To Tolerate or not Tolerate Bribery: Can a Lack of Control over Corruption Determine Tolerance Levels?

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Abstract
Most of the research on corruption has either focused on the impact corruption has on economic growth, development, and investment, or the implications of corruption on governance. However, limited research has focused on the relationship between government control of corruption and individual-level acceptance of bribery within society. This study uses the World Values Survey and other observed data from a total of 55 countries to test whether high levels of corruption cause individuals to be more accepting of bribery among public officials. A Generalized Least Square Model was applied to test the effect of government corruption on control and individual-level tolerance for bribery between 1996 and 2015.

Keywords: GLS, Control of corruption, Individual-level tolerance, Bribery, Rule of Law.
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1. Introduction

Academics and policymakers have jointly agreed upon the definition of corruption as the abuse of public goods for private gains, and have acknowledged its negative effect on governance, society, and the economy. Political corruption poses a serious obstacle to good governance and economic growth; the literature on corruption has confirmed this extensively (see Rose-Ackerman, 2008; Mauro, 1995; Kaufman et al., 1999). In the last two decades, interest in corruption has increased, given that corruption is costly in terms of deterring potential investment, destabilizing regimes, and diverting revenues for public gains to private gains. This is particularly problematic in low-income countries. Previous studies on political corruption have not analyzed the impact of government actions to deal with corruption and the effect these actions have on individual-level perception or acceptance of corruption in society. Both the political science and the theoretical economic literature have focused on the implications of corruption at the macro-level, overlooking corruption issues at the micro-level. Political science literature, for instance, has focused on understanding the causes and consequences of government corruption, whereas the economic literature has focused on the consequences of corruption for economic growth and investment.

Governments, the international community, and NGOs have devoted millions of dollars to anti-corruption programs and policies in order to fight corruption and curb its negative effects (Goodwin, 2010; Mungiu-Pippidi, 2006; Medard, 2002; Persson, Rothstein, & Teorell, 2010; Sampson, 2005). Major international organizations such as the United Nations, the World Bank, the European Union, Transparency International, the World Trade Organization, and the International Monetary Fund have taken measures to fight corruption, particularly in Africa, where it is severe (Lawson, 2009). Despite these efforts, corruption continues to flourish and grow in several regions across the globe, mainly in Sub-Saharan Africa, post-Communist countries, and South Asia (Kaufmann, Kraray, & Mastruzzi, 2010). Kenya, for example, implemented various anti-corruption reforms—but despite establishing these programs, the country’s level of corruption did not decrease. Several studies have examined why anti-corruption measures fail to curb corruption (Booth, 2012; Marguette, 2012; Pesson, Rothstein, & Teorell, 2010; Heeks, 2011); however, few have examined the issue of individual attitudes towards corruption as a factor contributing to the failure of anti-corruption programs.

If individuals in society perceive corrupt actions as justifiable, then any measure implemented by the national government or an international organization will likely fail. If individuals are more tolerant of corrupt acts, it is much more difficult to combat corruption in society. Therefore, a better understanding of individuals’ beliefs about corruption will lead to more robust and effective anti-corruption measures for
governments and the international community. In this paper, the focus will be on bribery among public officials in the 55 sampled countries; bribery is one of many forms of corruption. The present study examines whether government control of corruption and the rule of law can determine the individual-level justification of bribery in society. This paper makes two contributions to the study of corruption. First, it provides a mixed micro-level and macro-level analysis of corruption, looking at how macro-level factors (control of corruption and the rule of law) can influence the micro-level (individual-level justification of bribery in society). The second contribution is an examination of how effective anti-corruption programs and the robust rule of law can determine individual-level acceptance of bribery.

The paper is divided into three sections. First, the basic argument of the study is provided. In the second section, there is a discussion of the data and research methods applied. The third section presents the empirical results in order to evaluate the study’s hypotheses.

2. Literature on Corruption

The literature on corruption is immense, covering factors contributing to corruption (Dong & Torgler, 2013; Tanzi, 1998; Treisman, 2000; Lambsdorff, 2006), the relationship between corruption and economic growth (Mauro, 1995; Wei & Wu, 2002; Campos, Lien, & Pradhan, 1999), and the implications of corruption on politics (Rose-Ackerman & Palifka, 2016; Tangri & Mwenda, 2013). The literature on corruption has extensively examined and confirmed a causal relationship between interpersonal trust, political trust, and corruption. Several studies have confirmed that trust is both a cause and consequence of corruption (Anderson & Tverdova, 2003; Chang & Chu, 2006; Rothstein & Eek, 2009; Rothstein & Uslaner, 2005; Zakaria, 2013). More specifically, high levels of corruption tend to depress interpersonal trust and political trust, while countries with low levels of trust tend to cultivate corruption.

