

The Regulation of Political Finance and Corruption

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ABSTRACT

Using the International Institute for Democracy and Electoral Assistance (IDEA) database on political finance regulations for 82 countries, we found that a contribution limits index increased corruption, after controlling for a standard list of explanatory variables. This result remains consistent employing an array of robustness checks intended to minimize the risk of a bias due to potential reverse causality and endogeneity. In contrast, the level of perceived corruption is lower in countries with higher indices of public funding and transparency requirements but these effects are rarely significant. Interestingly, we show that the mix of more generous public funding and less stringent regulations of private contributions is associated with lower corruption.

INTRODUCTION

DOES A LARGER NUMBER of regulations concerning political contributions reduce or increase the level of corruption? Are corrupt practices restrained or enhanced as a result of more generous public funding? Is transparency the ultimate cure for political corruption? Surprisingly, we know very little about the effects of political finance regulations on corruption despite its poisonous impact on the well-being of a country.

The regulation of political finance has evolved in the last hundred years both to level the playing field

and to combat corruption and the appearance of corruption associated with private money. Today, many countries ban donations from certain sources such as corporations and unions, and specify ceilings for private contributions. The many political scandals that the world has seen pose doubts on the effectiveness of increasing regulations and expanding public funding for political activities and elections. Pinto-Duschinsky (2002) presents a long series of public scandals across the globe during the 1990s that are associated with political finance regulations. The political scandals have erupted around election campaign finance in both developed countries such as Italy (1994), Japan (1990), and Germany (2002), and developing and emerging countries like India (2001), Brazil (1996), and Peru (2001).

Some countries have reacted to such scandals with changes in the regulation of political finance, such as increasing public funding and strengthening the limitations on private contributions, as in the U.S. (Abrams and Russel 2004) and France (Clift and Fisher 2004). Yet again, this policy of sticks (stringent regulations) and carrots (more public funding) has not been founded on hard evidence.

Exploring the roots of corruption has gained momentum in the last two decades following the

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important work of Shleifer and Vishny (1993). While negative effects of economic development (measured by gross domestic product [GDP] per capita) on corruption are generally found in many studies, there are notable differences regarding the impact of institutional factors on corruption. LaPorta et al. (1997, 1999) stress the empirical importance of religion and legal origins in determining the level of perceived corruption. In contrast, Treisman (2000) has found that democracy and colonial tradition, rather than legal origins, are the most influential factors in addition to religion and economic development.

This literature also focuses on the effects of election systems and political instability on corruption. For example, Treisman (2000), Persson et al. (2003), and Serra (2006) show that political instability encourages corruption. Several studies (Persson et al. 2003; Gerring and Thacker 2004; and Kunicova and Rose-Ackerman 2005) found that the level of corruption in majoritarian systems is lower as compared to proportional representation (PR). Nonetheless, Chang and Golden (2006) present cross-country evidence that within the system of PR, corruption is more (less) widespread as district magnitude rises under open-list (closed-list). Golden and Chang (2001) and Chang (2005) also discuss the negative impact of open-list PR in Italy.

More recently, the effects of additional institutional factors on corruption have been examined. Countries tend to be less corrupted with a higher degree of trade openness (Dreher and Siemers 2009), smaller size of the shadow economy in certain conditions (Dreher and Schneider 2010), higher social trust (Bjørnskov 2011) and a higher level of intelligence (Potrafke 2012). In spite of the relatively vast research on corruption, we find just a few studies that examine the theoretical and empirical impact of political finance on corruption. All these studies are restricted to the exploration of the variation in corruption across states within the U.S. Alt and Lassen (2003) found that the regulation of political finance, measured by an aggregated index of contribution ceilings, expenditure limits, and transparency requirements in political finance, reduced the level of perceived corruption. However, a similar negative effect of political finance on corruption has not been found in subsequent studies. Persily and Lammie (2004) demonstrated no significant relation between political finance and corruption, but their work is more descriptive in nature.

In contrast, Rosenson (2009) shows that heavy regulation of political finance, that is represented by an aggregate index of public funding and contribution limits, tends to increase the level of perceived corruption.¹ She used the instrumental variable technique to deal with the risk of reverse causality, and this may account for the inverted results of Alt and Lassen (2003).

Our article presents a new theoretical framework to explore the relations between the regulation of political finance and corruption in the spirit of illegal activities models. The main theoretical contribution is to show that the predicted impact of a contribution ceiling could be either positive or negative as introducing a ceiling reduces the size of legal contribution but at the same time that cap may lead politicians to raise money through illegal or semi-legal channels that may be coupled with deeper corruption. The conceptual framework also predicts that public funding would tend to reduce the level of corruption.

Using that conceptual framework, the article investigates the empirical relations between regulation of political finance and corruption perception. Using the IDEA (International Institute for Democracy and Electoral Assistance) dataset of political finance regulations for 82 countries (see Table A1 in Appendix A), we find that stricter limits on private contributions lead to a higher level of perceived corruption. This result is robust to a battery of robustness checks such as splitting the sample by GDP per capita, splitting the sample by the strength of democracy, various lists of control variables, different ways of constructing the index of contribution limits, and different time gaps between the dependent (perceived corruption) and the independent variable (regulation).

We also find that public funding does tend to reduce perceived corruption, but this effect is not significant at an acceptable level in most specifications. Our index of public funding reflects the number of forms of public subsidies but does not tell us the monetary size that each country spent on political finance. Interestingly, the empirical analysis shows that heavier regulation together with higher public funding, which is a common mix in political finance reforms, does not lead to less perceived corruption. As expected, we find that transparency

¹Rosenson (2009) reports that the results are the same when the regulation index is measured by contribution limits only.

requirements in practice reduce the level of perceived corruption, but this effect is insignificant.

In the next section we present the conceptual background that motivates the empirical analysis of the effects of political finance regulations on the level of perceived corruption. The third section is devoted to the estimation of three dimensions of political finance (contribution ceilings, public funding, and transparency requirements) on perceived corruption, controlling for institutional factors, and the fourth and final section concludes this article.

2. CONCEPTUAL BACKGROUND

In this section we provide conceptual background to our empirical examination of the effects of various dimensions of political finance regulation on corruption. Our conceptual framework is in the spirit of a tax evasion model *à la* Allingham and Sandmo (1972). We are not aware of a theoretical model that explores the relations between political finance regulations and perceived corruption. Abrams and Russel (2004) use a similar theoretical framework but their main focus is on the connection between political finance regulations and the size of overall campaign spending.

In our theoretical framework, the resources that politicians can use to finance their campaign come from private contributions and public funding. A candidate is not allowed to amass private contributions above a certain level. Yet a candidate may violate political finance laws and raise money above the specified ceiling in order to increase his/her chances to win the election at the risk of being punished if caught.

Corruption could be the result of both legal and illegal contributions. By *legal* we mean raising contributions within the laws of political finance. While some people donate money to parties and candidates because they share similar ideology, others may contribute (within the legal limits) in order to gain future private benefits. The latter type of legal contributions is one source of corruption, which could take the form of a promise to give public assets in return for contributions.

