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Inequality and Corruption: Evidence from Panel Data

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Abstract

Using panel data on International Country Risk Guide (ICRG) corruption index, Gini index of income inequality and a number of state variables for 71 developed and developing countries, this paper explores empirical relationship between corruption and income distribution. The analysis based on Generalized Method of Moments (GMM) estimation shows that corruption significantly contributes to unequal income distribution and this result is robust with respect to alternative specification of the econometric relationship. A central message of corruption and income inequality relationship suggests that corruption has significant distributional implications and, given its negative efficiency implications, corruption should be considered as harmful to both growth and equity. Therefore, policies that reduce corruption will also improve income distribution.

Keywords: Corruption, Income Inequality, Gini Coefficient, GMM

JEL classification: D73, D63, C33

1. Introduction

Corruption can affect resource allocation in two ways. First, it can change (mostly) private investors' assessments of the relative merits of various investment projects. This influence follows from corruption-induced changes in the relative prices of goods and services, of resources, and factors of production, including entrepreneurial talent. Second, corruption can result in resource misallocation when the decisions on how public funds will be invested, or which private investments will be permitted, are made by corrupt government agencies. The misallocation follows from the possibility that a corrupt decision-maker will consider potential 'corruption payments' as one of the decision criterion. Ranking of projects based on their social value may differ from the ranking based on the corrupt income that the agent expects to receive.

The literature defines corruption as, "the abuse of public offices for private gains" (World Bank, 1997; Transparency International, 1998). The World Bank, IMF, United Nations and other international organizations identify corruption as a

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major obstacle to development, economic growth and social and political stability. A large number of theoretical studies point to several channels through which corruption may adversely affect income distribution, but as yet, these theoretical investigations, although suggestive, do not have a strong empirical basis.

The 1997 World Bank's World Development Report stated that without an honest state "sustainable development, both economic and social, is impossible". Similarly, Gray and Kaufman (1998) reported a survey in which high-ranking officials from more than sixty developing countries classified corruption as "the most severe impediment to development and growth".

On the international arena, the globalization of markets, finances, and numerous other transactions have expanded the opportunity for collusive and concealed transactions, including those between the various non-state players and the "host" governments and their representatives. Multinational companies are, for instance, buying concessions, preferences and monopolies; kickbacks are offered on tenders, loans, and contracts. Likewise, development projects are often eased through by including travels, computers and other fringe benefits for local officials.

The decisive role of the state is reflected in most definitions of corruption, by which corruption is a particular and perverted state-society relation. Corruption is conventionally understood and referred to as the private wealth-seeking behavior of someone who represents the state and public authority. It is the misuse of public resources by public officials, for private gains. The encyclopedic and working definition used by the World Bank (1995), Transparency International (1998) and others is that corruption is the abuse of public power for private benefit (or profit). Another widely used description is that corruption is a transaction between private and public-sector actors through which collective goods are illegally converted into private goods (Heidenheimer et al., 1989). Rose Ackerman (1978) emphasized this point by suggesting that corruption exists at the interface of public and private sectors.

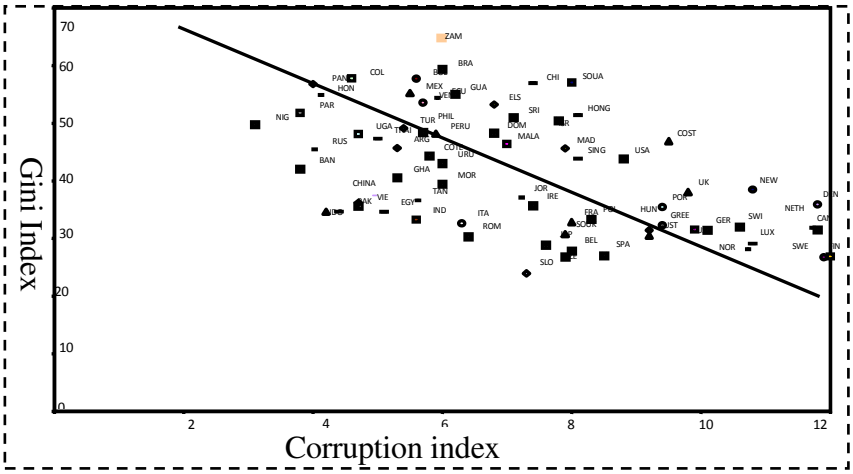
Increasingly, corruption has become an elections issue in numerous countries. Corruption scandals helped unseat governments in Ecuador, Brazil, India, and Italy and have shaken long-entrenched ruling parties in Japan and Mexico. In Pakistan, the 1999 National Accountability Ordinance set up a new agency specifically to fight corruption. In addition, the surge in privatization, especially in Latin America and Eastern Europe, has frequently been accompanied by corruption where political insiders are able to purchase state enterprises at prices far below market values. The benefits from corruption are

