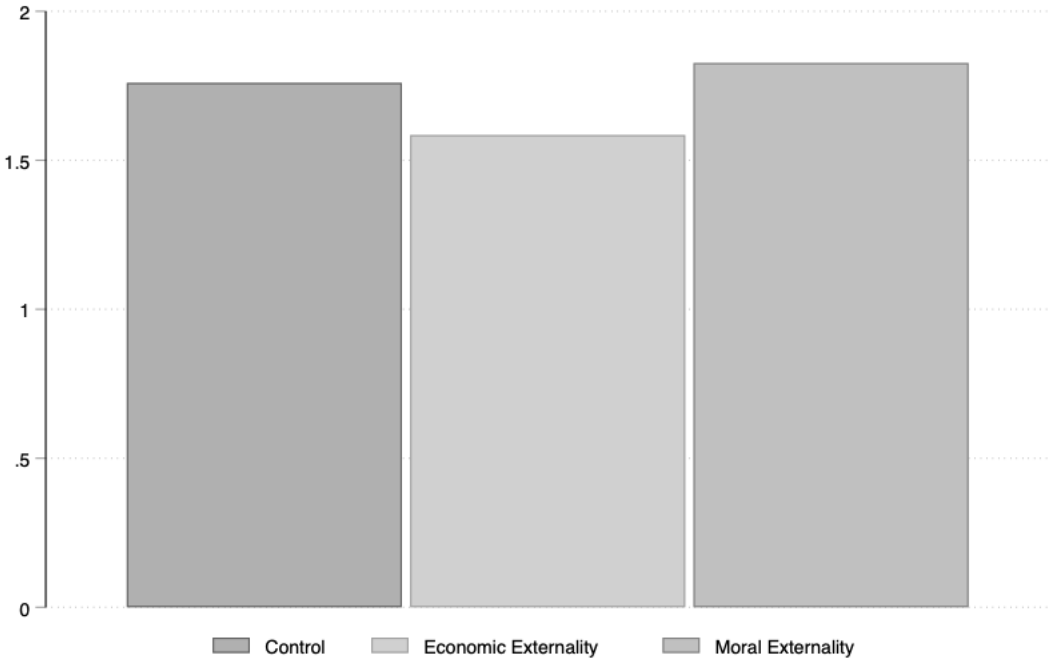
The survey was fielded in Cote d'Ivoire from mid-January to early March 2021. Respondents were selected following a cluster random sampling strategy with a random number generator that determined how long surveyors should walk before interviewing a person at designated sites. These random numbers generated also determined the person to interview after periods of random walks. Interviews were conducted in big towns (Abidjan, Yamoussoukro)[17], medium towns (Aboisso, Grand-Bassam), and villages (Digagko, Azuretti, Brihiry, Kotoka, Toliesso) every day of the week. The study was approved by the University of Missouri IRB before execution (IRB project# 2045424). Interviews were conducted in French and local languages where required by trained local students. The response rate was about 92%. Covariates were collected before the experimental part of the survey to avoid post-treatment bias (Montgomery et al., 2018).

[17] In the towns and villages, neighborhoods were selected randomly from a predetermined list.

4.5. Results

I begin the discussion of the results by looking at hypotheses 1a and 1b. These hypotheses answer the simple question of whether intrinsic motivations through the form of negative externalities matter in preventing one from engaging in corrupt practices. As Figure 1 shows, the mean per category is less than 2 on the 4-point scale, suggesting that on average people are capable of identifying corrupt situations and judge them as unacceptable. This goes against the long tradition in political economy that portrays African countries as inherently corrupt (De Sardan, 1999; Egbue, 2006)[18].

Figure 4.1: Mean Acceptability of Corrupt Practices across Experimental Conditions



[18] Also see Ayittey (2018) for a discussion of this assumption.

Getting to the core of our analysis, the baseline category or control has a mean of 1.75 while the economic externality and moral externality have means of 1.58 and 1.82 respectively. A t-test for a difference in mean suggests that the control group has a statistically significant difference of .17 ($p < 0.004$) from the economic negative externality, providing support for hypothesis 1a. The test for a difference in mean shows no statistically significant ($p = 0.194$) difference between the moral externality and the control group. Hypothesis 1b is, therefore, not supported by the evidence. Taken together, these results show that intrinsic motivations matter but certainly with some nuances that I will get at in the text below.