Many earlier studies examined corruption from a macro-level, while recent studies have begun to examine corruption at the micro-level. These latter studies examine micro-level determinants of corruption justification. Previous work focused on determinants of corruption justifiability at the individual level by testing socioeconomic factors (Svensson, 2005; Torgler & Valev, 2006; Dong & Torgler, 2009; Guerrero & Rodríguez-Orejaga, 2008; Torgler & Valev 2010; Zakaria, 2016) and cultural and economic factors (Onyango, 2015; Shadabi, 2013). In terms of socioeconomic factors, the scholarship has argued that education, gender, age, employment, and income status influence individual-level perceptions of the justifiability of corruption. For example, Torgler and Valev (2010) found that women tended to find corruption (measured through bribery) less justifiable than their male counterparts in society did.

What impact can a government’s ability to deal with corruption have on the individual-level justification of bribery among public officials? The literature argues, and the empirical literature finds that
robust and durable political institutions are associated with low levels of corruption. Lederman, Loayza, and Soares (2005), for example, found that a country with political stability, a free and independent press, and a democratic system tended to have a lower level of corruption. By extending the above logic, a reduction in corruption is associated with robust control of corruption by the government, which in turn leads individuals to become less tolerant of bribery in society. When individuals are accustomed to a transparent and corruption-free (limited corruption) society, they are unlikely to be comfortable with bribery; rather, they will have been conditioned by their corruption-free environment to reject this behavior.

On the other hand, if corruption is high and control of corruption by the government is weak, then it can be assumed that individuals will be more tolerant of bribery. In this case, individuals are consistently experiencing corruption or hearing about corruption scandals in the media, and so they, like their counterparts in corruption-free societies, will also be conditioned by their environment. However, in this scenario, individuals will become desensitized to corruption and its negative attributes, pushing them to become more tolerant of bribery among public officials. The argument made here is akin to Wroe, Allen, and Birch’s (2013) assumption and empirical test of how distrust can condition individual-level responses to corruption in the United Kingdom. The authors confirm that “less trusting individuals are always more likely than their more trusting counterparts to judge politicians’ behavior as corrupt” (Wroe, Allen, & Birch, 2013, p. 13). This supports the notion that certain factors in society can condition individual-level tolerance for corruption.

In addition to government control of corruption, the present study also examines how the rule of law and its relative strength can influence individual-level justification of bribery. Several studies have confirmed that the rule of law is a robust strategy to deal with and eradicate corruption in society (see Leff, 1964; Huntington, 1968). Thus, it can be argued that in countries with the strong rule of law, where all people abide by the laws of society, individuals will likely be conditioned to reject bribery. The opposite may occur when the rule of law is weak, conditioning individuals to believe that bribery is justifiable. As in the previous assumption, the notion here is that high rule of law will be associated with low corruption and the low rule of law will be associated with high corruption, which in turn influences individual-level tolerance of bribery. Tolerance for corruption can be distinguished between moral norms, what we believe to be morally right or wrong, and societal norms, what society presumes to be acceptable or not. With tolerance for corruption, one can believe that bribery is wrong, but given societal norms will engage in bribery because it is acceptable in society. A great example, would be the *wasta* system in the Middle East and North Africa as well as the *guanxi* system in China.

Thus, the study will test the following hypotheses:
Control of Corruption: When governments have control over corruption, individuals will begin to believe that corruption is less justifiable.

Rule of Law: Individuals in countries where the rule of law is strong will have less favorable attitudes towards bribery than those in countries where the rule of law is weak.

3. Data and Research Method

The study utilized both latent and observed data to test the argument about the perception of corruption, control of corruption, the rule of law, and individual-level tolerance for bribery among public officials.