likely to accrue to the well-connected persons at the expense of the poor. Gupta et al. (1998) therefore argued that corruption increases income inequality.

This paper attempts to provide formal empirical evidence on the nature of the relationship between corruption and income inequality on the basis of rich panel data for 71 countries. An attempt is, therefore, made to understand the problem of corruption and income inequality, through empirical evidence, and to offer policy recommendations based on the findings. Although a few studies exist on the subject, none of them has taken the advantage of pooling cross-section and time-series data. By using a pooled sample of 71 countries and 26 years, this study adds richness to the empirical literature on the relationship between corruption and income inequality.

Figure 1 plots the average Gini index[2] against the average corruption index[3]. The Gini coefficient is positively correlated with corruption. Countries with higher corruption tend to have high income inequality. Or, countries with low income inequality tend to have low corruption.

Figure 1: Relationship between Corruption and Income inequality



Given Figure 1, the question arises whether corruption causes inequality, inequality causes corruption, or there is bidirectional causality.

[2] The extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from 0 representing perfect equality and 100 representing perfect inequality.

[3] The corruption index is a value from 0 to 12. A low value represents more corruption.

The prevalent statistical tests of causality are clearly not as robust as researchers would like them to be. Otherwise the ongoing debate concerning the relationship between corruption and inequality would have reached a definitive conclusion. Neither the hypothesis that corruption causes inequality (and/or poverty), nor the hypothesis that inequality (and/or poverty) causes corruption, have been definitively proven. An important consensus nevertheless exists. While there isn't a clearly discernible direction within the relationship between the equation's core variables, we know that each side has played a role in reinforcing the other.

The study proceeds by reviewing the existing literature on corruption and income inequality in Section 2. Framework of analysis is discussed in Section 3, while Section 4 provides detailed discussion on data issues. The empirical analysis of the results is carried out in Section 5. Finally, Section 6 summarizes the main findings of the study to offer policy recommendations.

2. Theoretical and Empirical Background

Only a few studies have analyzed the nature of 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 a) corruption may create permanent distortions from which some groups or individuals can benefit more than others, and b) the distributional consequences of corruption are likely to be more severe when corruption is persistent.

A World Bank study of poverty following the transition to a market economy in Eastern Europe and Central Asia (ECA) produced important findings concerning income distribution and corruption (World Bank, 2000). 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.[4] The study analyzes if any apparent link exists within ECA, between corruption and measures of income inequality (World Bank, 2000). When Gini coefficients for income per capita income are graphed against the Transparency International (TI) Corruption Perceptions Index (CPI), lower levels of corruption are seen to be statistically associated with lower levels of income inequality (the simple correlation coefficient is 0.72). Similar results are obtained using other measures of

[4] Data are taken from the World Bank's Business Environment and Enterprise Performance Survey (BEEPS), and shows that 70% of firms in the Commonwealth Independent States report that corruption is a problem, compared to 50% in Central and Eastern Europe, 40% in Latin America and 15% in OECD (World Bank, 2000).

corruption. A close examination of links between corruption and income inequality led to the conclusion that the costs of corruption fall particularly heavily on smaller firms.

This report also examines the relationship between a particular type of corruption, namely the state capture, and income inequality. State capture describes the situation in which businesses have undue influences over the decisions of public officials. The report notes that differences in income inequality are greatest in those ECA 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 policy-making process in a way that defeats development of a market economy.[5] The report explores the relationship between state capture and income inequality through regression 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 income inequality. The relationship holds even when controlling for political freedoms, location, and years under state planning (World Bank, 2000).