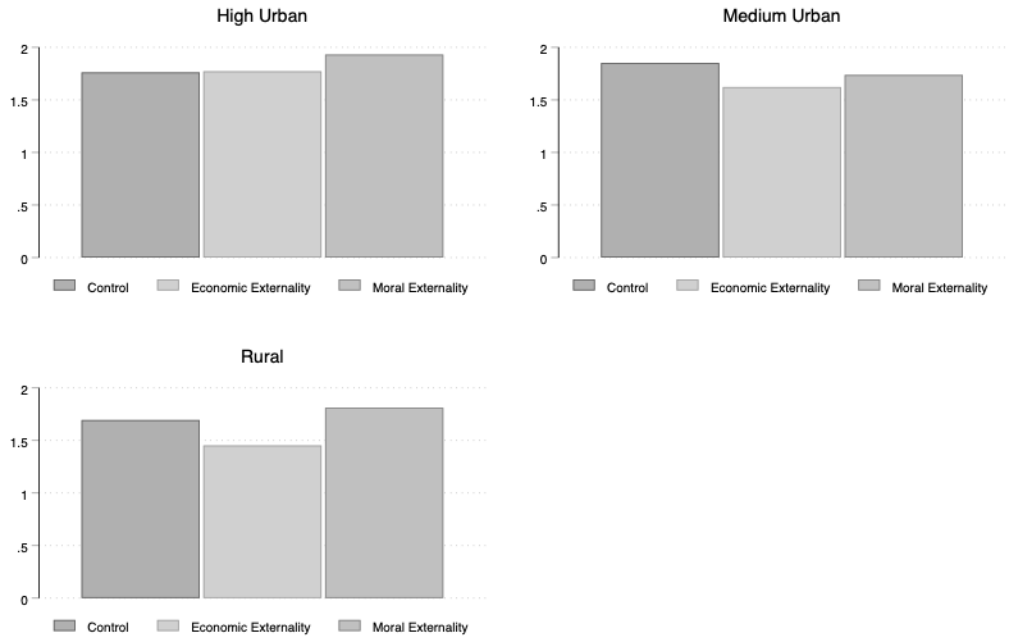
Table 4.2: Difference in Means Test for Hypothesis 1-2

Hypotheses	Mean Control	Mean Economic	Mean Moral	Difference	P-Value	N
H1a	1.75	1.58		0.17	0.0004	626
H1b	1.75		1.82	-0.066	0.194	642
H2		1.58	1.82	-0.241	0.0001	624

I now turn to hypothesis 2 testing the proposition that moral externalities will be less acceptable than monetary externalities. The findings show quite the opposite with a statistically significant difference of .241 ($p < 0.001$). Respondents seem to find the economic externality least acceptable than the moral externality. There are several potential explanations to this finding. First, it may be that African are not that attached to moral values as previously expected. But this explanation will be too unrealistic as it discards a long tradition of work in African politics, and this is finding alone is insufficient to caste doubt on this well illustrated wisdom. Also, as I show below, there is a difference between rural and urban respondents, confirming that the initial intuition is founded. A second potential explanation is that the treatment was too weak, and

respondents did not absorb it well. Which could also explain why the control group and the moral externality treatment are not statistically different. A third explanation that seems more plausible is that the economic negative externality quantifies the damage done due to corruption and thus respondents are better able to exert a judgment. This aligns with the critic that some frames do not get results because the corrupt practices seem "artificial" to subjects (Bardsley, 2008; Barr and Serra, 2009), so that it may induce role play rather than triggering intrinsic desires to abstain from an immoral, corrupt-like act (Barr and Serra, 2009, 491). In a context of widespread poverty and corruption that oppresses the poor, a corruption act that gives an estimation of how much is lost will most likely be engaging than one that leaves the cost to the imagination of the respondent.

