Corruption and Poverty:
A Review of Recent Literature

Final Report

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List of Acronyms

USAID	US Agency for International Development
GDP	Gross Domestic Product
PPP	Purchasing Power Parity
IMF	International Monetary Fund
BEEPS	Business Environment and Enterprise Performance Survey
ECA	Europe and Central Asia
TI	Transparency International
CPI	Corruption Perceptions Index
OECD	Organization for Economic Cooperation and Development
FSU	Former Soviet Union
LAC	Latin American and the Caribbean

Executive Summary

A substantial number of recent studies have examined the relationship between poverty and corruption to clarify the ways in which these phenomena interact. An understanding of this complex relationship can inform USAID planning and programming in democracy and governance, as well as in poverty reduction strategies.

Corruption in the public sector -- the misuse of public office for private gain -- is often viewed as exacerbating conditions of poverty (low income, poor health and education status, vulnerability to shocks and other characteristics) in countries already struggling with the strains of economic growth and democratic transition. Alternatively, countries experiencing chronic poverty are seen as natural breeding grounds for systemic corruption due to social and income inequalities and perverse economic incentives.

The literature points to the conclusion that corruption, by itself, does not produce poverty. Rather, *corruption has direct consequences on economic and governance factors, intermediaries that in turn produce poverty*. Thus, the relationship examined by researchers is an *indirect* one. This paper discusses two major models explaining this moderated linkage between corruption and poverty: an economic model and a governance model.

The Economic Model postulates that corruption affects poverty by first impacting economic growth factors, which, in turn, impact poverty levels. Economic theory and empirical evidence both demonstrate that there is a direct causal link between corruption and economic growth. Corruption impedes economic growth by discouraging foreign and domestic investment, taxing and dampening entrepreneurship, lowering the quality of public infrastructure, decreasing tax revenues, diverting public talent into rent-seeking, and distorting the composition of public expenditure. In addition to limiting economic growth, there is evidence that corruption also exacerbates income inequality; regression analysis has shown a positive correlation between corruption and income inequality. Explanations for this link are that corruption distorts the economy and the legal and policy frameworks allowing some to benefit more than others; there is unfair distribution of government resources and services; corruption reduces the progressivity of the tax system; corruption increases the inequality of factor ownership; and lower income households (and businesses) pay a higher proportion of their income in bribes than do middle or upper-income households. Economic growth and income inequality are important because they link corruption to poverty. Studies show that the absence of economic growth (or negative growth) increases poverty. Inversely, tests have shown that an increase in GDP produces an increase in the income of the poor. However, income distribution is an important mediating factor because economic growth may not always benefit the poor.

The Governance Model asserts that corruption affects poverty by influencing governance factors, which, in turn, impact poverty levels. First, corruption reduces governance capacity, that is, it weakens political institutions and citizen participation and leads to lower quality government services and infrastructure. The poor suffer disproportionately from reduced public services. When health and basic education expenditures are given lower priority, for example, in favor of capital intensive programs that offer more opportunities for high-level rent taking, lower income groups lose services on which they depend. Corruption is consistently correlated with higher school dropout rates and high levels of infant mortality. Secondly, impaired governance increases poverty by restricting economic growth and, coming full circle, by its inability to control corruption. Thirdly, corruption that reduces governance capacity also may inflict critical

collateral damage: reduced public trust in government institutions. As trust -- an important element of social capital -- declines, research has shown that vulnerability of the poor increases as their economic productivity is affected. When people perceive that the social system is untrustworthy and inequitable, their incentive to engage in productive economic activities declines.

In conclusion, the literature reviewed in this paper demonstrates that corruption does exacerbate and promote poverty, but this pattern is complex and moderated by economic and governance factors. Based on these findings, anti-corruption programs that are crafted to address issues of economic growth, income distribution, governance capacity, government services in health and education, and public trust in government are likely to not only reduce corruption, but reduce poverty as well.

Introduction

Popular belief suggests that corruption and poverty are closely related in developing countries. Corruption in the public sector is often viewed as exacerbating conditions of poverty in countries already struggling with the strains of economic growth and democratic transition. Alternatively, countries experiencing chronic poverty are seen as natural breeding grounds for systemic corruption due to social and income inequalities and perverse economic incentives. This report summarizes recent research on the relationship between poverty and corruption to clarify the ways in which these phenomena interact. This understanding can inform USAID planning and programming in democracy and governance, as well as in poverty reduction strategies.

