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The antecedents and effects of national corruption: A meta-analysis☆

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ABSTRACT

A meta-analysis of 42 empirical studies was conducted to quantitatively summarize the corruption literature within a holistic theoretical framework. In general, variables within the political/legal, economics, and socio-cultural categories were equally correlated with national corruption; however, there have been twice as many studies examining the causes of corruption than those that examine the effects of corruption. Furthermore, we found that some measures of corruption are more robust than others. Finally, we identified some insights which future researchers might want to explore further. Overall, this study summarizes previous research, and serves as a guide to future research on corruption.

National corruption, hereafter referred to as corruption, is defined as the misuse of public power for private benefit, and is most likely to occur where public and private sectors meet (Akcay, 2006). Corruption occurs where public officials have a direct responsibility for the provision of a public service or regulation to individuals or employees of private sector companies (Rose-Ackerman, 1997: 31). Corruption has gained prominence as contact between nations of varying corruption levels compete and interact in concert for consumers with the expansion of the global economy. The World Bank estimated that over $1 trillion in bribes are paid annually within the global economy (Gonzalez-Velazquez, 2004). Furthermore, anecdotal evidence suggests that corruption is the central economic issue facing Turkey (Economist, 2004), Russia (Economist, 2005), the African continent, China, Indonesia, and Poland (Doh, Rodriguez, Uhlenbruck, Collins & Eden, 2003). Indeed, some political economists recently argued:

> In less than a half-decade, the worldwide backlash against corruption has swept like a firestorm across the global political landscapes. Governments have fallen. Longtime ruling parties have been hounded out of office. Presidents, prime ministers, parliamentarians, and once mighty corporate chieftains have been grilled by prosecutors and herded into the docket. Italy, France, Japan, South Korea, India, Mexico, Columbia, Brazil, Israel: no region, and hardly any country, has been immune (Wang & Rosenau, 2001: 26).

As a result of this crucial importance and growing interest in corruption, a wide variety of disciplines have investigated its causes and effects in an effort to help reformers curb corruption. Unfortunately, the vast majority of these studies fail to build on one another, they vary considerably in their measurement of corruption (Eigen, 2002), and there are many conflicting theoretical assumptions and frameworks used. Furthermore, the literature has used the same constructs as both antecedents and effects so the theoretical relationships remain obtuse. There is no overarching theoretical framework to explain corruption events and to accumulate research findings into a coherent whole. The time is ripe to take stock of this disparate literature and to better determine the magnitude of the antecedents and consequences of corruption, the impact of different measures of corruption, whether the impact of corruption is lessening or worsening over time, and to identify anomalies and gaps in the literature for future research.

We propose that a meta-analytic review and analysis of this literature can provide some answers and insights to this important socio-economic phenomenon. Meta-analysis has been used extensively in various subfields of international business including such issues as the determinants of entry mode choice (Zhao, Luo & Suh, 2004), cultural distance effects (Tihanyi, Griffith & Russell, 2005), and country-of-origin effects (Peterson & Jolibert, 1995). However, to our knowledge, no study has yet attempted to perform a meta-analysis of the important construct of national corruption. As a result, this study seeks to systematically review the literature on corruption and synthesize its findings.

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1. Theoretical background

Despite the explosion of interest in corruption, previous theory and research on corruption has failed to accumulate and converge. We believe that there are both theoretical and methodological reasons for this lack of convergence. Previous literature on corruption has largely been atheoretical in nature. In the few studies that have used theoretical perspectives, the examination of corruption tends to emerge from a disciplinary perspective without consideration of other disciplinary insights and findings. Corruption is an inter-disciplinary phenomenon that requires an inter-disciplinary perspective. Consequently, in this section we offer a more holistic model of corruption.

An inter-disciplinary model of corruption was developed by Collier (2002). By combining game theory with the institutional perspective, he developed a model of corruption which he called an *institutional choice perspective* on corruption. We have adapted his conceptual approach for our meta-analysis. As can be seen in Fig. 1, the model focuses on the internalized world of the agent who may or may not engage in corrupt behavior, and the externalized world surrounding the agent which serves to constrain and/or legitimize corrupt behavior. In addition, material resource factors influence the expected benefits of corrupt behavior.

Collier insightfully points out that corruption is not only an economic phenomenon, but also a moral one. Since morality is influenced by, as well as influences, the socio-cultural norms of society, the socio-cultural institutions are also very important. Furthermore, political/legal and economic institutions serve to constrain as well as legitimate certain behaviors. Consequently, all three categories of causes and effects of corruption must be considered when trying to describe and explain corruption. Nonetheless, we constrain this study to macro-level antecedents and effects of corruption, and ignore the corrupt agent's incentives and behavior. These behaviors are beyond the scope of this particular study.

1.1. Theoretical antecedents of corruption

Because there is wide agreement that corruption needs to be exposed and reduced but little understanding as to what behaviors can abate corruption, there has been an increasing number of studies seeking to determine what factors might be causally related to corruption. These antecedents can be generally grouped into three macro-environmental categories: economic, political/legal, and socio-cultural (Collier, 2002).

1.1.1. Economic antecedents

Economic antecedents focus on macro-economic explanations for corruption. The basic premise is that economic institutions constrain and/or provide pecuniary incentives for corruption to occur. For example, several studies have reported that the country's overall GDP per capita is negatively related to corruption. These authors argue that poverty makes individuals more inclined to give and accept bribes (e.g., Husted, 1999; Paldam, 2001; Serra, 2006). Thus, a country's level of economic development may be systematically related to corruption.

Another economic factor that could influence corruption is its exposure to international trade and competition. For example, several authors found that the greater exposure that an economy has to international economic competition, the lower the corruption. Competition can act as a vehicle to constrain economic malfeasance (e.g., Ades & Di Tella, 1999; Serra, 2006; Treisman, 2000). There are many other economic antecedents for corruption that have been studied such as: economic equity, economic tax rate, economic efficiency and extent of natural resources. Notably, some empirical support has been found for the direct and indirect effects for each of these economic antecedents, although there is conflicting evidence and theoretical arguments for these antecedents. Therefore, this literature and logic suggests the following proposition:

Proposition 1. Economic institutions directly and indirectly influence the subsequent level of corruption in a national economy.

1.1.2. Political/legal antecedents

These antecedents focus on regulatory and governmental explanations for corruption. The fundamental logic of these studies focuses on checks and balances to governmental power and governmental accountability. Previous authors have argued for the impact of legal origin (e.g., Aggarwala & Goodell, 2009), political openness (e.g., Sandholtz & Gray, 2003), political structure (e.g., Goldsmith, 1999), political instability (e.g., Park, 2003) and overall government effectiveness (e.g., Shleifer & Vishny, 1993) on corruption. Unfortunately, this literature has not converged significantly and there is some conflicting evidence, once again. Nonetheless, there is a substantial body or theory and research asserting that corruption is primarily influenced by political and legal institutions. Hence, this suggests the following proposition:

Proposition 2. Political and legal institutions directly and indirectly influence the subsequent level of corruption in a national economy.