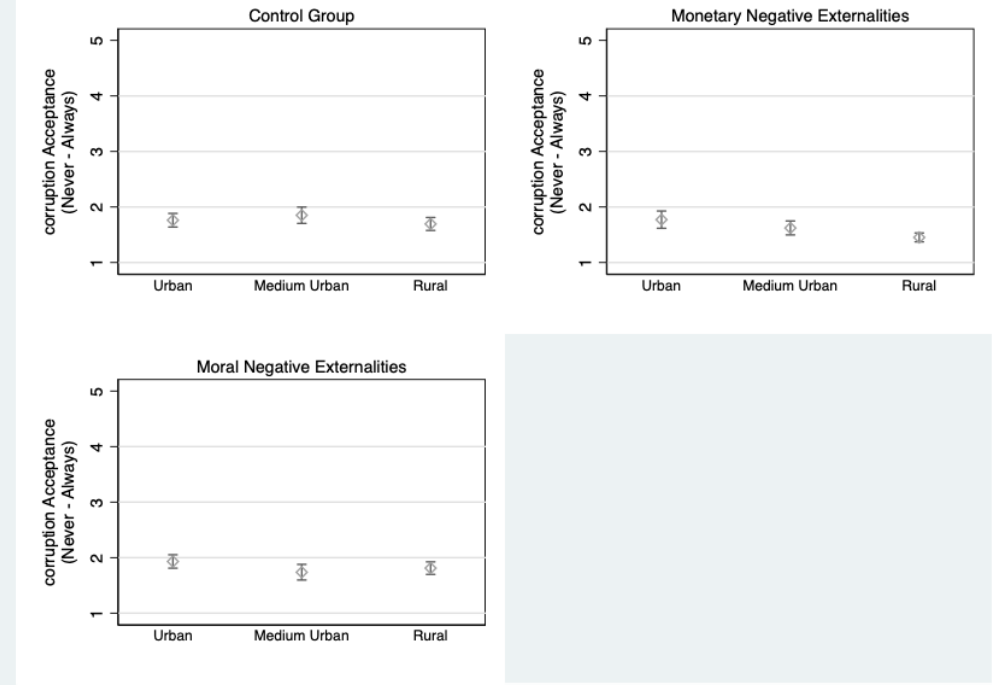
Figure 4.2: Acceptability of Corrupt Practices across Sampling Strata



Turning to hypothesis 3, I test whether there is a difference between urban and rural respondents. Overall, there is support for the hypothesis. Looking at the control

group, the mean for urban respondents is 1.76 while the mean for rural respondents is 1.69. There is therefore a slight difference of .067 although it is not statistically significant. The rural-urban difference is clearly seen with the negative monetary incentive. The mean for urban respondents is 1.77 while the mean for rural respondents is 1.45, which is a difference of .32 and statistically different at the 99% confidence level ($p < 0.0001$). On the negative moral externality treatment, there is a difference of .12 and statistically significant at the 90% percent confidence level in a one-tailed test ($p = 0.08$). Urban dwellers are thus more likely to find corrupt acts more acceptable than rural dwellers. This corroborates the account of Ayittey (2006) when writing about indigenous African institutions and how traditional African societies are not inherently corrupt as portrayed in literature. Arguably, villages are still retaining some of the societal values such as honesty and altruism to a greater extent than in urban settings.

Figure 4.3: Mean Acceptability of Corruption across Experimental Conditions and Sampling Strata, with 95% Confidence Interval



4.6. Discussion and Conclusion

What should we get from the results presented above? Three points worth reiterating transpire from this study. First, the answer to the question of whether intrinsic motivations through negative externalities matter in convincing individuals to abstain from corruption seems to be affirmative. The results corroborated the expectations developed earlier in this paper albeit with an important exception that ended up being an interesting finding. These results, therefore, are consistent with the findings of Barr and Serra (2009) who found that negative externalities matter in preventing bribery after a series of null findings in the literature.

Second, Africans in general and respondents from this survey, in particular, are more sophisticated that one would assume given the level of education and exposure to the world, especially that many are from rural areas. In fact, from the results presented

above, it appears that respondents are able to distinguish between corrupt actions that have identifiable negative externalities from those that are vague in nature. This may explain why the monetary negative externalities are seen as the least acceptable while the control and moral negative externalities have no statistically significant difference. This conclusion aligns with Doces and Wolaver (2021) who find in a study conducted in Cote d'Ivoire and Ghana that respondents are more rational than the ones in developed countries. Future studies should therefore take this into consideration while formulating theoretical expectations.