The development literature is rich with theoretical insights on this relationship, many of them founded on practical experience and careful observation. The World Bank's *World Development Report for 2000/01*: *Attacking Poverty* summarized current thinking on the corruption-poverty linkage as follows:

> The burden of petty corruption falls disproportionately on poor people …For those without money and connections, petty corruption in public health or police services can have debilitating consequences. Corruption affects the lives of poor people through many other channels as well. It biases government spending away from socially valuable goods, such as education. It diverts public resources from infrastructure investments that could benefit poor people, such as health clinics, and tends to increase public spending on capital-intensive investments that offer more opportunities for kickbacks, such as defense contracts. It lowers the quality of infrastructure, since kickbacks are more lucrative on equipment purchases. Corruption also undermines public service delivery (World Bank, 2001: 201).

Many of these relationships have been examined using empirical research methods.[1] Much of this literature is recent -- from the mid-1990s -- when major international donor institutions began to focus attention on corruption issues and researchers initiated cross-country measurement of the corruption phenomenon. This report integrates this literature to present the major themes that are hypothesized and tested.

This report is divided into three sections. The first section describes briefly how poverty and corruption are defined and measured in the literature. The second section presents the prominent themes that emerged from our review of the literature on corruption and poverty. Within this section, theoretical propositions are discussed, empirical research studies that support or refute them are described, and implications are drawn. The third section summarizes the major themes uncovered in our review.

1 Defining Poverty and Corruption

Poverty

What is Poverty?

-Low income
-Low education/health status
-Vulnerability
-Powerlessness

Poverty is a complex phenomenon. It is usually defined in relation to *income*, often measured in terms of per capita gross domestic product (GDP). Extreme poverty is often defined as an income of less than $1 per person per day in terms of purchasing power parity (PPP).[2] Some researchers define

poverty as the lowest income quintile in a referenced population. Critics argue that measuring poverty in terms of GDP or PPP does not fully capture the phenomenon of poverty. A broader definition treats poverty as multidimensional, including (i) low income, (ii) low levels of education and health, (iii) vulnerability (to health or income loss, natural disaster, crime and violence, and education curtailment) and (iv) voicelessness and powerlessness (feeling discrimination, lacking income earning possibilities, mistreatment by state institutions, and lacking status under the law) (World Bank, 2001). Many other indicators such as caloric intake and female literacy are also used. While measuring poverty in terms of income level may seem relatively straightforward, the multidimensional approach is more complex and involves factors that are difficult to quantify. To manage this complexity, researchers have developed indices, such as the UNDP Human Poverty Index, which conceives of poverty in terms of longevity, knowledge, and economic provisioning.

Corruption

Public sector corruption is commonly defined as *the misuse of public office for private gain*. The USAID Handbook for Fighting Corruption (1999) describes the various forms that corruption can assume:

> It encompasses unilateral abuses by government officials such as embezzlement and nepotism, as well as abuses linking public and private actors such as bribery, extortion, influence peddling and fraud. Corruption arises in both political and bureaucratic offices and can be petty or grand, organized or disorganized.

What is Corruption?

The misuse of public office for private gain, including but not limited to:

- -Embezzlement
- -Nepotism
- -Bribery
- -Extortion
- -Influence peddling
- -Fraud

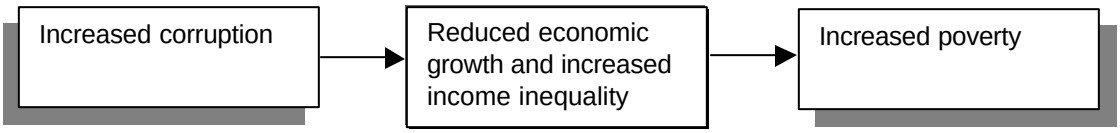
Corruption is inherently a secretive transaction and, thus, difficult to observe and measure. Several organizations – including the World Bank, Transparency International (TI), and Pricewaterhouse Coopers Foundation – have attempted to develop corruption indicators; all of them depend on aggregate surveys of citizens, businesses or experts and therefore base their results on *perceptions* of the problem as opposed to more objective data. While these measurement approaches have acknowledged reliability and validity problems, they are the best that we have for the time being (MSI, 2002; Johnston, 2000; Johnston and Kpundeh, 2002). In general, these are the indices employed in the poverty-corruption research. "Second generation" governance indicators currently under development may resolve some of the measurement and methodological issues.[3]

2 Examining the Relationship Between Corruption and Poverty

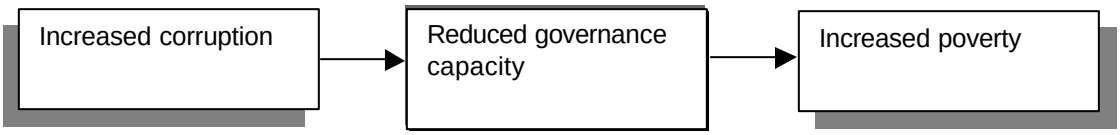
This review found that few studies examine or establish a *direct* relationship between corruption and poverty.[4] Corruption, by itself, does not produce poverty. Rather, *corruption has direct consequences on economic and governance factors, intermediaries that in turn produce poverty*. Thus, the relationship examined by researchers is an *indirect* one.