Gupta et al., (1998) conducted cross-national regression analysis of up to 56 countries to examine the ways that corruption could negatively affect income distribution and poverty. The study tests the propositions that a) corruption has adverse effects on economic growth and income distribution and, hence, on poverty; b) poor administration and exemptions favoring the well-connected potential taxpayers can reduce the tax base and progressivity of the tax system, thereby increasing income inequality; and c) extending benefits to well-to-do income groups or siphoning from poverty alleviation programs will diminish their impact on poverty and income inequality (and will tend to act as a regressive tax on the poor, enhancing income inequality).

The study examines these propositions using the Gini coefficient as a measure of income inequality and several indices of corruption. It finds that corruption reduces overall growth rate of the economy, hence it leads to higher poverty by reducing economic growth. It also suggests that benefits from corruption are likely to accrue to the well-connected agents at the expense of the poor. The result of the study further tells that corruption not only reduces income growth of the poor directly, but also indirectly through social spending.

[5] According to the report the transition economies have been particularly vulnerable to state capture because of the socialist legacy of fused economic and political powers.

Davoodi et al., (1998) find that the impact of corruption on income distribution is in part a function of government involvement in allocating and financing scarce goods and services. The study further argues that corruption increases income inequality, as measured by Gini coefficient. In a cross section of 37 countries, a significant positive impact of corruption on income inequality is found, while taking into account various other exogenous variables. When controlling for GDP per head, this impact remains significant at a 10 % level. The study concludes that deterioration in a country's corruption index of 2.5 points on a scale of 0 to 10 is associated with the same increase in the Gini coefficient as a reduction in average secondary schooling of 2.3 years. The authors test various instrumental variables to ascertain whether the relationship between corruption and income inequality is not a case of reverse causality.

While controlling for various influences, Davoodi et al. (1998) report that growth of corruption exerts a significant and negative impact on the income share of the bottom 20% of the population. However, since the perception of the levels of corruption may change more quickly than the levels themselves, it is not certain that the variable that measures growth of corruption is soundly determined. But, whether the causality actually moves from corruption to income inequality is questionable because a high degree of income inequality also contributes to high levels of corruption (Husted, 1999; Swamy et al., 1999). Moreover, both variables might be driven by cultural determinants. Acceptance of authority and low accessibility of people higher in hierarchy may increase income inequality and corruption at the same time.

Li et al., (2000) find that corruption affects the Gini coefficient in an inverted U-shaped way; that is, income inequality is low when the level of corruption is high or low, but income inequality is high when the level of corruption is intermediate. Corruption alone also explains a large proportion of the Gini differential across continents. Even after correcting for measurement errors and imposing rich conditional information set, corruption is found to retard economic growth. Corruption, however, does not explain much of the growth differentials across continents. In countries where asset distribution is less equal, corruption is associated with a smaller increase in income inequality and a larger drop in growth rates. Finally, the study concludes that corruption raises income inequality to a lesser extent in countries with higher government spending.

In addition, Mauro (1995 and 1997) finds that corruption especially reduces investment expenditures on health and education, which can be critical for the poor. Furthermore, corruption may direct health and education

expenditures toward programs favoring the wealthy, such as substituting high technology medical equipment favoring the elite in place of widespread immunization programs benefiting the poor. Also, education expenditures may be channeled away from literacy programs and primary education and toward university education. Scholarships may also benefit the children of the well-connected families.

3. Framework of Analysis

Corruption not only affects income growth but also the distribution of income. "The benefits from corruption are likely to accrue to the better connected individuals, who belong mostly to high income groups" (Gupta *et al.,* 2002). As Tanzi (1995) argues, corruption distorts the redistributive role of government. Since only the better-connected individuals get the most profitable government projects, it is less likely that government is able to improve the distribution of income and make the economic system more equitable.

Theory and empirical results suggest that corruption impedes economic efficiency, which could slow or even shrink economic growth. This will adversely affect all income classes, especially the most vulnerable, the poor. Moreover, some wealthy and well-connected citizens may attempt to influence government through both legal (lobbying) and illegal (bribery and favoritism) means to tilt government expenditures and the incidence of taxes in their favor, to the extent that corruption fosters both tax evasion and exemptions, favoring the wealthy and well connected. It not only lowers tax revenues but makes the tax system less progressive as well. Also, government expenditures in real terms could shrink both because of the loss in tax revenue and also because corruption rises the cost of government programs (Ahmad et al*.,* 2012).

