The effect of political finance on corruption risk in Colombia:

The unintended trade-offs of paying for democracy?

Master's thesis



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Submitted to the Faculty of Economics and Social Sciences in partial fulfillment of the requirements for the master's degree in National and International Administration and Policy

Potsdam, 07 November 2020

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Published online on the Publication Server of the University of Potsdam: https://doi.org/10.25932/publishup-48758 https://nbn-resolving.org/urn:nbn:de:kobv:517-opus4-487586

Abstract

Conventional wisdom holds that large sums of money poured into election campaigns are the gateway to corruption. Allegations of the corrupting influence of money in politics and policy are widespread on the national level. Yet, little empirical evidence has advanced the understanding of such a link on the local level, coupled with blurred corruption measures. This master's thesis tests the effect of campaign finance on public procurement corruption risks in Colombian municipalities, focusing on donations, small donations, and financial disclosure. To that end, I seized publicly disclosed contribution-level data from the 2015 municipal elections and a novel index of institutionalized public procurement corruption risks based upon contract-level data from the near population of local governments. The analysis shows that donations are negatively associated with overall corruption risk, yet they affect specific corruption risks differently. By contrast, small donations seem to correlate positively with direct awarding for a sub-sample of medium-sized municipalities, whereas in their large-sized counterparts the effect of the former on institutionalized corruption is adverse. Finally, financial misreporting is positively linked with market competition restrictions and direct awarding. In the conclusion, I discuss the implications of these findings for future research and outline a series of policy recommendations.

Kurzfassung

Eine herkömmliche Weisheit besagt, dass große Geldsummen, die in den Wahlkampf fließen, das Tor zur Korruption sind. Der Vorwurf des korrumpierenden Einflusses von Geld auf die Politik ist auf nationaler Ebene weit verbreitet. Es gibt jedoch nur wenige empirische Beweise, die das Verständnis einer solchen Verbindung auf lokaler Ebene mit verschwommenen Korruptionsmaßnahmen untersuchen. In dieser Masterarbeit teste ich die Auswirkungen der Wahlkampffinanzierung auf die Korruptionsrisiken im öffentlichen Beschaffungswesen in kolumbianischen Gemeinden, wobei ich mich auf Spenden, Kleinspenden und die finanzielle Offenlegung konzentriere. Zu diesem Zweck nutze ich öffentliche Daten zur Spendenhöhe aus den Kommunalwahlen von 2015 und einen neuartigen Index der Korruptionsrisiken im öffentlichen Beschaffungswesen misst. Letzteres basiert auf Daten der Vertragsebene auf der Ebene der Kommunalverwaltungen. Die Analyse zeigt, dass Spenden negativ mit dem allgemeinen Korruptionsrisiko verbunden sind. Darüber hinaus wirken sie sich jedoch auf spezifische Korruptionsrisiken unterschiedlich aus. Im Gegensatz dazu scheinen kleine Spenden für eine Teilstichprobe mittelgroßer Kommunen positiv mit der Direktvergabe zu korrelieren, während der Effekt bei großen Kommunen auf die Korruption negativ ist. Schließlich ist die finanzielle Nicht-Offenlegung positiv mit Marktwettbewerbsbeschränkungen und Direktvergabe korreliert. In der Schlussfolgerung diskutiere ich die Auswirkungen dieser Ergebnisse auf die zukünftige Forschung und skizziere eine Reihe von politischen Empfehlungen.

To Guadalupe, my niece,

in the hope that she grows up in a more peaceful, prosperous world.

Acknowledgments

Nearly a year ago, like-minded Colombians took to the streets to demand the government genuine, concrete actions to stop murderous violence against social, environmental advocates, inequality, climate change, and corruption. Their immense courage inspired me to write this master's thesis in the hope that it contributes to tackling one of Colombia's most vexing issues: Corruption. Several people in their respective capacities played a part in this thesis since its early stages.

First and foremost, I would like to thank my two supervisors, Prof. Dr. Ulrich Kohler and Prof. Dr. Geert Bouckaert, who eagerly listened to my inquiries, even when long virtual meetings seemed to overwhelm us, reminding us of the importance of physical presence on campus. I wholeheartedly appreciate your confidence and feedback, which only enriched this work.

Germán Robayo, of the Electoral Oversight Mission (MOE by its Spanish acronym), provided me with rich material about the 2015 mayoral election in Colombia. Carlos Andrés Caro, of the Industrial Engineering Faculty, and María Margarita Zuleta, Director of the Alberto Lleras Camargo School of Government, at the University of Los Andes, kindly endowed me with the databases from their novel and timely Public Procurement Corruption Risk Index.