1.1.3. Socio-cultural antecedents

These antecedents focus on informal social norms and institutions for explaining corruption. For example, Husted (1999) found that Hofstede's masculinity and uncertainty avoidance indices were systematically related to corruption in his study

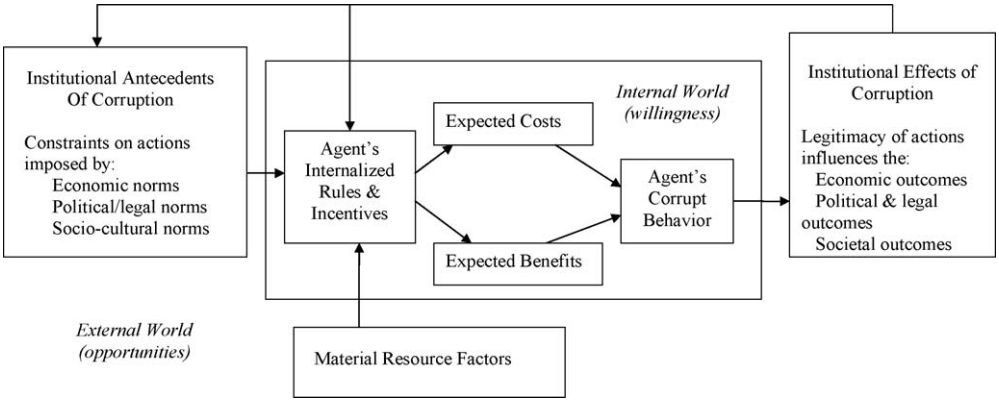

Fig. 1. Institutional choice perspective on antecedents and effects of corruption. Adapted from Collier (2002).

of 36 different countries. However, Park (2003) found that masculinity and power distance were predictive of corruption, but uncertainty avoidance was not in his study of 50 countries. In addition to cultural values, previous researchers have suggested that the extent of Protestantism and religious diversity influences corruption (e.g., Paldam, 2001), as does social diversity (e.g., Easterly, 2001), and level of education (e.g., Ali & Hodan, 2003). Thus, this suggests our third set of potential institutional determinants of corruption:

Proposition 3. Social and cultural institutions directly and indirectly influence the subsequent level of corruption in a national economy.

Because most of these studies are performed in isolation of each other, we know little about the relative impacts of these various institutional categories on corruption. For example, is the best way to tackle corruption by ''cleaning up'' political-legal institutions, or through reform of economic institutions? Alternatively, are social-cultural institutions paramount or insignificant when predicting corruption? Finally, which set of determinants has the greatest direct impact on subsequent corruption? This is important information for both reformers as well as scholars, and it is, as yet, unaddressed in the scholarly literature.

1.2. Theoretical effects of corruption

Interestingly, the same sets of antecedents used to explain corruption (i.e., economic, political-legal and socio-cultural) have also been used to evaluate the effects of corruption. This suggests that there may be feedback loops between antecedents and effects as we propose in our theoretical model. Most previous empirical research has simply explored linear relationships. We review and discuss the effects of corruption explored to date in the literature.

1.2.1. Economic effects

The predominant effects of corruption examined in previous studies have been economic in nature. This is particularly true for examination of the effect of corruption on economic wealth and growth (e.g., Mauro, 1995; Guetat, 2006; Gyimah-Brempong, 2001). Interestingly, there has been empirical research suggesting a positive, negative, and curvilinear relationship between corruption and economic growth (Mendez & Sepulveda, 2005). In addition, there have been studies examining the effects of corruption on economic equity (e.g., Gupta, Davoodi & Alonso-Terme, 2002), economic tax rates (e.g., Picur & Riahi-Belkaoui, 2006), economic efficiency (Bovi, 2003), and the degradation of natural resources (Welsch, 2004).

Proposition 4. Corruption has a direct and indirect effect on the national economic institutions and hence, overall performance of a national economy.

1.2.2. Political effects

A few studies have examined the political and/or legal effects of corruption. For example, Torrez (2002) found a negative relationship between corruption and subsequent political openness to international trade in his study of 120 countries from 1982 until 1995. And Zekos (2003) conceptually argued that corruption reduces and/or hinders the development of the rule of law within a nation. Consequently, this suggests the following relationship:

Proposition 5. Corruption has a direct and indirect effect on the national political and legal institutions and hence, overall performance of a national economy.

1.2.3. Socio-cultural effects

Furthermore, there have even been a few studies examining the socio-cultural effects of corruption. For instance, Gupta and associates (2002) found a positive relationship between corruption and educational inequality. In addition, Akhater (2004) found that the level of corruption was negatively related to the level of human development within his study of 85 nations. Consequently, we advance the following proposition to recognize these effects as well:

Proposition 6. Corruption has direct and indirect effects on the national social and cultural institutions and hence, overall performance of a national economy.

In sum, it is not clear what the major effects of corruption are. Does corruption primarily/exclusively influence the national economy? Alternatively, is the effect primarily a distortion of the political/legal environment? Furthermore, does corruption influence the socio-cultural environment in any substantial fashion? We simply do not have any systematic understanding of the effect of corruption on a national economy. Thus, we analyze the antecedents and effects of corruption within the context of our institutional choice perspective.

1.3. Methodological issues surrounding the study of corruption

In addition to the need for theoretical clarity about the causes and effects of corruption, we must also consider methodological issues related to studies of corruption in order to make better use of previous research and guide future research efforts. In this section, we identify and explore two of the leading candidates for a methodological explanation for non-convergence in the literature which concerns measurement issues: (1) corruption measurement issues, and (2) corruption periods.

1.3.1. Corruption measurement

There are a wide variety of measures of corruption. We will examine the three most common ones. One prominent measure is the Corruptions Perception Index (CPI) which is reported annually by Transparency International (TI). TI is a Berlin-based international non-governmental organization established in May 1993 that has been conducting cross-national studies of perceived corruption since 1995. TI aims to broaden awareness of the damage caused by corruption and to encourage governments and international organizations to adopt and implement anti-corruption laws and programs. It also aims to mobilize private sector actors in the fight against corruption in international commercial transactions. The CPI ranges from zero (totally corrupt) to ten (absence of corruption). The index is updated annually for a wide range of countries, and it is based on surveys filled out by multiple business executives, financial journalists, and country experts for each country. Research has demonstrated that the CPI is a reliable and valid measure (Lancaster & Montiloa, 1997).

A second popular measure of corruption is the Control of Corruption Index (CCI) produced annually by the World Bank. The World Bank views good governance and anti-corruption as important to its poverty alleviation mission. The CCI is updated annually for countries throughout the world. Indictors include such things as: (1) frequency of additional payments required to get things done, (2) effects of corruption on the general business environment, and (3) the tendency of elites to control the state. The component indictors are assessed by international organizations, political and business risk rating agencies, international think tanks, and relevant non-governmental organizations. The CCI ranges from −2.5 to +2.5 with a mean of 0 and standard deviation of one. Higher or positive values indicate greater corruption control (Kaufmann, Kraay, & Mastruzzi, 2008).

Table 1
The three major corruption measures.

Measure	Data source(s)	Calculation	Reliability of measure	Validity of measure
Corruption Perception Index (CPI)	Transparency International draws on 13 data sources from 11 globally-dispersed institutions for this index. It ranges from 0 to 10, with high values indicating high corruption.	The CPI is a composite index using data compiled or published between 2007 and 2008 for the 2008 measure. Specifically, it is computed as an unweighted average of all estimates for a particular country. Currently, 180 countries are assessed, with a minimum number of sources at 3 per country.	Lambsdorff (2008) reports a reliability of .78 on average for this composite index.	Wilhelm (2002) reports that the CPI explains 75% of variance of GDP/capita. Svensson (2005) reports that CPI is correlated with CCI = .97.
Control of Corruption Index (CCI)	The World Bank draws on 25 data sources from 20 globally-dispersed institutions for this index. It ranges from −2.5 to +2.5, with low values indicating high corruption.	Data sources for the CCI are weighted by their source with the following weights assigned: commercial (.65), surveys of firms (.13), non-governmental organizations (.11), and public sector units (.11). Overall, three measures are aggregated: (1) transparency, (2) public perceptions of corruption, and (3) nepotism or cronyism. Currently, 212 countries are assessed, with a minimum number of sources at 6 per country.	Kaufmann et al. (2008) report an average standard error for this index to be .19.	Svensson (2005) reports that CCI is correlated with CPI = .97.
Corruption Index (CI)	The PRS group draws on an unidentified number of country experts. It ranges from 0 to 6 with low values indicating high corruption.	The CI is one of 22 country risk indicators produced annually since 1984. Monthly data are averaged to yield an annual score for each country. Currently, 140 countries are assessed.		Svensson (2005) reports that CI is correlated with CPI = .75.