In this paper we examine the impact of corruption on the income distribution, while including a number of control variables to minimize the omitted variable bias. These control variables include per capita income, trade openness, population growth rate, education, government expenditure, capital per-worker and past level of inequality. The following model of income inequality will be tested.

$$Gini_{it} = \beta_1 + \beta_2 CORR_{it} + \beta_3 y_{it} + \beta_4 Open_{it} + \beta_5 Gpop_{it} + \beta_6 Lsse_{it} + \beta_7 Govt_{it} + \beta_8 Ln(\frac{K}{L})_{it} + \beta_9 Gini_{i,t-1} + \varepsilon_{it}$$

Where

$Gini_{it}$ = Gini index

$Corr_{it}$ = Corruption index.

y_{it} = Log of GDP per worker

$Gpop_{it}$= Growth rate of population

$Open_{it}$ = Indicator of external competitiveness, measured as trade/GDP

$Lsse_{it}$= Secondary school enrollment rate (log form).

$Govt_{it}$= Government expenditure (as percentage of GDP).

K/L= Log of capital per worker

$Gini_{i,t-1}$ = Lag of Gini index.

β's, are the regression parameters, ε is the random error term and *i* and *t* represents the country index and the time index respectively.

4. Description of the Data

The study is based on a panel data set over the period 1984-2012 for 71 developed and developing countries. According to the World Development Report 2012, high income countries are categorized as developed countries, while the 'low income', 'lower middle income', and 'upper middle income' are classified as developing countries. An important advantage of using panel data is that these capture both time-series and cross-section variations in variables. The data are sourced from the publication of Political Risk Services' International Country Risk Guide (ICRG), IMF's International Financial Statistics Yearbook (2012), henceforth IFS, and the World Bank's World Development Indicators (2012), henceforth WDI.

The income inequality data are based on a new data set on the Gini coefficient (which is widely regarded as being the best inequality measure) developed by Deininger and Squire (1996). Three criteria's are used to compile the data. First, all observations are based on national household surveys for expenditure or income. Second, coverage represents the national population. Third, all sources of income and uses of expenditure are accounted for, including own-consumption.

The country choice in the data set is constrained by the limited availability of data on policy variables and also by the limited availability of data on Gini coefficients for the appropriate years. The study employs two data sets. The larger (complete) data set of 71 countries has several missing values and hence is not suitable for Generalized Method of Moment (hereafter GMM) estimation. However, to use all the available information, this data set is employed to estimate

the above relationships by Random Effects Model (hereafter REM). For the GMM estimation the study uses a smaller data set of 60 countries for which there are no gaps in the data.

Our econometric analysis focuses on the corruption index, which ranks between 0 (most corrupted) and 12 (least corrupted). The ICRG corruption index reflects the assessment of foreign investors on the degree of corruption in an economy. Investors are asked whether high government officials are likely to demand special payments and whether illegal payments are generally expected throughout lower levels of government as bribes connected with import and export licenses, exchange controls, tax assessment, police protection, or loans.

In the given sample of seventy-one countries, the country reported to have the lowest corruption is Sweden, which in 1984-2012 obtained grades around 12 out of 12 for the corruption index we have used. It also had very low-income inequality over the period of analysis. At the opposite extreme Nigeria, where income inequality as indicated by Gini index is quite high, is ranked at the worst place with respect to the level of corruption. A casual glance at the appendix III shows that richer countries tends to have low corruption than poorer countries, and that fast-growers also tend to be among the countries with a higher corruption value of index (low corruption).

5. Results and Discussion

The model of income inequality is estimated using GMM and REM and the results are reported in Tables 1 and 2. The income inequality regression is estimated using several specifications. In the first one of Table 1, the Gini coefficient is regressed on log of capital per worker, government expenditure, log of secondary school enrollment rate, population growth, trade openness, log of GDP per worker and corruption index.

With regard to the effect of corruption on income inequality, it is necessary to first specify the nature of the null and alternative hypotheses. In the presence of theoretical evidence linking corruption to income inequality, the null hypothesis that corruption has zero correlation with income inequality, needs to be tested against the alternative hypothesis of nonzero correlation. The two-tailed test rejects the null hypothesis at the one percent significance level.

