

# Does Media Freedom Curb Corruption?

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## *Abstract*

*Earlier studies on corruption provide some evidence supporting the common view that freedom of press or media lowers corruption in a cross sectional and panel framework. This paper adds to the literature by examining the impact of the freedom of press or media on corruption for a larger and most recent dataset of a panel of 111 countries over the period 1994-2000. Using several panel specifications and controlling for per capita income, individual country heterogeneity, and error structure, it is found that freedom of press or media lowers corruption by 20% supporting the existing literature.*

## **I. Introduction**

Freedom of press or media (Henceforth FOP) plays considerable role in providing us with adequate information about society, politics, economics, and culture. Opposition parties attempting to capture power also form public opinion through press. It shapes public policy by providing information about the priority of a government. However, FOP has its negative impact on society in the form of ‘yellow journalism’<sup>1</sup>. This so-called ‘yellow journalism’ may possibly misguide us by forming public opinion in wrong direction. Sometimes, it can also tarnish the image of respected persons by interfering on their personal life.<sup>2</sup>

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<sup>1</sup> This phrase is used in the US to describe newspapers involved in the internecine warfare of the popular metropolitan press empires of the late 19th century; a battle which has continued to the present day with mass-circulation tabloids competing for readership with all sorts of exploitative offers, lurid revelations and blockbuster bingo (Watson and Hill, 1993, p.189).

<sup>2</sup> In this paper, the words ‘press’ and ‘media’ are used interchangeably. So, ‘freedom of press’ also implies ‘media freedom’ in all electronic devices in this paper. Freedom House (2004) uses the same approach in rating countries based on press freedom.

In many countries, the activities of defense, bureaucracy, and other government machineries are not supposed to be examined by ordinary people or parties outside the power. The major hindrance to information comes in the form of so called Official Secrets Act.<sup>3</sup>

Hence, people have to depend on press or media where almost everybody has some sort of access at minimum cost. In a broader sense, FOP may come out in the form of newspaper, radio, and television.

Putting the negative elements aside, we can say that FOP reveals the untold stories of government in the form of publication of reports about what is happening in judiciary, executives, and legislative authorities. One additional aspect of FOP is that it also tells us about the corrupt practices of public officials. Sen (2000) postulated that countries with more press freedom can control famine, high population growth rate, and financial crisis more effectively. The media also provide information on political markets, exposing corrupt and unethical politicians (World Bank, 2002b, p. 181).<sup>4</sup> Hence, sometimes the vested interest groups may consider the news of independent press as propaganda against the government as well as country.

It is the established fact that when the media are controlled by the state, they are more likely to be subject to political pressures (World Bank, 2002b, p. 109). In many developing countries, major source of income of newspapers is government advertisements (Staphenhurst, 2000). As a result, some newspapers always try to be loyal to the existing ruling party for financial reasons. As soon as party changes, the newspapers also change their position. This kind of scenario is not conducive to media freedom. The empirical research on FOP and its impact on society are mostly qualitative.<sup>5</sup> The quantitative research about cross country

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<sup>3</sup> This act censors information-access to it, and expression of it-which might be of use to the nation's enemies (Watson and Hill, 1993, p.124). However, now-a-days this act is misused by ruling parties to suppress information regarding corruption and other irregularities in the policy and decision making.

<sup>4</sup> In Bangladesh the introduction of privately-owned TV channels has the role of exposing the corruption or unethical practice of the politicians by engaging the politicians and policy-makers in open debate. Among all the programs one conducted in Channel-I named *Tritiya Maatraa* is noteworthy. In a parliamentary democracy, government is required to form 'parliamentary committees' to oversee the activities of different bodies of government. Opposition parties have the right to expose corrupt practices by government officials in the meetings of 'parliamentary committees'. But we come to know about the proceedings of the parliamentary committees through press.

<sup>5</sup> To find a comprehensive summary of many case studies around the world regarding the role of media see Staphenhurst (2000).