Finally, the findings from this study suggest that Africans know what corruption is and do not consider it as an acceptable practice. The African collectivist culture seems associated with strong moral standards that reject the harm against others and therefore corruption as an acceptable practice. This is consistent with the work of Bontis, Bart, and Seleim (2009) who find that collectivist culture is negatively associated with corruption perception. The urban-rural difference observed further supports this intuition. These results also suggest that the massive urbanization happening on the continent can be a trigger of corruption as urbanization will tend to erode the values associated with collectivism given the individualistic lifestyle that characterizes it.

In fine, this study has answered the call to gather more evidence on the impact of intrinsic motivations through negative externalities have on the propensity to engage in corruption. It found that negative externalities have the potential to mitigate corruption but only when citizens have an idea of how much harm the corrupt transaction is causing. Future research that differentiates further among types of negative externalities and their

impact will contribute to the literature. There is also room to expand on how extrinsic and intrinsic motivations differently affect one's decision to engage in corruption.

5. Conclusion

How does urbanization affect corruption? This question has been answered in the literature relying heavily on modernization theory and data from western countries. In this dissertation, I challenge the conventional wisdom that urbanization lowers corruption. The modernization paradigm has dominated development policies in African countries for decades since the 1960s. Economic activities in Africa such as the agricultural sector have been deemed backward and therefore needed to adopt a modernization approach to guide rural land tenure (Ubink & Amanor, 2008). For instance, communities have been pushed to move away from the customary management of their lands, to adopt a modernization framework that favored formal contracts and private property. This paradigm championed by international development institutions intended to install a system that will create long term prosperity.

Decades later, modernization has not kept it promises (Ubink & Amanor, 2008, pp. 9–10) as development is still a challenge for Africa. Despite this failure, literature in political economy has not questioned how the modernization paradigm has affected development variables such as corruption. For a typical African country, urbanization—the most prominent sign of modernization—lowers the costs and raises the benefits of corruption such that it is a contributing factor to corruption. Unlike in most developed countries, the transition from the community-based life in the village to an individualistic lifestyle in the city decreases the cost and increases the benefits of being corrupt. This process is especially true where modern political institutions and processes such as democracy and free press are fragile and unable to provide a viable alternative to community checks.

The central theoretical argument of this dissertation, namely that urbanization is positively related to the level of corruption because it erodes community accountability mechanisms has been articulated around three articles and tested using different methodologies. First, challenging one of the most prominent studies arguing for a negative relationship between urbanization and corruption (i.e, Billger & Goel, 2009), article one argued that corruption is much more likely to be deterred in a rural community than in a city in an African context. While in developed countries such as the United States, corrupt practices are more likely to be deterred by abundant news media, in Africa, peer pressure embedded in rural community relations play this role. In cities, there is a significant reduction in peer pressure and associated community checks. Which ultimately makes corruption more attractive in cities than in rural settings. The empirical evidence built on a time series cross sectional analysis supported the argument and showed that urbanization is positively associated with corruption in Africa but quite the opposite when unit homogeneity is assumed through the estimation of the analysis on a global sample of countries.

In the second article, I investigated this relationship further in a subnational study to uncover the underpinning mechanisms. Following the argument made in the first article, a logical expectation will be that within Africa, more urban regions will be more corrupt than the rural ones. A preliminary analysis using Afrobarometer survey data corroborated this expectation. Further evidence from in-depth interviews with traditional chiefs, villagers, and heads of youth associations revealed that trust erosion is a reason why urbanization tends to cause more corruption in Africa. In fact, with urbanization, individuals have less trust in one another because they interact and do less of activities

that can strengthen bonds, which in turn increases the probability that individuals would take advantage of one another when they have the opportunity.

The third and last article of this dissertation further applied the theoretical argument developed in the first two articles testing whether intrinsic motivations through negative externalities influence the degree of corruption. If the argument that life in community is a deterrent to corruption is true, the collectivist culture of African societies should make negative externalities from corruption morally heavy to bear and thereby decreasing the probability of condoning corrupt behaviors. Further, one should observe a more potent effect in a rural context where collectivism is more vital than in cities. The findings emanating from a survey experiment supported the theory with an exception mostly resulting from strength of treatment.