In all the specifications the estimated coefficient of corruption index is negative and highly significant, indicating that corruption increases income inequality. The robustness of the results shows that higher corruption is indeed associated with higher income inequality at the one percent level of significance.

The magnitude of the effect of corruption on income inequality is considerable. It is equal to -0.362 in the specification when all control variables are included. A worsening in the corruption index of a country by one standard deviation (3.73 points on the scale of 0 to 12, see Appendix II) is associated with an increase in Gini coefficient of about 1.35 percentage points (Table 1, Column 1). These results are consistent with the findings of Gupta et al. (1998). In columns 1-9 of Table 1, corruption and lag of Gini coefficient are highly significant.

Results in Table 1 also show that openness and population growth are insignificant in columns 1 and 2. Although the coefficient on population growth (column 6) and log of secondary school enrollment rate (columns 1, 2 and 3) are significant, as theoretically expected, higher population growth rates also imply greater inequality, and higher educational attainment is associated with less inequality. In Table 1, column 1-9 the significance of the coefficient on the constant is high while the explanatory variables account for about 92 to 93 percent of cross-country variation in income inequality (columns 1-9 of Table 1).

Government expenditure, when added to columns 1 and 2 of Table 1, is found to have statistically significant effect on income inequality at the conventional levels while it has insignificant effect on income inequality in columns 3 and 8. One percent increase in government expenditure would cause almost -0.27 percent (column 2) decrease in income inequality. This result is consistent with the observations made by Gupta et al. (1998) and Alesina (1999).

The results also show that the coefficient of log of capital per worker in the income inequality equation is positive and statistically significant, indicating that capital growth has adverse effect on income inequality. The parameter estimate shows that one percent increase in log of capital per worker translates into around 1.7 percent increase in income inequality (Table 1, column 2). While technological progress can raise labor productivity and boost income level, it can also make it easier to substitute capital for labor. In that case, even rapid productivity growth may merely enhance capital's share of income, the return to capital, and the concentration of income and wealth.

Table 1: GMM Estimates of the Relationship between Income Inequality and Corruption (Dependent Variable is GINI Index

Independent Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Corruption	-0.362** (0.188)	-0.373** (0.185)	-0.352** (0.161)	-0.309** (0.162)	-0.296*** (0.100)	-0.266*** (0.097)	-0.263** (0.103)	-0.290** (0.132)	-0.311*** (0.117)
Log of GDP per worker	-0.535 (1.072)			0.075 (0.234)					
Openness	-1.402 (1.561)	-1.313 (1.471)			-0.347 (0.600)				
Population growth	1.262 (1.122)	1.362 (1.082)				0.213* (0.0102)			
Log of secondary school enrollment rate	-3.251** (1.538)	-3.090** (1.497)	-2.249* (1.360)				-0.412 (0.591)		
Government expenditure	-0.286* (0.159)	-0.269* (0.150)	-0.132 (0.112)					-0.001 (0.064)	
Log of capital per worker	2.273 (2.146)	1.725** (0.772)	1.176* (0.664)						0.094 (0.210)
Gini (-1)	0.999*** (0.064)	0.996*** (0.060)	0.954*** (0.047)	0.978*** (0.030)	0.971*** (0.026)	0.963*** (0.028)	0.972*** (0.027)	0.976*** (0.029)	0.979*** (0.025)
Constant	-33.15* (18.869)	-28.46** (14.63)	-26.93** (12.597)	2.661 (2.280)	3.761** (1.782)	3.344** (1.562)	-0.656 (10.822)	3.308* (1.833)	2.386 (2.184)
N Adj. R square	969 0.924	969 0.926	969 0.928	969 0.934	969 0.934	969 0.934	969 0.933	969 0.934	969 0.934

Source: Authors' Calculations. Standard errors are in parentheses.*, *, *** show level of Significance at 10%, 5%, and 1%, respective

Table 2: Random effects Estimates of the Relationship between Income Inequality and Corruption (Dependent Variable is GINI Index)