analysis of the impact of FOP on public corruption is limited by two things: absence of long time series data on public corruption and the data on press or media freedom. In spite of limited data availability, there exists a few major works in the area on what determines corruption. The factors that are already identified are: the type of government (Shleifer and Vishny, 1993, Cai and Triesman, 2004); competition (Bliss and Tella, 1997, Ades and Tella, 1999); culture or religious differences (Paldam, 2001); maturity of democracy (Mohtadi and Rhee 2003); foreign aid (Tavares, 2003); wage differential between the private and the public sector (Rijckeghem and Weder, 2001); legal origin of countries (La Porta et al., 1998); ethno linguistic fractionalization (Mauro, 1995); fiscal decentralization (Fishman and Gatti, 2002); press freedom (Stapenhurst, 2000; Brunetti and Weder, 2003; Chowdhury, 2004); and political rights and civil liberties (Ades and Tella, 1999; Chowdhury, 2004).<sup>6</sup> From the above review, it appears that the impact of press freedom on corruption is getting increased attention at policy level in recent years. This paper adds to the existing literature by exploring the impact of FOP on public corruption for 111 countries over the period 1994-2000 or for a total of 777 observations.<sup>7</sup> The additional advantage of using panel data is that it allows more variability in data, less multicollinearity, and less omitted variables-bias (Baltagi, 1995).<sup>8</sup> Section II provides a model of corruption by considering the FOP as an additional determinant. Section III provides an analysis on data and variables, Section IV presents the empirical results, and Section V concludes.

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<sup>6</sup> To get a comprehensive idea about all the determinants of corruption and their significance in a cross-section framework see Triesman (2000).

<sup>7</sup> The list of countries include Albania, Algeria, Angola, Argentina, Australia, Austria, Bahamas, Bangladesh, Belgium, Bolivia, Botswana, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chile, China, Colombia, Costa Rica, Cyprus, Czechoslovakia, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Finland, France, Gabon, Gambia, Germany, Ghana, Greece, Guatemala, Guinea, Guinea Bissau, Guyana, Haiti, Honduras, Hungary, Iceland, India, Indonesia, Iran, Ireland, Israel, Italy, Ivory Coast, Jamaica, Japan, Jordan, Kenya, Kuwait, Lebanon, Luxembourg, Madagascar, Malawi, Malaysia, Mali, Malta, Mexico, Mongolia, Morocco, Mozambique, Namibia, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Saudi Arabia, Senegal, Sierra Leon, Singapore, South Africa, South Korea, Spain, Sri Lanka, Sudan, Suriname, Sweden, Switzerland, Syria, Tanzania, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, Uganda, U.K., Uruguay, U.S., Russia, Venezuela, Vietnam, Yemen, Zambia, and Zimbabwe.

<sup>8</sup> This paper uses a larger and more recent dataset compared to Brunetti and Weder (2003) and Chowdhury (2004). The highest number of observations covered by Brunetti and Weder (2003) is 497 and for Chowdhury (2004) the corresponding figure is 403 while this paper covers 777 observations and also allows for serial and contemporaneous correlation of errors.

## II. The Model

The model follows the standard version of the corruption model developed by Ades and Tella (1999), and also used by Brunetti and Weder (2003). The random-effects or the error-component form of the model in a panel framework can be written as follows:

$$\text{CORP}_{it} = \beta_0 + \beta_1^{(-)} \ln \text{PCI}_{it} + \beta_2^{(-)} \text{MEDIA}_{it} + \varepsilon_{it} \quad [1]$$

$$\varepsilon_{it} = \mu_i + \omega_{it}$$

where  $i$  represents country and  $t$  represents year.  $\mu_i$  is treated as random and all the observations are assumed to be drawn from the same distribution.  $\mu_i$  captures country-specific-effects which are treated as random. To capture both the country and the time specific-effects the random error term  $\varepsilon_{it}$  can be decomposed as  $\varepsilon_{it} = \mu_i + \tau_t + \omega_{it}$  where  $\tau_t$  captures time-specific effects.

The expected sign of the per capita real GDP (henceforth PCI) coefficient ( $\beta_1$ ) is negative in the sense that higher per capita income lowers the intensity of corrupt practices in an economy in that higher per capita real GDP lowers the expected benefit of corruption. It is assumed that the marginal benefit curve is downward sloping against PCI. However, press freedom works as a limit to corrupt practices in the sense that it raises the expected cost of corrupt practices by public officials. Hence, the expected sign of  $\beta_2$  is also negative. The additional advantage of using PCI is that it controls for the economic size of countries and we can include any country in our dataset irrespective of its level of development. It is to be mentioned that PCI is mostly found as significant in all earlier studies.

FOP helps reducing corruption through several channels. Stapenhurst (2000) has identified some tangible and intangible factors through which media can affect corruption. The tangible factors are i) investigating and exposing corrupt officials and office-holders; ii) prompt investigations by official bodies; iii) reinforcing the work and legitimacy of the state's anti-corruption bodies; iv) strengthening anti-corruption bodies by exposing their flaws; v) pressure for changes to laws and regulations that create a climate favorable to corruption, and vi) anticipation of adverse media publicity prompts a preemptive response.