Raising money above the legal limits is defined here as illegal contributions. Illegal contributions generate double violations where one is the immediate breach of a political finance law and the other is a future violation to the extent that public office is used to provide personal benefits to campaign con-

tributors. This time gap will be addressed in the empirical analysis. Thus, illegal contributions should be associated with heavier corruption than legal contributions.

2.1. *The effects of public funding*

Increasing public funding (PF) is one of the measures that are frequently considered separately or as a part of the package of policy reforms to combat political corruption. Providing more public funding reduces the size of (legal) contributions and consequently the level of corruption. This is simply because the marginal benefit of resources is lower with higher public subsidies and therefore this effect drives the optimal contributions down. A series of studies shows that the election campaign expenditures have only a modest effect on the number of votes (Levitt 1994; Gerber 1998, 2004; Ben-Bassat, Dahan, and Klor 2015) while Da-Silveira and De-Mello (2011) found noticeable impact.

Qualitatively, the effect of public funding is also the same if we take into account the fact that every candidate chooses the optimal level of contributions, conditional on the expected behavior of the rival candidate. Providing a higher level of public subsidies for both candidates (in two-candidate races) does not change the chances of winning the election of either of them, but it does drive down the marginal utility of contributions and leads both candidates to raise fewer private contributions.

Nevertheless, additional and equal public funding to both candidates may induce stronger competition as it improves the relative position of the challenger compared to the incumbent in case s/he participates in the race.² The impact on competition may increase or decrease the benefits of extra resources depending on the assumed relations between electoral competition and corruption.³

²Malhotra (2008) found that providing public funding to candidates (together with a ban on private contributions) led to stronger political competition in Maine and Arizona. However, both Mayer and Wood (1995) and Donnay and Ramsden (1995) revealed that higher public funding has not resulted in higher competition in Wisconsin and Minnesota, respectively.

³According to the supply side effect, electoral competition provides voters with more power to throw out politicians who behave corruptly (see, for example, Przeworski, Stokes and Manin 1999). On the other hand, the demand side effect works in the opposite direction: political competition may lead politicians to rely more on illegal fundraising (see Chang 2005).

Hypothesis 1: The level of public funding acts to lower the level of corruption.

2.2. The effects of contribution ceilings

The regulation of private contributions can take various forms such as a contribution ceiling on an individual donor or a complete ban on contributions from certain sources such as foreign entities or corporations. We here assume one type of contribution only, which implies that a contribution ceiling also means an expenditure cap.⁴

Imposing a contribution ceiling establishes two competing predictions regarding the effect on the level of corruption. Introducing a binding cap on private contributions has a negative impact on the size of official contributions. According to our assumptions above, the decrease in private contributions would lead to a lower level of corruption. This first prediction rests on the notion that both politicians and potential contributors comply completely with the law.

In contrast, the competing prediction asserts that a binding contribution ceiling generates incentives to find ways to circumvent the regulations on private contributions in the same fashion that a higher tax rate affects tax evasion behavior. The cap on private contributions implies that the benefits of an extra dollar, in terms of higher chances of winning elections, are greater than the costs of raising the additional resources. In other words, the desired level of private contributions becomes illegal to the extent that the cap on contributions is a binding constraint. That incentive would push politicians to look for loopholes such as independent campaign advertisements or even cross the line and go beyond the letter of the law, as happened, for example, in the Filesa case, which contributed to the electoral loss of Spain's Prime Minister Felipe Gonzales; the "Kohl-gate" scandal in Germany in 2000 (Pinto-Duschinsky 2002); and more recently the conviction of former Israeli Prime Minister Ehud Olmert for violating political finance regulations.⁵ Such gray and black fundraising is expected to be more corrupt than that of official campaign contributions (i.e., below the contribution ceiling). Therefore, introducing a binding contribution ceiling is expected to raise the level of corruption. More regulations lead to more corruption. Moreover, the more binding the contribution cap the greater the incentive to raise borderline and even illegal contributions and consequently a higher predicted level of corruption.

Thus, the actual effect of regulations on private contributions requires empirical investigation given the two competing theoretical predictions. The discussion above resembles the well-known debate on the effect of tax rate on tax revenues. The predicted impact of an increase in the tax rate depends on the extent of tax avoidance and tax evasion behavior.

Hypothesis 2: A contribution ceiling may have either positive or negative effect on the level of corruption.

2.3. The effects of enforcement

Enforcement of political finance regulation has three important dimensions: the severity of punishment, the probability of detecting a violation, and the cost of hiding illegal contributions, where the last two are influenced by the degree of transparency. A higher degree of transparency may increase the probability of being caught. In addition, a requirement to provide financial reports on political money enforces the candidate to invest more resources to conceal unlawful contributions and raises the costs of fund raising.

A higher probability of being caught, more severe financial penalties against a potential violation or higher costs of hiding illegal contributions help reduce illegal contributions and corruption by raising the effective costs of violations of political finance laws. In reality, the sanctions on violation of political finance laws could also take the form of a loss of elected office or a prison sentence. The impact of such sanctions on the incentive to violate political finance regulations should not be different from monetary sanctions.

Hypothesis 3: The level of corruption should be lower with more stringent enforcement in the form of higher transparency and stricter sanctions.

Although the regulation of political finance is influenced by the selfish electoral considerations of politicians, it is also sensitive to general public views, as Witko (2007) has shown. The regulation tends to be more stringent in U.S. states with a liberal government, a higher presence of good

⁴Incorporating several ceilings for various sources of contributions should not alter the results. The main motivation to violate political finance law is the gap between marginal benefits and marginal costs that is induced by regulations. The existence of several limits would necessarily lead to cheap unlawful sources that would incentivize politicians to raise illegal contributions.

⁵"Former Israeli Prime Minister Ehud Olmert Found Guilty of Corruption," *The Guardian*, March 30, 2015.

governance non-governmental organizations (NGOs), and in states that experience political scandals. In fact, these findings imply that factors related to the power of public opinion are empirically more important in shaping political finance regulations than the selfish considerations of politicians. Thus, our theoretical framework captures a significant part of reality despite the fact that various dimensions of the regulation of political finance are determined by politicians who themselves are the potential violators of these laws.

3. THE EMPIRICAL ANALYSIS

3.1. *The econometric model*

In this section we present the econometric model that summarizes the above list of hypotheses regarding the effects of political finance regulations on corruption. However, the violation of laws is not determined only by financial costs and benefits but also by an array of factors such as religion, political stability, democracy, the level of economic development, and the colonial heritage in countries that were discovered by others.

We have used the works of Serra (2006) as well as Treisman (2007) to generate a list of control variables. Serra has examined the robustness of sixteen variables that were found in the literature as important factors in determining the level of corruption. She found five variables with coefficients that are consistently significant and robust in corruption regressions: GDP per capita, religion, colonial heritage, political stability, and the strength of democracy.⁶ We are aware of the potential reverse causality regarding some of the control variables such as GDP per capita and democracy that may both affect and be affected by the level of corruption. Nevertheless, they are included in the list of control variables to make our results comparable to previous studies.