I am also very grateful to Sandra Martínez, head of the Department of Knowledge Management at Transparency International Colombia, a much-cited expert in this topic in Colombia. She was keen to discuss this study's preliminary results with me and shed light on findings that had me puzzled. Metin Almisoglu reviewed this thesis' first outline almost a year ago and luckily also read the final manuscript, providing insightful comments that improved the work conceptually and methodologically. Should any errors remain, they are all my liability.

I cannot go on without expressing my greatest gratitude to the German Academic Exchange Service (DAAD) and the Fundación para el Futuro de Colombia (COLFUTURO) for funding my studies in Germany.

And last but not least, to my lovely family, especially my mom, who proudly became the first member of our family to earn a university degree. I would not have been so passionate and determined to pursue an academic career had I not witnessed her devotion to studies growing up.

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List of Acronyms

CEDE	Centro de Estudios sobre Desarrollo Económico
CEO	Chief Executive Officer
CIA	Central Intelligence Agency
COP	Colombian Peso
CRI	Corruption Risk Index
DANE	Departamento Administrativo Nacional de Estadística
EU	European Union
GDP	Gross Domestic Product
IDB	Inter-American Development Bank
IDEA	Institute for Democracy and Electoral Assistance
IHH	Herfindahl–Hirschman Index
MGS	Multi-level Governance System
MMW	Minimum Monthly Wage
NBI	Necesidades Básicas Insatisfechas
OECD	Organization for Economic Development Cooperation
OGI	Open Government Index
OLS	Ordinary Least Squares
PFS	Political Finance System
RDD	Regression Discontinuity Design
SECOP	Sistema Electrónico de Compra Pública
TVEC	Tienda Virtual del Estado Colombiano
UK	United Kingdom
USA	United States of America
USAID	US Agency for International Development
USD	US Dollar
V-Dem	Varieties of Democracy

1. Introduction

Nearly 30 in 100 COP of campaign funds stemmed from donations during Colombia's 2015 municipal elections¹. Campaign finance is a constitutive element of any liberal democracy. Funding political parties and candidates might be as decisive as fostering political competition, promoting representativeness, and helping new leaderships emerge (Casas-Zamora and Zovatto 2015; Falguera, Jones, and Ohman 2014; Stratmann 2005; Wilhelm and Baena 2013). Nevertheless, campaign finance has been mostly fraught with trade-offs and the opposite consequences: Organized interests may seek to influence policy outcomes and capture slices of government (Hopkin 2004; Pinto-Duschinsky 2002; Stratmann 2005). Incumbents may seize the state's monopoly to extract rents and reward donors through, e.g., licenses, regulations, public employment, and government contracting. The latter area might yield advantageous returns: By 2017, public procurement accounted for 9.9 percent of GDP and 63 percent of Colombia's subnational governments' spending (OECD 2020). Does campaign finance spur rent extraction via public procurement on the local level?

This phenomenon has predated Latin America. In cooperation with US enforcement agencies, Brazil's judiciary unpacked the hitherto most entangled transnational corruption network of which the entire region has knowledge, known journalistically as the *Odebrecht* scandal. It has revealed corrupt campaign donations by the Brazilian construction giant to former presidents of Brazil, Argentina, Colombia, Ecuador, Mexico, and Peru to secure the awarding of overpriced infrastructure projects (El Tiempo 2017; The Economist 2017). Senior public executives, lawmakers, lobbyists, tycoons, and their aides have since then been prosecuted. Ten years back, Colombian journalists and civil organizations unveiled that nearly 40 percent of Congress members and several regional political leaders had been financed and supported electorally by criminal groups. Their political backing sought to capture slices of government and eventually secure favorable prosecution conditions during negotiations with the central government.

Considerable empirical research has been devoted to analyzing the role of money in policy outcomes. Two significant streams can be recognized: The consequences of electing a donorfunded politician over a non-donor-funded candidate in public procurement and the effect of imposing a ban on corporate campaign donations. Electing a donor-funded politician increases

¹ Author's own calculation based on Transparencia por Colombia (2016). That is, one in three USD at the average exchange rate of 2743 COP in 2015.

the influence of contributions in politics and the likelihood of public procurement corruption on the local level (Ruiz 2018). The literature overwhelmingly suggests that donors receive a "price premium" in their contracts (Arvate, Barbosa, and Fuzitani 2013; Baltrunaite 2020; Boas, Hidalgo, and Richardson 2014; Bromberg 2014; Ruiz 2018; Witko 2011), and forbidding corporate campaign donations reduces the likelihood of large donors receiving contracts (Baltrunaite 2020). Seemingly, the privileged mechanism to awarding contracts to donors is leaking tendering information to bidders to see their stances improved.