All in all, this dissertation reconceptualizes our understanding of the relationship between urbanization and related development variables. It contributes to important literatures in social sciences and suggests that the foundation of some of the most influential works may be questioned or are at least very limited in scope. Lipset (1959) is, for instance, an influential work building on modernization that has shaped decades of debates and generated an impressive amount of research (e.g., Przeworski & Limongi, 1997; Boix & Stokes, 2003; Acemoglu, Johnson, Robinson, & Yared, 2009; Kennedy, 2010; Inglehart & Welzel, 2010). Mentioned at least 15 times, urbanization represents an important component in Lipset's (1959) development-democracy argument. His findings indeed suggest that urbanization is positively correlated with democracy. Meanwhile, this dissertation demonstrated that urbanization is a vector of corruption, which has been shown by several works to be potentially bad for democracy (e.g., Selingson, 2002). At

the very least, the evidence presented here, therefore, suggest that Lipset's argument and empirics should be re-evaluated.

In developmental economics, the traditional rhetoric has been to advocate for economic prosperity, often praising urbanization (OECD, 2015) as a process that causes economic growth and promotes well-being (Rostow, 1960; Davis and Henderson, 2003; Njoh, 2003; Quigley, 2009). The evidence in this dissertation suggests that by pushing urbanization through growth, development experts might be unleashing the forces that make corruption more likely and thus undermine the development process they want to promote in the first place. This could be why many African countries have experienced rapid growth over the last twenty years yet extreme poverty remains a serious problem across the region, as these modernization-based policies might in the process be sowing the seeds of their own demise.

What are the implications of this dissertation for urbanization in Africa? The future is not about discouraging or encouraging urbanization per se as urbanization seems to be an irreversible process in Africa, at least for the foreseeable future. But urbanization policies and the integration of the new urban population should be reconsidered carefully. Specifically, development projects should be decentralized to avoid the massive rush to cities. Decentralization will help create jobs in places close enough to village community structures so that moving towards better opportunities does not represent a drastic change in an individual's social life. This recommendation cannot be emphasized enough, especially as growing evidence show that decentralization, through bigger share of financial resources to local government entities has the potential to reduce corruption (e.g., Fan, Lin, & Treisman, 2009; Fisman & Gatti, 2002).

The lack of legitimacy of the modern state in the eyes of the rural world can be mediated if traditional leaders are incorporated more fully in the governance process with effective decentralization. The duality of governing systems between the traditional and modern state with two systems that have clashing principles and sometimes totally opposed to one another is a major cause of the continent's economic stagnation (Englebert, 2000). Decentralization is a promising route for a controlled urbanization and fair sharing of power that can help reconcile the traditional and emerging urban social values.

One question this dissertation raises is whether urbanization causes corruption indefinitely or if it is just a transitional stage. It seems likely that it is more transitional and as the urban population continues to grow, it will eventually reach the level where many OECD countries are at today. In their early development stages, countries such as the USA have experienced higher corruption levels with urbanization (Meier & Holbrook,1992). But some of the peculiarities with African countries are the economic conditions, the rate of urbanization, and the institutional setting. Future research may therefore shed some light at the critical point where urbanization may help curb corruption as it does in the developed world. Research on how democracy mitigates the downside of modernization is also an important contribution to the literature on corruption. Future research may also investigate how rural communities are moving toward creating a new equilibrium where trust and moral standards are upheld.

APPENDIX

1. Additional robustness checks for Chapter 2

Table A.1.1: Effect of urbanization on corruption controlling for government control of corruption

	(12) Panel-corrected	(13) Drisc/Kraay
Control of Corruption	17.78***	25.24***
	(0.960)	(0.638)
Urban percentage	0.134***	0.144***
	(0.0418)	(0.0310)
Log aid	0.0629	-0.0692
	(0.317)	(0.286)
Log GDP	-1.422**	-1.962***
	(0.660)	(0.495)
Resources % of GDP	0.0667**	0.0471
	(0.0291)	(0.0522)
Trade % of GDP	-0.0184**	-0.0180
	(0.00717)	(0.0123)
British colony	-3.414**	-2.297***
	(1.328)	(0.424)
Ethnic fractionalization	4.915*	-0.544
	(2.727)	(1.069)
Democracy	-0.494***	-0.318***
	(0.0903)	(0.0928)
Constant	69.11***	77.92***
	(7.080)	(8.551)
Observations	742	742
R-squared	0.886	0.682
Number of Countries	48	48

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A.1.2: Effect of urbanization on corruption controlling for population growth