The level of economic development reduces corruption via its positive effect on education that helps citizens to become more effective monitors of corruption. Democracy that is characterized by the separation of powers and freedom of the press equips central players with a mission, and formal and informal authority to uncover and combat corruption. Active political participation of citizens, which is one feature of a thriving democracy, tends to control corruption. However, stiff political competition,

which also characterizes flourishing democracies, might work in the opposite direction.

The level of corruption is higher in countries where most of the population is affiliated with Catholic or Muslim religions, as compared with Protestant majorities, due to their hierarchic nature (Treisman 2000). In hierarchic societies, the lower tendency to question decisions made by authority makes a fertile field for corrupted officials. Moreover, tight linkage between hierarchic religion and the state limits the role of religious institutions to uncover corruption. And lastly, historically, countries with a British colonial heritage tend to adopt a legal system that is designed to protect property from the power of the state, which supposedly controls corruption by elected and non-elected officials, more than countries with French legal origins that were established to run the lives of their citizens. The more recent studies add several institutional determinants of corruption such as trade openness (Dreher and Siemers 2009), the size of the shadow economy (Dreher and Schneider 2010), social trust (Bjørnskov 2011), and intelligence (Potrafka 2012). In the empirical analysis we test the robustness of our results to the inclusion of these new variables to the list of controls.

To summarize, our econometric model consists of three features of political finance regulations in addition to a list of (robust) control variables mentioned above:⁷

$$CPI_i = \alpha_0 + \alpha_1 x_i + \alpha_2 PF_i + \alpha_3 CL_i + \alpha_4 TR_i + e_i \quad (1)$$

Where CPI_i is the level of perceived corruption in country i , x_i denotes a vector of control variables, PF_i is an index of public funding, CL_i represents an index of limits on political contributions, TR_i denotes the transparency requirement index and e_i stands for the unexplained residual. While the conceptual framework focuses on actual corruption the

⁶In addition to the strength of democracy, Serra (2006) included a dummy variable for the long-term existence of democratic institutions and found that it helped reduce corruption significantly more than the strength of democracy index. Nevertheless, we prefer to use the strength of democracy index, as has been done in many studies, as not all countries have data on the period of uninterrupted democracy. The general picture is also similar when an index of uninterrupted democracy is used (the results can be provided upon request).

⁷Naturally, our battery of control variables also incorporates a dummy variable for the election system due to our focus on the finance of election campaigns.

TABLE 1. SUMMARY STATISTICS

	<i>Number of characteristics</i>	<i>Number of observations</i>	<i>Average</i>	<i>Standard deviation</i>	<i>Minimum</i>	<i>Maximum</i>
Direct public funding index	2	82	0.52	0.44	0	1
Indirect public funding index	4	82	0.37	0.29	0	1
<i>Public funding index 2002</i>	6	82	0.42	0.30	0	1
contribution ceilings index	2	82	0.20	0.31	0	1
contribution prohibitions index	7	82	0.26	0.28	0	1
Expenditure ceiling index	1	82	0.28	0.45	0	1
<i>Contribution limits index 2002</i>	10	82	0.25	0.26	0	0.80
<i>Transparency Index 2002</i>	3	82	0.42	0.36	0	1
Corruption index CPI 2006		82	5.13	2.42	0.4	8.00
Corruption index CC 2006		82	-0.35	1.09	-2.55	1.42

Notes: The political finance indices for each country were calculated based on the number of entitlements in public funding and the number of restrictions on private contributions. The same goes for the transparency index. These indices are normalized to be between 0 and 1. The data were calculated for the countries that participate in the regressions in Table 2. CC, control of corruption; CPI, corruption perception index.

empirical analysis relies on perceived corruption. It is reasonable to expect that the level of perceived corruption is affected by actual corruption and yet they may not necessarily go hand in hand. However, a recent work by Mocan (2008) shows that actual measures of (particular dimensions of) corruption are highly correlated with standard indices of perceived corruption. Following the conceptual background we hypothesize that:

- a) $\alpha_2 < 0$
- b) $\alpha_3 \geq 0$
- c) $\alpha_4 < 0$

3.2. The data

3.2.1. The data on political finance regulations. The empirical analysis is based on a survey that was conducted by the International Institute for Democracy and Electoral Assistance (IDEA) in the year 2002. The survey contains information on political finance regulation between and during elections in 111 countries that were classified as free or partly free by the ranking of Freedom of the World. The survey consists of 28 questions on political finance regulations with respect to political parties and IDEA researchers provided the answers to these questions based on formal documents in each country. Our study is based on 82 countries for which we have complete data on all variables. Most countries (52) are classified as free by IDEA and 29 countries are affiliated with the Organisation for Economic Co-operation and Development (OECD). We have constructed three different indices of political finance regulations: an index for limits on political contributions, an index for public

funding and an index for transparency (Appendix A describes how those measures are constructed).

Table 1 shows that the average score for the public funding index is 0.42. In our dataset, 64% of the countries provide at least direct public subsidies, and 79% offer one type of indirect public funding, such as free broadcasting time and tax reliefs. The average score for our index of contribution limits is 0.25, where 61% of the countries ban at least one source of contribution and contribution ceilings exist only in 32% of the countries. In addition, some countries (28%) use expenditure limits.

Figure 1 presents the regulation mix (public funding and contribution limits) in political finance in 82 countries. The size of the bubble reflects the number of countries that have preferred a certain regulation mix (the number appears inside the bubble). In general, countries with a high index of public funding tend to have a larger number of contribution regulations, and this correlation is highly significant. Interestingly, this regulation mix is a common policy option in considering campaign finance reforms. However, the world provides two additional and opposite mixes of political finance regulations. On one end of the spectrum, we have the U.S. and the UK with very low (or zero) public subsidies and stringent regulations, while on the other end, appear the Scandinavian countries that use the opposite model with generous public funding and lax regulation of political contributions.⁸

⁸In the U.S., parties are not provided with public funding but presidential and gubernatorial candidates are entitled to public funding under certain conditions. Our study is based on IDEA data on political finance regulations in 2002, limited to parties.