Brunetti and Weder (2003) argued that free media can help reducing both the 'extortive corruption' and the 'collusive corruption'. Free media reduces 'extortive corruption'-the type of corruption mostly takes the shape of bribe by raising the probability of being detected and punished by laws. Bureaucrats enjoy the discretion to refuse or delay in providing some services to the bribe payers in this situation. But in the 'collusive corruption' which is mostly observed in the form of 'tax evasion', tax-payers also collude with the bribe-takers. In this

situation, both the bribe payers and takers extract some unfair gains on mutual basis. Free media is most effective in curbing ‘collusive corruption’ of this kind.

The channels can be summarized as follows:

First, FOP helps us communicating well with each other and creates some sort of resistance against any irregularities. Second, it can help us in diverting resources to the sectors where they are mostly needed. Third, when we hear news or reports from many different sources freely it becomes easier for us to verify which one is right and which one is wrong and creates a sort of public awareness against corruption. Fourth, in a democratic country where the press is somewhat free the ruling party does not want to lose in next election just by ignoring the press report regarding corruption.

### III. Data and Variables

Data for corruption index is taken from PRS group’s ICRG index of corruption in government. Nevertheless, we have collected the corruption index from the paper version of the same data compiled by IRIS, University of Maryland, College Park. The index ranges from 0 to 6 where 0 means most corrupt and 6 means least corrupt.<sup>9</sup> However, the indexes are transformed in such a way that 0 means least corrupt and 6 means most corrupt simply by deducting the existing ICRG indexes from six.<sup>10</sup> The data on per capita GDP (henceforth PCI) is taken from World Development Indicator CD-ROM (World Bank, 2002a). PCI is defined as per capita GDP at constant 1995 US\$. The index of press freedom is taken from the Freedom House Index of Press Freedom (Freedom House, 2004) which ranges from 0 to 100 where 0 means the most freedom and 100 means the least freedom.<sup>11</sup> However, we transform the index in such a way that 6 means the most freedom and 0 means the least freedom to make the index comparable to corruption index.<sup>12</sup> To get an idea about the data we report the panel summary statistics of our data in Table 1.

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<sup>9</sup> Lower scores indicate “high government officials are likely to demand special payments” and “illegal payments are generally expected throughout lower levels of government” in the form of “bribes connected with import and export licenses, exchange controls, tax assessment, policy protection, or loans” (Knack and Keefer, 1995, p. 225).

<sup>10</sup> For example, after the transformation of data, the corruption index for Niger stands at 6 for three consecutive years starting from 1997 while it was 1 for the same years in Norway.

<sup>11</sup> Freedom House (2004) prepares this index based on four criteria: laws and regulations that influence media content, political influence over media content, economic influence over media content, and repressive actions. This index covers both the print media and the broadcast media.

From the table, we can see that within-country variation is substantially lower than the between-country variation when the variation is measured by the standard deviation. For example, while the within-country standard deviation

**Table 1 : Panel Summary Statistics**

Variable		Mean	Std. Dev.	Min	Max	Obs
CORP	Overall	2.61	1.28	0	6	N=777
	Between		1.15	0	5	n=111
	Within		0.57	0.32	5.18	T=7
lnPCI	Overall	7.75	1.68	4.60	10.94	N=777
	Between		1.68	4.69	10.79	n=111
	Within		0.06	7.50	8.02	T=7
MEDIA	Overall	3.50	1.35	0.06	5.70	N=777
	Between		1.31	0.57	5.63	n=111
	Within		0.33	1.18	5.65	T=7

Note: This descriptive statistics is specially designed for panel data and prepared from STATA, Version 8.0.

figure is 1.31 the between-country standard deviation figure is only 0.33. This difference has important implication for model specification in panel estimation.

#### IV. Empirical Results

The empirical estimations started with the pooled OLS (henceforth Case 1) where it is assumed that the intercepts and the slopes are the same across countries and over time. This estimation is considered as too restrictive in the sense that some countries may have some individual characteristics which are specific to that country and sometimes some years may be considered as special and the reasons for this difference may to some extent be random. To address this kind of country-specific and time-specific heterogeneity we estimate random-effects model (henceforth Case 2 and Case 3). Cases 2 and 3 are different in the sense that while Case 2 considers randomness of intercepts across countries Case 3 also allows randomness of intercepts over time.<sup>13</sup> Cases 1, 2, and 3 do not allow any serial or contemporaneous correlation of errors.