	(14) Panel-corrected	(15) Drisc/Kraay
Urban percentage	0.257***	0.380***
	(0.0490)	(0.106)
Log aid	-0.0457	0.853***
	(0.189)	(0.264)
Log GDP	-0.821*	-3.784***
	(0.495)	(1.077)
Resources % of GDP	0.0631***	0.615***
	(0.0157)	(0.0450)
Trade % of GDP	0.000460	-0.0683***
	(0.00531)	(0.0125)
British colony	-5.411***	-1.761
	(1.734)	(1.130)
Ethnic fractionalization	19.06***	8.505**
	(3.067)	(3.610)
Democracy	-0.180***	-0.572***
	(0.0586)	(0.0646)
Population growth	0.605**	0.186
	(0.290)	(0.648)
Constant	49.91***	51.15***
	(4.911)	(8.940)
Observations	1,799	1,799
R-squared	0.586	0.284
Number of Countries	49	49

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table A.1.3: Effect of urbanization on corruption (global sample excluding Africa)

	(16) Panel-corrected	(17) Drisc/Kraay	(18) FE Robust
Urban %	-0.449***	-0.413***	-0.0855
	(0.0411)	(0.0569)	(0.181)
Log aid	0.460***	3.222***	1.605**
	(0.138)	(0.358)	(0.663)
Log GDP	-0.113	-1.933	0.357
	(0.457)	(1.646)	(1.552)
Resources	0.00843	0.329***	-0.0167
	(0.0145)	(0.0913)	(0.0884)
Trade	0.00130	-0.00969	0.0174
	(0.00787)	(0.00909)	(0.0258)
British colony	-19.09***	-22.62***	
	(1.678)	(0.849)	
Ethnic Fraction	6.780**	1.822	
	(3.172)	(1.813)	
Democracy	-0.188***	-0.347***	-0.469***
	(0.0373)	(0.0479)	(0.173)
Constant	75.12***	37.45***	29.28**
	(3.965)	(9.058)	(14.23)
Observations	2,542	2,542	2,542
R-squared	0.492	0.391	0.060
Number of Countries	76	76	76
Country FE	No	No	Yes

Notes: Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

2. Countries included in sample for Chapter 2

Table A.2.1: Sample of African Countries

Algeria	Liberia
Angola	Libya
Benin	Madagascar
Botswana	Malawi
Burkina Faso	Mali
Burundi	Mauritania
Cabo Verde	Mauritius
Cameroon	Morocco
Central African Republic	Mozambique
Chad	Namibia
Comoros	Niger
Congo Rep	Nigeria
Cote d'Ivoire	Rwanda
DRC	Senegal
Djibouti	Seychelles
Egypt	Sierra Leone
Equatorial Guinea	South Africa
Eritrea	Sudan
Ethiopia	Swaziland
Gabon	Tanzania
Gambia, The	Togo
Ghana	Tunisia
Guinea	Uganda
Guinea-Bissau	Zambia
Kenya	Zimbabwe
Lesotho	

3. Variables description for Chapter 2

Table A.3.1: Variables description

Variables	Description / Transformations	Sources
Corruption index	Mean of (a) public sector corruption index; (b) executive corruption index; (c) the indicator for legislative corruption; and (d) the indicator for judicial corruption. From a low of 0 to a high of 1	Varieties of Democracy
Corruption Index	The International Country Risk Guide corruption index	The International Country Risk Guide by the PRS Group
Urban percentage	The percentage of population living in urban areas.	World Bank
Logged aid	Total foreign aid received each year in U.S dollar	World Bank
Logged GDP	Natural log transformation	World Bank
Nat resources % of GDP	Percent of GDP derived from natural resources production	World Bank
Trade % of GDP	Percent of GDP derived from trading activities	World Bank
Colonizer	Indicator variable for British and non-British colonies	Treisman, 2007
Ethnic Fractionalization	Measure of ethnic diversity in a country. Continuous between 0-1	replication data for Fearon and Laitin, APSR 2003
Democracy	Polity IV democracy index. Ranging from -10-10	Marshall and Jaggers, 2013
Government control of corruption	Continuous from negative 2.5 to positive 2.5	World Governance Indicators (Kaufmann et al. 2009).
Population Growth	Population annual percentage growth	World Bank

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