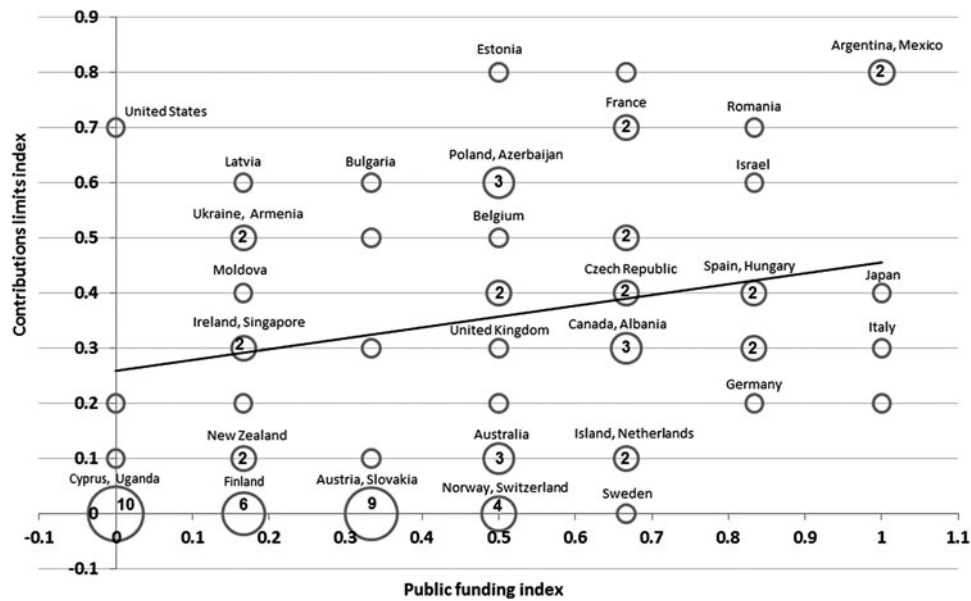


FIG. 1. The regulation mix of public funding and contributions limits. Note: The figure consists of the same countries that participate in the regressions in Table 2.

3.2.2. Data on corruption. Following many studies, we use data on the level of corruption as perceived by the business community and by experts, rather than actual data on corruption of elected and non-elected officials. The index of perceived corruption has both advantages and disadvantages that are discussed in Dreher et al. (2007), Kaufmann et al. (2010), and Bjørnskov (2011). We believe that the aim of political finance regulation is not only to combat actual corruption but also the appearance of corruption which is also a long standing position of the U.S. Supreme Court. Therefore the data on the perception of corruption fits the job in our empirical exploration. In any case, actual data is not available for a cross-country analysis.⁹

We employ two well-known indices of corruption as our dependent variable. The first is the corruption perception index (CPI) for the year 2006 (and for additional years), which is measured by Transparency International. This index is based on 13 surveys that were conducted by ten independent institutions such as Freedom House and Bertelsmann. The questions in these surveys cover a large range of corruption features. The CPI is a simple average of these several indices, and it ranges between 0 (most corrupt) and 10 (least corrupt). In the empirical analysis, the corruption index is also computed for additional years (2003–2010) to gen-

erate a shorter or longer time lag between corruption and regulation indices.

The control of corruption (CC) for the year 2006 (and for additional years) is the second index for corruption used here. This index is a component in a more general index for the Worldwide Governance Indicator, computed by the World Bank. CPI and CC share many similarities, but CC is computed using different weights, with higher weight given to certain components (Kaufmann, Kraay, and Mastruzzi 2010). The CC index score is between -2.5 (most corrupted) and $+2.5$ (least corrupted). As expected, the simple correlation between CPI and CC is around 0.98. In the empirical analysis we use the opposite scale for both indices of corruption, such that higher value means higher level of perceived corruption.

3.2.3. Data on control variables. Data on control variables is derived from various sources. The democracy index for the year 2006 is taken from Freedom House (2011), where the original scale is from 1 (high) to 7 (low). As with the corruption

⁹Dreher et al. (2007) show that their latent variable of corruption is highly correlated with a conventional measure of perceived corruption (as high as 0.85). The simple correlation between that latent variable of corruption and gross domestic product (GDP) per capita is extremely high (0.97).

TABLE 2. THE REGULATION OF POLITICAL FINANCE AND CORRUPTION

	<i>Dependent variable</i>					
	<i>Corruption index CPI 2006</i>			<i>Corruption index CC 2006</i>		
	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>
Contribution limits index 2002		1.53** (0.619)	2.23*** (0.693)		0.74*** (0.271)	1.061*** (0.302)
Public funding index 2002			-0.864 (0.563)			-0.439* (0.246)
Transparency index 2002			-0.699 (0.455)			-0.305 (0.198)
GDP per capita (PPP)	-1.303*** (0.145)	-1.383*** (0.143)	-1.347*** (0.141)	-0.536*** (0.064)	-0.574*** (0.063)	-0.557*** (0.062)
Democracy index	-0.383** (0.153)	-0.395*** (0.148)	-0.368** (0.146)	-0.243*** (0.068)	-0.249*** (0.065)	-0.236*** (0.064)
Catholics rate	0.03*** (0.006)	0.024*** (0.006)	0.026*** (0.006)	0.012*** (0.003)	0.01*** (0.003)	0.01*** (0.003)
Muslims rate	0.017* (0.009)	0.009 (0.009)	0.009 (0.009)	0.007* (0.004)	0.003 (0.004)	0.004 (0.004)
Other religions rate	0.024*** (0.007)	0.018** (0.007)	0.02*** (0.007)	0.01*** (0.003)	0.007** (0.003)	0.007** (0.003)
Political instability	2.913** (1.289)	2.399* (1.263)	2.966** (1.263)	1.452** (0.57)	1.204** (0.554)	1.475*** (0.551)
Majoritarian election system	-0.455 (0.32)	-0.5 (0.309)	-0.395 (0.308)	-0.171 (0.141)	-0.193 (0.136)	-0.146 (0.134)
Former British colony	0.282 (0.34)	0.628* (0.357)	0.319 (0.382)	0.036 (0.151)	0.203 (0.157)	0.053 (0.166)
Constant	16.419*** (1.392)	17.351*** (1.398)	17.157*** (1.372)	4.754*** (0.616)	5.205*** (0.613)	5.114*** (0.598)
Number of observations	82	82	82	82	82	82
Adjusted R-squared	0.757	0.772	0.782	0.763	0.783	0.794

Notes: Higher value of the corruption index means higher level of corruption. *Indicates significance level of 10%; **indicates significance level of 5%; ***indicates significance level of 1%. Standard deviations of the coefficients are in parentheses.
GDP, gross domestic product.

index, we use a reversed rank so that larger values imply higher levels of democracy. The database constructed by the Quality of Governance Institute at Gothenburg University provides the data on religion used in this study (Teorell et al. 2012), and British colonial heritage data is derived from Treisman (2007). GDP per capita for the year 2006 is taken from World Economic Outlook Database (IMF 2010). World Bank Database on Political Institutions is the source for both the dummy variable for the election system in the year 2006 (1 for majoritarian system and 0 otherwise), and the index of political stability that is defined as the average number of years a chief executive has been in office in the period between 1980 and 2003 (or the average number of governments per year).

3.3. The main results

For comparison, we first estimate the corruption ordinary least squares (OLS) regression using the statistical model in Equation (1) with the control

variables only (Table 2, columns 1 and 4). Except for the British colonial heritage, the signs of the estimated coefficients are similar to those in previous studies, including that of Serra (2006). The results are generally the same for both CPI and CC indices of corruption. GDP per capita and democracy index work to reduce the level of perceived corruption, while the share of the Catholic and Muslim religion in the population (as compared to Protestant) and political instability increase corruption. Both the election system and the British colonial heritage were found to be insignificant.

