

Do Mergers and Acquisitions Affect Corruption?

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Abstract

We investigate empirically the effect of openness on corruption. We measure openness by the amount of mergers and acquisitions (M&A) activity in a country. Closed economies are associated with higher possibilities of rent creation and extraction. In such economies, a basic remedy to cure corruption is the introduction of competition and openness to trade. M&A activity can open the gates of the economy and increase competition. Economic literature provides evidence that higher corruption levels discourage M&A. Here we study the opposite direction of causality and we address the issue of causality. Using a large panel of 50 countries over a 16 year period, we present evidence that M&A activity reduces the corruption level of the host country.

Keywords: Corruption, Mergers and Acquisitions, International Trade, Openness, Competition.

JEL: D73, G34, F30, H10.

1. Introduction

“There is no compromise when it comes to corruption. You have to fight it.”

- A. K. Antony, Former defence minister of India and member of the parliament (as cited in Ullekh, 2012).

There have been several studies on the effects of foreign direct investment (FDI) inflows on the host country corruption, but no study has investigated the effects of mergers and acquisitions (M&A) on the host country's level of corruption. This is somewhat surprising since M&A are the most important component of FDI. The share of M&A in FDI has been increasing in recent years, and M&A have become a primary mode of internationalisation (UNCTAD, 2000). At the same time, policy makers view corruption as a major hindrance to economic growth and development. As a result, the fight against corruption has raised considerable attention and international organizations such as the UN, the IMF and the OECD have taken a special interest in anti-corruption movements. Corruption is arguably the most serious problem in developing countries (e.g., Bardhan, 1997) and it is also a challenge for many developed countries (Kaufmann, 2004). Corruption will be cured only if its causes and determinants are identified. As one of the determinants of corruption, this study proposes M&A and estimates its effects on corruption.

Literature on corruption names three prerequisites for corruption: discretionary power of public officials, the association of this power with economic rents, and the probability of those officials getting caught and penalized (Jain, 2001). However, the presence of rents is seen as the single most important prerequisite of corruption (Braguinsky, 1996) because the existence of economic rents fosters corruption (Ades and Di Tella, 1997). The possibility of corrupt transactions will decrease if bureaucrats have less opportunity to extract or create economic rents. As one solution, Ades and Di Tella (1997) suggest an economist's approach to control corruption by increasing the role of competition and markets, thus lowering the chance of exploiting their discretionary power. Reduced official discretion will reduce the potential for corruption (Rose-Ackerman, 1997).

Foreign investors bring with them new culture, norms and technologies which are spilled over to domestic firms. On the other hand, domestic M&A facilitate the spill over of these new norms

and culture. The presence of foreign investors and multinationals alongside with domestic acquisitions intensifies competition. Moreover, Competition restricts the profits of engaging in a corrupt transaction and discourages public officials from initiating a corrupt behaviour. Although a closed economy provides a fertile ground for corruption activities, competition can hinder corruption.

As the major component of FDI, M&A introduce more competition in host countries. Because M&A are by far the main type of investment in a foreign country, in this study, we investigate the effects of M&A on host country corruption. To the best of our knowledge, this is the first study that empirically analyzes the relationship between the intensity of M&A and local corruption. Although the level of corruption has a strong effect on M&A decisions, M&A could decrease corruption. This study may bring new insights into our understanding of corruption by addressing the problem of simultaneity between M&A and corruption.

The rest of the paper is structured as follows. In section 2 we review the literature and develop our hypotheses. Section 3 presents our data and methodology, section 4 reports and discusses the empirical results, and section 5 concludes the paper with a discussion of the most important implications.

2. Literature Review and Hypotheses Development

Corruption is usually understood as the “misuse of public power for private gain” where private gain may occur either to the individual official or to the group to which he belongs. The issue of corruption has attracted the interest of many political scientists and economists in recent years. Early studies mainly focused on the consequences of corruption and showed that corruption deters economic development and growth. These bodies of literature were pioneered by Mauro (1995), who reports a significant negative relationship between corruption and investment that extended to growth. Several consequent studies confirmed and broadened Mauro’s (1995) results and extended to other macroeconomic variables such as foreign direct investment and Mergers and Acquisitions. Wei (2000b), Habib and Zurawicki (2002) and Lambsdorff (2003) focused on the link between corruption and foreign direct investment (FDI) and show that corruption has an adverse effect on foreign investment and capital inflows because corruption renders a country unattractive to foreign investors.

Later studies investigated the causes of corruption to understand why some countries exhibit higher levels of corruption than others. Among others, competition serves as a major cause of corruption which has attracted the interest of many scholars. Lambsdorff (2005) contends that in competitive environments public servants and politicians have less to sell in exchange for bribes, and as a result, they are less motivated to start a corrupt career. Ades and Di Tella (1995, 1997 and 1999), Sung and Chu (2003) and Gerring and Thacker (2005) also find a negative association between competition and corruption. The literature presents several other causes of corruption. Government size, institutional quality, degree of democracy, press freedom, national income and cultural determinants are among the other causes of corruption which will be addressed further in this paper.

The presence of resources that can be easily misappropriated or transferred, along with discretionary power in allocating them nourishes corruption. Closed markets with imperfect competition are an important source of rents. In these markets, the possibility of corrupt transactions increases when discretionary power of the relevant bureaucrats or public officials allows extraction or creation of economic rents while those bureaucrats are not held accountable for their actions (Tanzi, 1998; Rose-Ackerman, 1999; Jain, 2001).

Ades & Di Tella (1995, 1997 and 1999) claim that corruption is higher when bureaucrats have the potential to extract larger economic rents. They argue that openness to international trade will reduce the monopolistic power of domestic producers and strengthen market competition which in turn narrows the rents available for bureaucrats to extract. "A natural approach to corruption control is to appeal to the concept of competition as it is argued that bribes are harder to sustain where perfect competition prevails" (Ades & Di Tella, 1999). They use country's openness to trade as an alternative indicator of competition and find that openness, defined as the ratio of imports to GDP, is negatively linked to corruption. Sung and Chu (2003), Sandholtz & Koetzle (2000), Sandholtz & Gray (2003) and Gerring & Thacker (2005) report similar findings. Treisman (2000) also uses the share of imports in GDP as a proxy for openness to trade and fails to find a significant relationship between exposure to imports and lower corruption. However, Lambsdorff (2005) questions the usefulness of the ratio of imports to GDP as an indicator of competition or openness. He argues that this variable depends highly on the size of a country, and can be a good indicator of competition in small countries, because large countries can

compensate for a low ratio of import to GDP through more competition within their own borders. Moreover Gerring & Thacker (2005) argue that a country may have a high level of import ratio, but not a particularly open economy.

Wei (2000a) applies a measure of “natural openness” as the extent of openness in a country which is caused by its population and its remoteness from world trading centers. Using this measure, he finds that natural openness is indeed a determinant of corruption, pointing out the helpful role of competition in decreasing corruption. However, the “natural openness” has been criticized because of its dependence on population size.²

Another possible measure of the extent of competition and openness of a country can be its level of foreign direct investment (FDI). Larrain and Tavares (2004) use the ratio of FDI to GDP as an indicator of openness to trade and empirically find that higher exposure to FDI tends to be related to lower corruption levels. Gerring & Thacker (2005) also find a similar relationship between trade openness measured by the ratio of FDI to GDP and corruption.

As the most important component of FDI, M&A are also affected negatively by host country corruption. Corruption is seen as a market barrier to entry and it is a discount on merger synergies (Weitzel and Berns, 2006). Moreover, corruption in a host country shifts ownership from wholly owned (acquisitions) to joint ventures (Javorcik and Wei 2009). In addition, once a company has made an acquisition, it is difficult to re-sell it whereas; it is much easier to sell off a capital investment. Thus when a company has an incentive to acquire or merge with another company, corruption in the host country is a matter of great consideration. Wei (2000b) finds evidence that American and European investors are indeed averse to corruption in host countries.