While prior research has focused on large donors, the role of small donors remains to be studied. Baltrunaite (2020) found that the size of returns are proportional to the donation volume and, for that reason, bans on corporate campaign donations ill-affect large donors compared to their smaller counterparts. Similarly, studies have emphasized the effect of campaign finance reporting on corruption perceptions, largely ignoring procurement corruption risks. On the one hand, Rowbottom (2016) and Ansolabehere (2007) claimed that campaign finance transparency has not contributed to reducing corruption and has fostered a culture of mistrust of donors and candidates. On the other hand, Gilbert and Aiken (2014) posited that campaign finance disclosure has brought unintended consequences: Donors may prefer to fund candidates deemed obedient or who seem to be responsive to contributors.

Prior research grounded in political-economy studies has advanced the knowledge of these topics, but to counterbalance the effect of ambiguous corruption indicators, it is essential to use a reliable, objective measure of public procurement corruption risks. Furthermore, the roles of small donors and campaign finance disclosure remain under-researched. Hence, this master's thesis aims at answering the following research question: What has been the effect of campaign finance on public procurement corruption risks on the local level in Colombia? It mainly focuses on three campaign finance tools: Donations, small donations, and financial disclosure, which is mainly pursued through online services. For that purpose, I seized data from Colombia's 2015 mayoral race and a novel public procurement corruption risk index based on objective contract-level procurement data for the near population of Colombian municipalities.

Multiple regression results suggest that campaign finance matters to curb public procurement corruption risks on the local level, yet it affects distinct corruption risks differently. Donations are associated with lower public procurement corruption risks. Small donations seem not to affect corruption risks, while financial misreporting is positively associated with market competition restrictions and direct awarding. When grouping municipalities according to population size, close races, and poverty, results provide some assurance that campaign donations positively relate to direct awarding in bigger municipalities, yet small donations might help curb this risk. No substantial effects are uncovered according to close races and poverty incidence.

Contrary to theoretical expectations that campaign donations influence public procurement corruption risks, findings suggest an adverse effect for the near population of Colombian municipalities. This work also concludes that small donations, contrary to theory, may lead to higher direct awarding, which can be plausibly explained by small donors contributing to campaigns to receive direct awards in municipalities where the local government is a prominent economic actor. Hence, small donations could spur rent extraction via patronage and clientelism. Furthermore, the effect of donations hardly seems to be positive in municipalities that experienced close mayoral races. Findings may provide some support to the idea that incumbents whose electoral race was highly competitive are more vigilant with public procurement outcomes as the chances of facing a revocation promoted by the first runner-up are significant.

Finally, acknowledging the necessity of an empirical assessment of the role of different campaign finance tools in curbing corruption risks, one of the present thesis's primary goal was testing the effect of financial disclosure. Results illustrate that misreporting fosters market competition restrictions and direct awarding, which is a selection method highly prone to rent extraction. This is a promising area for further research and policy endeavors. For instance, disclosure measurement could be improved by considering timeliness, consistency, information quality, and reporting coherence relative to funding caps.

The remainder of the thesis is structured as follows: Section two introduces the concepts of campaign finance, political finance systems, and corruption. It outlines a theoretical framework to model the effects of campaign finance on politics and public administration, focusing on rent extraction through public procurement corruption risks. The section finishes up with a set of theory-derived hypotheses. Section three contains a broad literature review structured around the three variables of interest and pinpoints a series of implications for empirical analysis. The context and institutional frameworks of campaign finance and public procurement in Colombia is the purpose of section four. Section five describes data collection, variable construction, and its limitations, as well as the empirical strategy employed. The following segment presents the main empirical results. Section seven offers various sub-group analyses and robustness checks. In section eight, the results vis-à-vis theory and previous evidence are discussed. Finally, section nine summarizes the findings and concludes.

2. Theoretical and Conceptual Framework

Two elements are of critical interest for the present theoretical framework: Political and campaign finance and public procurement corruption risks. The first subsection presents the definition of campaign finance and delves into the structure of political finance systems. The second part starts off with the definition of corruption and then outlines the theory used to model public procurement corruption risks. The section ends with a summary, followed by the list of theory-derived hypotheses.

2.1. Campaign finance: A necessary evil?

Elections are a pillar of liberal democracy. Competing in electoral races demands political organizations, candidates, and interest groups to perform a wide range of tasks, from deploying convincing advertising strategies to persuading voters. Hence, money provides electoral contenders with the means to spur voters' backing and ultimately seize power. In cash or in-kind, the compendium of resources that political parties and candidates raise and spend to fulfill their mission, by and large, is commonly referred to as "political finance" (Casas-Zamora and Zovatto 2015; Pinto-Duschinsky 2002; Wilhelm and Baena 2013). However, the fraction of money that strictly flows to "electioneering" accounts for "campaign finance" (Pinto-Duschinsky 2002, 70).