In Table 2 we present the OLS regressions with our three indices of political finance regulations in addition to the above list of control variables. To deal with potential reverse causality we introduced a time gap of four years between the dependent variable (corruption) which is measured for the year 2006 and our central explanatory variables (political finance regulations) which are computed for the year 2002. In fact, the time gap between corruption

and regulation is larger than four years as the regulations of political finance in many countries took place before 2002. For example, the regulations in Belgium, Hungary, Israel, and Taiwan were enacted in 1994, 1997, 1994, and 1980, respectively.¹⁰ We found that the index of contribution limits has a *positive* effect on the level of perceived corruption and the coefficient is significant after controlling for the standard battery of explanatory variables. The coefficients of contribution limits are almost identical using the two indices of corruption after adjusting for the different scales.

In contrast, the provision of public funding has a *negative* impact on the level of perceived corruption, but that effect is borderline significant (Table 2). As expected, the coefficient of the transparency index is negative, but it is insignificant with both indices of corruption. In general, the effects of the control variables are stable across the various regressions. The different effects of these two dimensions of political finance regulations have an important implication: they show that it is undesirable to use an aggregate index of political finance regulation composed of limits on contributions together with public funding, as done in previous studies.

As many reforms in political finance regulations change the mix of expanding public subsidies together with stricter limitations on contributions, it is worth computing such a combined change. A rise of 10% in the contribution limits index would increase the corruption perception index by 1.2% based on our estimated coefficient (Table 2, column 3). In contrast, an increase of 10% in the public funding index would reduce CPI by 0.8%. Thus, the overall impact of a reform that raises both the provision of public funding and the limitations on contribution by 10% would increase corruption by 0.4%. Note that an increase of 10% in GDP per capita reduces the CPI by 12.8%; in addition a rise of 10% in one of the other significant control variables would lead to a reduction of 4.5% in level of corruption for an increase in democracy index, a higher degree of corruption by 2.2% for a rise in Catholic share, and a higher CPI by 1.5% following an increase in political instability.

3.4. Addressing endogeneity and reverse causality

3.4.1. Endogeneity. Examining the effects of political finance regulations on corruption based on cross country data raises two fears. First, the risk that an important factor, like culture (norms),

affects both corruption and regulation, and undermines the identification of causal relations by standard OLS estimation. However, the relationship between potential omitted variables like norms, culture, or ideology, and corruption and regulation is unclear. One may argue that countries with norms that tend to control corruption will adopt loose regulation (there is no need for it) while countries with a high level of corruption will cynically use tough regulation on paper to paint a distorted picture of fighting corruption.

On the other hand, one may present an equally convincing argument that would lead to a *negative* correlation between corruption and regulation. It could be that societies that are less tolerant of corrupt activities may design stricter political finance regulations while countries that are characterized by high corruption might adopt lax regulation that helps to sustain that extensive corruption. In that case, the norms generate a *negative* correlation between corruption and regulation. In theory, zero correlation is also possible if we mix the two above claims. For example, countries with less corrupted norms will adopt loose regulation while more corrupted societies might adopt soft regulation. This discussion suggests that even the exploration of the correlation between the regulation of political finance and corruption is valuable.

While it is easy to find a variable that is highly correlated with the endogenous variable (the index of limits on political contributions) it is much more difficult to detect one that passes the exclusion restriction (i.e., has no direct effect on the level of perceived corruption). Instead of using undesirable instrumental variables, we test the sensitivity of our main results to the inclusion of an additional long list of control variables. Naturally, the risk of endogeneity due to the omission of an important institutional variable that potentially affects both the dependent and key independent variables is reduced as more controlled variables are examined.

In this section we test the robustness of our results to the inclusion of additional variables that were found to influence the degree of corruption. We add to our baseline regression each time a

¹⁰The dates are based on our reading of both IDEA and GRECO databases. However, it was not always clear to us what the year was during which the last amendment to political finance regulation was made.

TABLE 3. THE REGULATION OF POLITICAL FINANCE AND CORRUPTION—ADDITIONAL CONTROLS

	<i>Dependent variable</i>							
	<i>Corruption index CPI 2006</i>							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Contribution limits index 2002	2.230*** (0.693)	2.358*** (0.661)	2.208*** (0.675)	2.244*** (0.693)	1.567** (0.623)	2.130*** (0.634)	1.428*** (0.527)	1.201* (0.710)
Public funding index 2002	-0.864 (0.563)	-0.981* (0.538)	-0.983* (0.567)	-0.977* (0.575)	0.375 (0.533)	-0.453 (0.525)	-0.227 (0.428)	-0.102 (0.534)
Transparency index 2002	-0.699 (0.455)	-0.487 (0.439)	-0.634 (0.446)	-0.689 (0.455)	-0.034 (0.430)	-0.359 (0.426)	-0.379 (0.342)	-0.588 (0.416)
IQ		-0.065*** (0.023)						
Economic globalization			-0.023* (0.014)					
Trade openness				-0.003 (0.003)				
Social trust					-0.020 (0.013)			
Shadow Economy						0.041*** (0.016)		
Rule of law							-0.826*** (0.113)	
Legal origins—French								-0.576 (0.430)
Legal origins—Socialist								0.687 (0.455)
Legal origins—German								-1.530** (0.630)
Legal origins—Scandinavian								-1.155 (0.864)
Constant	17.157*** (1.372)	18.457*** (1.382)	16.963*** (1.358)	17.116*** (1.372)	19.337*** (1.339)	13.672*** (2.032)	15.357*** (1.059)	17.644*** (1.339)
Number of observations	82	82	81	82	69	79	81	81
Adjusted R-squared	0.782	0.802	0.794	0.782	0.858	0.822	0.880	0.823

Notes: In all the regressions we have controlled for the same variables as in Table 2 except for column (8) where Former British Colony was excluded due to obvious reasons. See notes to Table 2.

different control variable together with the standard list of controls (GDP per capita, democracy, religion, political instability, election system, and British heritage).

We have added to our list of control variables IQ (taken from Lynn and Vanhanen 2006), economic globalization (Dreher 2006), trade openness (Penn World Table Version 7.1), social trust (Bjørnskov 2008), shadow economy (Schneider et al. 2011), rule of law (economic freedom of the world) and legal origins.¹¹ As can be seen in Table 3, the effect of our index of regulation of private contribution on corruption keeps its sign and significance in most specifications. In addition, the coefficients of the rule of law, shadow economy, legal origins, and intelligence are consistent with previous studies. Thus, the risk of endogeneity is smaller as those

additional variables potentially capture norms, culture, and ideology.

3.4.2. Reverse causality. The second risk of estimating Equation (1) is that coefficients might be biased because of reverse causality. Several studies have pointed out that political scandals were an important motive for reforming political finance regulations (see Pinto-Duschinsky 2002; Scarrow 2007; and Witko 2007). To reduce the risk of biased coefficients, we use a time gap between the year for which the level of perceived corruption is measured and the

¹¹The results remain the same also using latitude (Easterly and Sewadeh 2001) and school enrollment (World Development Indicators) in our list of control variables (not reported here).