Two models emerge from the research literature. The ”economic model” postulates that corruption affects poverty by first impacting economic growth factors, which, in turn, impact poverty levels. In other words, increased corruption reduces economic investment, distorts markets, hinders competition, creates inefficiencies by increasing the costs of doing business, and

increases income inequalities. By undermining these key economic factors, poverty is exacerbated.



The "governance model" asserts that corruption affects poverty by first influencing governance factors, which, in turn, impact poverty levels. So, for example, corruption erodes the institutional capacity of government to deliver quality public services, diverts public investment away from major public needs into capital projects (where bribes can be sought), lowers compliance with safety and health regulations, and increases budgetary pressures on government. Through these serious challenges to governance practices and outcomes, poverty is affected.



The following review of the literature is organized in relation to these models.

2.1 Economic Model

The literature shows an inverse correlation between aggregate economic growth and corruption; in general, countries with higher corruption experience less economic growth. Many of the studies reviewed for this paper address the channels through which corruption affects economic growth, for instance, through impacting investment and entrepreneurship, distorting markets, and undermining productivity. Furthermore, there is empirical evidence that corruption aggravates income inequality and is associated with slower economic growth. Finally, studies present evidence that as the rate of economic growth increases, the number of people above the poverty line tends to rise as well.

Corruption Impedes Economic Growth

The relationship between corruption and economic growth is complex. Economic theory supports the notion that corruption hinders economic growth in the following ways:[5]

- *Corruption discourages foreign and domestic investment*: rent taking increases costs and creates uncertainty, reducing incentives to both foreign and domestic investors.
- *Corruption taxes entrepreneurship*: entrepreneurs and innovators require licenses and permits and paying bribes for these goods cuts into profit margins.
- *Corruption lowers the quality of public infrastructure:* public resources are diverted to private uses, standards are waived; funds for operations and maintenance are diverted in favor of more rent seeking activity.
- *Corruption decreases tax revenue:* firms and activities are driven into the informal or gray sector by excessive rent taking and taxes are reduced in exchange for payoffs to tax officials.

- *Corruption diverts talent into rent seeking:* officials who otherwise would be engaged in productive activity become pre-occupied with rent taking, in which increasing returns encourage more rent taking.
- *Corruption distorts the composition of public expenditure*: rent seekers will pursue those projects for which rent seeking is easiest and best disguised, diverting funding from other sectors such as education and health.

These theoretical propositions are supported by a number of empirical studies. They demonstrate that high levels of corruption are associated with low levels of investment and low levels of aggregate economic growth.[6]

For example, the results of several World Bank corruption surveys illustrate this inverse relationship between corruption and economic growth.[7]

- *Corruption discourages domestic investment*. In Bulgaria, about one in four businesses in the entrepreneur sample had planned to expand (mostly through acquiring new equipment) but failed to do so, and corruption was an important factor in their change of plans. The Latvia study surveyed enterprises that had dropped planned investments. It found that the high cost of complying with regulations and the uncertainty surrounding them, including uncertainty regarding unofficial payments, were important factors for 28% of businesses foregoing new investments.
- *Corruption hurts entrepreneurship especially among small businesses*. Several studies reported that small businesses tend to pay the most bribes as a percentage of total revenue (especially in Bosnia, Ghana, and Slovakia). In Poland, businesses have to deal with a large number of economic activities that are licensed, making them more prone to extortion.
- *Corruption decreases revenue from taxes and fees*. In Bangladesh, more than 30% of urban household respondents reduced electric and/or water bills by bribing the meter reader. In several studies, respondents were so frustrated that they indicated a willingness to pay more taxes if corruption could be controlled (Cambodia, Indonesia, Romania).

In a cross-national analysis of corruption and growth for the IMF, Tanzi and Davodi (1997) tested four hypotheses designed to explain four channels through which corruption reduces growth. Using regression analysis, results established that higher levels of corruption were associated with: (1) increasing public sector investment (but decreased productivity); (2) reduced government revenues (reducing resources for productive expenditures); (3) lower expenditures on operations and maintenance (where other studies show that high government consumption is robustly associated with lower economic growth, e.g., see Barro 1996); and (4) reduced quality of public infrastructure (as shown by indicators for road conditions, power and water losses, telecom faults and proportion of railway diesels in use). All of these findings are consistent with the observation that corruption is inversely correlated with growth in GNP.

A seminal study by Mauro (2002) used a composite of two corruption indices and multiple regression analyses with a sample of 106 countries to show that high levels of corruption are associated with lower levels of investment as a share of Gross Domestic Product (GDP) and with lower GDP growth per capita. Extrapolation of these results by the researcher suggested that if a country were to improve its corruption index from a score of six to eight on a ten-point scale, it would increase the investment rate more than 4% and annual per capita GDP growth would increase by nearly one-half percent.