Cross-national economic ties can restrain corruption by increasing its cost. Corrupt practices can perpetuate themselves more easily in closed economies, but in open markets corrupt officials would feel the pinch of international openness. Because bribe-paying companies suffer under international competition, they would have less money to offer, and bureaucrats would find that their corruption-related income declines. Greater exposure to international trade thus penalizes corruption. On the other hand, open societies not only import goods and capital from the rest of world, but also ideas, policies and norms. International integration has its domestic

² See Knack and Azfar (2003).

consequences. Openness to international transactions can introduce policy shifts and reform the domestic economies and politics of countries. The effects of international interactions are very substantial and can affect norms and practices that are usually determined by local social and cultural factors. Although corruption in a country has powerful domestic determinants, it is significantly affected by the level of international integration and openness. Sandholtz and Gray (2003) investigate such relationship and find that being tied to international networks of exchange, communication and organization decreases the level of corruption.

The volume of cross-national mergers and acquisitions has been growing worldwide. In the last decades, M&A has become the most important component of capital inflows and foreign investment. While the degree of market diversification and competition reduces opportunities for rent creation, which in turn leads to less corruption, cross-national M&A activity intensifies competition and nurtures openness to trade in a country, and as a result, they may decrease corruption. As put forward by Rose-Ackerman (1975), corruption may be less frequent if it has long-term negative consequences for the firms and individuals involved, as it is the case with M&A activity. Both cross-national and domestic M&A activity can open the economy to international trade and intensify the degree of competition within a country. Thus total M&A activity can proxy competition in a host country.

Closed economies are associated with higher possibilities of rent creation and extraction. In these environments, introduction of competition and openness to cross-border trades can be a basic remedy for corruption. M&A activity can open the gates of the economy and increase competition. They can also bring along ideas, norms and policies. In this paper, for each country we gauge the M&A activity through two separate measures: the total number of M&A deals per year and the total transaction value in US dollars per year. Based on the above analysis on the economic conditions affecting the opportunities and costs of corruption in host countries, we could hypothesise that a higher amount of M&A will decrease corruption.

3. Data and Methodology

3.1 The Model

To measure the effects of country-specific institutional, cultural, and political variables that affect the level of corruption over time, panel data is a rational approach. Other studies which

tried to investigate the causes of corruption neglected the effect of time. Most of the previous studies used a simple OLS regression model which fails to address the effects of time. Dependent variable in our panel regression equation is the Transparency International measure of corruption and our independent variables are M&A activity measures plus the control variables. The panel model, which is used in the empirical analysis to test our hypotheses, is expressed as follows:

$$C_{i,t} = \alpha_0 + \beta M_{i,t-1} + \gamma' X_{i,t} + \lambda_t + \theta_i + \varepsilon_{i,t}, \quad (1)$$

Where $C_{i,t}$ is the level of corruption measured by CPI; $M_{i,t-1}$ is the lagged M&A activity measures; $X_{i,t}$ is the vector of control variables: former colony, per capita GDP (lagged), ethnolinguistic fractionalization, oil exporter, government expenditure, population, political rights, French legal origins and primary religion; β and γ are the parameters to estimate; α_0 is the portion of intercept that is common to all years and countries; λ_t denotes year-specific effect common to all countries; θ_i is the source-country fixed effects; $\varepsilon_{i,t}$ is normal error terms with mean zero and variance σ^2_{ε} ; i stands for the country ($i = 1, \dots, N$); and t stands for the year ($t = 1, \dots, T$). We include in the model the lagged variables of M&A activity and GDP per capita to tackle the issue of reverse causality.

3.2 Control Variables

The abundant empirical literature on the determinants of corruption identifies a series of alternative conditions which will affect our analysis and choice of controls.³ Among those conditions found to affect corruption we find:

Legal Systems

The most obvious cost of corruption is the risk of getting caught and punished (Treisman 2000, p. 402). The probability of getting caught and sanctioned depends in part on the country's legal system. The civil law system which is found mostly in continental Europe and its former colonies was introduced in 19th century by Napoleon and Bismarck. La Porta et al. (1999) argue that the civil law system is "largely legislature created and is focused on discovering a just solution to a dispute (often from the point of view of the State) rather than on following a just procedure that protects individuals against the State". Civil law systems have largely been an

³ See Lambsdorff (2006) for an excellent review of this literature.

instrument of the state in expanding its power and “can be taken as a proxy for an intent to build institutions to further the power of the State” (La Porta et al. 1999, Treisman 2000). Thus, a civil law tradition is expected to be associated with lower governance, less efficient governments, and higher levels of corruption (La Porta et al. 1999).

Religion

Religious practices have the potential “to shape national views regarding property rights, competition, and the role of state” (Beck et al. 2003, p.151; Stulz and Williamson 2003; La Porta et al. 1999). “In religious traditions such as Protestantism, which arose in some versions as dissenting sects opposed to the state-sponsored religion, institutions of the church may play a role in monitoring and denouncing abuses by state officials” (Treisman 2000, p. 403). Since the Catholic and Muslim religions tend to limit the security of property rights and private contracting (Levine 2005 and Landes 1998), those religions may be associated with lower government performance and higher corruption (La Porta et al. 1999). Moreover, Protestant countries have better creditor rights and less corruption (Stulz and Williamson 2003). Thus we expect that protestant countries have lower levels of corruption.

Ethnolinguistic Fractionalization

Corruption is an illegal contract which cannot be enforced by courts. Treisman (2000) argues that ethnic communities and networks may serve as one of the mechanisms to “enhance the credibility of the private partner’s commitment. In ethnically divided societies, ethnic communities may provide cheap information about and even internal sanctions against those who betray their coethnics” (Treisman 2000, pp. 406). Therefore, corruption contracts are strengthened within ethnic communities (Treisman 2000). La Porta et al. (1999) measures such fractionalization and find that higher levels of fractionalization are associated with worse property rights and regulation, lower government efficiency and more corruption. Thus more corruption is expected in societies with ethnolinguistic fractionalization.

Political Freedom

Free association, free press and regular and open electoral contests can increase the likelihood of divulging corrupt activities. Higher political rights enhance the opportunity of detecting and

punishing those who engage in corruption (Lederman et al., 2005). “Countries with more political competition have stronger public pressure against corruption - through laws, democratic elections, and even the independent press - and so are more likely to use government organizations that contain rather than maximize corruption proceeds” (Shleifer and Vishny 1993, pp. 610). Moreover, Treisman (2007) finds that greater political rights are significantly related to lower perceived corruption.

GDP per Capita

Some authors suggest that the problem of corruption lies in the low salaries bureaucrats receive (Treisman 2000). They argue that to reduce the level of corruption, wages of bureaucrats and public servants should be raised.⁴ The literature empirically shows that wealthier countries are less likely to be corrupt. To measure the wealth of a nation, GDP per capita is a natural option. Ades and Di Tella (1999) also use per capita GDP as a control for the wealth of a nation. However, there is probably some degree of endogeneity between per capita GDP and corruption since corruption and per capita GDP are simultaneously related. We address the issue by lagging the per capita GDP in our analysis.

Former Colonies

Acemoglu et al. (2002 and 2001) emphasize the importance of institutions, shaped by a country’s colonization model. Mauro (1997) argues that it is difficult for countries that have been colonized to develop efficient institutions. Former colonies are considered less likely to have developed efficient and transparent local institutions because the colonizers’ institutions models “overlapped (and sometimes clashed) with previously existing informal institutions, fostering social fractionalization and hindering the mobility and social change required by the market” (Alonso 2007, p71). We expect that the countries that have been colonized in the past are more corrupt.