The dependent variable of interest is an individual-level justification of bribery, which was drawn from the World Values Survey [WVS, hereafter]. The specific question used from the WVS reads: “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.” [Card reads the following] “Someone accepting a bribe in the course of their duties.” This question has the following possible ranges to select from: “Never Justifiable = 1... Always Justifiable = 10.” The responses are rank-ordered from 1 through 10, where values closer to 1 correspond with individuals believing bribery is never justifiable, and values closer to 10 correspond with individuals believing bribery is always justifiable. The study assumed that individual responses that were skewed closer to 1 (Never Justifiable) were the least accepting of bribery, whereas individual responses that were skewed closer to 10 (Always Justifiable) were the most accepting of bribery. The WVS question about individual-level tolerance for bribery among public officials has a limitation in that the survey respondents may not have been comfortable admitting to researchers that they believe bribery is justifiable because of corruption functions on the black market. As a result of this issue and the limited availability of data regarding individual-level perceptions of corruption, the present study will transform the WVS data to deal with this problem of right skewness. Prior to data normalization, the dependent variable the skewness level for the variable was 2.737 > 1, which showed a problem of right skewness. When attempts were used to normalize the dependent variable using the log transformation the skewness level was 1.709 > 1. This normalization of the dependent variable reduced skewness, but the variable failed to achieve normality; therefore, the study applied GLS approach, which is discussed in the methods section.

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well as ‘capture’ of the state by elites and private interests” (Kaufmann, Kraay, & Mastuizzi, 2011, p. 4). The control of corruption variable ranges from approximately -2.5 to 2.5, where -2.5 corresponds to the lowest level of control and 2.5 corresponds to the highest level of control, with percentile ranks termed from 0 (lowest) to 100 (highest).

The second independent variable of interest is the rule of law, which was also drawn from the World Governance Indicators. The rule of law variable “captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence” (Kaufmann, Kraay, & Mastuizzi, 2011, p. 4). This variable ranges from approximately -2.5 to 2.5, where -2.5 corresponds to the lowest level of the rule of law, and 2.5 corresponds to the highest level of the rule of law, with percentile ranks termed from 0 (lowest) to 100 (highest).

In order to better understand the effect of control of corruption on individual-level tolerance for bribery, a set of control variables were included to eliminate possible alternative explanations for the individuals’ attitudes towards bribery dependent variable. The control variables are categorized into three sections: socioeconomic factors, institutional factors, and economic factors. For the socioeconomic factors, several studies have confirmed that age, employment status, and education tend to influence individual-level acceptance of corruption (Zakaria, 2016; Lavena, 2013; Mocan, 2008; Melgar & Rossi, 2009). Therefore, in order to isolate the effect of socioeconomic factors in determining individual-level tolerance for corruption, the study will control for the following factors: age, employment status, education, and marital status. The control variables will be drawn from the WVS.

Several studies have confirmed that regime type has a significant influence on corruption levels in the country, which can arguably influence individual-level tolerance (Rose et al., 1998). Furthermore, Sandholtz and Koetzle (2010) find that “there are socializing effects at work, and that with long experience with democratic governance, democratic norms that are hostile to corruption do become more deeply rooted” (p. 46). Eckstein (1988) further adds that democratic norms and values are transmitted from one generation to another through the process of political socialization. In line with this argument, Welzel, Inglehart, and Kligerman (2003) argue that institutions act as a socializing mechanism for citizens, causing them to develop common traditions and values. Given that democratic or autocratic norms and values transmitted through the process of socialization will impact individuals’ attitudes towards corruption in society, it is important to control for the number of years spent under either democratic or autocratic governance. To determine how the number of years under an authoritarian regime has informed individual values and norms have informed individuals’ attitudes towards corruption the study constructed the Autocratic Years control similar to the one applied by Sandholtz and Koetzle
(2000).³ The variable is a count variable representing the total number of years a country has had an autocratic regime since 1948, where 64 years is the longest a regime has had an autocratic system.⁴