Recent work by Lambsdorff (forthcoming) casts additional light on how corruption affects investment, specifically, the relationship of investment to GDP. The study categorized investment into domestic savings and net capital inflows. Regression results provided evidence that corruption negatively impacts on capital accumulation by deterring capital imports. To explore causation, Lambsdorff decomposed the corruption index into several sub-indicators that look at corruption through the lens of bureaucratic quality, civil liberty, government stability, and law and order. Only the law and order sub-indicator turned out to be important for attracting capital flows.

Another World Bank study (2000a) suggests that higher levels of corruption reduce growth through decreased investment and output. This comprehensive study looked at 22 transition countries and examined two forms of corruption – state capture and administrative corruption – and their impact on selected economic and social indicators. Data for the study were derived from the Business Environment and Enterprise Performance Survey (BEEPS).

Corruption Exacerbates Income Inequality

Several studies have demonstrated a relationship between corruption and income inequality. The theoretical foundations for this relationship are derived from rent theory and draw on the ideas of Rose-Ackerman (1978) and Krueger (1974), among others. Propositions include:

- Corruption may create permanent distortions from which some groups or individuals can benefit more than others.
- The distributional consequences of corruption are likely to be more severe the more persistent the corruption.
- The impact of corruption on income distribution is in part a function of government involvement in allocating and financing scarce goods and services (Gupta, Davoodi, and Alonso-Terme, 1998).

A World Bank study (2000c) of poverty following the transition to a market economy in Eastern Europe and Central Asia (ECA) produced important findings concerning income distribution and corruption. The study analyzes data on firms' perceptions of corruption and notes that more firms in ECA report that corruption is a problem than in most other geographic regions.[8] The authors analyzed whether there "is any apparent link, within ECA, between corruption and measures of income inequality" (World Bank, 2000c: 169). When Gini coefficients for income per capita (measures of income inequality) were graphed against the Transparency International (TI) Corruption Perceptions Index (CPI), *lower levels of corruption were seen to be statistically associated with lower levels of income inequality* (simple correlation was +0.72). Similar results were obtained using different measures of corruption. The authors add that closer examination of the links between corruption and inequality show that the costs of corruption fall particularly heavily on smaller firms.[9]

This report also examined the relationship between a particular type of corruption, *state capture*, and income inequality. State capture describes the situation where businesses have undue influence over the decisions of public officials. The report notes that *differences in income inequality in the ECA countries are greatest in those countries where the transition has been least successful and where state capture is at its highest*. In these countries, state capture has allowed large economic interests to distort the legal framework and the policy-making process in a way that defeats the development of a market economy.[10] The report explores the relationship

between state capture and income inequality through regressions of the Gini coefficient on measures of state capture and other variables and finds that *a higher degree of state capture is correlated with higher inequality*. The relationship holds even when controlling for political freedoms, location, and years under state planning (World Bank, 2000c: 172).

Gupta et al. (1998) conducted cross-national regression analysis of up to 56 countries to examine the ways that corruption could negatively impact income distribution and poverty. The study looked at the following relationships:

- *Growth*: Income inequality has been shown to be harmful to growth, so if corruption increases income inequality, it will also reduce growth and thereby exacerbate poverty.
- *Bias in tax systems*: Evasion, poor administration, and exemptions favoring the well-connected can reduce the tax base and progressivity of the tax system, increasing income inequality.
- *Poor targeting of social programs*: Extending benefits to well-to-do income groups or siphoning from poverty alleviation programs will diminish their impact on poverty and inequality (and will tend to act as a regressive tax on the poor, enhancing income inequality).

The Gupta et al. study examined these propositions through an inequality model using a Gini coefficient to measure inequality. The model specified the personal distribution of income in terms of factor endowments, distribution of factors of production and government spending on social programs. The model used several indices of corruption. The statistically significant results include:

- Higher corruption is associated with higher income inequality such that a worsening of a country's corruption index by 2.5 points on a scale of 10 corresponds to an increase in the Gini coefficient (worsening inequality) of about 4 points. Tests showed the same results for an average decrease in secondary schooling by 2.3 years, as an example of the significance of corruption.
- Even controlling for stage of economic development, corruption appears to be harmful to income inequality. Moreover, a test of directionality suggests that it is corruption that increases inequality and not the reverse.[11]
- Corruption tends to increase the inequality of factor ownership.
- Corruption increases income inequality by reducing progressivity of the tax system, that is, the impact of corruption on income inequality was shown to be higher after taxes.