Oil Exporter Countries

Leite and Weidmann (1999) present a model where economies abundant in natural resources show higher levels of corruption. They find that higher levels of natural resources are positively

⁴ See, Klitgaard (1988) and Besley and McLaren (1993).

related to higher levels of corruption. Sachs and Warner (1995) show that natural resource economies grow more slowly, and suggest this is due in part to a lower efficiency of government. Ades and Di Tella (1999) also find evidence that oil and corruption correlated.

Government Expenditure

Much contemporary academic work suggests that a large public sector measured by government expenditure fosters corruption. The larger the role the government plays in the market - as producer and/or consumer - the greater its capacity to engage in corrupt activity, *ceteris paribus*. As a rule, “the larger the relative size and scope of the public sector, the greater will be the proportion of corrupt acts” (Scott 1972, p9).

Size

To control for the size of the country, we use the population of the country because several papers suggest a relationship between population and government efficiency (Treisman 2000, Knack and Azfar 2003).

Issue of endogeneity

There is abundant literature on the negative effects of corruption on openness. These studies show how a higher level of corruption is associated with lower foreign investment (Hines, 1995; Henisz, 2000; Wei, 2000b, 2000c; Habib and Zurawicki, 2001, 2002). In this paper we are interested precisely in the opposite direction of causality: how a higher degree of country openness affects the level of corruption in an economy. Since corruption is likely to explain as well as be explained by openness, the issue of simultaneity becomes the key in interpreting our results. Most of the studies that address this link fail to deal with or overlook the endogeneity problem associated with the two-way causal relationship between openness and corruption. One possible solution to this problem is to use lagged variables. We address the issue of reverse causality by using lagged variables for measures of M&A and GDP per capita.

The aim of models with lagged variables is to allow for causal effects that are lingering over some period of time rather than instantaneous.⁵ While corruption can be explained by the same

⁵ See Cingolani and Crombrughe (2012) for an excellent survey on how to deal with reverse causality.

year openness levels, it cannot be explained by the openness in coming years. Using lagged variables enables us to tackle the problem of endogeneity/simultaneity.

3.3 Data

Our analysis is based on panel dataset of measures of corruption and its potential determinants in 50 countries. Since we are combining a number of datasets, we have different numbers of observations for different variables. This makes our panel dataset unbalanced. The data spans from 1998 to 2013. Appendix 1 summarises the definition and sources of all the variables used in this article with their expected signs.

We estimate equations explaining corruption indices as a function of openness to trade and country characteristics. Since we have 16 years of observations and 50 countries, the total number of potential observations is 800 (16×50). However, for some countries, CPI is not available for the early years in the sample. Moreover some data related to 2013 (for example GDP per capita or government expenditure) is not yet available for some countries, which further decreases the observations.

We limit the report to the variables that are correlated with corruption. A number of indicators we collected were dropped for having no statistically significant relationship with the corruption in bivariate and/or multivariate tests including sets of regional dummy variables, GDP (log), percentage of different religion affiliations, and British, German, Scandinavian and socialist legal origin dummy variables.

4. Results and Discussions

4.1 Descriptive Statistics

Table 1 presents summary statistics for the corruption index, M&A activity measures and the control variables. As to the measure of corruption, CPI ranges from 0 to 10 has the maximum of 10 and minimum of 1 in the sample data. CPI has the mean of 3.67 and standard deviation of 2.48, showing that most of the population's CPI is not far from the sample mean which indicates the severity of the problem of corruption in the world. In measures of M&A, *total count per year* has the maximum of 11,019 and *total sum per year* has the maximum of 1,589,574 million

dollars. 58 percent of the countries in the sample were a colony, 42 percent have a French legal origin, 24 percent of them are protestant, and 12 percent of them are oil exporters.

[Insert Table 1 here]

Table 2 presents the pairwise correlations matrix of dependent and independent variables. The two variables *Cross-border count per year* and *Cross-border sum per year* are highly correlated. Their correlation coefficient is 0.9043 which confirms that the two variables actually measure the same thing which is the M&A activity. GDP per capita has a slightly high correlation with CPI, which is normal since GDP per capita is linked to corruption in the literature. Apart from the aforementioned variables, all other pairwise correlations between the independent variables are not high enough to cause a possible multicollinearity problem in the model. The correlation coefficients between main variables (*total sum per year* and *total count per year*) and CPI are positive and significant, which shows that lower levels of corruption (higher index) are associated with more M&A activity.

[Insert Table 2 here]

Figure 1 plots the number (Panel A) and dollar value (Panel B) of cross-border deals over our sample period. Both panels show similar patterns. The cross-border M&A activity increases throughout 1990s, declines after the stock market crash of 2000, then increases from 2002 until 2007, declines with the economic recession of 2007 and stays volatile till 2013. Erel et al. (2012) investigate the determinants of M&A activity around the world and find the same pattern in M&A activity.

[Insert Figure 1 here]

4.2 Regression Results

To analyze the effects of openness to trade and competition on corruption, we use a multivariate regression framework. Our goal is to analyze how M&A activity can affect the level of corruption in the host country over time. Because we are interested in the effects of M&A activity on corruption and how changes in M&A activity can influence corruption, we use panel analysis. Our dependent variable is the corruption index which measures the corruption

perception level over the entire sample period. Our independent variables are the M&A activity measures and several determinants of corruption suggested in literature as control variables.

Table 3 presents random effect panel regression estimates of the determinants of corruption as represented by proxies of openness to trade and competition (domestic, cross-border and total M&A activity). The results are revealing. All measures of M&A activity show significant and positive association to CPI meaning that these activities decrease the level of corruption in host countries. Coefficients of both cross-border sum and cross-border count per year are significant and positive showing that cross-border mergers can increase competition and can spill over the norms and cultures from the other side of the borders. Domestic measures also show a positive and significant relation to corruption. This shows that domestic mergers also play a big role to decrease corruption by transferring the norms to other companies and increasing competition. Coefficients of total activity in a country are greater than cross-border or domestic activities alone. This means that both cross-border and domestic mergers are important in increasing competition and as a result, reducing corruption.

[Insert Table 3 here]

Another important finding in this table is that the coefficient of Log per capita GDP is not significant for all the M&A measures and corruption indices. This shows that although corruption has a negative effect on GDP, the effect of per capita GDP on corruption is not statistically significant. Other control variables have expected signs. Former colony has a negative and mostly significant effect on corruption while primary religion is not significant for any measures. Political rights, ethnolinguistic fractionalization and population are also statistically significant and negative. Moreover, oil exporter show negative and significant relation to corruption index in all the measures.

4.3 Robustness checks

In this section, we use different approaches to test the robustness of the results.

4.3.1 Alternate Corruption Measure

To gain robustness, we use an alternate measure of corruption in our analysis. Political Risk Services corruption index (ICRG) is another measure of perceived corruption which is widely

used in the literature. This is particularly important since corruption is measured through surveys on the respondent's subjective perceived level on corruption. Using different indices of corruption reduces the risk of a respondents' misjudgment on his perceived level of corruption. ICRG has a correlation coefficient of 0.8864 with CPI. Table 4 presents random effect panel regression estimates of the determinants of corruption. Dependent variable is ICRG and independent variables are measures of M&A activity.

[Insert Table 4 here]

The results are similar to Table 3 and confirm out results. The coefficients of both cross-border sum and count per year are positive and statistically significant. Domestic measures show a positive and significant relation to ICRG in at least one measure, and the coefficients of both total sum and count per year are significant. Former colony, GPD per capita, EF and French legal origin do not show significance in any measures but the coefficients of primary religion are statistically significant in most of the measures.

4.3.2 Random Effects vs. Fixed Effect and Pooled OLS

To check the validity of the random effect model, table 6 compares the random effect, fixed effect and pooled OLS results. For reasons of parsimony, we do not report the coefficients of the random effect model which has been reported in table 3.