4. Research Method

The data presented in this study fail the normality assumption underlying multiple regression models, and so applying a linear regression model would either produce a biased estimate for the coefficients or a biased estimate for the standard errors. The issue of normality is regarding the individual-level tolerance for corruption variable, for which the Shapiro-Wilk test for normality found that the p-value < .05 level; therefore, the null hypothesis about normal distribution was rejected, indicating that the variable was not normally distributed. Despite the transformation of the individual-level tolerance for corruption variable, as discussed previously, the Shapiro-Wilk test still showed evidence that the variable was not normally distributed. Since no other data were available regarding individual-level tolerance for corruption, the study had to utilize the WVS questionnaire about the justification for corruption and apply a robust regression model in order to deal with this distribution issue. Additionally, the data violate the assumption about homoscedasticity (constant variance) among the errors, and in that case, a problem of heteroskedasticity is present, which is a greater concern than the previous issue. When a residual vs. predictor plot was constructed, it was evident that the confidence intervals were too wide, hinting at the presence of heteroskedasticity; again, this would cause a bias in the estimates. In order to deal with these violations, a Generalized Least Square [GLS, hereafter] model was applied, giving less weight to the observations with higher error variance. Therefore, the GLS estimate for the coefficient and the estimates for the standard errors are BLUE – Best Linear Unbiased Estimator, which is an underlying assumption of linear regression models. The rest of the paper will present the statistical results and a discussion of the relationship between government control of corruption, the rule of law, and individual-level tolerance for corruption.

5. Statistical Results

To better understand the relationship between control of corruption and individuals’ attitudes towards corruption, the study tested control of corruption hypothesis and a rule of law hypothesis.⁵ Table 1

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³ The autocratic years control variable was lagged for 5 years.
⁴ The end year for a state of interest is the last year of the WVS. For example, Argentina included results from 1995, 1999, and 2006, so the count variable was recorded from 1948 until 2006.
⁵ To test for multicollinearity the study applied 2 approaches: (1) The R² for the full GLS regression model was compared with the R² of the auxiliary model. The results indicated a problem of multicollinearity R² (.008) < R² (.542). Due to concern about multicollinearity in the regression analysis the second approach was undertaken.
(2) Correlation matrix was run, which indicated that control of corruption and rule of law correlated at 0.8 and democracy years and autocracy years correlated at -0.9. Thus, to prevent problems of multicollinearity from influencing the data control of corruption and rule of law were tested separately (model 1 and model 2, respectively) as well as democracy years and autocracy
presents the statistical estimates in models 1 and 2.

### Table 1. GLS Estimates for Attitudes towards Bribery

<table>
<thead>
<tr>
<th></th>
<th>Model 1:</th>
<th>Model 2:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control of Corruption</td>
<td>-.032*** (.035)</td>
<td></td>
</tr>
<tr>
<td>Rule of Law</td>
<td></td>
<td>-.091*** (.005)</td>
</tr>
<tr>
<td>Age</td>
<td>-.002*** (.000)</td>
<td>-.002*** (.000)</td>
</tr>
<tr>
<td>Employment Status</td>
<td>-.0003 (.000)</td>
<td>-.0003 (.000)</td>
</tr>
<tr>
<td>Education</td>
<td>-.005*** (.000)</td>
<td>-.005*** (.000)</td>
</tr>
<tr>
<td>Marital Status</td>
<td>.003*** (.000)</td>
<td>.003*** (.000)</td>
</tr>
<tr>
<td>Autocracy Lag_5</td>
<td>9.22 (.000)</td>
<td>2.49 (.000)</td>
</tr>
<tr>
<td>Constant</td>
<td>.241*** (.013)</td>
<td>.232*** (.013)</td>
</tr>
<tr>
<td>Wald Chi Square</td>
<td>1767.29***</td>
<td>2070.94***</td>
</tr>
<tr>
<td>Sigma_u</td>
<td>.096</td>
<td>.097</td>
</tr>
<tr>
<td>Sigma_e</td>
<td>.256</td>
<td>.256</td>
</tr>
<tr>
<td>Rho</td>
<td>.124</td>
<td>.124</td>
</tr>
<tr>
<td>Observation</td>
<td>157,731</td>
<td>155,680</td>
</tr>
<tr>
<td>Sample</td>
<td>55</td>
<td>55</td>
</tr>
</tbody>
</table>

*Notes: * ρ < 0.10; ** ρ < 0.05; *** ρ < 0.01 (Two-tailed tests) Robust standard errors are in parentheses.

6. Government Control of Corruption

In model 1, the GLS estimate of individual-level tolerance for corruption in society shows that the control for corruption by government variable is found to be negative and statistically significant at the ρ < 0.01 level. This finding suggests that a negative causal relationship is present between control of corruption and individual-level tolerance for corruption, where greater control over corruption by the government is associated with individuals becoming less accepting of bribery among public officials. In that respect, the control of corruption hypothesis was supported by the statistical results. On the other hand, in the socioeconomic factors and economic factors models, individuals become less tolerant of corruption by an average of 45% and 40%, respectively, when the government has control of corruption. Figure 1 presents the fitted line plots between government control of corruption and individual-level year were omitted from the regression model.
tolerance for corruption with a 95% confidence interval.