In another study of 35 countries (mostly OECD countries), Karstedt hypothesized that corruption supports, stabilizes and deepens inequality. Her measures of corruption (Transparency International's CPI and Bribery Propensity Index) were tested against measures of income distribution (as well as measures of power distance between elites and other ranks, and general trust). Results showed that *societies with high income inequality have high levels of corruption, while those with high levels of secondary education and a high proportion of women in government positions have decreasing levels of corruption*. The relation between measures of corruption and the Gini index of income inequality was nonlinear, indicating that after countries attain a specific level of income equality, corruption tends to decrease exponentially.

How does corruption exacerbate income inequality? Evidence from diagnostic surveys of corruption in several countries suggests that corruption aggravates income inequality because lower income households pay a higher proportion of their income in bribes.

In conclusion, the literature establishes clearly that corruption impedes economic growth and augments income inequalities. How does reduced economic growth, in turn, increase poverty?

Reduced Economic Growth Rates Increase Poverty

There is evidence that the absence of economic growth (or negative growth) increases poverty. Quibria's study (2002) suggests that the burden of rapid economic retrenchment, such as seen recently in Thailand and Indonesia, hurts the poor most heavily. Similarly, in the transition countries of the former Soviet Union (FSU), the changeover to a market system was associated with a sharp initial drop in output and significantly higher levels of poverty. The expansion of poverty was initiated by the collapse of GDP, which fell by 50 percent in the FSU countries and 15 percent in Central and Eastern Europe. Poverty was found to be highly correlated with administrative corruption and corruption was empirically associated with lower economic growth rates (World Bank, 2000a).

Using a poverty model, the Gupta et al (1998) study conducted a cross-national analysis of up to 56 countries to examine the relationship between growth and poverty. Their poverty model used the income growth of the bottom quintile as the dependent variable regressed against growth in GNP, natural resources, initial income of the lower quintile, initial secondary schooling, education inequality, initial distribution of assets (Gini for land), social spending and growth in corruption. The authors found that higher growth is associated with poverty alleviation.

Dollar and Kraay (2002) of the World Bank Development Research Group studied a sample of 80 countries over four decades and showed that income of the lowest 20% of the population rises one for one with increases in per capita GDP. Moreover, using tests for directionality, they concluded that a 1% increase in GDP actually causes a 1% increase in the incomes of the poor.[12]

In his comprehensive study of the so-called Asian Tigers, Quibria (2002) gives a good example of rapid economic growth (during the 1980s and 1990s) leading to a substantial decrease in those living below a poverty line of $1.25 per day.[13] Further, in those countries with a more equitable distribution of income at the outset, the decrease in poverty tended to be more robust. However, even in this special case of multiple country rapid growth in a particular region, income distribution remained more or less constant over the period of growth. Similarly, Ravallion and Chen (in Easterly, 2001: 13-14) examined 65 developing countries between 1981 and 1999. They found that the number of people below the poverty line of $1 per day was reduced in countries with positive economic growth. However, they concluded that "measures of inequality show no tendency to get either better or worse with economic growth."[14]

In conclusion, these studies show conclusively that income rises with economic growth and vice versa. It should be noted that economic growth does not necessarily lead to *more equal* income distribution; an increase in income may benefit the better-off rather than bringing the poor out of poverty. Income distribution seems to be an important moderating factor in the relationship between economic growth and poverty reduction.

2.2 Governance Model

The governance model postulates that increased corruption reduces governance capacity, which, in turn, increases poverty conditions. Kaufmann et al. (1999) define governance as,

> "the traditions and institutions by which authority in a country is exercised. This includes (1) the process by which governments are selected, monitored and replaced, (2) the capacity of the government to effectively formulate and implement sound policies, and (3) the respect of citizens and the state for the institutions that govern economic and social interactions among them."

Corruption disrupts governance practices, destabilizes governance institutions, reduces the provision of services by government, reduces respect for the rule of law, and reduces public trust in government and its institutions. Impaired governance, in turn, reduces social capital and public trust in governance institutions; this reduces the public funds available to support effective economic growth programs and reduces the capability of government to help its citizens and the poor, in particular.

Corruption Degrades Governance

Johnston (2000) suggests that serious corruption threatens democracy and governance by weakening political institutions and mass participation, and by delaying and distorting the economic development needed to sustain democracy. In a study of 83 countries, Johnston compares Transparency International's CPI with an index of political competitiveness and finds that well-institutionalized and decisive political competition is correlated with lower levels of corruption. These results were confirmed, even when controlling for GDP and examining the relationship over time.

Diagnostic surveys of corruption in Bosnia-Herzegovina, Ghana, Honduras, Indonesia and Latvia report that government institutions with the highest levels of corruption tend to provide lower quality services. The converse is also true: in Romania, the survey shows that state sector entities with better systems of public administration tend to have lower levels of corruption.