[Insert Table 5 here]

As it is presented in table 5, all the measures of M&A activity are statistically significant in both pooled OLS and fixed effect panel analysis. We ran the Breusch and Pagan Lagrangian multiplier test for random effects for each of the models, and we conclude that random effect is a more appropriate model than OLS. Moreover, the Hausman tests show that fixed effect is actually a better fit, but since the fixed effect model does not take into account the effect of time invariant variables (like colonial history or religion) and also all the coefficients of the variables of interest has the same signs and are statistically significant in both models, we preferred to use random effect models in our main table (table 3).

4.3.3 Equity Acquisitions Activity

In order to test the robustness of our results we construct two equity acquisition measures: *Equity acquisition sum per year* and *equity acquisition count per year*, gauging all the deals with less than 25% of shares before the deal and more than 25% of shares after the deal. These new measures also include M&A activity and can be a suitable proxy of openness and competition since many cross-border deals are actually partial acquisitions. Table 6 exhibits the results of random effect panel analysis of the effects of equity acquisitions on corruption.

[Insert Table 6 here]

Measures of equity acquisitions which cover the deals making the acquirer the owner of more than 25% of the total shares, are positive and significant in all the measures. The more the equity activities, the more the corruption indices (less corruption). The results are consistent with table 4, which tests the hypothesis for M&A deals.

4.4.4 Regional Subsamples

To test the robustness of the sample data, we divide the data into regional subsamples and test the hypotheses for each subsample. The regional subsamples are: North and South America, Europe, Africa and the Middle East, and Asia and Oceania. Since the subsamples are fairly small, we use the simple OLS regression to estimate the coefficients. Table 7 summarizes the results. Results of domestic M&A activity are not shown due to brevity.

[Insert Table 7 here]

Except for Africa and the Middle East, all the other subsamples have positive and statistically significant coefficients for all the measures of M&A activity, which confirms the idea that M&A activity can reduce the level of corruption in these subsamples. As for Africa and the Middle East, at least one of the two M&A activity pairs (sum or count) are statistically significant which further confirms our results.

4.3.5 Outliers

To identify the outliers, we used a scatter plot to visually identify the possible outliers. Figure 2 and figure 3 show the scatter plot for total count per year and total sum per year vs. CPI index. A cursory look at these graphs suggests that the United States and the United Kingdom are indeed

outliers. As a robustness check, we remove these two countries from our sample data and run regressions to find out the effect of M&A activity on corruption. Table 8 sums the results of random effect model panel regression. As expected, the results of this paper match our hypothesis. In fact, those outlier countries do not affect the results.

[Insert Figure 2 here]

[Insert Figure 3 here]

[Insert Table 8 here]

5. Conclusion

This paper makes a systematic attempt to estimate the effects of openness to mergers and acquisitions on corruption and addresses the issue of reverse causality by using lagged variables. We use two different measures of corruption (CPI and ICRG) and two different measures of M&A activity on a sample of 50 countries in the 1998-2013 period. Our results indicate that M&A activity is a robust determinant of corruption. More M&A activity results in lower national levels of corruption in a host country. This result is robust due to result confirmation in a series of robustness checks.

Literature has previously suggested that higher corruption levels deter foreign direct investment and mergers and acquisitions. Here we find that the opposite causality also holds; higher mergers and acquisitions activity is shown to deter corruption.

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Appendix 1

Definition and expected signs of the variables

Variable Name	Definition and Source	Expected Sign
<i>Corruption indexes:</i>		
Corruption Perception Index	Corruption Perception Index (CPI) is the index produced annually by Transparency International. This index has become a widely-used measure of corruption in the literature. It is an aggregated, standardized "poll of polls" of experts, international business people, and citizens of each country covered. Every score thus captures the perceptions of both foreigners and nationals of the country being assessed. Transparency International uses a similar definition of corruption as us: "the misuse of public power for private benefit." The index assigns a score, ranging from 0 (most corrupt) to 10 (least corrupt), to each country in each year. From 2013 Transparency International decided to present the index ranging from 0 to 100. For simplicity the index is divided by 10 for 2012 and 2013. Source: Transparency International, various years.	
International Country Risk Guide	International Country Risk Guide (ICRG) corruption index is an index produced by Political Risk Services. This index is a survey-based indicator, which has been widely used in the economics literature. This index is produced monthly. We use the mean of the months of each year as the index for that year. The index scales from 0 to 6. Low scores on the ICRG corruption index indicate that "high government officials are likely to demand special payments". Source: Political Risk Services, various years.	
<i>Merger and Acquisition activity:</i>		
Cross-border count per year	As a measure of M&A activity, we calculate the natural logarithm of the number of all cross-national deals which happened in a year for each country, whether the country was target or acquirer. We include only deals for which the acquirer owns less than 50% of the shares prior to transaction and owns at least 50% of the shares after the transaction. Deals with no information about before or after percentage of shares owned are excluded. The data is collected from Thomson Reuters's SDC Platinum database spanning from 1998 to 2013.	+
Cross-border sum per year	We have another measure of M&A activity which is the natural logarithm of the sum of all cross-national deals' transaction value in US dollars, whether the country was target or acquirer. The deals with no information on deal value, or deals which did not make the acquirer the owner of 50% of the share were excluded. Our data is taken from Thomson Reuters's SDC Platinum database for the years 1998 to 2013.	+
Domestic count per year	This variable is the natural logarithm of the total number of domestic M&A deals per years in a country. We excluded the deals which did not make the acquirer a controlling shareholder (more than 50% of the shares) or the deals which the acquirer was already a controlling shareholder. The data is downloaded from Thomson Reuters's SDC Platinum database.	+
Domestic sum per year	This variable is the natural logarithm of the total domestic transaction value in US dollars. The deals which do not pass the ownership of 50% of the shares are excluded. This variable is downloaded from Thomson Reuters's SDC Platinum database.	+
Total count per year	We construct this variable as the natural logarithm of the total number of domestic and international deals in a country. This variable is simply a natural logarithm of the sum of Cross-border count per year and Domestic count per year.	+
Total sum per year	This variable is the natural logarithm of the total value of the cross-national and domestic deals in a country per year. The variable is the sum of Cross-border sum per year and Domestic sum per year.	+
<i>Control Variables:</i>		
Former colony	is a dummy variable that takes the value of one if the country was a former colony after 1825 and zero otherwise. Source: Barro and Lee (1994).	-
Per capita GDP	is the natural logarithm of the per capita GDP in US dollars. Source: World Bank and Taiwan National Statistics.	+

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Ethnolinguistic Fractionalization	Ethnolinguistic Fractionalization (ER) measures ethnolinguistic fractionalization which is the probability that two randomly selected individuals within a country belong to the same religious and ethnic group scaling from 0 to 1. Source: La Porta et al. (1999).	-
Oil exporter	is a dummy variable for oil exporting countries. The dummy takes the value of 1 if the country's fuel export is more than 30% of the total merchandise exports. Source: World Bank.	-
Government expenditure	is the natural logarithm of the government final consumption expenditure as a share of GDP. Source: World Bank and Taiwan National Statistics.	-
Population	is the natural logarithm of the total population of a country. Source: World Bank and Taiwan National Statistics.	-
Political rights	is the degree to which people are free to participate in the political process, freedom to vote for distinct alternatives in legitimate elections, freedom to compete for public office, join political parties and organizations, and elect representatives who have a decisive impact on public policies and are accountable to the electorate. This index is scaled from 0 to 7 which 1 denotes a high political freedom. Source: Freedom House.	-
French legal origin	is a dummy variable denoting if the legal origin of the country is civil French law. Source: La Porta et al. (1999).	-
Primary religion	is a dummy variable which takes the value 1 if the primary religion of the country is Protestant. Source: La Porta et al. (1999).	+