Campaign finance is fundamental for political organizations; it contributes to level the playing field among political contenders (Casas-Zamora and Zovatto 2015; Pinto-Duschinsky 2002; Wilhelm and Baena 2013). A substantial financial effort could make a difference. If campaign expenses constrain political participation, running for office will only be a privilege for a few. Remarkably, candidates who have the least money to pay for campaigns will hardly face their advantaged opponents. Campaign finance helps new leaderships emerge and enhances political inclusion by entitling individuals and organized groups to voice their political views legitimately (Pinto-Duschinsky 2002). As a result, citizens deem donations more effective in close races and when given out to incumbents (Stratmann 2005).

However, campaign finance can be attributed to a second, contrasting effect. Money can be a channel of political influence and serve as a way for private actors to align contenders and political parties with their interests. The latter face incentives to act following their supporters' views. Citizens and organized interests might refrain from financially supporting a political campaign in the future if the candidates' and donors' views become incompatible. Hence, money might have an extortive influence in politics (Casas-Zamora and Zovatto 2015; Hopkin 2004; Stratmann 2005). When candidates choose to respond to a group of donors rather than the whole constituency or when donations buy influence in politics and public administration, campaign finance turns into a double-edged sword (Hopkin 2004).

An element of theoretical interest is grasping the reasons why donors seek political influence. Formal models² theorize that campaign advertising aims at reducing voter's uncertainty of the candidate policy position, more significantly when the exposure of the "candidate's quality" does not reach the goal of signaling the position held. Proponents also consider interest groups and the chance of *quid pro quos* with candidates in the hope of balancing the contributors' roles and expectations. A candidate known for a fixed policy position attracts donors to get policy favors if elected. However, if the candidate's position is flexible, then the interest group expectation through donations is changing that stance towards its own (Stratmann 2005). In other words, the relationship between contributors and politicians is inherently endogenous: Candidates could favor the donor's preference, but a donor may want to endorse a given contender because their choices are known to coincide (Stratmann 2005). Lott (2000) claims that rent-seeking is in the interest of private groups contributing to political campaigns. When rents abound, groups have more substantial incentives to pour money into electoral races.

It comes at a cost. Voters realize that politicians respond to their contributors' interests and become less attentive to campaign messages. The cost of losing electoral support increases as policy exchanges are exposed, leaving the arrangement at risk. To the extent that *quid pro quos* via campaign finance rests on the incumbent control of office, gains will be halted. As a result, the presence of independent parties and politicians or a sovereign judiciary is crucial to destabilizing this arrangement. Nonetheless, these exchanges are likely to thrive on asymmetries of information and the absence of incentives for individuals to find this information (Hopkin 2004; della Porta and Vannucci 1999; Roper 2002). In other words, campaign funding is a function of the candidates' stances, the role of advertising, the type of competition, the contributors' policy expectations, and the rationality of voters (Stratmann 2005).

Yet contributors do not share the same aspirations. Small donors, defined as "those who take other donors' views as given" (Bouton, Castanheira, and Drazen 2018, 4), may be driven by different considerations. First, a small donation seems implausible to influence the election outcome, given its marginal fraction in campaign funds, even when resources are scarce

² For a thorough theoretical review, see Hopkin (2004) and Stratmann (2005).

(Culberson, McDonald, and Robbins 2013). Hence, it can be grounded in less materialistic reasons. Small donors can be driven by considerations of support to ideologically closer candidates and be more democratizing, as giving out could provide a sense of meaning to political engagement. Second, small donors can be motivated to back candidates in campaigns where donations matter the most, that is, in competitive elections (Ansolabehere, de Figueiredo, and Snyder 2003; Francia et al. 2003). A third, more recent view has come to challenge the first one and contends that behavioral factors motivate small donors electorally, such as overestimating the effect of their contributions on the election outcome and the fundraising behavior of candidates who deem money crucial to win the election (Bouton, Castanheira, and Drazen 2018).

In summary, contributors sponsor candidates whose stances are close to theirs, who are likely to change their position, or who have a high probability of winning. Determinants of contributions vary depending on the contributor's objective: It can be pure political consumption or a means of buying access to the officeholder (Ansolabehere, de Figueiredo, and Snyder 2003). Consequently, political regimes regulate campaign finance, thereby seeking to strike a balance between the benefits and perils of the relationship between money and politics. The whole set of instruments comprise a "Political Finance System (PFS)" and will be the topic of the following subsection, though with a focus on campaign finance tools.