The literature shows that corruption impacts the quality of government services and infrastructure and that through these channels it has an impact on the poor. This is particularly the case in the health and education sectors. Enhanced education and healthcare services and population longevity are usually associated with higher economic growth. But under conditions of extensive corruption, when public services, such as health and basic education expenditures that especially benefit the poor, are given lower priority in favor of capital intensive programs that offer more opportunities for high-level rent taking, lower income groups lose services on which they depend. As government revenues decline through leakage brought on by corruption, public funds for poverty programs and programs to stimulate growth also become more scarce.

Gupta, Davoodi and Tiongson (2000) used regression analysis across a large sample of countries to assess an aggregate measure of education outcome and health status in a model that includes several corruption indices, per capita income, public spending on health care and education, and average years of education completed. The results supported the proposition that better health care and education outcomes are positively correlated with lower corruption. In particular, corruption is consistently correlated with higher school dropout rates[15] and corruption is significantly correlated with higher levels of infant mortality and lower-birth weights of babies.

Mauro looked at the relationship between corruption and the composition of government spending. He found evidence that corrupt governments may display predatory behavior in deciding how to distribute government expenditures. Specifically, his data showed corruption

negatively related to education and health expenditures. Extrapolating from his findings, an increase in the 10-point corruption score, from 6 to 8, would yield an increase in education spending by one-half of one percent of GDP (Mauro, 2002).

Gupta et al. (1998) also found that corruption can lead to reduced social spending on health and education. Countries with higher corruption tend to have lower levels of social spending, regardless of level of development. Corruption lowers tax revenues, increases government operating costs, increases government spending for wages and reduces spending on operations and maintenance, and often biases government toward spending on higher education and tertiary health care (rather than basic education and primary health care).

Impaired Governance Increases Poverty

Pioneering research on the relationship among corruption, governance and poverty has been conducted at the World Bank by the team of Kaufmann, Kraay and Zoido-Lobaton. Their studies suggest an association between good governance (with control of corruption as an important component) and poverty alleviation.

Kaufmann et al. (1999) studied the effect of governance on per capita income in 173 countries, treating "control of corruption" as one of the components of good governance. Using a database of over 300 indicators of governance taken from a wide variety of cross-country studies for the years 1997-98, the team constructed aggregate indicators corresponding to six governance concepts. Analysis showed a strong positive causal relationship running from improved governance to better development outcomes as measured by per capita income.[16] A one standard deviation improvement in governance raised per capita incomes 2.5 to 4 times. Analysis of updated indicators for 2000-2001 did not change these conclusions.[17]

Kaufmann and Kraay (2002) used updated governance indicators to gain a more nuanced understanding of the role of good governance in the relationship between corruption and growth in per capita incomes.[18] Using governance data for 2000/01, the authors establish empirically that for Latin American and Caribbean countries (i) better governance tends to yield higher per capita incomes, but (ii) higher per capita incomes tend to produce reduced governance capacity. The authors attribute this second finding to state capture. In short, the authors suggest that corruption (in the form of state capture) may interfere with the expected relationship between economic growth (higher per capita incomes) and better governance. The authors note that an empirical in-depth examination of the phenomenon of state capture in the Latin American and The Caribbean (LAC) region is part of the upcoming research agenda.[19]

The effect of governance on corruption and poverty is illuminated by another World Bank study (2000a). The deterioration in governance discussed in this study was accompanied by an increase in both corruption and poverty. Thus, as seen earlier, increases in corruption tend to deteriorate governance practices, but the reverse holds true as well – reduction in governance capacity increases the opportunities for corruption.

Reduced Public Trust in Government Increases Vulnerability of the Poor

Corruption that reduces governance capacity also may inflict critical collateral damage: reduced public trust in government institutions. As trust -- an important element of social capital --

declines, research has shown that vulnerability of the poor increases as their economic productivity is affected. The concept of social capital refers to social structures that enable people to work collectively for the good of the group.[20] One of the most important and widely discussed elements of social capital is trust, both interpersonal trust and trust in institutions of government.[21]

Recent research on social capital suggests that there is a relationship between corruption, trust and poverty. The proposition is that corruption destroys people's trust in government and other institutions. This effect is most salient for the lowest income groups and low social capital affects people's willingness and ability to engage in productive activity. Empirical studies point to an association between low social capital and poverty, although the relationship is difficult to test and difficult to disentangle empirically from affluence and democracy.

One of the effects of widespread corruption in government services is that it appears to contribute to disaffection and distrust, and this appears to impact particularly heavily on the poor.[22] This is not surprising, because low income people are the ones who are most likely to be dependent on government services for assistance with basic needs, such as education and healthcare, and least likely to be able to pay bribes to cut through complex and unresponsive bureaucracies. Lack of trust has economic consequences: when people perceive that the social system is untrustworthy and inequitable, this can affect incentives to engage in productive activities.[23]

Knack and Keefer (1997) tested the relationship between social capital and economic performance in 29 market economies using indicators from the World Values Surveys (WVS) on interpersonal trust. They added the WVS trust measure to investment and growth regressions and found that *trust correlated highly with economic growth.* Each 12 percentage point rise in trust was associated with an increase in annual income growth of about 1 percentage point. They also found that *the impact of trust on growth is significantly higher for poorer countries*, suggesting that interpersonal trust is more essential where legal systems and financial markets are less well developed.