A third common measure of corruption is known as the Corruption Index (CI) developed by the Political Risk Services (PRS) Group. The value of the CI ranges from 0 to 6, with 0 indicating a high level of corruption and 6 representing a low level. Specific indictors include such things as: (1) ability of business to influence the political process, (2) awarding of business due to patronage as opposed to merit, and (3) frequency of bribes used to transact business. The PRS group has been evaluating corruption, which is a component of political risk, since 1980. Similar to other data services, this is an aggregated perceptual measure obtained primarily from country experts typically operating within international non-governmental organizations. Additional details on these three popular measures are listed in Table 1.

Proposition 7. The specific measurement of corruption will moderate the relationships between the antecedents and effects of corruption.

1.3.2. Corruption period

A second methodological issue concerns the timing of the criterion measures used to measure corruption. Clearly, corruption started well before Transparency International was formed in 1993 and it will continue well into the future. As such, efforts to significantly reduce corruption have been labeled a "long war" (Heineman & Heimann, 2006). However, it is only recently that corruption has received concerted world attention. There is some evidence that this increased and concerted attention may be influencing the nature of corruption globally. For example, corruption started to get scholarly attention in the 1990s, but it was not until the turn of the century when corruption became a widely-accepted issue confronting globalization. The following exerpt is instructive:

> Concern with political corruption grew during the 1990s, and members of the international development community intensified their efforts to control it. In 1996, the member states of the Organization of American States (OAS) approved the Inter-American Convention Against Corruption. In 1997, the Organization for Economic Cooperation and Development (OECD) created a convention that criminalized bribery abroad by enterprises based in OECD countries. Politicians in some African states undertook a series of administrative reforms aimed at reducing the incidence of corrupt transactions in their governments. The heads of important multilateral lending institutions such as the World Bank and Inter-American Development Bank made high-profile commitments to combat corruption in development assistance programs in 1999 (Xin & Rudel, 2004: 294).

Some have argued that the year 2000 marked a pivotal point in time when corruption moved front and center to the globalization stage. For example, the United Nations Global Compact was created in the year 2000. It enrolled over 1500 companies and two dozen non-governmental organizations and labor groups from over 70 countries to explicitly fight corruption (Hemphill, 2005).

Similarly, Transparency International published its first "Global Corruption Report" which examined the role of non-governmental organizations in fighting corruption in 2000 in an effort to combat corruption, not just report corruption scores (Eigen, 2001). In 2000, the World Bank announced that corruption was the single greatest obstacle to overcoming poverty and it would take corruption into consideration in all future lending practices. In sum, international reformers galvanized against corruption at the turn of the new century, and through our meta-analysis we seek to better understand how corruption and its antecedents and effects may be changing over time by examining studies of corruption before and after the year 2000.

Proposition 8. The specific time period in which corruption is studied will moderate the relationships between the antecedents and effects of corruption.

2. Methodology

2.1. Literature search and inclusion criteria

To identify relevant studies for inclusion, we searched the ABI/Inform database using the keywords "*corruption*" and "*many countries*" in the title and abstract fields respectively. Inasmuch as we were interested only in research studies; we limited our search to scholarly journals. This search yielded 277 studies.

We then examined the abstracts of each of these studies, or when necessary the full article. For the study to be included in our meta-analysis, corruption had to be conceptualized and measured

at the national level, and includes multiple countries. Consequently, studies examining individual or firm-level corruption were excluded. Second, the study had to be an empirical examination with corruption as an independent or dependant variable. Thus, literature reviews and theoretical or conceptual articles were excluded, as were studies which did not consider a direct relationship with corruption (e.g., corruption was included as a control or moderator variable). Third, the study had to posit and examine at least one antecedent or effect of corruption. Using these procedures, we identified 67 studies that met the criteria for selection into our database.

Of these 67 studies, only 27 (40%) of them reported bi-variate correlation data with corruption. Therefore, we contacted the authors of the remaining 40 studies requesting the correlation information or the raw data in order for us to calculate the requisite correlational statistics for the meta-analysis. This often required multiple contacts for a single study as authors had moved or co-authors had the data. In an effort to include as many of these studies as possible, we later sent two additional requests to those authors from whom we had had no response. Ultimately, authors from 20 of the 40 studies responded—3 of these indicated that they no longer had the data, and 17 sent us the needed correlation matrices or raw data. Overall then, this process yielded a sample of 42 studies to be included in the meta-analysis. The specific studies included in this meta-analytic review are listed in Table 2, along with information on the theoretical position of their study consistent with our theoretical model (see Fig. 1).

2.2. Study coding

We read and content analyzed each of the 42 full-length articles to extract information necessary to perform the moderator analyses. This information was used by two of the authors to independently code each study (or sometimes variables within a study). The coders had an initial overall inter-rater reliability of .96. When discrepant coding arose, the coders jointly discussed the coding issue and came to a mutual resolution regarding how to code them.

2.2.1. Correlate categories

Consistent with our theoretical model, previous macro-environmental research has shown that economic, political/legal, and socio-cultural institutions both cause and are affected by corruption. These categories of variables, however, are very general and tend to mask interesting and unique sub-category influences or effects. As a result, we not only classified each variable by its institutional category, but also by its institutional sub-category. This approach yielded 17 institutional sub-categories of antecedents and effects. Within the political/legal category, we grouped these into five subgroups: (1) legal origin, (2) political

Table 2
Empirical corruption studies used in meta-analysis ($N = 42$)[a].

National corruption studies	Corruption measure	Antecedents of corruption*	Effects of corruption*	Theory or model used in paper
Mauro (1995)	Other	E,P/L,S/C		No theory or model
Husted (1999)	CPI	E,P/L,S/C		No theory or model
Treisman (2000)	CPI	E,P/L,S/C		No theory or model
Wei and Shleifer (2000)	CPI, other		E	No theory or model
Swamy, Knack, Lee, and Azfar (2001)	CCI	E,P/L,S/C		No theory or model
Rijckeghem and Weder (2001)	CI	E,P/L,S/C		Shirking and fair-wage models
Kacapyr (2001)	CPI	E,P/L		No theory or model
Paldam (2001)	Other	E,S/C		Institutional theory
Habib and Zurawicki (2002)	CPI		E,P/L,S/C	No theory or model
Sung (2002)	CPI	E,P/L		No theory or model
Kimbro (2002)	CPI	E,P/L,S/C		Model based on literature
Lambsdorff (2003a)	CPI	P/L	E	No theory or model
Zhao, Kim and Du (2003)	CPI		E,P/L,S/C	No theory or model
Ali and Isse (2003)	CPI, CI	E,P/L,S/C		No theory or model
Davis and Ruhe (2003)	CPI	S/C	E,P/L	Hofstede cultural framework
Lambsdorff (2003b)	CPI		E,S/C	No theory or model
Wyatt (2003)	CCI	P/L		No theory or model
Welsch (2004)	CCI		E,S/C	No theory or model
Damania, Fredriksson, and Mathukumara (2004)	CPI	P/L		Model based on literature
Robertson and Watson (2004)	CPI	E		Moral intensity theory
Arikan (2004)	CPI	E,P/L,S/C		Tax competition model
Fredriksson, Vollebergh, and Dijkgraaf (2004)	CPI	E	E,P/L	Menu auction theory
Braun and DiTella (2004)	CI	E,P/L		Agency theory
Svensson (2005)	CPI, CCI, CI, other	E,P/L,S/C		No theory or model
Meon and Sekkat (2005)	CPI, CCI		E,P/L,S/C	No theory or model
Ketkar, Murtuza, and Ketkar (2005)	CPI		E,P/L	No theory or model
You and Khagram (2005)	CPI, CCI, CI	E,P/L,S/C		Model based on literature
Khumawala and Ramchand (2005)	CPI		E,P/L	No theory or model
Gerring and Thacker (2005)	CCI	E,P/L,S/C		Neoliberal economic theory
Lederman, Loayza, and Soares (2005)	CI	E,P/L,S/C		Political institutions theory
Picur and Riahi-Belkaoui (2006)	CCI		P/L	No theory or model
Akcay (2006)	CPI, CCI, CI		S/C	No theory or model
Weitzel and Berns (2006)	CPI, CCI		E,P/L	No theory or model
Serra (2006)	CPI, CCI	E,P/L,S/C		No theory or model
Kwok and Tadesse (2006)	CPI	E,P/L,S/C		Institutional theory
Finnie, Gibson, and McNabb (2006)	CPI		E,P/L	Model based on literature
Cuervo-Cazurra (2006)	CCI		E,P/L	No theory or model
Anbarci, Escaleras, and Register (2006)	CI	E,S/C	S/C	No theory or model
Wallace and Latcheva (2006)	Other		P/L	No theory or model
Richardson (2006)	Other	E,P/L		No theory or model
Pellegrini and Gerlagh (2006)	CPI	E,S/C	P/L	Political economy perspective
Uhlenbruck, Rodriguez, Doh, and Eden, (2006)	Other	E,P/L	E,P/L	Institutional theory