![Figure 1. Government Control of Corruption and Individual-Level Tolerance](image)

What does this all mean? First, these results signify that individual-level justification for bribery among public officials is dependent on the ability of government to control corruption effectively, thus confirming that individual-level perception is not fixed and can vary. Second, and perhaps most importantly, these results reveal that perception is conditioned by the level of corruption within society. Thus, from a policy standpoint, when individuals believe it is not justifiable for public officials to accept a bribe in the course of their work, this indicates that they will work with civil society and anti-corruption agencies to remedy this problem. Additionally, it indicates that they will demand greater transparency and integrity within government, which act as tools in dealing with state capture (corruption at the state level). Correspondingly, keeping in mind that petty corruption involves the public when individuals believe it is not justifiable to accept a bribe, they are likely to act as whistleblowers when asked to pay a bribe. On the other hand, when individuals believe bribery is justifiable, this perception acts as a roadblock to effective anti-corruption programs because they will collude with corrupt government agents. Furthermore, individuals will not act as whistleblowers against bribery or demand higher transparency and integrity in government.

7. **The Relative Strength of the Rule of Law**

This section tested the rule of law hypothesis, which predicted that individuals in countries where the rule of law is strong would have less favorable attitudes towards bribery than those in countries with the weak rule of law. The results regarding the rule of law are presented in table 1 above. In models 2, the rule of law coefficient was found to be negative and statistically significant at the $\rho < 0.01$ level. This
outcome means that as the rule of law becomes stronger in each society; it is expected that individuals will become less tolerant of corruption. On the other hand, when the rule of law weakens in a society, this tends to make individuals more accepting of corruption. Thus, the statistical results support the rule of law hypothesis. Figure 2 presents the relationship between the rule of law and individual-level tolerance for corruption, with a 95% confidence interval.

**Figure 2. Rule of Law and Individual-Level Tolerance for Corruption**

![Graph showing the relationship between rule of law and individual-level tolerance for corruption.](image-url)

### 8. Control Variables

Recent studies have found that socioeconomic factors determine the individual-level perception of corruption (Zakaria, 2016; Lavena, 2013; Swamy et al., 2001). Thus, to understand the relationship between government control of corruption, the rule of law, and individual-level acceptance of corruption, the study included and controlled for well-established causal factors associated with determining the perception of corruption.

Several control variables were found to be statistically significant, thereby indicating that they also influenced individuals’ attitudes towards corruption in the study. For model 1, the age variable was found to be negative and statistically significant. Thus, the study found that older individuals’ attitudes towards corruption differed from their younger counterparts in society. Older individuals had less favorable attitudes towards corruption, believing that accepting a bribe during one’s duties is not a justifiable action. This generational difference in attitudes towards corruption can be explained by the fact that the older generation has a greater financial stake in society, and so acts of corruption might hinder their economic interests (Lavena, 2013).

Additionally, the study found that educated individuals were less favorable towards bribery than their less educated counterparts in society. This finding is consistent with the argument in the literature that
educated individuals are less tolerant of corruption (Swamy et al., 2001; Melgar et al., 2010). The final socioeconomic factor, marital status, was not found to be statistically significant, indicating that this variable played no role in explaining individual-level tolerance for corruption. Thus, given that these various control variables were found to be significant, it can be argued that variables other than government control of corruption and the rule of law have causal mechanisms with individual-level tolerance for corruption.

9. Conclusion

The present study examined whether attitudes towards bribery differed for individuals given their respective countries’ ability to control corruption as well as the strength or weakness of the rule of law in their societies. The statistical results confirmed that both the control of corruption and the rule of law hypotheses predicted in the study were supported and that when governments have effective control of corruption or the rule of law is strong, then individuals will be less accepting of bribery. This exploratory study mixed macro-level and micro-level factors in order to understand individual tolerance better; the findings indicate that this issue needs further investigation. The results here can significantly aid policymakers and civil society in combating corruption through an understanding of how and why individuals become more or less accepting of bribery in society, because in the end, for anti-corruption policies to work effectively, they require the support of society.

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References


Brief – Anti-corruption Resource Center.


