The Corruption and the Quality of Auditing Standards

Author

William R. DiPietro

Professor of Economics Daemen College,
United States. E-mail: wdipietr@daemen.edu

Abstract

The paper uses cross country regression analysis on a data set consisting of one hundred thirty countries for the year 2008 to test whether better auditing standards lead to lower levels of corruption. The results are consistent with the hypothesis that improved auditing standards reduce corruption.

Introduction

Corruption is not just a real moral problem that undermines the character of individuals who engage in corruption, but a major economic problem as well. Corruption absorbs scarce resources in destructive and unproductive endeavors. Successful corruption increases the incentive to engage in corrupt activity, and, at the same time, reduces the relative gains from undertaking legitimate activity. It has pronounced negative effects on productivity, innovation, and economic growth. Given the detrimental effects of corruption on economic health, character, and national prosperity, anything that can be used to lessen corruption is a real boon.

One of the potential policy tools that may be employed to lessen corruption is improvement in the quality of auditing standards. The essence of auditing is to assure the veracity of financial representations of an institution to outsiders who have no first hand knowledge of the inner workings of the institution. Formally, the Auditing Concepts Committee has defined financial auditing as the "systematic process of objectively obtaining and evaluating evidence regarding assertions about actions and events to ascertain the degree of correspondence between those assertions and established criteria and communicating the results to interested users" (Auditing Concepts Committee 1972). The purpose of this paper is to test to see, using cross country regression analysis, if improved auditing standards lead to lower levels of corruption, and, if so, to get some notion of the strength of its effect.

The methodology employed in the paper is to use ordinary least squares regression analysis on a cross section containing a substantial number of countries of a measure of corruption on a measure of auditing standards to estimate the coefficient of auditing standards and to perform a hypothesis test on the coefficient on auditing standards to see whether the coefficient is statistically significant and has the theoretically anticipated negative sign.

The paper is divided into five parts. The first provides a brief review of some of the literature in the area. The second provides a simple model of corruption that incorporates auditing quality as a determinant of corruption. The third discusses the data sources for the variables in the empirical analysis. The fourth section provides the results of cross country regression analysis of corruption on auditing quality and other variables. The fifth section concludes.

Literature Highlights

There are a lot of auditors, and many other people, who feel that corruption is a widespread national and international problem, and that auditing has an essential part to play in keeping it under control.
Nussbaum, the CEO for Transparency International, believes internal auditors, by, among other things, establishing ethical standards in companies and monitoring for compliance, have a crucial role in the battle against corruption (Alvarez 2006).

Balkaran argues that auditors, given their organizational understanding and high ethical standards, are in a unique position to effectively deal with corruption (Balkaran 2002). He discusses a wide variety of ways in which auditors can help to keep corruption under control such as establishing an ethical environment, providing proper incentives for people, and improving detection.

Some people are concerned with the effectiveness of autonomous auditing agencies, or, as they are also called, supreme auditing institutions. These are state bodies that oversee government finance and try to

assure the veracity of government financial statements.

Using an extremely limited sample of ten Latin American countries, Carlos Santiso finds positive correlations between the quality of external auditing and corruption control, between the quality of external auditing and budget transparency, and between the quality of external auditing and the quality of civic service (Santiso 2006). He believes that the real success of external auditing depends on its functioning within political, social, and cultural systems imbued with the spirit of integrity. Although it is rare to consider an auditing variable per se, a whole host of people have looked at other potential determinants of corruption.

Montinola and Jackman, in line with public choice theory, use regression analysis to test whether greater competition either within the economy or within the political arena lowers corruption (Montinola and Jackman 2002). Essentially, they find that the relationship between democracy (political competitiveness) and corruption is nonlinear with more democracy reducing corruption up to but not beyond a certain threshold, that changes in government size do not appear to affect corruption, and that higher levels of economic development are associated with lower levels of corruption.

Sandholtz and Gray, maintaining that individual behavior is both utility rational and norm rational, postulate that both greater economic interconnectedness and greater social interconnectedness lead to reduced levels of national corruption (Sandholtz and Gray 2003). Their cross country regression analysis, that adjusts for a large number of control variables and contains approximately 150 countries, lends support their contentions. Their position, that social integration through the transmission of international norms reduces corruption, is of particular relevance to the present paper, as auditing is massively involved in the establishment and in the monitoring of norms.