In a later study, Zak and Knack (1998) found that trust is higher in nations with stronger formal institutions for enforcing contracts and reducing corruption, and in nations with less polarized populations (as measured by income or land inequality, ethnic heterogeneity, and a subjective measure of the intensity of economic discrimination). They also showed that formal institutions and polarization appear to influence growth rates in part through their impacts on trust. For example, income inequality, land inequality, discrimination and corruption are associated with significantly lower growth rates, but the association of these variables with growth dramatically weakens when trust is controlled for.

Knack (1999) also looked at the effect of social capital on income inequality. His study regressed various indicators of social capital and trust against income data by quintile and found that higher scores on property rights measures were associated with declines in income inequality. Using the WVS trust indicator, he also found that inequality declined in higher trust societies. Each 8 or 9 point increase in the percent trusting was associated with a one- point decline in Gini. This partial correlation was only marginally significant, however. Knack concludes that "social capital reduces poverty rates and improves – or at a minimum does not exacerbate – income inequality."

3 Conclusion

Overall, the literature reviewed in this paper demonstrates that corruption does exacerbate and promote poverty, but this pattern is complex and moderated by economic and governance factors. Table 1 summarizes the major findings of this report.

Table 1. Major Propositions Linking Corruption and Poverty

- Economic growth is associated with poverty reduction
- The burden of rapid retrenchment falls most heavily on the poor.
- Corruption is associated with low economic growth
- Corruption reduces domestic investment and foreign direct investment
- Corruption increases government expenditures
- Corruption reduces public sector productivity
- Corruption distorts the composition of government expenditure, away from services directly beneficial to the poor and the growth process, e.g., education, health, and operation and maintenance
- Better health and education indicators are positively associated with lower corruption
- Corruption reduces government revenues
- Corruption lowers the quality of public infrastructure
- Corruption lowers spending on social sectors
- Corruption increases income inequality
- Corruption increases inequality of factor ownership
- Inequality slows growth
- Corruption decreases progressivity of the tax system
- Corruption acts as a regressive tax
- Low income households pay more in bribes as percent of income
- Better governance, including lower graft level, effects economic growth dramatically
- Better governance is associated with lower corruption and lower poverty levels.
- High state capture makes it difficult to reduce inequality, even with growth
- Extensive, organized, well institutionalized and decisive political competition is associated with lower corruption
- Trust is a component of social capital. Higher social capital is associated with lower poverty. Corruption undermines trust (in government and other institutions) and thereby undermines social capital.

If carefully crafted, anti-corruption programs might yield important poverty reduction results. The literature suggests that programs that succeed in reducing corruption will contribute to poverty alleviation especially if they also achieve the following:

- Increase economic growth
- Create more equitable income distribution
- Strengthen governance institutions and capacity
- Improve government services, especially in health and education
- Increase public trust in government.

There are many unanswered questions in the research, particularly regarding the manner in which these factors manifest themselves in different countries. More attention needs to be given to linking theory to empirical endeavors and to generating practical policy insights based on this

research. Finally, much can be learned from the experience of countries and donor organizations that initiate anti-corruption and anti-poverty programs. Compiling and analyzing such experience would provide valuable insights for future planning.