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Table 1: Summary Statistics

Variable	Obs	Unit	Mean	Std. Dev.	Min	Max
CPI	793	Between 0 and 10	5.66	2.48	1	10
Domestic count per year	800	Count	303.96	917.51	0	8709
Domestic sum per year	800	Million dollars	25856.70	114292.90	0	1226334
Cross-border count per year	800	Count	180.48	332.66	0	2580
Cross-border sum per year	800	Million dollars	19977.50	49955.32	0	492604.8
Total count per year	800	Count	484.43	1228.60	0	11019
Total sum per year	800	Million dollars	45834.19	156018.80	0	1589574
Per capita GDP	799	Dollars	19978.99	19031.53	274	100819
Former colony	800	Dummy	0.58	0.49	0	1
EF	800	Between 0 and 1	0.26	0.25	0.002	0.8567
Oil exporter	800	Dummy	0.12	0.33	0	1
Government expenditure	790	Million dollars	16.42	5.35	2.047121	31.59911
Population	799	Million	97.00	238.00	3.29	1360.00
Political rights	784	Between 1 to 7	2.32	1.74	1	7
French legal origin	800	Dummy	0.42	0.49	0	1
Primary religion	800	Dummy	0.24	0.43	0	1

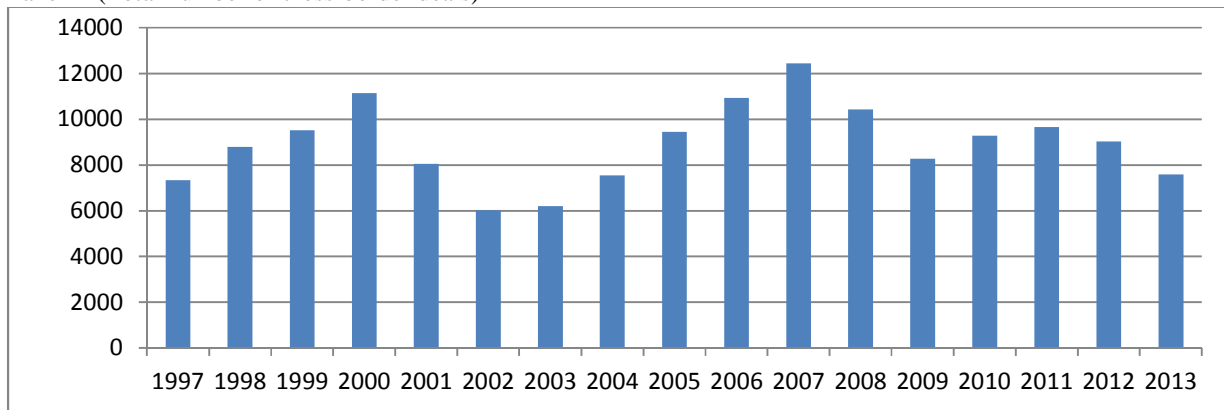
Table 2: Correlation matrix

Correlation Matrix	CPI	Count per year	Sum Per Year	Per Capita GDP	Former colony	EF	Oil exporter	Government Expenditure	Population	Political rights	French legal origin	Primary religion
CPI	1.0000											
Cross-border count per year	0.3915**	1.0000										
Cross-border sum per year	0.3010**	0.9043**	1.0000									
Per capita GDP	0.7891**	0.4239**	0.3202**	1.0000								
Former colony	-0.4469**	-0.3543**	-0.3140**	-0.5422**	1.0000							
Ethnolinguistic Fractionalization	-0.4722**	-0.1514**	-0.1347**	-0.4247**	0.3852**	1.0000						
Oil exporter	-0.2963**	-0.1632**	-0.1258**	-0.1109**	0.1895**	-0.0388	1.0000					
Government expenditure	0.5303**	0.1915**	0.1414**	0.5022**	-0.5216**	-0.3995**	-0.1839**	1.0000				
Population	-0.2662**	0.1038**	0.0699**	-0.2285**	-0.0388	0.2261**	-0.0719**	-0.1952**	1.0000			
Political rights	-0.6048**	-0.2984**	-0.2444**	-0.5760**	0.3921**	0.3467**	0.2647**	-0.4659**	0.2935**	1.0000		
French legal origin	-0.3538**	-0.2273**	-0.1539**	-0.3079**	0.0673	-0.2285**	0.1846**	-0.0930**	-0.1529**	0.0011	1.0000	
Primary religion	0.4210**	0.3915**	0.3239**	0.3774**	-0.1860**	-0.1007**	-0.0634	0.3766**	-0.1069**	-0.3160**	-0.4782**	1.0000

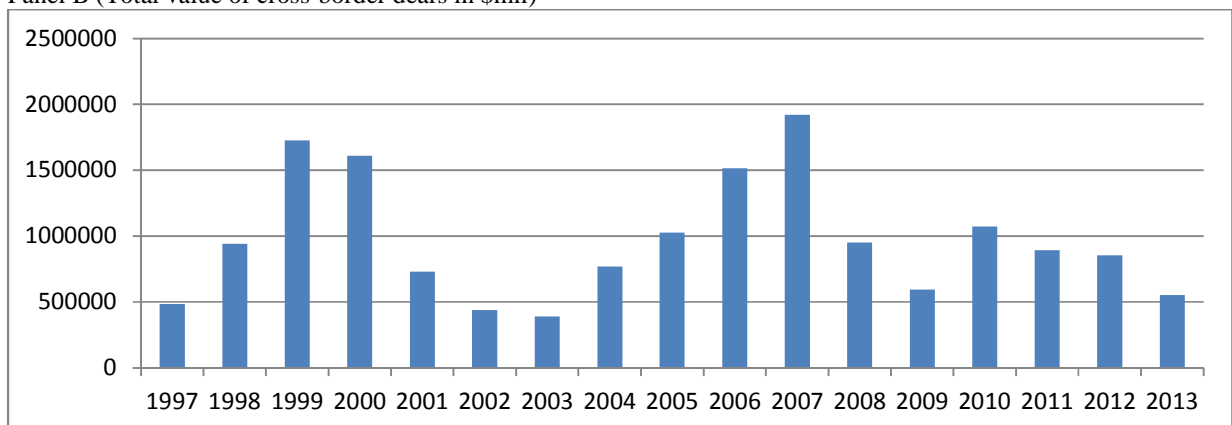
** Significant at the 5% level.

Figure 1: Cross-border M&A activity

Panel A (Total number of cross-border deals)



Panel B (Total value of cross-border deals in \$mil)



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Table 3: Panel Analysis of the Determinants of Corruption

This table presents estimates of panel regressions of the effects of cross-border and domestic mergers and acquisitions on corruption. The dependent variable is corruption perception index (CPI) for the year t and country i . To control for endogeneity, some independent variables are lagged one year. Heteroskedasticity-corrected t -statistics are in parentheses. The variable definitions are provided in Appendix 1. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