E, economic variable(s); P/L, political/legal variable(s); S/C: socio-cultural variable(s).
[a] The 42 studies examined in this meta-analysis are designated with an "*" in the reference listing.

Table 3
Classification scheme for sub-category descriptions and theoretical positioning.

Category	Variable coded	Antecedent correlations	Effect correlations
Political/legal	*Legal origin*: The basis for national legal framework – no common law and/or no British system.	59	2
	Political openness: The presence of liberal democracy, electoral rules, voice of citizens, political freedoms and rights, and freedom of the press.	49	10
	Political structure: Degree of power at the national level, centralization of the political system, extent of governmental intervention and regulation, government's size.	31	6
	Political instability: Extent of volatility of within the government during and between transitions.	18	12
	Government effectiveness: Perceptions of the overall quality of government employees and agencies.	8	6
Economic	*Economic wealth and growth*: Relatively high gross domestic product, gross net product, GDP per capita, income per capita, and relatively low unemployment levels.	38	20
	Economic openness: Relatively high levels of foreign direct investment, imports, exports, and overall openness to foreign trade.	42	28
	Economic equity: Relatively small differences in wages, low GINI index, extent of state monopoly, and tax evasion.	14	1
	Economic tax rate: Relatively high tax rates for individuals and/or corporations.	1	5
	Economic efficiency: Relatively low inflation rates, energy consumption rates, and relatively high levels of market efficiency and productivity rates.	11	24
	Natural resources: Relatively high natural resources controlled by the economy, extent of pollution control.	6	13
Socio-cultural	1. *Religion – Protestantism*: Proportion of population who are affiliated with Protestant faith.	12	0
	2. *Religion – Islam*: Proportion of population who are affiliated with Islamic faith.	9	0
	3. *Religion – Other*: Proportion of population who are affiliated with neither Protestantism or Islamic faiths.	18	0
	4. *Social diversity*: Relatively high amount of ethno-linguistic variation in the society.	20	1
	5. *Education*: Relatively high level of literacy rates, education level, and amount of human development initiatives.	14	9
	6. *Cultural values*: Relatively high levels of power distance, masculinity, collectivism and uncertainty avoidance.	18	0

openness, (3) political structure, (4) political instability, and (5) government effectiveness. For the economic category, we grouped these into six subgroups: (1) economic wealth and growth, (2) economic openness, (3) economic equity, (4) economic tax rate, (5) economic efficiency, and (6) natural resources. Finally, we coded the social-cultural category into six subgroups and they were: (1) extent of Protestantism, (2) extent of Muslim adherents, (3) extent of other religions, (4) social diversity, (5) degree of education, and (6) social values. For further details on the logic behind these subgroups as well as the theoretical positioning of these studies, please refer to Table 3.

The determination of whether a given variable was a predictor or a result of corruption was based on the theoretical relationships hypothesized by the authors of each empirical study. Those constructs thought to predict or otherwise influence levels of corruption were coded as *antecedents*, while those variables thought to be the result or outcome of corruption levels were coded as *effects*. Interestingly, the same constructs that were treated as antecedents of corruption in some studies, were positioned as effects of corruption in other studies. For example, based on our meta-analysis, 'economic openness' has been theorized to be both an antecedent (42 correlations) and an effect (28 correlations) of corruption. This underscores the crucial need for additional theoretical work.

2.2.2. Corruption measure

Each correlation was coded as to how the corruption construct was measured. Our analysis of the literature revealed that there are three primary measures used to operationalize corruption at the national level. Thus, each correlation was coded into one of the following four categories: (1) *Corruptions Perceptions Index* (CPI) produced by Transparency International, (2) *Control of Corruption Index* (CCI) produced by World Bank, (3) *Corruption Index* (CI) produced by Political Risk Services, and all other measures which were coded as (4) *Other indexes*.

2.2.3. Corruption period

In order to determine how the antecedents and effects of corruption might be changing over time, we coded each study in our meta-analysis according to what year the corruption measure was obtained. For all those corruption measures obtained prior to 2000, we coded it as a "0". When the corruption measure was observed on or after the year 2000, we coded it as a "1".

2.3. Correlation calculations and meta-analytic procedures

The relationship between each antecedent or effect and corruption was measured using the simple bi-variate correlation (r). For articles that did not report these statistics, we contacted the authors to obtain the correlations or the raw data from which we calculated the correlations. Forty-three percent of the authors contacted responded with the necessary data (17 out of 40). We used the Hunter and Schmidt (2004) methods of meta-analysis. This consisted of estimating the population mean correlations and variability, correcting for the statistical artifacts of sampling and measurement error, and analyzing the existence and impact of proposed moderators.

Again, all of the studies examined the relationship of corruption with multiple constructs, used more than one measure of corruption, or reported several measures for similar criteria categories (e.g., several measures of economic factors). Thus, we first calculated a weighted average correlation (by sample size) for each criterion type within each study (i.e., *political/legal*; *economic*; *socio-cultural*). For each study that used more than one measure of corruption, and/or examined both antecedents and effects, we also calculated a weighted average correlation for each of these moderator categories for that study. We then computed a weighted average across all correlations within each study to report the average correlation for each study. Then we weighted the correlation for each of the studies by its sample size, to calculate the overall mean uncorrected correlation.

To estimate the population parameters (ρ), we corrected each of the 511 correlations for attenuation due to the unreliability of measures. None of the articles reported internal consistency reliability (coefficient alpha) statistics for the corruption (subjective) measures. Such estimates are not available because the corruption measures are composite calculations reflecting different ratings from various parties and sources aggregated together. Therefore, consistent with previous research where alpha was not available, we used the National Academy of Sciences reliability estimate for subjective ratings of .80 (e.g., Bommer et al., 1995; Dalton, Daily, Johnson, & Ellstrand, 1999). We recognized that

archival measures still underestimate true validity because no measures are completely free of measurement error (Schmidt & Hunter, 1996). Thus, consistent with past research (e.g., Bommer et al., 1995), we used .85 as the mean reliability estimate for archival measures (Hunter, Schmidt & Judiesch, 1990).

After using these reliability estimates to correct each of the correlations, we then repeated the entire weighting by sample size and averaging process described above with these corrected population estimates. Specifically, each corrected population estimate (ρ) was weighted by sample size and averaged to estimate the mean corrected correlation for (1) each moderator category within each study; (2) as an average for each study; and (3) for the population as a whole.

In addition to estimating the population correlations, we calculated and reported the variability around these estimates using 90% confidence intervals and 80% credibility intervals. Confidence intervals indicate the variability around the estimated population mean correlation due to sampling error. Thus, a positive interval means that if the estimation procedures were repeated many times, the point estimate would be greater than zero 95% of the time (the other 5% would be above the upper limit). Alternatively, credibility intervals provide an estimation of the variability of the individual correlations across all of the studies. Thus, an 80% credibility interval that excludes zero means that more than 90% of the individual correlations are greater than zero (the other 10% would be beyond the upper bound).