TABLE 4. THE REGULATION OF POLITICAL FINANCE AND CORRUPTION

	<i>Dependent variable</i>							
	<i>Corruption index CPI</i>							
	<i>(2003)</i>	<i>(2004)</i>	<i>(2005)</i>	<i>(2006)</i>	<i>(2007)</i>	<i>(2008)</i>	<i>(2009)</i>	<i>(2010)</i>
Contribution limits index 2002	1.971*** (0.681)	1.975*** (0.709)	2.078*** (0.692)	2.230*** (0.693)	2.098*** (0.667)	2.077*** (0.657)	1.926*** (0.666)	1.978*** (0.661)
Public funding index 2002	-0.375 (0.568)	-0.477 (0.581)	-0.683 (0.573)	-0.864 (0.563)	-1.102** (0.523)	-0.911* (0.519)	-0.771 (0.529)	-0.732 (0.528)
Transparency index 2002	-0.542 (0.465)	-0.604 (0.474)	-0.613 (0.458)	-0.699 (0.455)	-0.744* (0.431)	-0.678 (0.425)	-0.705 (0.434)	-0.684 (0.432)
GDP per capita (PPP)	-1.512*** (0.154)	-1.415*** (0.155)	-1.384*** (0.145)	-1.347*** (0.141)	-1.233*** (0.135)	-1.195*** (0.135)	-1.182*** (0.139)	-1.189*** (0.141)
Democracy index	-0.376** (0.16)	-0.343** (0.156)	-0.34** (0.151)	-0.368** (0.146)	-0.487*** (0.138)	-0.562*** (0.136)	-0.568*** (0.139)	-0.502*** (0.132)
Catholics rate	0.023*** (0.006)	0.025*** (0.006)	0.025*** (0.006)	0.026*** (0.006)	0.023*** (0.006)	0.019*** (0.006)	0.022*** (0.006)	0.023*** (0.006)
Muslims rate	0.007 (0.009)	0.011 (0.009)	0.009 (0.009)	0.009 (0.009)	0.006 (0.008)	0.002 (0.008)	0.006 (0.008)	0.009 (0.008)
Other religions rate	0.018*** (0.007)	0.02*** (0.007)	0.021*** (0.007)	0.02*** (0.007)	0.019*** (0.007)	0.014** (0.006)	0.016** (0.007)	0.018*** (0.007)
Political instability	3.586*** (1.246)	3.887*** (1.283)	3.352** (1.272)	2.966** (1.263)	3.325*** (1.146)	3.456*** (1.13)	3.116*** (1.148)	3.389*** (1.139)
Majoritarian election system	-0.334 (0.313)	-0.262 (0.32)	-0.29 (0.305)	-0.395 (0.308)	-0.317 (0.291)	-0.322 (0.287)	-0.277 (0.29)	-0.356 (0.29)
Former British colony	-0.04 (0.385)	0.064 (0.392)	0.168 (0.382)	0.319 (0.382)	0.115 (0.35)	0.068 (0.346)	-0.065 (0.353)	0.005 (0.353)
Constant	18.402*** (1.371)	17.131*** (1.385)	17.05*** (1.334)	17.157*** (1.372)	17.143*** (1.307)	17.469*** (1.301)	17.248*** (1.329)	16.753*** (1.309)
Number of observations	73	76	81	82	87	86	85	84
Adjusted R-squared	0.82	0.796	0.789	0.782	0.778	0.777	0.775	0.779

Notes: The regression was estimated by ordinary least squares (OLS). In each regression, the control variables: GDP per capita, Democracy Index and Majoritarian election system were computed for the same year as the corruption index. See notes to Table 2.

year of the political finance regulation index in our baseline regression. The time gap is necessary also to avoid a bias that may stem from the way the general public interprets changes in political finance regulations. People may perceive amendments in regulations as a signal for a high contemporaneous level of corruption and consequently we would get a positive correlation between regulations and corruption.

As can be seen from Table 4, the main results remain stable when using a shorter (one to three years) or longer (five to eight years) time lag. In addition, the estimated coefficient of public funding index becomes significant at an acceptable level when the CPI index for the years 2007 and 2008 are employed (Table 4). Note that the estimated coefficients of the control variables, such as political instability, economic development, and democracy index are almost unaffected.

While the long list of control variables that has been examined and the introduction of various time lags between the dependent variable (corruption)

and the independent variable (regulation) does not entirely eliminate the fears regarding the interpretation of our findings as causal effects of political finance regulations on the level of perceived corruption, they are certainly reduced.

3.5. Sensitivity analysis

3.5.1. The mix of regulation. The previous estimation assumes that the effect of each feature of regulation is independent from the level of other features. However, it is worth examining the potential interaction between various features given the widespread use of a joint change in both public funding and contribution limitations.¹² In order to estimate the effects of regulation mix we define countries with contribution limits index below (above) the median as low

¹²In previous versions we employ more complicated bundles of regulation that include transparency requirements but it turns out to be insignificant.

(high) regulation of private contributions. Likewise, countries with a public funding index below (above) the median were classified as low (high) regulation of public funding. Thus, we have generated four bundles of regulation of political finance: low regulation of contributions and low public funding, low regulation of contributions and high public funding, high regulation of contributions and low public funding, and high regulation of contributions and high public funding.

Using regulation mix instead of a particular dimension of political finance regulation reduces to a certain extent also the risk of endogeneity and reverse causality. In Table 5 we see that countries with a bundle of lax regulation of private contributions and high level of public funding index tend to have a lower degree of perceived corruption after controlling for the standard list of explanatory variables. Interestingly, it is in contrast with the general trend in campaign finance reforms in many countries that adopt more stringent regulation of

contribution and more generous public funding. Note that the largest estimated coefficient is that of high regulation of private contribution and high index of public funding.

3.5.2. Splitting our dataset. We also estimate the effects of political finance regulations on corruption, where the dataset is divided into two equal groups of countries according to the level of GDP per capita and the value of the democracy index. Naturally, the estimation is less accurate due to the sharp decline in the number of countries in each group.

The results clearly show that the signs of the regulation coefficients are the same, with one exception, but with a lower level of significance as expected due to the significant decrease in the number of observations (Table 6).

3.5.3. Constructing contribution limits differently. We have examined the robustness of our results regarding the effects of contribution limits on