2.2. The structure and rationale of PFS

A PFS determines which parties and candidates can obtain money from diverse sources, how to spend it, and the legal tools to oversee and enforce the legal provisions (Casas-Zamora and Zovatto 2015; Hummel, Gerring, and Burt 2018). Its main components are donation bans and limits, spending prohibitions and limits, public subsidies (which include free media access), financial reporting, and enforcement (Casas-Zamora 2008; Falguera, Jones, and Ohman 2014). These regulations significantly differ among countries, but some common patterns can be identified. For instance, public subsidies are more prevalent in proportional electoral systems. Public funding is less of a tradition in Commonwealth countries, coupled with a low political finance regulation. Instead, Latin American and Eastern European countries resemble the continental European political finance traditions of public subsidies and media access (Pinto-Duschinsky 2002).

Donations bans and caps account for restrictions or incentives to the movement of resources to candidates or the appeal to specific funding sources. This area spans the most regulations, focusing on the use of specific private donations. Some systems impose donation caps and restrict them to certain donors. Rules include bans on funding from a number of actors such as foreign companies, and specific corporate contributions such as those that originate from government contracts. A significant concern with donation bans is the difficulty of implementing and enforcing such restrictions, which demands strong reporting and auditing systems. What follows could be as politically perverse as hiding contributions or overlooking the inflow of illicit money (Andía and Hamada 2019). To deal with money's influence in politics, systems habitually prioritize public funding or shorten election campaigns and political advertisings.

What parties and candidates can spend is also restricted to specific caps, especially on campaign advertising expenses. However, when spending ceilings are unrealistic and enforcement mechanisms are flawed, substantial electoral spending incentives emerge. Generally, it is believed that spending limits on political advertising on television require considerable state-funded broadcasting media and may induce unfair advertising for political newcomers if only incumbents enjoy access to state-owned outlets. The third element of political finance systems is enforcement and sanctions and refers to the violation of limits, bans, and obligations related to the previous categories. These range from fines, for instance, by suspending the disbursement of public subsidies, to prison sentences for political leaders who have breached the rules. Proponents of campaign finance systems (Casas-Zamora 2008; Falguera, Jones, and Ohman 2014) recommend a dose of caution as to applying severe punishment. When such penalties for non-compliance apply, authorities may be reluctant to use them regularly, and stark sanctions can have serious political consequences.

Transparency is frequently perceived to curb corruption. Consequently, public disclosure of political finance has been claimed as a crucial mechanism to stem the influence of private interests in politics. Campaign disclosure has been significantly regulated to keep track of the relationship between donors and donor-funded politicians, whose linkage could diminish by unveiling fund sources, donors, donations, expenditures, among others. Thereof public trust could be restored (Rowbottom 2016). Supporters of political finance disclosure think the argument twofold: Transparency over campaign finance ensures that it does not lead to corruption and that donations are not given under the table.

Briffault (2010) recognized two plausible mechanisms through which transparent political finance might curb corruption. First, disclosure can persuade individuals and businesspeople not to make large donations, which intrinsically assumes all substantial donations "corrupt." Under this mechanism, large donations could produce such public outrage that donors would be hesitant to give and candidates to take them. The second mechanism specifies that

transparency could enable citizens to assess which donations are acceptable and reprimand contenders accordingly. As a consequence of this channel, constituents may also play a part in tackling corruption by informing authorities of any donation deemed inappropriate. In Briffault's world, voters have full information about anti-corruption bodies, whistleblowing proceedings, and access to electronic systems, which commonly host campaign finance information.

This subsection focused on the notion of campaign finance and outlined the two broad consequences that it can be attributed to. An underlying perspective suggests that campaign funding can contaminate politics and public administration by channeling particularistic organized interests and buying political influence. The objective of political finance systems, hence, is not only supplying political organizations and candidates with the necessary tools to spread their message but also curbing political leaders from pledging advantages to sponsors. Thus, it is essential to take a closer look at the forms that such pledges might take and how they can be shaped in office. These ends can be reached by first delineating a definition of corruption.

2.3. Defining corruption

Corruption is an elusive concept. As a multi-faceted phenomenon, its definitions might surface from normative assessments: It could overlap with ethical breaches or be distinguishable according to what legislation deems "corrupt" (Milani 2019). Hence, what falls under any notion of corruption risks being highly context-based and time-variant. There have been several attempts from scholars at offering an encompassing definition. Nye's classical concept from 1967 reads: "Behavior which deviates from the formal duty of a public role because of private-regarding gains (personal, family-based, private, pecuniary, or status); or violates rules against the exercise of private-regarding influence" (Mungiu-Pippidi 2015, 11). However, the use of terms such as "rules" and "formal duty" has met harsh criticism as corruption could be embedded in formal rules seeking special favor or private interests (Kaufmann and Vicente 2011; Mungiu-Pippidi 2015; Thompson 2018).