2.4. Moderator analyses

To help explain the variability and magnitude of correlations due to theoretical and methodological issues, we tested for differences in correlation size due to these potential moderators. First, we conducted a moderator analysis by criterion category. For each of the three categories and 17 sub-categories, we estimated the corrected mean population correlation. We did this by calculating a weighted average of the correlations from each study that examined a correlation for that criterion. We then tested for overall and within criterion category differences due to whether the construct was an antecedent or effect of corruption, the type of corruption measure used, and the period of the corruption study (recent vs. past). For each of these analyses, we separated the studies into groups delineated by the moderator schema. We then performed separate meta-analyses of the correlations within each of these groupings of studies both for the moderator as a whole and for the moderator within each of the three criterion categories. For a detailed explanation of the sub-categories used within each moderator, please see the coding section. Given that these meta-analytic calculations produce estimates of population means, in one sense it may be said that the moderators "exist" if the results show any difference between the means (Hunter & Schmidt, 2004). Therefore, we discuss mean differences that appear to be meaningful.

3. Results

3.1. Analysis across all studies and by criterion types

To better understand the nature of national corruption studies, we first calculated and examined the averages and ranges of several study characteristics. For example, corruption studies had an average sample size of 76 countries, although this varied anywhere from a low of 12 countries up to 181 countries. Studies investigated different constructs related to corruption and/or various measures of such constructs, examining an average of 12 correlations per study. Again, this varied widely from a low of 2 correlations to a high of 56 correlations studied.

We then completed the main and various moderator meta-analyses which provided the following results. As reported in Table 4, the overall estimated corrected population mean correlation was $\rho = .52$. The results also indicated that this was a robust estimate as there was relatively little variability. This mean population correlation was strongly distinguishable from zero as the lower bound of the 90% confidence interval was .46. In addition, the upper confidence interval bound was .59. As well, all of the individual studies had correlations that were distinguishable from zero as the 80% credibility interval did include zero (lower bound = .26).

Table 4 also displays results by criterion type. The population correlation estimates for all three criterion types were distinguishable from zero as the 90% confidence interval did not include zero. As well, at least 90% of the individual studies found positive relationships with corruption as none of the 80% credibility

Table 4
Relationships with corruption overall and by criterion categories.

Criteria	*N*	*k*	%	Mean *r*	ρ	90%	CI	80%	CV
Overall	3170	511	100	.43	.52	.46	.59	.26	.79
Political/legal	2568	206	40	.49	.59	.48	.71	.18	1.00
Legal origin	964	62	30	.28	.34	.19	.49	.05	.63
Political openness	2294	59	29	−.60	−.73	−.66	−.80	−.53	−.93
Political structure	1206	38	18	.34	.42	.25	.58	.01	.83
Political instability	1214	30	15	.60	.73	.54	.91	.26	1.00
Gov't effectiveness	693	17	8	−.77	−.93	−.80	−1.00	−.66	−1.00
Economic	2977	203	40	.44	.54	.46	.61	.25	.83
Econ wealth	2695	58	29	−.66	−.80	−.71	−.88	−.48	−1.00
Econ openness	2348	70	35	−.29	−.35	−.25	−.44	−.05	−.65
Econ equity	576	15	7	−.30	−.36	−.14	−.58	.06	−.78
Econ tax rate	183	6	4	.17	.21	.02	.40	.07	.35
Econ efficiency	1244	35	16	−.46	−.56	−.44	−.69	−.24	−.88
Natural resources	443	19	9	.16	.20	.11	.29	.20	.20
Socio-cultural	2192	102	20	.43	.52	.44	.61	.26	.78
Religion – Protestant	695	12	12	−.46	−.56	−.51	−.61	−.51	−.61
Religion – Muslim	466	9	9	.30	.36	.31	.42	.36	.36
Religion – Other	466	18	17	−.05	−.06	.01	−.12	.06	−.17
Social diversity	947	21	21	.36	.43	.26	.61	.34	.53
Education	1010	24	23	−.58	−.70	−.57	−.84	−.41	−1.00
Cultural values	541	18	18	.41	.49	.25	.74	.06	.93

Note. *N*, combined sample size; *k*, number of correlations; Mean *r*, mean uncorrected correlation; ρ, mean estimated population correlation; sign of overall and major criterion correlations stated as absolute magnitude; CI, confidence interval; CV, credibility interval.

Table 5
Antecedents and effects of corruption.

Criteria	*N*	*k*	%	Mean *r*	ρ	90%	CI	80%	CV
Overall									
Antecedents	2022	329	64	.42	.51	.42	.60	.24	.79
Effects	1237	182	36	.43	.52	.41	.62	.26	.77
Political/legal									
Antecedents	1818	151	73	.45	.55	.43	.66	.21	.88
Effects	750	55	27	.58	.71	.46	.95	.17	1.05
Economic									
Antecedents	1958	103	51	.46	.56	.46	.66	.26	.87
Effects	1031	100	49	.40	.49	.37	.60	.24	.73
Socio-cultural									
Antecedents	1562	75	74	.40	.49	.38	.60	.21	.77
Effects	707	27	26	.45	.55	.41	.68	.32	.77

Note. *N*, combined sample size; *k*, number of correlations; mean *r*, mean uncorrected correlation; ρ, mean estimated population correlation; CI, confidence interval; CV, credibility interval.

intervals included zero. In addition, although the strongest relationship was found with political/legal variables (ρ = .59), the relationship size for the other two main criterion categories was very similar (economic ρ = .54; socio-cultural ρ = .52).

Upon examining at the sub-category level, we discovered several very significant differences among corruptions' relationship with given constructs. For example, political openness (−.73), economic wealth (−.80), economic efficiency (−.56), and education level (−.70) were the specific variables which we found to be as being the components most strongly related to corruption. Furthermore, some of our "non-findings" were intriguing. For example, higher tax rates were not strongly related to higher levels of corruption. In addition, religions other than Protestantism and Islam do not appear to have a systematic relationship with corruption.

3.2. Theoretical connections

As can be seen from Table 5, 64 percent of the studies sampled were coded as antecedents, and 36 percent were coded as effects. This suggests that previous research is more focused on the causes than the effects of corruption. All of the relationships remained robust with credibility and confidence intervals that did not include zero. Interestingly, antecedents and effects had similar size relationships with corruption (ρ = .51 and ρ = .52 respectively). Some variation in correlation magnitude was found, however, when examining the relationships by criterion type.

Specifically, the effect of corruption on political/legal factors (ρ = .71) was greater than its effect on economic indicators (ρ = .49). Furthermore, the effects of corruption on political/legal factors (ρ = .71) were greater than the relationship of political/legal antecedents leading to corruption (ρ = .55). In sum, it appears that the effects of corruption on political/legal institutions is more pronounced that its effects on economic and socio-cultural institutions. Otherwise, there is relative parity amongst the three categories in terms of explaining corruption.

3.3. Moderator analysis: corruption measure

The popularity of use for the three specific corruption measures examined was as follows: (1) CPI (48%of the sampled studies), (2) CCI (27%), and (3) CI (13%). In addition, other measures were used with 12% of the correlations tested (see Table 6). Overall the mean population estimates of corruption correlations did not vary significantly among the top three measures (from CPI, ρ = .57 to CI, ρ = .47). With any of these three measures, the mean population correlations with corruption were strong and the variability was minimal (again all confidence and credibility intervals did not include zero).

Factors generally showed smaller relationships and a bit more variability with *other indexes* of corruption (e.g., the single estimate whose confidence and credibility intervals included zero was derived from examining other indexes). For example, corruption measured with CPI (ρ = .57) and with CCI (ρ = .51) showed significantly greater relationships than did the *other* corruption measures (ρ = .37). We found similar results when examining the relationships by criterion type. First, correlations with political/legal factors were significantly greater when corruption was measured with CPI (ρ = .63) and with CCI (ρ = .53) than when using *other* corruption measures (ρ = .28).