TABLE 5. THE REGULATION MIX OF POLITICAL FINANCE AND CORRUPTION

	<i>Dependent variable</i>			
	<i>Corruption index CPI 2006</i>		<i>Corruption index CC 2006</i>	
	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>
<i>Below</i> contribution limits index median and <i>above</i> public funding index median	-0.993** (0.478)	-0.970** (0.475)	-0.379* (0.210)	-0.367* (0.208)
<i>Above</i> contribution limits index median and <i>below</i> public funding index median	0.126 (0.450)	0.443 (0.506)	0.186 (0.198)	0.351 (0.222)
<i>Above</i> contribution limits index median and <i>above</i> public funding index median	0.341 (0.397)	0.609 (0.442)	0.223 (0.175)	0.362* (0.194)
Transparency index 2002		-0.651 (0.487)		-0.337 (0.213)
GDP per capita (PPP)	-1.316*** (0.145)	-1.308*** (0.144)	-0.551*** (0.064)	-0.547*** (0.063)
Democracy index	-0.382** (0.150)	-0.356** (0.151)	-0.238*** (0.066)	-0.224*** (0.066)
Catholics rate	0.022*** (0.006)	0.022*** (0.006)	0.009*** (0.003)	0.009*** (0.003)
Muslims rate	0.010 (0.009)	0.008 (0.009)	0.003 (0.004)	0.003 (0.004)
Other religions rate	0.018** (0.007)	0.018** (0.007)	0.006** (0.003)	0.007** (0.003)
Political instability	2.344* (1.281)	2.479* (1.278)	1.143** (0.564)	1.213** (0.560)
Majoritarian election system	-0.582* (0.318)	-0.503 (0.321)	-0.222 (0.140)	-0.181 (0.141)
Former British colony	0.371 (0.388)	0.315 (0.388)	0.112 (0.171)	0.083 (0.170)
Constant	17.259*** (1.391)	17.111*** (1.388)	5.160*** (0.612)	5.083*** (0.608)
Number of observations	82	82	82	82
Adjusted <i>R</i> -squared	0.771	0.774	0.780	0.784

See notes to Table 2.

TABLE 6. THE REGULATION OF POLITICAL FINANCE AND CORRUPTION—SPLITTING THE SAMPLE

	<i>Dependent variable</i>					
	<i>Corruption index CPI 2006</i>					
	<i>All countries</i> (1)	<i>OECD countries</i> (2)	<i>GDP-PC above the median</i> (3)	<i>GDP-PC below the median</i> (4)	<i>Democracy index above the median</i> (5)	<i>Democracy index below the median</i> (6)
Contribution limits index 2002	2.23*** (0.693)	1.688* (0.962)	1.223 (0.876)	2.385*** (0.636)	1.436* (0.83)	1.922* (1.073)
Public funding index 2002	-0.864 (0.563)	0.005 (1.075)	-0.147 (0.765)	-0.045 (0.457)	-1.234 (0.761)	-0.636 (0.869)
Transparency index 2002	-0.699 (0.455)	0.265 (0.875)	-0.551 (0.694)	-0.027 (0.334)	-0.346 (0.618)	-0.806 (0.637)
GDP per capita (PPP)	-1.347*** (0.141)	-2.159*** (0.720)	-3.163*** (0.467)	-0.571*** (0.137)	-1.511*** (0.32)	-0.803*** (0.195)
Democracy index	-0.368** (0.146)	-1.282 (0.880)	-0.404 (0.267)	-0.241** (0.103)	-1.597** (0.636)	0.125 (0.264)
Catholics rate	0.026*** (0.006)	0.019** (0.008)	0.019** (0.007)	0 (0.008)	0.025*** (0.006)	0.002 (0.016)
Muslims rate	0.009 (0.009)	-0.118 (0.165)	-0.008 (0.028)	-0.006 (0.008)	-0.004 (0.018)	-0.002 (0.016)
Other religions rate	0.02*** (0.007)	0.019 (0.013)	0.016 (0.01)	-0.005 (0.008)	0.023*** (0.008)	-0.004 (0.016)
Political instability	2.966** (1.263)	1.521 (1.683)	2.368 (1.573)	1.218 (1.26)	2.479 (1.469)	4.243** (1.975)
Majoritarian election system	-0.395 (0.308)	-1.326** (0.543)	-0.87* (0.448)	-0.101 (0.241)	-0.848** (0.405)	-0.26 (0.468)
Former British colony	0.319 (0.382)	0.292 (0.692)	0.613 (0.548)	0.693** (0.314)	0.403 (0.477)	-0.305 (0.574)
Constant	17.157*** (1.372)	31.692*** (8.422)	36.228*** (4.888)	12.008*** (1.321)	27.543*** (3.583)	12.321*** (2.493)
Number of observations	82	29	41	41	47	35
Adjusted <i>R</i> -squared	0.782	0.688	0.74	0.459	0.788	0.415

See notes to Table 2. OECD, Organisation for Economic Co-operation and Development.

corruption to the features that enter into our index of contribution limits. One may argue that the regulation of the contributions index should not include expenditure caps since their purpose is to level the playing field, rather than to combat corruption. It could also be claimed that the impact of a ban on corruption is different from that of a contribution ceiling as in some countries such a ceiling may be non-binding, as in Russia.

However, the positive effect of contribution limits on the level of perceived corruption continues to be significant even after excluding the expenditure cap or the two contribution ceilings and the expenditure cap from the index of contribution limits (Table 7).

4. CONCLUSIONS

In the past century the regulation of political finance has expanded significantly around the

world, where combating political corruption has been one of the main motives for this trend. However, in spite of the extensive public attention devoted to the interaction between political finance and corruption, there is no theoretical framework and very few empirical studies that explore the relationship between these two phenomena. In fact, this is the first work that examines empirically the relations between political finance regulation and the level of perceived corruption across countries.

This article presents a novel theoretical framework according to which the regulation of campaign contribution limits has two conflicting forces affecting corruption. Imposing a contribution ceiling reduces the size of legal contributions and the associated corruption, but at the same time it may increase the demand for illegal contributions accompanied by a higher level of corruption. We have constructed an index of contribution limits that is based on the IDEA database for the year

TABLE 7. THE REGULATION OF POLITICAL FINANCE AND CORRUPTION—ADDITIONAL MEASURES OF REGULATION

	<i>Dependent variable</i>					
	<i>Corruption index CPI 2006</i>			<i>Corruption index CC 2006</i>		
	<i>(1)</i>	<i>(2)</i>	<i>(3)</i>	<i>(4)</i>	<i>(5)</i>	<i>(6)</i>
Contribution limits index 2002	2.230*** (0.693)			1.061*** (0.302)		
Contribution limits index without expenditure ceiling 2002		2.089*** (0.646)			0.987*** (0.282)	
Contribution limits index without expenditure ceiling and contribution ceilings 2002			1.830*** (0.605)			0.914*** (0.262)
Public funding index 2002	-0.864 (0.563)	-0.805 (0.560)	-0.814 (0.566)	-0.439* (0.246)	-0.411* (0.244)	-0.422* (0.245)
Transparency index 2002	-0.699 (0.455)	-0.627 (0.445)	-0.557 (0.444)	-0.305 (0.198)	-0.269 (0.194)	-0.249 (0.192)
GDP per capita (PPP)	-1.347*** (0.141)	-1.326*** (0.141)	-1.326*** (0.142)	-0.557*** (0.062)	-0.547*** (0.061)	-0.548*** (0.061)
Democracy index	-0.368** (0.146)	-0.377** (0.146)	-0.363** (0.147)	-0.236*** (0.064)	-0.240*** (0.064)	-0.233*** (0.064)
Catholics rate	0.026*** (0.006)	0.027*** (0.006)	0.028*** (0.006)	0.010*** (0.003)	0.011*** (0.003)	0.011*** (0.003)
Muslims rate	0.009 (0.009)	0.010 (0.009)	0.012 (0.009)	0.004 (0.004)	0.004 (0.004)	0.005 (0.004)
Other religions rate	0.020*** (0.007)	0.021*** (0.007)	0.022*** (0.007)	0.007** (0.003)	0.008*** (0.003)	0.008*** (0.003)
Political instability	2.966** (1.263)	2.858** (1.265)	3.020** (1.272)	1.475*** (0.551)	1.425** (0.552)	1.497*** (0.551)
Majoritarian election system	-0.395 (0.308)	-0.407 (0.308)	-0.427 (0.310)	-0.146 (0.134)	-0.151 (0.134)	-0.161 (0.134)
Former British colony	0.319 (0.382)	0.345 (0.383)	0.324 (0.386)	0.053 (0.166)	0.064 (0.167)	0.061 (0.167)
Constant	17.157*** (1.372)	16.952*** (1.359)	16.757*** (1.363)	5.114*** (0.598)	5.014*** (0.593)	4.936*** (0.590)
Number of observations	82	82	82	82	82	82
Adjusted <i>R</i> -squared	0.782	0.782	0.778	0.794	0.794	0.794

See notes to Table 2.