You and Khagram focus on income inequality as a cause of corruption (You and Khagram 2005). They use two stage least squares on various measures of corruption on a sample of 129 countries and find support for the hypothesis that higher income inequality leads to greater corruption. They believe that income inequality increases the opportunities and the motivation for the rich to engage in corruption and concurrently habituates people's norms to tolerate higher levels of corruption.

The Corruption-Auditing Model

The model is a single equation that relates corruption to the quality of auditing and two other control variables that are commonly employed as determinants of corruption, the level of economic development and the amount of democracy. The equation is as follows.

$$C = f(A,Y,D) \quad \delta C/\delta A< 0, \, \delta C/\delta y< 0, \, \delta C/\delta D< 0$$

In the equation, C is corruption, A is the quality of auditing, Y is the level of economic development, and D is the extent of democracy.

As indicated by the negative signs on three partial derivatives, theoretically, each of the three explanatory is expected to be negatively related to corruption. Better auditing both uplifts ethical standards and increases the probability of being caught from engaging in corrupt activities. Higher levels of economic development increase the attractiveness of non-corrupt choices by both increasing the availability of non-corrupt options and raising the benefits and incomes associated with non-corrupt alternatives. Greater democracy is associated with greater political competition, and public choice theory maintains that greater political competition leads to lower levels of corruption

Data Sources for Variables

The analysis consists of measures of four characteristics across counties. The characteristics are corruption, auditing strength, the level of economic development, and the extent of democracy. The measure of corruption is based on transparency international's corruption perception index for 2008 (Transparency International 2008). Transparency International's corruption perception index has a range between zero and ten with higher values indicating lower levels of corruption. In order to make the corruption variable intuitively appealing so that higher values of the corruption variable measure higher levels of corruption, the corruption variable employed in the paper is equal to ten minus transparency international's corruption perception index for 2008.

The measure of auditing strength comes from the Global Competitiveness Report of the World Economic Forum (Word Economic Forum 2009). The Forum's index of auditing strength is based on the question, "In your country how would you assess financial auditing and reporting standards regarding company financial performance?" The auditing

strength index varies from a low value of one to a high value of seven with higher values indicating greater auditing strength.

A common measure of economic development is Gross Domestic Product per capita. Here, real GDP in constant 2000 U.S. dollars for the year 2005 is employed. The data comes from the World Bank (World Bank 2009).

Lastly, the measure of democracy is the Economist's Intelligence unit democracy index for 2008 (The Economist 2008). The democracy index ranges between zero and ten with higher values indicating greater democracy.

Cross Country Regression Results

Table-I shows the results of cross country regressions of corruption on auditing strength for the year 2008, and of corruption on auditing strength in combination with an economic development and democracy variable.

Table -I   Cross Country Regressions of Corruption On Auditing Strength For 2008

	(1)	(2)	(3)
Constant	14.740 (21.85) *	11.124 (19.03) *	11.726 (22.23) *
Auditing Strength	-1.955 (-13.85) *	-.983 (-7.32) *	-.789 (-6.41) *
Level Of Development		-.00011 (-11.07) *	-.00010 (-10.44) *
Democracy			-.2656 (-5.70) *
RSQ	0.600	0.795	0.841
N	130	129	127

The table is arranged with the first column listing the independent variables. The independent variables in the first column are followed by the r-squared values (RSQ) and the number of observations (N). The three subsequent columns contain the results of an individual regression run. These separate runs are numbered in the first row. The stacked statistics in the body of the table are, on top, the estimated coefficients, and, on bottom, in parenthesis, the individual t-statistics. An asterisk under an individual t-statistic indicates that a variable is significant at the one percent level of significance or better in the equation in which it appears. Table I contains three equations. The first is the simple regression of corruption on auditing strength alone. The second is the regression of corruption on auditing strength and the level of economic development. The third is the multiple regression of corruption on auditing strength, the level of economic development, and the extent of democracy.

The results are consistent with the hypothesis that better auditing reduces corruption and therefore has the real potential to be used as an effective policy instrument to battle corruption. Auditing strength is negative and significant at the one percent level of significance when used as the sole explanatory variable (equation (1)), when adjusting for the level of economic development (equation (2)), and when used in combination with a development variable and a democracy variable (equation (3)). By itself, the auditing variable accounts for sixty percent of the cross country variation of corruption in a sample of one hundred thirty countries.