Second, in relationships between corruption and socio-cultural variables, each of the three most common measures produced

Table 6
Correlates of corruption by type of corruption measure.

Criteria	*N*	*k*	%	Mean *r*	ρ	90%	CI	80%	CV
Overall									
Corruption perceptions index	1895	247	48	.47	.57	.50	.64	.35	.79
Control of Corruption Index	1296	136	27	.42	.51	.38	.65	.22	.81
International country risk guide	676	65	13	.39	.47	.33	.61	.24	.70
Other indexes	428	63	12	.30	.37	.28	.45	.37	.37
Political/legal									
Corruption perceptions index	1695	99	48	.52	.63	.49	.77	.21	1.05
Control of Corruption Index	1035	63	31	.44	.53	.32	.74	.14	.92
International country risk guide	545	25	12	.36	.43	.28	.58	.23	.63
Other indexes	238	19	9	.23	.28	.12	.44	.13	.43
Economic									
Corruption perceptions index	1822	99	49	.44	.53	.45	.62	.29	.78
Control of Corruption Index	1149	54	27	.45	.55	.41	.69	.27	.82
International country risk guide	597	23	11	.35	.43	.34	.51	.35	.51
Other indexes	341	27	13	.47	.56	.34	.79	.26	.87
Socio-cultural									
Corruption perceptions index	1395	49	48	.47	.57	.47	.67	.31	.82
Control of Corruption Index	987	19	18	.41	.49	.38	.61	.30	.69
International country risk guide	604	17	17	.42	.51	.33	.69	.22	.80
Other indexes	211	17	17	.23	.27	.14	.40	.27	.27

Note. *N*, combined sample size; *k*, number of correlations; mean *r*, mean uncorrected correlation; ρ, mean estimated population correlation; CI, confidence interval; CV, credibility interval.

significantly larger results than the population estimate of $\rho = .27$ from using *other indexes*. The one remaining significant difference between corruption measures was among economic variables. Relationships were generally stronger when using the CPI, CCI and other corruption measures compared to the CI measure ($\rho = .35$). Interestingly, Svensson (2005) argued that the CI measure is not the same as corruption because it technically measures the political risk associated with corruption. Because public tolerance toward corruption can vary considerably from country to country, the CI measure may not be a reliable estimate. Indeed, our meta-analysis supports this contention.

3.4. Moderator analysis: corruption period

Of the literature included in our meta-analysis, 68 percent of the total sample examined corruption before 2000, and 32 percent of the total sample examined it during or after 2000 (refer Table 7). Overall and among criterion types, the mean population estimates were strong and positive (i.e., the variability intervals did not include zero). Interestingly, there was a significant increase in the magnitude of relationships with corruption over time. Specifically, the more recent studies examining corruption from the year 2000 onward produced a greater mean population estimate ($\rho = .63$) than did the studies examining corruption from the years 1997 through 1999 ($\rho = .50$).

4. Conclusions and implications

Corruption is increasingly viewed as a major obstacle to globalization and the fair and efficient distribution of wealth worldwide (Rose-Ackerman, 1997). Managers seeking to do business in a multi-national context are morally and economically confronted by the realities of corruption (Zekos, 2003). In their efforts to assist global reform and international business activity, social scientists have attempted to describe and explain the causes and effects of corruption across nations (Collier, 2002). Unfortunately, this rather large and growing multi-disciplinary literature has not led to deeper insights and inter-disciplinary understanding due to: (1) the generally atheoretical nature of this work, (2) the failure to look outside one's disciplinary lens, (3) the different measurement schemes used, and (4) the failure to accumulate results across studies. Consequently, this study sought to synthesize previous literature so that the study of corruption could take stock of what we now know and help the field to move forward.

In this study, we examined 511 correlations from 42 empirical studies of corruption that were published from 1995 to 2006. This included examining the antecedents of corruption within the context of three institutional categories—economic, political/legal, and socio-cultural. We found that all three groups of macro-environmental factors were predictive of corruption with correlations ranging from .40 to .45. In addition, we examined the effects of corruption using the same three categories.

All three institutional categories were associated with corruption. Political/legal effects, however, were the most highly correlated with corruption. In addition, we also found that there was a stronger correlation between corruption and political/legal effects than the correlation between political/legal antecedents and corruption. We also shed light on the existing levels of agreement among scholars regarding whether given constructs are considered antecedents, effects, or both. In general, political/legal and socio-cultural constructs are considered to be antecedents; whereas, there is less agreement concerning economic constructs as they are considered to be both. The data in Tables 3–6 can provide guidance as to the gaps in the literature, as well as most promising future research.

We found that the two most popular types of corruption measurement were: (1) the CPI produced annually by Transparency International (48%), and (2) the CCI developed by the World Bank (27%). There were additional measures of corruption used, but these measures did not generally yield the same results as the top two and they were only used in the remaining 25% of the studies. Furthermore, there are more published details on the reliability and validity of these measures. In sum, we recommend that future researchers utilize these two measures for quantitative comparative analyses of corruption.

Finally, our results indicate that the relationship between antecedents and effects of corruption are getting stronger—effects are larger in the studies which examined corruption after 2000, than before 2000. This new insight has several possible explanations. One explanation is that the measurement of corruption is improving over time. Another explanation is that our understanding of corruption is ripening. An implication of this finding for future research is that corruption researchers should be encouraged to study corruption longitudinally over time, and that if the study period spans multiple decades then care must be exercised in interpreting the overall results.

4.1. Limitations

Despite these interesting and useful findings, several limitations should be considered. First, we must clarify the interpretation of sample size in this meta-analysis due to the unique nature of the national corruption domain. In contrast to other domains in which all studies include unique samples, corruption studies frequently contain similar entities (i.e., the same country may be in several studies). Meta-analyses that combine these studies reflect an

Table 7
Correlates of corruption by corruption period.

Corruption measure timing	*N*	*k*	%	Mean *r*	ρ	90%	CI	80%	CV
Overall									
Pre-2000	2201	313	68	.41	.50	.42	.58	.25	.75
Post-2000	1043	191	32	.52	.63	.51	.74	.38	.88
Political/legal									
Pre-2000	1751	126	67	.48	.58	.42	.74	.08	1.03
Post-2000	849	74	33	.46	.56	.40	.72	.23	.89
Economic									
Pre-2000	2125	113	69	.44	.53	.45	.62	.26	.80
Post-2000	944	75	31	.49	.60	.46	.73	.33	.86
Socio-cultural									
Pre-2000	1582	74	71	.43	.53	.43	.63	.26	.79
Post-2000	648	42	29	.52	.63	.47	.80	.36	.90

Note. *N*, combined sample size; *k*, number of correlations; mean *r*, mean uncorrected correlation; ρ, mean estimated population correlation; CI, confidence interval; CV, credibility interval.

averaging of different studies that examine similar sets of countries. Therefore, the sample sizes reported in the present analyses do not represent the unique number of countries. In fact, many of the countries from these studies overlap. As such, this is different from most meta-analyses as those studies typically examine independent observations. Nevertheless, combining and meta-analyzing such studies is still a valid procedure and the results are still enlightening. This is because even though different studies may have included similar countries, they examined different corruption correlates, used different measures of both corruption and of the correlate variables, and examined the relationships at different periods of time. This creates more than enough variability across studies that a meta-analysis can help explain. Second, other limitations common to many meta-analysis studies should also be noted. To begin with, our partitioning of studies into moderator categories resulted in some sub-category analyses being based on relatively small sample sizes. We advise some discretion be used when interpreting results involving those estimates derived from relatively small samples. Also, examining four different moderators meant that there were sometimes insufficient numbers of studies to conduct fully hierarchical moderator analyses, in which moderator conditions are nested within one another (Hunter & Schmidt, 2004). Such a nesting approach can provide interesting and useful information by examining the impact of given moderators while concurrently 'controlling' for the effect of the other moderators. We were able to do this somewhat. For example, all moderators were also nested with criterion type, so that each moderator was examined using the overall sample as well as within each of the three criterion categories. Nonetheless, our nesting approach did have constraints.