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NOTES

[1] Many studies address the issue indirectly; few address it directly. See Annex 1, Bibliographic Table.
[2] For instance, the United Nations Millennium Development goal (baseline 1990) of reducing by one half by the year 2015 the number of persons who fall under an income-determined extreme poverty line of less than $1.00 per day per person. UNDP 2002.
[3] See Knack 2002 at 18-19. Knack suggests that second generation governance indicators should have greater specificity in measuring performance, increased transparency and replicability in their construction, and give greater attention to measuring governmental processes or institutions. The World Bank is currently working with OECD and DFID on new indicators, see http://www.bellanet.org/indicators/info.cfm.
[4] One group of researchers, Gupta et al (1998), found a statistically significant positive association directly between corruption and poverty. Tests for directionality showed that it appears to be corruption that increases poverty.
[5] For a summary discussion of these points, see Mauro 1999. For further discussion of the theoretical reasoning, see Heidenheimer and Johnston (2002), specifically Chapter 19, *Corruption and Development: A Review of the Issues*, pp. 329-338 (Pranab Bardhan); Chapter 20, *The Effects of Corruption on Growth and Public Expenditure*, pp. 339-352 (Paolo Mauro); Chapter 21, *When is Corruption Harmful?* pp. 353-371 (Susan-Rose Ackerman).
[6] *See* Rose-Ackerman 1999 at 3-4. (Cross country empirical studies confirm the negative impact of corruption on economic growth.) *See also* Heidenheimer and Johnston 2002: 303 (Introduction to Part VI, Corruption and Economic Growth)
[7] For clarity, abbreviated references to the diagnostic studies are by country name rather than by name of author. References to the diagnostic studies are grouped at the end of the bibliography.
[8] Data is taken from the World Bank's Business Environment and Enterprise Performance Survey (BEEPS), and shows that 70% of firms in the CIS report that corruption is a problem, compared to 50% in Central and Eastern Europe, 40% in Latin America and 15% in OECD. World Bank 2000c at 168-69
[9] World Bank 2000c at 170, citing EBRD *Transition Report* (1999)
[10] See generally World Bank 2000c at Chapter 4, *A Look at Income Inequality*, pp 139-170. The transition economies have been particularly vulnerable to state capture because of the socialist legacy of fused economic and political power.
[11] In a review of empirical studies, Lambsdorff (1999) cites other studies that agree with Gupta on this relationship. Lambsdorff questions whether inequality may also contribute to corruption. We have not found direct empirical support for reverse causality, though there is some indirect support in Kaufmann and Kraay, 2002, discussed below.
[12] Dollar and Kraay 2002. The question of the direction of causality is debated in several of the sources reviewed for this report. There is some empirical evidence of causality running from corruption to poverty. Dollar and Kraay, 2002; Gupta, 1998. Although intuitively it would seem that there might also be reverse causality (i.e., running from poverty to corruption), we have not found empirical studies supporting this point. There is some evidence, however, of reverse causality running from per capita incomes to governance. See Kaufmann and Kraay 2002, discussed below.
[13] Quibria 2002. Quibria suggests that a factor in this growth was the containment of corruption to the centralized type which he considers less costly to growth than more generalized or chaotic corruption.
[14] Easterly 2001 at 13-14. In severe economic retraction, the poor suffer appreciably greater loss in income than the population's average. Easterly quotes from Martin Ravillion and Shaohua Chen, *Distribution and Poverty in Developing and Transition Economies* (World Bank Economic Review No.11 May 1997).
[15] There was a problem of multicolinearity between corruption and public spending which for all practical purposes invalidated the other education indicators. Gupta, Davoodi and Tiongson 2000 at 17.
[16] Kaufmann, Kraay and Zoido-Lobaton 1999 at 15. Although the relationship held for most of the aggregate indicators, the test of the relationship between the aggregate indicator for corruption and increase in per capita income did not hold up. Specification tests reported the p-value associated with the null hypothesis that the instruments affect income only through their effects on governance. For five out of the six aggregate indicators, the null hypothesis was not rejected, which was evidence in favor of the

identifying assumptions. Corruption was the aggregate indicator for which the null hypothesis was rejected. This suggested that the aggregate indicator was not an adequate independent measure of corruption. "This is not to say that graft is unimportant for economic outcomes. Rather, in this set of countries, we have found it difficult to find exogenous variations in the causes of graft which make it possible to identify the effects of graft on per capita incomes." P.16 n. 15.

[17] Kaufmann, Kraay and Zoido-Lobaton 2002. In an April, 2002, presentation at the US Department of State, Dr. Kaufmann summarized this work on governance and the demonstrated link to better development outcomes such as higher per capita income, lower infant mortality and higher literacy. He expects that donors will pay much more attention to governance, and that the link between good governance and poverty alleviation is now a mainstream concept. Kaufmann 2002, slide 44. New data will be released shortly and will be available at http://info.worldbank.org/beeps.kkz/.

[18] Kaufmann and Kraay 2002. In a forthcoming study that draws on a survey of public officials in Bolivia, Kaufmann, Mehrez and Gurgur conclude (using a theoretical model for econometric analysis) that external voice and transparency have a larger effect on corruption (and quality of service) than conventional public sector management variables (such as civil servant wages, internal enforcement of rules, etc.)

[19] This study would be similar to the Business Environment and Enterprise Performance Survey (BEEPS), developed jointly by the World Bank and the EBRD, which generated comparative measurements on corruption and state capture in the transition economies of the CIS and CEE. See http://info.worldbank.org/governance/beeps/.

[20] For a discussion of various definitions of social capital and their evolution, see Feldman and Assaf 1999.

[21] See Rose-Ackerman 2001. Rose-Ackerman discusses the complex nature of the relationship between trust, the functioning of the state and the functioning of the market. The study stresses the mutual interaction between trust and democracy and the impact of corruption.

[22] Rose-Ackerman 2001 at 26, noting that this is especially the case in the FSU.

[23] Buscaglia 2000, discussing corruption and its long term impact on efficiency and equity, especially corruption in the judiciary.