2002 to test its net impact on corruption. After controlling for a standard list of explanatory variables and using OLS estimation, we found that the latter effect is dominant and the contribution limits index tends to increase the level of perceived corruption. This result may be consistent also with the explanation that has been suggested by Roseenson (2009) that more regulations lead to more stories on politicians who violate the law which is likely to increase the appearance of corruption.

In contrast, the constructed index of public funding provision has a negative effect on the level of perceived corruption. For the empirical analysis we have constructed an index of public funding based on the IDEA database for the year 2002. After controlling for a standard list of explanatory variables, we found that the index of public funding had a negative effect on corruption but this result is

not significant in most specifications. Our index of public funding reflects the number of forms of public subsidies but does not reflect the actual size of funding that each country spent on political finance. Therefore, the results on the effect of public funding on corruption may suggest that our measure is not nuanced enough. We also found that a transparency index, based on the IDEA database for the year 2002, tended to reduce the level of perceived corruption as predicted but this effect is insignificant.

To minimize the risk of a bias due to potential reverse causality and endogeneity, we run a battery of robustness checks. First, we introduce a time gap between the independent variable (regulation) and the dependent variable (perceived corruption) necessary to deal with potential reverse causality. Moreover, we show that the main results remain stable when using a shorter or longer time lag. Second,

the empirical analysis includes sensitivity checks to a long list of control variables. Our main results are robust to the inclusion of an additional long list of control variables. Thus, the risk of endogeneity is smaller as those additional variables that potentially capture norms, culture, and ideology are controlled for. Third, the results on the effects of the mix of regulation (instead of a particular dimension of political finance regulation) on the level of perceived corruption reduce to a certain extent also the risk of endogeneity and reverse causality. While this series of tests do not fully remove the fears of endogeneity, they are certainly diminished. In addition, sensitivity checks have been done like splitting the sample by GDP per capita, splitting the sample by the strength of democracy, and different ways of constructing the index of contribution limits. The main results remain the same in almost all of these robustness tests.

We find that the mix of generous public funding and lax regulations of private contributions is associated with lower corruption. Interestingly, the regulation mix of more generous public funding and stricter regulations on private contributions, which is common in many political finance reforms, does not lower the level of corruption.

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APPENDIX A. CONSTRUCTING MEASURES OF POLITICAL FINANCE REGULATIONS

The International Institute for Democracy and Electoral Assistance (IDEA) survey consists of 28 questions on political finance regulations with respect to political parties in the following fields: types of bans on political contributions, contribution ceilings, the provision of direct and indirect public subsidies, and the transparency requirements regarding financial reports and monitoring institutions.

We have constructed three different indices of political finance regulations: an index for limits on political contributions, an index for public funding, and an index for transparency. The index of limits

on contributions is composed of seven bans on contributions from various sources, two contribution ceilings, and one expenditure cap.¹³ Each of these ten features gets one point and the index of limits on contributions is a simple sum over these ten features (the maximum value is 10). The index of public funding includes direct public subsidies that get a score of 1 if there is public funding either during election or between elections, and a score of 2 if public funding is provided both between and during elections. The public funding index consists also of

¹³The bans on seven sources of contributions include government contractors, foreign entities, corporations, unions, anonymous donations, in-kind contributions, and any other source.

TABLE A1. THE LIST OF COUNTRIES

<i>No.</i>	<i>Country</i>	<i>No.</i>	<i>Country</i>
1	Albania	42	Japan
2	Argentina	43	Latvia
3	Armenia	44	Lesotho
4	Australia	45	Madagascar
5	Austria	46	Malawi
6	Azerbaijan	47	Malaysia
7	Bangladesh	48	Mali
8	Barbados	49	Malta
9	Belgium	50	Mauritius
10	Belize	51	Mexico
11	Benin	52	Moldova
12	Bolivia	53	Morocco
13	Botswana	54	Mozambique
14	Bulgaria	55	Netherlands
15	Burkina Faso	56	New Zealand
16	Canada	57	Nicaragua
17	Chile	58	Niger
18	Colombia	59	Norway
19	Costa Rica	60	Papua New Guinea
20	Cyprus	61	Paraguay
21	Czech Republic	62	Peru
22	Denmark	63	Poland
23	Dominican Republic	64	Portugal
24	Ecuador	65	Romania
25	El Salvador	66	Sierra Leone
26	Estonia	67	Singapore
27	Finland	68	Slovakia
28	France	69	South Africa
29	Germany	70	Spain
30	Ghana	71	Sweden
31	Grenada	72	Switzerland
32	Guatemala	73	Tanzania
33	Guyana	74	Thailand
34	Honduras	75	Trinidad and Tobago
35	Hungary	76	Uganda
36	Iceland	77	Ukraine
37	India	78	United Kingdom
38	Ireland	79	United States
39	Israel	80	Uruguay
40	Italy	81	Venezuela
41	Jamaica	82	Zambia

four characteristics of indirect public subsidies—free media access, tax reliefs, special taxation status, and any other form of indirect public funding. Each characteristic gets one point and therefore the maximum value of our public funding index is 6. Note that the index of public funding provision does not tell us the monetary size that each country spent on political finance.

The transparency index is the sum of three features—public disclosure of expenditures by political parties, the duty of donors to disclose contributions made, and the requirement that parties disclose contributions received—where each feature equals one point. For the sake of comparison, we have normalized the three indices to be between zero and one. Note that these indices represent the formal regulations, which do not necessarily reflect the actual status.

In the year 2012 IDEA published a new database based on a survey that consisted of 43 questions on political finance regulations of both parties and candidates in 180 countries.¹⁴ That survey includes information on sanctions that were not covered in 2002. Nevertheless, the empirical analysis exploits that data for 2002 only that allows us, as mentioned above, to create a time gap between the independent variable (regulation) and the dependent variable (perceived corruption) necessary to deal with potential reverse causality.

¹⁴As suggested by IDEA, one could not use the two surveys to learn about the changes that have occurred in political finance regulations in this period due to changes in the wording of questions, new instructions to IDEA researchers concerning how to answer the questions, and new questions that were included in the 2012 survey.