The academic debate on the meaning of corruption has resulted in a more satisfactory notion, to which this study adheres: "The abuse of entrusted power for private gain" (Mungiu-Pippidi 2015; Rose-Ackerman 1996; Tanzi 1998; Transparency International 2019). It is not the purpose of this chapter to enter the debate over corruption definitions. It suffices pointing out that numerous scholars, international, and civil society organizations have developed their agendas upon this concept (Heywood 2017; Huther and Shah 2000). Yet, the conventional

definition of corruption seems to leave several disparate topics under the same notion, making it crucial to distinguish among its main typologies.

Generally, researchers and practitioners distinguish "petty" from "grand" or "high-level" corruption (Mungiu-Pippidi 2015; Transparency International 2019). Petty corruption involves activities where individuals pay bribes to public officials or bureaucrats to avoid a fine or get a service. Grand corruption includes top public executives, private conglomerates, or interest groups who seek to influence public decision-making through diverse forms of bribery, trading in influence, conflicts of interest policies violations, among others (Neudorfer and Neudorfer 2015). Likewise, a recent approach characterizes the phenomenon as "need" or "greed" corruption, where the former builds on coercion and extorsion, and the latter reflects on collusion, for instance, among government ministries selling legislation to private interests (Heywood 2017).

Further classifications include extortive versus transactive, systemic versus trivial, and public versus private. The latter division depends on whether it involves the public sector, the private sector, civic groups, or international organizations (Klitgaard 1988). Similar to this typology is von Maravic's distinction between financer, purchaser, and provider corruption (2007). Conditional on who is "bribed", financer corruption involves Parliament and politicians; purchaser public administration and bureaucrats, and provider corruption suggests private or non-profit actors' involvement. According to the international legal framework, corruption can adopt a wide range of forms, from bribery, embezzlement or misappropriation, trading in influence and abuse of functions, to illicit enrichment and obstruction of justice (United Nations 2003).

The next step is to dig into corruption causes and enabling factors. To that end, rationalchoice theory and neo-institutional economics offer an adequate theoretical and conceptual ground.

2.4. Principal-Agent Theory: Modeling institutional corruption

The most salient approach to understanding the interaction between elected officials and the private sector has been Principal-Agent Theory (Witko 2011). Corruption occurs when the interests of the principal (constituency) and the agent (bureaucrat, elected official) are incompatible. The agent must act and serve the principal's interests as if it was its own. The agent also has the right to discretion in performing its tasks, but the ultimate decision-making level corresponds to the principal. Information is asymmetric between them, and the principal builds up the relationship's reward structure (Jancsics 2014). Theoretically, the public official

balances the expected cost of a corruption act against the expected benefit. The advantage can go not only to the official but also for his party, class, friends, family, tribe, and so forth (Treisman 2000). Principal-agent theory influenced the anti-corruption reform agenda that coincided with this line of thinking, reflected in Klitgaard's (1988) famous formula of corruption equals monopoly of power plus discretion minus accountability.

The principal-agent theory further models corrupt transactions between a public official and a private actor (Rose-Ackerman 1996). The public official seeks to misuse public office to increase the private partner gains beyond what it could earn just relying on the market. The private actor can benefit from regulations, licenses, taxation, and overall advantages over its competitors in the market. In exchange, the private actor will also reward the public official. Hence, behind the public-private interface lies a rent-seeking structure.

In contrast to legitimate, merit-based profit-seeking, rent-seeking rests on coercion by preventing other competitors from access to the market on an equal footing or merely taking their fortune. By definition, rent seekers do not aim at creating wealth and may even destroy it by holding privileges pertaining to a competent actor, thereby wasting the extracted rents. The rent-seeking outcome is not further value. Rents through political power alter market processes, goods and services' prices, and destroy economic output (Mungiu-Pippidi and Fazekas 2020).

Which factors underpin the volume of market rents? Since corrupt rent extraction needs the state and the private sector to interact, it is crucial to pay attention to state power, measured primarily by the state size. As a general rule, a powerful state intervenes in the economy and bestows opportunities for rent extraction. In particular, rents from natural resources could become highly attractive for corrupt actors because of the volume of property at stake and the unrivaled state power over its administration and distribution. Therefore, corruption flourishes amid the monopoly and discretionary power of the state (Ades and Di Tella 1999; Rose-Ackerman 1996). In more detail, conventional government activities that create a fertile ground for corruption, according to Tanzi (1998), could be:

First, state power is primarily deployed through regulations and authorizations. State bodies have a monopoly over issuing permits, licenses, and consents. Consequently, officials can use their public capacity to extract bribes to speed up processes and sell rights to extract state monopolies. Second, corruption can be used to avoid costs (Rose-Ackerman 1996). Therefore, private and public actors can collide to bypass taxation, receive tax waivers, or impede the state's oversight of tax evasion. Third, spending decisions such as investment projects and extrabudgetary accounts can be distorted in size and composition. Fourth, the provision of goods and services at below-market prices takes the form of public procurement. A corrupt

firm could pay off a public official to qualify as a bidder, have officials structure the bidding to become the only qualified bidder, or be selected as the winner contractor. Once selected, it can charge inflated prices, default on quality, and bypass monitoring and oversight (Rose-Ackerman 1996).