The estimated effect of a change in the quality of auditing on corruption is not small. Looking at the estimated coefficient on auditing standards in the third equation, the smallest estimated coefficient in absolute value terms of the three equations, implies that a one point increase in the quality of auditing (which ranges from a low value of one to a high value of seven) leads to nearly an eight- tenth point reduction in corruption (which varies between zero and ten).

The variables accompanying corruption in the second and third equation also perform quite well. GDP per capita in 2000 U.S. real dollars, the measure of economic development, has the expected negative sign and is significant at the one percent level of significance or better in the two equations in which it appears, suggesting that greater development is associated with lower levels of corruption. The democracy variable is negative and significant at the one percent level of significance or better in the sole equation which it appears (equation (3)). Looking at the third equation indicates that the three explanatory variables in combination account for over eighty four percent of the cross country variation in corruption.

Conclusion

The auditing profession tries to select people on the basis of professional integrity and to maintain the reputation of auditing firms on the foundation of integrity. Good auditors attempt to establish high standards of conduct in organizations that they audit and to institute worthwhile controls within these organizations so as to promote appropriate behavior.

Given these stylized facts about the auditing profession, it seems logical to assume, as most people in the auditing profession do assume, that better auditing within a country reduces corruption. This paper formally tests this assumption using cross country regression analysis on a sample of one hundred thirty countries and finds evidence highly consistent with this assumption. Higher quality auditing seems to have a pronounced effect on reducing national corruption. The results are robust in the sense that, whether used alone as a sole explanatory variable or after adjusting for the level of economic development and for the extent of democracy, the quality of auditing is numerically and statistically important. The results are also right in line with the theories of corruption that emphasize the importance of norms and norm based behavior for dealing with corruption.

The obvious implication for policy is that one of the promising ways, among the hosts of suggested alternatives, for dealing with the problem of excessive corruption in a nation is to seek ways and means to improve the quality of auditing within a country. Better education of auditors, the stigmatization and imposition of costs on firms and individuals for not living up to high ethical standards both within auditing firms themselves and within the firms they audit, more careful selection of auditors, greater transparency in records, and the adoption of improved auditing rules by countries are just a few of the possible methods that can be employed in the fight against corruption from the perspective of improvement in the quality of auditing.

References

Alvarez, Steven (2006) "Global Integrity" The Internal Auditor Vol.63, No.6, pp. 53-57.

Auditing Concepts Committee (1972) "Report of the Committee on Basic Auditing Concepts" The Accounting Review Vol. 47, No.18, pp. 15-74.

Balkaran, Lai. (2002) "Curbing Corruption" The Internal Auditor Vol.59, No.1, pp. 40-45.

Montinola, Gabiella R. and Robert W. Jackman (2002) "Sources of Corruption: A Cross-Country Study" British Journal of Political Science Vol. 32, No.1, pp. 147-170.

Sandholtz, Wayne and Mark M. Gray. (2003) "International Integration and National Corruption" International Organization Vol.57, No.4, pp. 761-800.

Santiso, Carlos (2006) "Improving Fiscal Governance and Curbing Corruption: How Relevant are Autonomous Audit Agencies?" International Public Management Review Vol.7, No.2, pp. 97-108.

Transparency International (2009) 2008 Corruption Perceptions Index http://www.icgg.org/corruption.cpi_2006.html, 4/25/2011.

World Economic Forum, Global Competitiveness Report 2009-2010 (2009) http://www.ioe-emp.org/fileadmin/user_upload/documents_pdf/globaljobscrisis/generaldocs/gendocs_wefreport.pdf, 4/20/2011.

The Economist (2008) The Economist Intelligence Unit's democracy index http://graphics.eiu.com/PDF/Democracy%20Index%202008.pdf, 2/17/ 2011.

World Bank (2009) World Development Indicators Online http://ddp-ext.worldbank.org.ezp.lib.rochester.edu/ext/DDPQQ/member.do?method=getMembers&userid=1&queryId=6, 6/13/2009.

You, Jong-Sung and Sanjeev Khagram (2005) "A comparative Study of Inequality and Corruption" American Sociological Review Vol.70, No.1, pp. 136-157.