Finally, a considerable number of studies which examined the antecedents and effects of corruption were not able to be included in this study due to the unavailability of bi-variate correlation matrices. In the future, editors and reviewers should require the display of correlation matrices to investigate potential collinearity problems, as well as enable future meta-analyses. This has implications for journal quality as well as doctoral program training.

4.2. Contributions and future research

Despite these limitations, we believe that this study makes several important contributions to the literature. First, we adapt Collier's (2002) conceptual work to provide an integrative theoretical perspective to frame previous and future corruption research. Specifically, we advance the institutional choice perspective as a unique and well-suited inter-disciplinary perspective for describing and explaining comparative corruption studies, as well as helping to accumulate and synthesize future empirical work. While the empirical literature in the past has not examined the macro and micro-dynamics simultaneously associated with corruption activities, this could be a valuable stream of future research.

Second, we found that the cumulative literature estimates the true relationship between corruption and important institutional factors to be roughly .52. This underscores the fact that weak national institutions can be both the cause and the consequence of national corruption. Furthermore, it suggests there may be feedback loops between these institutions whereby weak institutions may cause corruption, which in turn, continues to weaken various institutions. Notably, the number of studies that have examined the causes of corruption is twice that of those that have studied its effects. As a result, future researchers may want to more comprehensively examine the effects of corruption on the institutional landscape since that is much less understood.

Third, we found that that the two most popular measurements of corruption (i.e., CPI and CCI) largely yield similar findings that are theoretically predicted, but other measures of corruption do not. While no measure is ideal, our findings do suggest that future comparative corruption research should consider utilizing one or both of these well established indexes for future work, and that other measures should be approached cautiously until the reliability and validity of these measures can be better established.

In addition, our data show that political/legal factors are the most strongly correlated antecedents and effects of corruption, but that economic and socio-cultural factors are also important for describing and explaining corruption. Furthermore, these relationships were relatively robust as all of our variance estimates did not include zero, and were remarkably narrow. As such, future research should probably include factors from all three of these categories to better understand the causes and effects of corruption. In addition, policy makers should probably focus on all three institutional categories when combating corruption as well as tracking the insidious effects of it. Finally, we found that the predictive ability of corruption studies after 2000 were generally more robust than the predictive ability prior to 2000. We encourage others to refine and extend our findings so that factors leading to corruption can be changed and that corruption may have a diminished impact on the global economy.

Finally, we believe that this research study has some important implications for practicing managers. Our research suggests that human resource managers would be wise to conduct training and education focused on how to deal with solicitations for bribes and/or intransigent government bureaucrats before employees are confronted with these issues. In addition, this training should consider political-legal, socio-cultural, and economic institutions to better understand this phenomena, and control systems should be put in place to monitor how the employees interact with government officials in the host country. Furthermore, senior executives need to speak clearly and often as to how the firm will deal with incidents of corruption behavior; and these words need to be matched with actions that support them. Overall, the expected costs should exceed the potential benefits of covertly engaging with corrupt officials. Finally, strategic leaders need to consider the level of corruption before entering a foreign location, and monitor changes over time. To do so, our research suggests that they track CPI and CCI indices. With this approach, the multinational firm can develop a reputation that it does not engage in corrupt activities, and external solicitations and internal temptations will decline.

References

Ades, A., & Di Tella, R. (1999). Rents, competition, and corruption. *American Economic Review, 89*: 982–994.

Aggarwala, R., & Goodell, J. W. (2009). Markets and institutions in financial intermediation: National characteristics as determinants. *Journal of Banking & Finance, 33*: 1770–1780.

*Akcay, S. (2006). Corruption and human development. *Cato Journal, 26*: 29–48.

Akhater, S. (2004). Is globalization what it's cracked up to be? Economic freedom, corruption, and human development. *Journal of World Business, 39*: 283–295.

Ali, A, & Hodan, S. (2003). Determinants of economic corruption: A cross-country comparison. *Cato Journal, 22*: 449–463.

*Ali, A. M., & Isse, H. S. (2003). Determinants of economic corruption: A cross-country comparison. *Cato Journal, 22*(3): 449–466.

*Anbarci, N., Escaleras, M., & Register, C. (2006). Traffic fatalities and public sector corruption. *Kyklos, 59*(3): 327–344.

*Arikan, G. G. (2004). Fiscal decentralization: A remedy for corruption. *International Tax and Public Finance, 11*(2): 175–195.

Bommer, W., Jonathan, L., Johnson, J. L., Rich, G. A., Podsakoff, P. M., & MacKenzie, S. B. (1995). On the Interchangeability of objective and subjective measures of employee performance: A meta-analysis. *Personnel Psychology, 48*: 587–605.

Bovi, M. (2003). The nature of the underground economy – some evidence from OECD countries. *Journal of Institutional Innovation, Development and Transition, 7*: 60–70.

*Braun, M., & DiTella, R. (2004). Inflation, inflation variability, and corruption. *Economics & Politics, 16*(1): 77–100.

Collier, M. W. (2002). Explaining corruption: An institutional choice approach. *Crime, Law and Social Change, 10*: 1–31.

*Cuervo-Cazurra, A. (2006). Who cares about corruption? *Journal of International Business Studies, 37*: 807–840.

Dalton, D. R., Daily, C., Johnson, J., & Ellstrand, A. (1999). Number of directors and financial performance: A meta-analysis. *Academy of Management Journal, 42*: 674–686.

*Damania, R., Fredriksson, P. G., & Mathukumara, M. (2004). The persistence of corruption and regulatory compliance failure: Theory and evidence. *Public Choice, 121*: 363–390.

*Davis, J. H., & Ruhe, J. A. (2003). Perceptions of country corruption antecedents and outcomes. *Journal of Business Ethics, 43*: 275–290.

Doh, J., Rodriguez, P., Uhlenbruck, K., Collins, J., & Eden, L. (2003). Coping with corruption in foreign markets. *Academy of Management Executive, 17*: 114–127.

Easterly, W. (2001). Can institutions resolve ethnic conflict? *Economic Development and Cultural Change, 49*: 687–707.

Economist. (2004). *Corruption in Russia, 375*(October): 53–54.

Economist. (2005). *Den of thieves: The importance of fighting corruption, 376*(March): 14–15.

Eigen, P. (2001). Global corruption report 2001. http://www.transparency.org/publications/gcr/gcr_2001.

Eigen, P. (2002). Measuring and combating corruption. *Policy Reform, 5*: 187–201.

*Finnie, B. W., Gibson, L., & McNabb, D. (2006). Economic development: Corruption, complexity, wealth, and a triad of strains. *Humanomics, 22*: 185–205.

*Fredriksson, P. G., Vollebergh, H. R. J., & Dijkgraaf, E. (2004). Corruption and energy efficiency in OECD countries theory and evidence. *Journal of Environmental Economics and Management, 47*(2): 207–231.

*Gerring, J., & Thacker, S. C. (2005). Do neoliberal policies deter political corruption? *International Organization, 59*(1): 233–254.

Goldsmith, A. (1999). Slapping the grasping hand: Correlates of political corruption in emerging markets. *American Journal of Economics and Sociology, 58*: 865–883.

Gonzalez-Velazquez, J. (2004). Global corruption. *Caribbean Business, 22*(April): 26.

Guetat, I. (2006). The effects of corruption on growth performance of the MENA countries. *Journal of Economics and Finance, 30*: 208–221.

Gupta, S., Davoodi, H., & Alsonso-Terme, R. (2002). Does corruption affect income inequality and poverty? *Economics of Governance, 3*: 23–45.

Gyimah-Brempong, K. (2001). Corruption, economic growth, and income inequality in Africa. *Economics and Governance, 3*: 183–209.