Unexplained determinants of corruption of one country may also affect another country at the same time. For example, smuggling, money-laundering, capital-

<sup>12</sup> For example, after the transformation of the FOP index, the figures for Algeria stands at 0.06 for the years 1995, 1996, and 1997 while the figures for the same years in Denmark are 5.46.

<sup>13</sup> To learn more about the data transformation method in random-effects estimation see Wooldridge (2003).

flight etc. are interlinked across borders. Sometimes, unexplained factors may be linked over time. For example, unexplained factors that make some countries corrupt this year may also keep it corrupt in the next or the following year through habit formation. This kind of situation can be captured by using Parks' Method (Parks, 1967). Parks' Method is denoted as Case 4. All the panel estimations results are now reported in Table 2.

**Table 2 : Panel Estimates of Equation 1**

Dependent Variable: CORP				
Cases	Constant	ln PCI	MEDIA	Specification Tests
Case 1	4.01	(14.55)	-0.29 (10.70)***	-0.34 (10.00)*** LM=730.49, p-value=0.00
Case 2	4.47	(8.73)	-0.30 (5.53)***	-0.20 (3.83)*** m=121.20, p-value=0.00
Case 3	4.75	(9.93)	-0.34 (6.69)***	-0.20 (4.15)*** m=30.47, p-value=0.00
Case 4	4.86	(68.05)	-0.36 (54.45)***	-0.20 (28.46)*** n.a.

Note: Figures in parentheses are absolute values of t-ratios while \*\*\* means that the coefficient is significant at 1% level.

From Table 2 it is clear that no matter which panel specification we use, freedom of press has significant impact in curbing corruption. Ignoring the results from the pooled OLS estimation, the extent of the impact of media freedom can be amounted to 20% on average given the economic size of countries. Hence, ensuring press freedom may lead to a substantial improvement in corruption situation of countries.

The specification test results guide us in selecting the appropriate panel estimation technique. The LM test statistic reported in the last column of Table 2 compares between the pooled-OLS and the random-effects model. The figure is 730.49 with a P-value of 0.00 rejecting the pooled-OLS for the random-effects estimation. Hence, Case 2 is preferred to Case 1. The Hausman test statistic (henceforth m) rejects the random-effects estimation and suggests us to prefer the fixed-effects estimation. But the nature of our data does not allow us to use the fixed-effects estimation in the sense that most of the variables are subjective indicators and are somewhat invariant over time. The fixed-effects data transformation cancels this kind of time invariant values out. Therefore, if we compare the pooled OLS, the fixed-effects, and the random-effects estimation we feel that the random-effects estimation (Case 2 and 3) is mostly preferred and the results still hold if we allow for serial and contemporaneous correlation in Case 4.

The dependent variable is an indicator variable that ranges from zero to six. Hence, we may cast doubt about the appropriateness of the OLS estimation. As an additional robustness check, we decoded our data on dependent variable to transform it into a binary variable where the corruption figure takes a value one if the indexes are greater than three and zero otherwise. Then we conduct logit and probit estimation of the same model in a panel framework and find that both the 'lnPCI' and 'Media' coefficients take correct sign and significance. Therefore, the result is robust in alternative estimation techniques. This kind of robustness check is necessary to verify if our results from the pooled OLS, random-effects, and Parks' estimation are different due to the fact that the dependent variable is not continuous.

## **V. Conclusion**

Controlling corruption is one of the policy objectives of many of the countries of the world. Sometimes in some countries the ruling authorities run the risk of losing power through election if they fail to control corruption in public office. The empirical literature on corruption is limited by unavailability of data on corruption for long time periods and the absence of a unified theoretical framework for modeling corruption. Among all the determinants of corruption, competition, types of government, foreign aid, wage differential, legal origin, ethno linguistic fractionalization, fiscal decentralization, culture or religious difference, political rights, civil rights, and press freedom are noteworthy. There are only few studies that deal with the role of press freedom in curbing corruption using only a limited number of observations.

This paper adds to the existing literature of media freedom and its impact on corruption by drawing recent data on corruption and media freedom for 7 years and 111 countries in a panel framework. Using an existing model of corruption augmented by media we find that freedom of press plays considerable role in controlling corruption irrespective of the level of economic development of a country. After controlling for the economic size of countries, it is found that freedom of press can lower corruption by approximately 20%. The results also hold well when we allow for different assumptions regarding intercepts and control for serial and contemporaneous correlation in errors or use logit and probit estimation of the same model. This paper suggests that government must ensure press freedom to eradicate corruption that grips our national life.



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