	CPI	CPI	CPI	CPI	CPI	CPI	CPI
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log cross-border sum per year _(t-1)	0.056*** (3.52)						
Log cross-border count per year _(t-1)		0.182*** (3.85)					
Log domestic sum per year _(t-1)			0.034** (2.15)				
Log domestic count per year _(t-1)				0.146*** (3.1)			
Log Total sum per year _(t-1)					0.057*** (2.78)		
Log Total count per year _(t-1)						0.206*** (3.67)	
Former colony	-0.889** (-2.21)	-0.801** (-2.09)	-0.942** (-2.3)	-0.846** (-2.17)	-0.892** (-2.21)	-0.808** (-2.13)	-0.929** (-2.25)
Log GDP per capita _(t-1)	0.172** (2.17)	0.149* (1.76)	0.168* (1.93)	0.127 (1.52)	0.173** (2.1)	0.107 (1.31)	0.242*** (2.83)
EF	-2.177** (-2.47)	-2.029** (-2.45)	-2.087** (-2.27)	-2.116** (-2.5)	-2.108** (-2.39)	-2.027** (-2.49)	-2.112** (-2.31)
Oil Exporter	-1.184*** (-3.12)	-1.05*** (-2.8)	-1.125*** (-2.87)	-1.063*** (-2.73)	-1.156*** (-3)	-1.02*** (-2.7)	-1.223*** (-3.09)
Log Government Expenditure	0.047 (0.88)	0.063 (1.13)	0.053 (0.95)	0.03 (0.58)	0.05 (0.91)	0.055 (0.97)	0.053 (0.94)
Log population	-0.705*** (-6.24)	-0.739*** (-6.92)	-0.752*** (-6.28)	-0.766*** (-6.39)	-0.722*** (-6.33)	-0.784*** (-6.98)	-0.683*** (-5.8)
Political rights	-0.083* (-1.7)	-0.076* (-1.68)	-0.094* (-1.8)	-0.085* (-1.78)	-0.089* (-1.86)	-0.075 (-1.64)	-0.082* (-1.8)
French legal origin	-1.241*** (-2.78)	-1.195*** (-2.93)	-1.231*** (-2.68)	-1.179*** (-2.73)	-1.242*** (-2.79)	-1.165*** (-2.84)	-1.237*** (-2.71)
Primary religion	0.757 (1.49)	0.674 (1.44)	0.736 (1.4)	0.686 (1.44)	0.738 (1.47)	0.66 (1.44)	0.784 (1.53)
Constant	17.357*** (8.09)	17.696*** (8.25)	18.414*** (7.98)	18.667*** (8.07)	17.594*** (8.03)	18.624*** (8.51)	16.767*** (7.34)
Observations	753	768	711	753	763	773	775
R ²	0.75	0.78	0.74	0.77	0.75	0.78	0.74

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Table 4: Robustness tests, Alternate Corruption Measure

This table presents estimates of random effect model of cross-border and domestic equity acquisition activity. The dependent variable is Political Risk Services corruption index (ICRG) for the year t and country i . To control for endogeneity, some independent variables are lagged one year. Heteroskedasticity-corrected t-statistics are in parentheses. The variable definitions are provided in Appendix 1. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

	ICRG	ICRG	ICRG	ICRG	ICRG	ICRG
Log cross-border sum per year _(t-1)	0.05*** (2.78)					
Log Cross-border Count per year _(t-1)		0.13* (1.68)				
Log Domestic sum per year _(t-1)			-0.007 (-0.47)			
Log Domestic count per year _(t-1)				0.128*** (2.89)		
Log Total sum per year _(t-1)					0.033* (1.95)	
Log Total count per year _(t-1)						0.15** (2.32)
Former colony	-0.396 (-1.57)	-0.339 (-1.37)	-0.437 (-1.64)	-0.369 (-1.49)	-0.421 (-1.64)	-0.358 (-1.46)
Log GDP per Capita _(t-1)	0.079 (0.74)	0.05 (0.41)	0.126 (1.12)	0.029 (0.26)	0.083 (0.75)	0.016 (0.13)
EF	-0.862 (-1.65)	-0.726 (-1.54)	-0.785 (-1.54)	-0.745 (-1.62)	-0.807 (-1.56)	-0.716 (-1.57)
Oil Exporter	-0.245 (-1.42)	-0.195 (-1.32)	-0.332** (-2.02)	-0.169 (-0.98)	-0.253 (-1.44)	-0.173 (-1.12)
Log Government expenditure	-0.072 (-1.19)	-0.044 (-0.69)	-0.138** (-2.13)	-0.074 (-1.26)	-0.064 (-1.02)	-0.047 (-0.73)
Log population	-0.31*** (-3.61)	-0.338*** (-3.58)	-0.289*** (-3.38)	-0.371*** (-4.42)	-0.317*** (-3.65)	-0.376*** (-4.01)
Political rights	-0.168*** (-2.74)	-0.169*** (-2.82)	-0.161** (-2.52)	-0.163*** (-2.6)	-0.171*** (-2.69)	-0.158*** (-2.66)
French legal origin	-0.258 (-0.95)	-0.219 (-0.88)	-0.255 (-0.93)	-0.19 (-0.76)	-0.257 (-0.94)	-0.19 (-0.78)
Primary religion	0.587 (1.95)	0.578** (2.1)	0.685** (2.33)	0.58** (2.13)	0.613** (2.09)	0.582** (2.16)
Constant	8.544*** (3.93)	9.024*** (3.8)	8.384*** (3.7)	9.872*** (4.42)	8.739*** (3.94)	9.775*** (4.05)
Observations	759	775	716	759	770	775
R ²	0.64	0.66	0.61	0.66	0.63	0.78

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Table 5: Robustness tests, OLS vs. Fixed Effect

This table presents estimates of fixed effect and Pooled OLS of cross-border and domestic mergers and acquisition activity. The dependent variable is corruption perception index (CPI) for the year t and country i . To control for endogeneity, some independent variables are lagged one year. Heteroskedasticity-corrected t-statistics are in parentheses. The variable definitions are provided in Appendix 1. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

	Pooled OLS						Fixed Effect					
	CPI	CPI	CPI	CPI	CPI	CPI	CPI	CPI	CPI	CPI	CPI	
Log cross-border sum per year _(t-1)	0.306*** (10.9)						0.046*** (3.69)					
Log Cross-border Count per year _(t-1)		0.779*** (15.3)						0.136*** (3.81)				
Log Domestic sum per year _(t-1)			0.156*** (5.53)						0.028** (2.34)			
Log Domestic count per year _(t-1)				0.557*** (12.21)						0.117*** (4.22)		
Log Total sum per year _(t-1)					0.293*** (8.95)						0.048*** (3.5)	
Log Total count per year _(t-1)						0.745*** (13.93)						0.165*** (4.71)
Former colony	-0.154 (-1.51)	-0.123 (-1.41)	-0.27** (-2.43)	-0.178** (-1.84)	-0.219 (-2.09)	-0.168* (-1.85)						
Log GDP per Capita _(t-1)	0.475*** (6.58)	0.09 (1.18)	0.691*** (8.27)	0.259*** (3.21)	0.47*** (5.7)	0.052 (0.62)	0.259*** (3.93)	0.268*** (4.04)	0.297*** (4.53)	0.219*** (3.23)	0.27*** (4.1)	0.225*** (3.33)
EF	-0.827*** (-3.63)	-1.165*** (-5.59)	-0.476** (-1.96)	-1.017*** (-4.73)	-0.739*** (-3.24)	-1.131*** (-5.45)						
Oil Exporter	-0.69*** (-6.06)	-0.333*** (-3.02)	-0.613*** (-4.85)	-0.334*** (-2.88)	-0.6*** (-5.29)	-0.273** (-2.42)						
Log Government expenditure	0.134 (1.51)	0.066 (0.76)	0.092 (0.92)	0.069 (0.85)	0.122 (1.38)	0.075 (0.91)	0.03 (0.67)	0.044 (0.96)	0.04 (0.79)	0.017 (0.37)	0.034 (0.76)	0.038 (0.85)
Log population	-0.66*** (-17.18)	-0.837*** (-19.16)	-0.579*** (-12.02)	-0.847*** (-17.19)	-0.681*** (-14.82)	-0.921*** (-18.65)	-1.73*** (-4.15)	-1.822*** (-4.46)	-2.043*** (-4.87)	-1.61*** (-4.01)	-1.743*** (-4.28)	-1.784*** (-4.47)
Political rights	-0.075** (-2.15)	-0.082** (-2.74)	-0.069** (-1.82)	-0.095*** (-2.67)	-0.083** (-2.37)	-0.091*** (-2.81)	-0.067** (-2.33)	-0.069** (-2.43)	-0.092*** (-3.22)	-0.078*** (-2.8)	-0.081*** (-2.88)	-0.071** (-2.56)
French legal origin	-1.115*** (-11.35)	-1.008*** (-11.37)	-1.046*** (-10.17)	-0.937*** (-10.55)	-1.108*** (-11.48)	-0.939*** (-11.04)						
Primary religion	0.376*** (3.48)	0.201*** (2.25)	0.47*** (4.18)	0.19** (1.99)	0.376*** (3.56)	0.172* (1.96)						
Constant	10.799*** (9.26)	16.876*** (12.61)	8.748*** (6.01)	16.422*** (11.27)	11.191*** (8.4)	18.275*** (12.7)	32.811*** (4.87)	34.073*** (5.15)	38.231*** (5.61)	31.094*** (4.78)	32.906*** (4.99)	33.591*** (5.2)
Observations	753	768	711	753	763	773	753	768	711	753	763	773
R ²	0.83	0.86	0.81	0.84	0.83	0.86	0.41	0.45	0.44	0.46	0.43	0.46