*Habib, M., & Zurawicki, L. (2002). Corruption and foreign direct investment. *Journal of International Business Studies, 33*: 291–307.

Heineman, B. W., & Heimann, F. (2006). The long war against corruption. *Foreign Affairs, 85*(3): 75–86.

Hemphill, T. A. (2005). The United Nations Global Compact. *International Journal of Business, Governance and Ethics, 1*: 303–316.

Hunter, J. E., & Schmidt, F. L. (2004). *Methods of meta-analysis: Correcting error and bias in research findings* (2nd ed.). Newbury Park, CA: Sage.

Hunter, J. E., Schmidt, F. L., & Judiesch, M. K. (1990). Individual differences in output variability as a function of job complexity. *Journal of Applied Psychology, 75*: 28–42.

*Husted, B. W. (1999). Wealth, culture and corruption. *Journal of International Business Studies, 30*: 339–359.

*Kacapyr, E. (2001). Business as usual: Corruption and business activity. *The Journal of Social, Political, and Economic Studies, 26*(4): 671–681.

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2008). *Governance matters: Governance indicators for 1998–2006* www.worldbank.org/wbi/governance/pubs/govmatters2007.htm.

*Ketkar, K. W., Murtuza, A., & Ketkar, S. L. (2005). Impact of corruption on foreign direct investment and tax revenues. *Journal of Public Budgeting, Accounting & Financial Management, 17*: 313–341.

*Khumawala, S., & Ramchand, L. (2005). Country level corruption and frequency of issue in the U.S. market. *Journal of Public Budgeting, Accounting & Financial Management, 17*: 341–364.

*Kimbro, M. B. (2002). A cross-country empirical investigation of corruption and its relationship to economic, cultural, and monitoring institutions: An examination of the role of accounting and financial statements quality. *Journal of Accounting, Auditing & Finance, 17*(4): 325–349.

*Kwok, C, & Tadesse, S. (2006). The MNC as an agent of change for host-country institutions: FDI and corruption. *Journal of International Business Studies, 37*: 767–785.

*Lambsdorff, J. G. (2003a). How corruption affects productivity. *Kyklos, 56*: 457–475.

*Lambsdorff, J. G. (2003b). How corruption affects persistent capital flows. *Economics of Governance, 4*: 229–243.

Lambsdorff, J. G. (2008). *The institutional economics of corruption and reform*. London: Cambridge University Press.

Lancaster, T., & Montiloa, G. (1997). Toward a methodology for the comparative study of political corruption. *Crime, Law & Social Change, 27*: 185–206.

*Lederman, D., Loayza, N., & Soares, R. (2005). Accountability and corruption: Political institutions matter. *Economics & Politics, 17*: 1–35.

*Mauro, P. (1995). Corruption and growth. *Quarterly Journal of Economics, 3*: 681–712.

Mendez, F., & Sepulveda, F. (2005). Corruption, growth and political regimes: Cross-country evidence. *European Journal of Political Economy, 22*: 82–98.

*Meon, P., & Sekkat, K. (2005). Does corruption grease or sand the wheels of growth? *Public Choice, 122*(1): 69–97.

*Paldam, M. (2001). Corruption and religion adding to the economic model. *Kyklos, 54*(2): 383–413.

Park, H. (2003). Determinants of corruption: A cross-national analysis. *Multinational Business Review, 11*(2): 29–48.

*Pellegrini, L., & Gerlagh, R. (2006). Corruption and environmental policies: What are the implications for the enlarged EU? *European Environment, 16*: 139–155.

Peterson, R., & Jolibert, A. (1995). A meta-analysis of country of origin effects. *Journal of International Business Studies, 26*: 883–896.

*Picur, R., & Riahi-Belkaoui, A. (2006). The impact of bureaucracy, corruption and tax compliance. *Review of Accounting and Finance, 5*: 174–180.

*Richardson, G. (2006). Taxation determinants of fiscal corruption: Evidence across countries. *Journal of Financial Crime, 13*(3): 323–339.

*Rijckeghem, C. V., & Weder, B. (2001). Bureaucratic corruption and the rate of temptation: Do wages in the civil service affect corruption, and by how much? *Journal of Development Economics, 65*: 307–331.

*Robertson, C. J., & Watson, A. (2004). Corruption and change: The impact of foreign direct investment. *Strategic Management Journal, 25*: 385–396.

Rose-Ackerman, S. (1997). The political economy of corruption. In K. A. Elliot (Ed.), *Corruption and the global economy* (pp. 31–60). Washington: Institute for International Economics.

Sandholtz, W., & Gray, M. (2003). International integration and national corruption. *International Organizationm, 57*: 761–800.

Schmidt, F. L., & Hunter, J. E. (1996). Measurement error in psychological research: Lessons from 26 research scenarios. *Psychological Methods, 1*: 199–223.

*Serra, D. (2006). Empirical determinants of corruption: A sensitivity analysis. *Public Choice, 126*: 225–256.

Shleifer, A., & Vishny, R. (1993). Corruption. *Quarterly Journal of Economics, 2*: 599–617.

*Sung, H.-E. (2002). A convergence approach to the analysis of political corruption: A cross-national study. *Crime, Law and Social Change, 38*: 137–160.

*Svensson, J. (2005). Eight questions about corruption. *Journal of Economic Perspective, 19*(3): 19–42.

*Swamy, A., Knack, S., Lee, Y., & Azfar, O. (2001). Gender and corruption. *Journal of Development Economics, 64*(1): 25–55.

Tihanyi, L., Griffith, D., & Russell, C. (2005). The effect of cultural distance on entry mode choice, international diversification, and MNE performance: A meta-analysis. *Journal of International Business Studies, 36*: 270–283.

Torrez, J. (2002). The effect of openness on corruption. *Journal of International Trade & Economic Development, 11*: 387–403.

*Treisman, D. (2000). The causes of corruption: A cross-national study. *Journal of Public Economics, 76*: 399–457.

*Uhlenbruck, K., Rodriguez, P., Doh, J., & Eden, L. (2006). The impact of corruption on entry strategy: Evidence from telecommunication projects in emerging economies. *Organization Science, 17*: 402–417.

*Wallace, C., & Latcheva, R. (2006). Economic transformation outside the law: Corruption, trust in public institutions and the informal economy in transition countries of Central and Eastern Europe. *Europe - Asia Studies, 58*: 81–102.

Wang, H., & Rosenau, J. (2001). Transparency International and corruption as an issue of global governance. *Global Governance, 7*: 25–50.

*Wei, S., & Shleifer, A. (2000). Local corruption and global capital flows. *Brookings Papers on Economic Activity,* 303–354.

*Weitzel, U., & Berns, S. (2006). Cross-border takeovers, corruption, and related aspects of governance. *Journal of International Business Studies, 37*: 786–806.

*Welsch, H. (2004). Corruption, growth and the environment: A cross-country analysis. *Environment and Development Economics, 9*: 663–693.

Wilhelm, P. (2002). International validation of the corruption perceptions index. *Journal of Business Ethics, 35*: 177–189.

*Wyatt, G. (2003). Corruption, productivity, and socialism. *Kyklos, 56*: 223–244.

Xin, X., & Rudel, T. K. (2004). The context for political corruption: A cross-national analysis. *Social Science Quarterly, 85*(2): 294–309.

*You, J., & Khagram, S. (2005). A comparative study of inequality and corruption. *American Sociological Review, 70*(1): 136–157.

Zekos, G. (2003). Ethics versus corruption in globalization. *Journal of Management Development, 25*: 631–647.

*Zhao, J., Kim, S., & Du, J. (2003). The impact of corruption and transparency on foreign direct investment: An empirical analysis. *Management International Review, 43*: 41–62.

Zhao, H., Lou, Y., & Suh, T. (2004). Transaction cost determinants and ownership-based entry mode choice: A meta-analytic review. *Journal of International Business Studies, 35*: 524–544.