Independent Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Corruption	-0.787*** (0.174)	-0.564*** (0.172)	-0.486*** (0.164)	-0.229*** (0.0815)	-0.254*** (0.085)	-0.243*** (0.083)	-0.900*** (0.148)	-0.248*** (0.081)	-0.189** (0.081)
Log of GDP per worker	-4.821*** (0.911)			0.215 (0.552)					
Openness	-1.174*** (0.502)	-1.624*** (0.503)			-0.629 (0.556)				
Population growth	3.580*** (0.887)	4.308*** (0.893)				0.003 (0.255)			
Log of secondary school enrollment rate	-7.651 (0.919)	-7.236*** (0.933)	-9.283*** (0.891)				-10.78*** (0.770)		
Government expenditure	-0.062 (0.059)	-0.122** (0.059)	0.017 (0.056)					0.148*** (0.052)	
Log of capital per worker	-3.177*** (0.913)	1.380*** (0.321)	1.214*** (0.299)						-1.129** (0.581)
Constant	-134.0*** (9.672)	-140.2*** (9.779)	-133.3*** (9.786)	40.31*** (5.224)	49.90*** (1.387)	42.44*** (1.182)	-96.51*** (11.314)	40.20*** (1.459)	53.25*** (5.932)
Number of countries	69	69	71	71	69	71	71	71	71

Source: Authors' Calculations. Standard errors are in parentheses.*, *, *** show level of Significance at 10%, 5%, and 1%, respectively.

The results of the Random Effects estimation for nine different specifications are given in Table 2. In most of the specifications the estimated coefficient of corruption is negative and highly significant indicating that corruption increases income inequality. It is equal to -0.787 in the specification with all the control variables. Similar to the GMM estimation, the estimated coefficient of corruption index change drastically when we eliminate control variables. In REM estimation, coefficients of openness, log of GDP per worker and population growth are highly significant (Columns 1-2 of Table 2). In columns 1-9 of Table 2, corruption and lag of Gini coefficient are highly significant while significance of the coefficient on the constant is also high.

6. Conclusion

The evidence from this study demonstrates the statistical importance of corruption in determining income inequality. The study finds that the relationship between corruption and income equality is considerably negative. A worsening in the corruption index of a country by one standard deviation (3.73 points on a scale of 0 to 12) increases the Gini coefficient by 1.3 percentage points. The empirical literature also suggests that highly corrupt countries have high income inequality, and our empirical results confirm it. In particular, when government spending is higher corruption is more harmful for economic growth.

A central message of corruption and income inequality relationship suggest that corruption has significant distributional implications and, given its negative efficiency implications, should be considered harmful to both growth and equity. Therefore, policies that reduce corruption will also improve income distribution.

The fight against corruption has to be multi-fronted. While laws and its enforcement are indispensable, countries serious about fighting corruption should also pay attention to reforming the role of government in the economy. To improve political process, role of devolution of power to grass roots — decision-making, monitoring, planning and execution would also help to curb this menace. Moreover, anti corruption strategy should be pluralistic and holistic where players in public sector, the corporate private sector, and civil society jointly share responsibility by addressing the issues of accountability, transparency, participation, openness and rule of law.

International pressure on corrupt countries, including criminalizing bribing foreign officials by multinational firms, is useful. But the success of any anti-

corruption campaign ultimately depends on the reform of domestic institutions in corrupt countries.

Hong Kong, Portugal, and Singapore have demonstrated that corruption can be reduced significantly. Fighting corruption requires reducing corruption's benefits while raising its costs. Also, encouraging research and the dissemination of its findings can provide valuable direction to policy makers. Yet, in setting anticorruption goals, Rose-Ackerman (1996) cautions that attempting to completely eliminate it is unrealistic. To attempt to do so may be prohibitively expensive and may undercut personal freedoms and human rights. Furthermore, dishonest governments may use the guise of fighting corruption to punish political opponents. Thus, an effective anti-corruption strategy should: (a) encourage the reduction of rents by means of economic liberalization, deregulation, tax simplification, de-monopolization and macroeconomic stability; (b) reduce discretion through administrative and civil service reform, including meritocratic recruitment and decentralization; (c) honest and visible commitment by the leadership to the fight against corruption. The leadership must show zero tolerance for it; and (d) increase accountability – by building up institutions such as auditing and accountancy units, through legal reforms such as judicial strengthening, by encouraging public oversight through Parliament and a more vibrant civil society.