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Table 6: Robustness tests, Equity acquisition activity

This table presents estimates of random effect model of cross-border and domestic equity acquisition activity. The dependent variable is corruption perception index (CPI) for the year t and country i . To control for endogeneity, some independent variables are lagged one year. Heteroskedasticity-corrected t-statistics are in parentheses. The variable definitions are provided in Appendix 1. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

	CPI	CPI	CPI	CPI	CPI	CPI
Log cross-border sum per year _(t-1)	0.057*** (3.53)					
Log Cross-border Count per year _(t-1)		0.184*** (3.72)				
Log Domestic sum per year _(t-1)			0.045** (2.4)			
Log Domestic count per year _(t-1)				0.139*** (2.93)		
Log Total sum per year _(t-1)					0.059** (2.68)	
Log Total count per year _(t-1)						0.219*** (3.98)
Former colony	-0.893** (-2.22)	-0.799** (-2.08)	-0.937** (-2.3)	-0.855** (-2.17)	-0.888** (-2.21)	-0.808** (-2.13)
Log GDP per Capita _(t-1)	0.17** (2.13)	0.149* (1.83)	0.168* (1.9)	0.133 (1.58)	0.168** (2.04)	0.101 (1.24)
EF	-2.177** (-2.47)	-2.049** (-2.47)	-2.084** (-2.32)	-2.118** (-2.5)	-2.125** (-2.42)	-2.03** (-2.5)
Oil Exporter	-1.179*** (-3.09)	-1.051*** (-2.79)	-1.109*** (-2.93)	-1.066*** (-2.76)	-1.159*** (-3.03)	-1.01*** (-2.68)
Log Government expenditure	0.047 (0.89)	0.06 (1.1)	0.035 (0.57)	0.025 (0.46)	0.046 (0.85)	0.052 (0.97)
Log population	-0.705*** (-6.25)	-0.734*** (-6.94)	-0.739*** (-6.28)	-0.755*** (-6.29)	-0.722*** (-6.29)	-0.788*** (-7.01)
Political rights	-0.082* (-1.67)	-0.079* (-1.77)	-0.097* (-1.85)	-0.088* (-1.82)	-0.094* (-1.93)	-0.073* (-1.66)
French legal origin	-1.242*** (-2.78)	-1.199*** (-2.93)	-1.24*** (-2.74)	-1.19*** (-2.75)	-1.243*** (-2.8)	-1.16*** (-2.83)
Primary religion	0.758 (1.49)	0.677 (1.44)	0.735 (1.42)	0.695 (1.45)	0.736 (1.46)	0.663 (1.45)
Constant	17.371*** (8.08)	17.597*** (8.44)	18.163*** (7.87)	18.461*** (7.92)	17.634*** (8)	18.669*** (8.58)
Observations	755	773	715	756	763	775
R ²	0.75	0.78	0.75	0.77	0.76	0.78

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Table 7: Robustness tests, Regional Subsamples

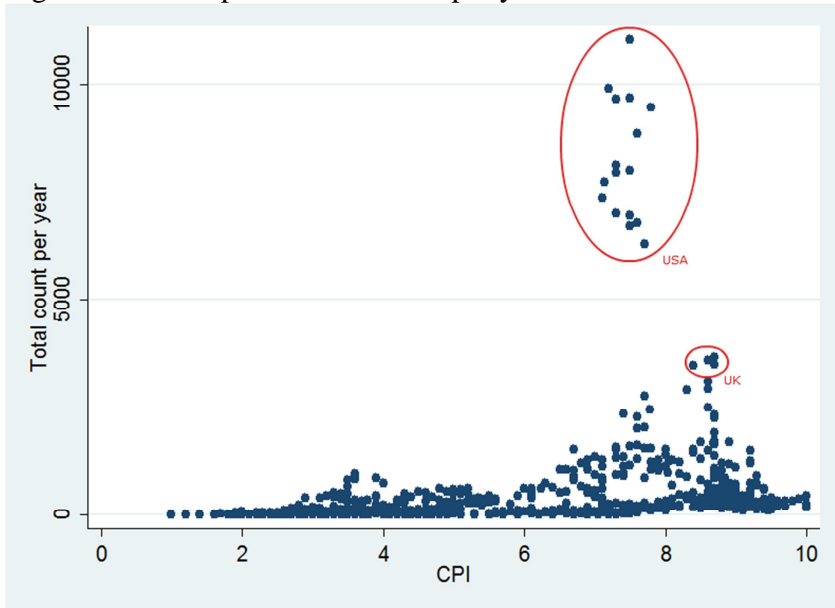
This table presents estimates of OLS regression of cross-border and total M&A activity. The dependent variable is corruption perception index (CPI) for the year t and country i . To control for endogeneity, some independent variables are lagged one year. Heteroskedasticity-corrected t -statistics are in parentheses. The variable definitions are provided in Appendix 1. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

	North and South America				Europe			
	CPI	CPI	CPI	CPI	CPI	CPI	CPI	CPI
Log Cross-border sum per year _(t-1)	0.161*** (3.34)				0.473*** (7.14)			
Log Cross-border Count per year _(t-1)		0.482*** (3.78)				1.13*** (10.39)		
Log Total sum per year _(t-1)			0.192*** (3.48)				0.48*** (6.57)	
Log Total count per year _(t-1)				0.604*** (4.16)				1.105*** (9.47)
Former colony	0.253 (1.07)	0.266 (1.03)	0.321 (1.38)	0.458 (1.91)	-1.03*** (-5.95)	-1.335*** (-8.42)	-1.119*** (-6.26)	-1.285*** (-8.27)
Log GDP per Capita _(t-1)	-0.499*** (-3.33)	-0.633*** (-4.03)	-0.562*** (-3.58)	-0.727*** (-4.22)	0.109 (0.66)	-0.095 (-0.61)	0.141 (0.82)	-0.066 (-0.38)
EF	-5.186*** (-8.49)	-5.245*** (-9.22)	-5.017*** (-8.6)	-5.031*** (-9.12)	0.747 (1.08)	-0.171 (-0.28)	0.858 (1.24)	-0.078 (-0.13)
Oil Exporter	-1.811*** (-6.37)	-1.679*** (-5.95)	-1.779*** (-6.11)	-1.55*** (-5.45)	-0.672*** (-3.86)	-0.632*** (-3.92)	-0.765*** (-4.48)	-0.662*** (-4.71)
Log Government expenditure	0.035 (0.26)	-0.014 (-0.11)	-0.008 (-0.05)	-0.069 (-0.5)	0.652*** (2.93)	0.234** (2.53)	0.694*** (2.8)	0.328** (2.31)
Log population	-0.918*** (-9.25)	-1.046*** (-7.46)	-0.968*** (-9.31)	-1.185*** (-7.9)	-0.857*** (-9.52)	-1.239*** (-12.75)	-0.89*** (-9.37)	-1.314*** (-11.51)
Political rights	-0.16 (-1.23)	-0.087 (-0.61)	-0.183 (-1.39)	-0.104 (-0.75)	-1.826*** (-5.75)	-1.043*** (-3.71)	-2.286*** (-5.67)	-1.66*** (-5.11)
French legal origin	-5.393*** (-12.76)	-4.848*** (-10.42)	-5.331*** (-13.09)	-4.456*** (-9.07)	-1.231*** (-5.78)	-0.587*** (-3.39)	-1.31*** (-5.87)	-0.83*** (-4.5)
Primary religion	Omitted ¹	Omitted ¹	Omitted ¹	Omitted ¹	0.52*** (3.27)	0.466*** (3.4)	0.484*** (2.77)	0.215 (1.39)
Constant	29.822*** (11.77)	32.13*** (10.65)	30.91*** (11.6)	34.153*** (10.72)	16.395*** (7.31)	23.765*** (10.46)	16.711*** (7.26)	24.658*** (9.22)
Observations	172	175	172	175	256	256	256	256
R ²	0.87	0.82	0.88	0.80	0.81	0.71	0.82	0.74