The market structure subject to state intervention, that is, the conditions under which buyers and sellers operate might also pave the way for corruption. On the one hand, the market determines the degree of competition among officials to "sell" benefits to private partners or monopolize the sale of complementary benefits. When the supply of officials competing to sell the same benefits to a private partner, both the prize and the overall revenue is dragged to zero. This explains why officials need monopoly and discretion over the allocation of the benefit: "They can drive the price up until it restricts activity while deterring potential private partners from even buying the corrupt services" (Treisman 2000, 8). The official has to protect its private partner from possible competence in the market so that rents can be extracted easily (Fazekas and Kocsis 2020; Sharma, Sengupta, and Panja 2019).

Nevertheless, constraints and costs influence the decision to partake in corruption exchanges. In particular, the official assesses the likelihood of being discovered and punished, the severity of the punishment, and the expected rewards compared to the existing alternatives (della Porta and Vannucci 1999). Political and institutional factors constrain or spur the individual calculus to engage in corruption. Democratic and competitive political systems can expose the public official to punishment through freedom of association and the press, which push citizens and civic groups to unveil abuse. It further comes down to the probability for new actors to enter the system, the chances of electoral defeat, the degree of discretion in public acts, the efficiency of political and administrative controls, and the forms of political competition.

Another factor of theoretical interest concerns interaction and collective action. An individual decides to engage in corruption not only based on individual choices and the institutional setting but also the "strategic interactions with other individuals" (della Porta and Vannucci 1999, 19). Systemic corruption will only reproduce itself: When societal actors are deeply involved in corruption and punishment risks are low, the opportunity costs for those who decide not to participate in corrupt exchanges are high. The platform (skills, information, methods) to spark corruption networks accrue over time, while the idea that corruption is entrenched spreads as the only necessary mechanism to spur it. The flip side of the coin is that when corruption is minimal, it will tend to decrease. Understanding the institutional and

cultural controls that should govern the relationship between the agent and the principal is central for deterring corruption.

Corruption inflicts costs for society, especially inefficiency in allocating public goods and services (Rose-Ackerman 1996; Tanzi 1998). By imposing an entry barrier to the market, bribers take advantage of distortions introduced by corrupt agreements because they can obtain benefits from subsidies, monopoly benefits, and regulatory flexibility. In government contracting, corruption induces further inefficiencies. Projects can be large and numerous if bribes increase as procurement increases. Projects can be too complicated because corruption is "easier to hide in one-of-a-kind project" (von Maravic 2007). When public spending is manipulated, it may raise taxation to make up for high contract prices, thereby jeopardizing quality. Citizens might end up with low-quality services and infrastructure if officials overlook the rules of conditions to deliver services, directly threatening redistribution. These elements introduce the next segment, which seeks to model corrupt rent extraction in public procurement tactics, and corruption outcomes.

2.5. Rent extraction through public procurement corruption

As theory poses, public procurement is one of the government activities most vulnerable to corruption for the volume of transactions and financial interests. Corruption risks are also significant because procurement processes are too complicated, public officials and firms interact regularly, and multiple stakeholders intervene (OECD 2016). Corrupt groups may harness such risks through embezzlement, undue influence, bribery of officials in the award process, fraud in bid evaluations, invoices, or contractual obligations. In the context of procurement, bribers can seek to inflate prices, bill for work not delivered, use materials of lower quality, and fail to meet contract standards. Following the previously reviewed theoretical propositions, public procurement can be harnessed to extract public rents through institutionalized grand corruption.

Endeavors to characterize and measure institutionalized grand corruption have been an area of inquiry pushed forward to a great extent by Fazekas and the Budapest-based Government Transparency Institute (see Fazekas and King 2019; Fazekas and Kocsis 2020; Fazekas and Tóth 2016; Fazekas, Tóth, and King 2013). This sub-section heavily builds on such works. The concept of institutionalized grand corruption refers to the "allocation and execution of public procurement contracts by not enforcing explicit rules and principles of good public procurement to benefit a closed network while denying access to all others" (Fazekas, Tóth, and King 2013, 2). A contractor can only extract corruption refers from public procurement if two

conditions are met: First, it is a pre-selected company that avoids market competition with public officials' support. Second, it earns extra profit because market distortion leads to a premium for connected contractors for the awarded administration monopolies or delivery of goods and services. An additional profit is necessary since it yields a "fund" to be distributed among rent extractors. Measuring "extra profit" is yet challenging as quantifying price, delivered quantity, and, above all, quality of services requires in-depth expertise and case-by-case qualitative analyses.