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Appendix

Table: 1 Descriptive Statistics of Regression Variables

Series	Mean	Standard Deviation	Minimum	Maximum
Corruption	3.64	3.73	0.0	6.0
Openness	0.80	0.56	0.12	4.72
Secondary school enrollment rate (log)	4.12	0.60	1.59	5.36
Growth rate of GDP	3.26	3.68	-14.53	18.83
Population growth	1.45	1.07	-1.70	11.83
Government expenditure (% GDP)	14.76	5.66	2.12	29.99
Gini index	40.37	10.15	19.70	67.71
GDP per worker (log)	9.02	1.49	5.83	11.37
Capital per worker (log)	9.92	1.56	6.47	12.55

Source: Authors' Calculations.

Table 2: Corruption, Income Inequality and Economic Growth (1984-2012 Average)

Country Name	Gini index	GDP per worker growth	Corruption
Argentina	45.7	2.6	5.3
Australia	31.6	3.5	9.9
Austria	30.5	2.1	9.2
Bangladesh	42.1	4.8	3.8
Belgium	27.9	1.9	8.0
Bolivia	57.7	3.5	5.6
Brazil	59.4	2.5	6.0

(Continues)

Country Name	**Gini index**	**GDP per worker growth**	**Corruption**
Canada	31.8	2.8	11.7
Chile	57.0	5.9	7.4
China	36.2	9.7	4.7
Colombia	57.8	2.4	4.6
Cost e' Rica	46.9	4.7	9.5
Cote d' Ivory	44.3	1.9	5.8
Czech Republic	26.8	0.6	7.9
Denmark	35.9	2.2	11.8
Dominican Republic	48.3	5.5	6.8
Ecuador	54.4	2.3	5.9
Egypt	34.6	4.2	5.1
Elsalvador	53.3	4.2	6.8
Finland	26.9	2.0	12.0
France	32.8	1.8	8.0
Germany	31.5	1.7	10.1
Ghana	40.5	4.3	5.3
Greece	32.3	2.6	9.4
Guatemala	55.0	3.8	6.2
Honduras	54.9	3.2	4.1
Hong Kong	51.4	4.1	8.1
Hungary	31.4	1.3	9.2
India	33.2	5.4	5.6
Indonesia	34.7	4.3	4.2
Ireland	35.7	7.1	7.4
Israel	50.5	4.4	7.8
Italy	32.6	1.5	6.3
Japan	28.9	1.3	7.6

(Continues)

Country Name	Gini index	GDP per worker growth	Corruption
Jordan	37.1	5.1	7.2
Luxemburg	29.1	4.9	10.8
Madagascar	45.6	0.9	7.9
Malaysia	46.4	6.4	7.0
Mexico	55.2	3.0	5.5
Morocco	39.4	2.8	6.0
Netherlands	31.5	2.6	11.8
New Zealand	38.5	3.0	10.8
Nigeria	49.8	2.4	3.1
Norway	28.1	3.3	10.7
Pakistan	34.6	3.7	4.4
Panama	56.8	4.4	4.0
Paraguay	51.8	1.7	3.8
Peru	48.2	3.8	5.9
Philippine	48.4	3.2	5.7
Poland	33.3	3.3	8.3
Portugal	35.5	2.5	9.4
Romania	30.3	-0.6	6.4
Russia	45.5	-2.2	4.0
Singapore	43.9	6.4	8.1
Slovenia	23.9	1.1	7.3
South Africa	57.1	2.0	8.0
South Korea	30.7	6.0	7.9
Spain	27.0	2.6	8.5
Sri Lanka	51.0	4.6	7.1
Sweden	26.7	1.9	11.9
Switzerland	32.0	0.8	10.6

(Continues)

Country Name	**Gini index**	**GDP per worker growth**	**Corruption**
Tanzania	36.6	3.5	5.6
Thailand	47.3	4.5	5.0
Turkey	49.2	3.1	5.4
Uganda	48.1	6.6	4.7
United Kingdom	38.1	2.3	9.8
Uruguay	43.0	1.4	6.0
United States of America	43.8	2.9	8.8
Venezuela	53.6	1.3	5.7
Vietnam	35.6	7.5	4.7
Zambia	64.2	1.3	5.8

Source: Authors' Calculations.