	Asia and Oceania			Africa and Middle East				
	CPI	CPI	CPI	CPI	CPI	CPI	CPI	
Log Cross-border sum per year _(t-1)	0.203*** (4.4)				0.038 (1.41)			
Log Cross-border Count per year _(t-1)		0.738*** (7.75)				0.246*** (3.04)		
Log Total sum per year _(t-1)			0.185*** (3.69)				0.003 (0.09)	
Log Total count per year _(t-1)				0.557*** (6.65)				0.195** (2.62)
Former colony	-0.273 (-0.77)	0.22 (0.72)	-0.33 (-0.93)	0.259 (0.82)	0.62 (1.38)	0.147 (0.33)	0.647 (1.53)	0.001 (0)
Log GDP per Capita _(t-1)	0.929*** (7.34)	0.312** (2.05)	0.954*** (7.24)	0.479*** (3.51)	0.563*** (6.01)	0.507*** (5.62)	0.65*** (7.48)	0.518*** (5.53)
EF	1.495* (1.71)	-1.156 (-1.35)	1.746** (2.01)	-0.461 (-0.54)	-0.678 (-0.66)	0.939 (0.78)	-0.527 (-0.52)	0.935 (0.85)
Oil Exporter	Omitted ¹	Omitted ¹	Omitted ¹	Omitted ¹	0.154 (0.33)	0.732 (1.42)	0.203 (0.45)	0.884* (1.75)
Log Government expenditure	0.063 (0.4)	-0.089 (-0.7)	0.011 (0.07)	-0.073 (-0.53)	0.112* (1.76)	0.164** (2.25)	0.144** (2.11)	0.16** (2.14)
Log population	-0.532*** (-6.77)	-0.746*** (-9.03)	-0.52*** (-6.65)	-0.682*** (-8.64)	-0.577*** (-2.77)	-0.862*** (-3.55)	-0.557*** (-2.74)	-0.922*** (-3.92)
Political rights	-0.018 (-0.44)	-0.085** (-2.22)	-0.007 (-0.16)	-0.024 (-0.68)	-0.327*** (-4.47)	-0.218*** (-3.43)	-0.307*** (-4.42)	-0.209*** (-3.49)
French legal origin	-1.142*** (-6.27)	-0.849*** (-4.97)	-1.23*** (-6.88)	-0.886*** (-5.11)	0.216 (0.39)	0.951 (1.44)	0.227 (0.41)	0.96 (1.56)
Primary religion	0.618** (2.15)	-0.18 (-0.62)	0.764*** (2.69)	0.132 (0.47)	-0.066 (-0.21)	-0.022 (-0.08)	-0.094 (-0.32)	0.136 (0.5)
Constant	4.687*** (2.13)	13.839*** (5.32)	4.275*** (1.99)	10.857*** (4.92)	9.812*** (3.18)	13.432*** (3.78)	8.753*** (2.99)	14.392*** (4.07)
Observations	212	215	215	216	113	122	120	126
R ²	0.85	0.88	0.85	0.87	0.91	0.92	0.91	0.91

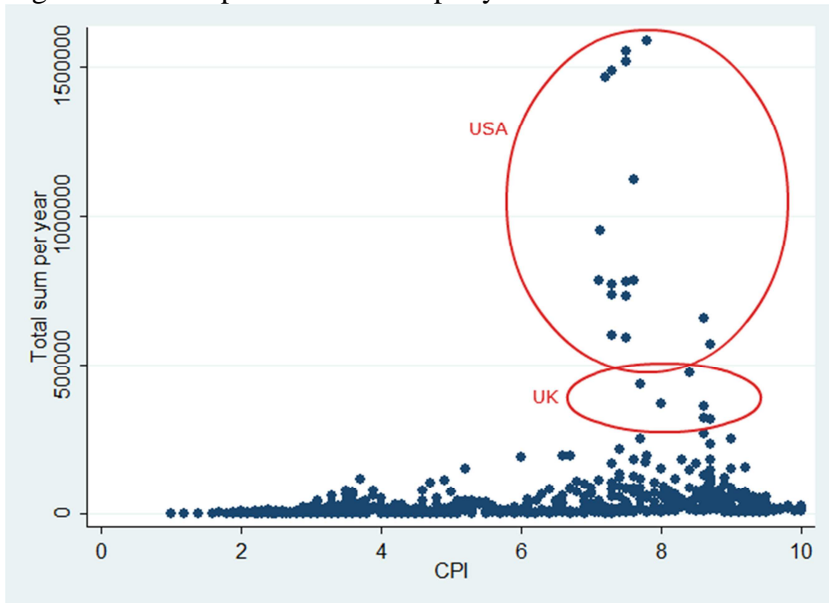
¹ The variable is omitted because of collinearity.

Figure 2: Scatter plot of total count per year and CPI



The horizontal line represents corruption perception index and the vertical line represents the total count per year. Circled observations are noteworthy.

Figure 3: Scatter plot of total sum per year and CPI



The horizontal line represents corruption perception index and the vertical line represents the total count per year. Circled observations are noteworthy.

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Table 8: Robustness tests, removing outliers

This table presents estimates of random effect model of cross-border and total M&A activity. The dependent variable is corruption perception index (CPI) for the year t and country i . To control for endogeneity, some independent variables are lagged one year. Heteroskedasticity-corrected t -statistics are in parentheses. The variable definitions are provided in Appendix 1. ***, **, and * denote statistical significance at the 1%, 5%, and 10% level, respectively.

	CPI	CPI	CPI	CPI
Log Cross-border sum per year _(t-1)	0.054*** (3.38)			
Log Cross-border Count per year _(t-1)		0.173*** (3.67)		
Log Total sum per year _(t-1)			0.053*** (2.62)	
Log Total count per year _(t-1)				0.192*** (3.45)
Former colony	-0.813** (-2.03)	-0.738* (-1.93)	-0.814** (-2.03)	-0.749** (-1.97)
Log GDP per Capita _(t-1)	0.19** (2.42)	0.168** (2.01)	0.192** (2.36)	0.13 (1.61)
EF	-2.09** (-2.43)	-1.955** (-2.4)	-2.021** (-2.35)	-1.958** (-2.43)
Oil Exporter	-1.166*** (-2.99)	-1.04*** (-2.72)	-1.139*** (-2.88)	-1.016*** (-2.63)
Log Government expenditure	0.056 (0.97)	0.073 (1.21)	0.06 (1.01)	0.065 (1.06)
Log population	-0.737*** (-5.96)	-0.763*** (-6.51)	-0.752*** (-6.02)	-0.803*** (-6.56)
Political rights	-0.082* (-1.67)	-0.075* (-1.67)	-0.088* (-1.84)	-0.075 (-1.63)
French legal origin	-1.232*** (-2.78)	-1.19*** (-2.91)	-1.233*** (-2.79)	-1.163*** (-2.83)
Primary religion	0.593 (1.12)	0.536 (1.1)	0.572 (1.09)	0.53 (1.1)
Constant	17.659*** (7.66)	17.886*** (7.82)	17.866*** (7.61)	18.721*** (8.05)
Observations	721	736	731	741
R ²	0.75	0.78	0.75	0.78