In summary, institutionalized grand corruption requires the generation of rents and the regular extraction of these. To that end, the corrupt official has to restrict competition to benefit a particular bidder recurrently. There will be corruption risks when the degree of competition is limited and recurrent contracts are awarded to the same company, along with a list of restrictive techniques to achieve these goals (see Table 10 in the annex). Risky activities might take place along all phases of the public procurement process (pre-bidding, bidding, and post-bidding) (OECD 2007) and yield the following corruption outcomes: Limiting the set of bidders (pre-bidding phase), unfairly assessing bidders (bidding phase), and ex-post modifying conditions of performance (post-bidding stage), so that extra profit or an abnormal profit can be made (Fazekas and Kocsis 2020; Fazekas, Tóth, and King 2013).

Corruption outcomes are complementary and can be combined in different ways. For instance, tailored eligibility criteria can exclude some bidders, and the remaining competitors can be assessed unfairly based on subjective scoring items. In some cases, no further corrupt activities are needed to increase the risk of detection. In principle, it may be the case that the contract content would not be modified to increase price or conditions. Fazekas and Kocsis (2020) contend that only by closely looking at the previous results it could be claimed with higher precision that the aim of rent extraction via corruption in public procurement was safeguarded.

2.6. Quantifying institutionalized grand corruption

The interesting part of this approach is that it links corruption inputs and outputs. The former constitutes tactics aimed at tailoring the bid to benefit a connected firm, and the latter spans macro corruption indicators. Each corruption outcome is accompanied by a set of corruption input, meaning conditions enabling the former. Three primary outcomes are identified: Single-bidder, exclusion of all but one bidder, and the winner's share in the awarding organization procurement (rent extraction). Table 10 in the annex lists corruption outputs and inputs and the

theoretical direction of the relationship. For a discussion on pitfalls to the measurement strategy, see Fazekas, Tóth, and King (2013).

2.6.1. Corruption outcomes

The three critical corruption outcomes are:

Single bidder

Corruption takes place when the competition is limited to the favor of rent extraction. Therefore, the signal of no competition for a public contract is one bidder receiving a tender. Single bidding allows for awards above-market prices. It can also underpin corruption by developing interpersonal trust between the buyer and the supplier. Two potential concerns with this indicator relate to a single bidder due to having just one competent enterprise in the market. However, the majority of goods and services procured by governments are widely produced, such as office stationery, cars, national roads, or IT support services. Therefore, this is the most basic corruption proxy proposed.

Exclusion of all but one bidder

This happens when it was impossible to deter other bidders from submitting proposals. The tenderer awards the contract to the well-connected bidder if it manages to exclude other bidders on procedural grounds or do an unjust assessment of their proposals. However, no directly observable evidence of the latter exists (no record of bid assessments and implies expert assessments on a case-by-case basis). The indicator, therefore, captures the exclusion of other bidders during the bidding phase. Doing so can signal corruption because it restricts competence to favor a single bidder.

Winner's share of issuer's contracts

The ultimate goal of large-scale institutionalized corruption is repeatedly award contracts to the same company (Heggstad and Froystad (2011) cited in Fazekas, Tóth, and King (2013)). Therefore, the indicator captures the ratio of contract value the winner won from a given issuer to the total value of contracts awarded by the given issuer throughout 12 months. The problem with this indicator is that it can be the case that the corrupt group uses multiple companies for extracting rents.

2.6.2. Corruption inputs

Among the most critical corruption inputs are:

• Avoiding the disclosure of the call for tenders.

- Using less open and transparent procedure types can suggest the deliberate limitation of competition.
- A short advertisement period (days between publishing a tender and submission deadline) can inhibit bidders from preparing bids. At the same time, the tenderer can inform its preferred bidder about the tender ahead of time.
- Subjective, hard-to-quantify evaluation criteria (e.g., quality of company organigram) rather than price-related criteria create room for discretion and limits accountability mechanisms. However, prince-only criteria can signal corruption because the bidder can know the lowest price in advance.
- Time used to decide on the submitted bids is excessively short or lengthy. It can show premediated assessment and long decisions and the corresponding legal challenge.

2.7. Summary and hypotheses

This section started off by outlining the definitions of campaign finance and corruption, as well as principal-agent theory as a model of corrupt transactions between public and private actors. Organized interests contribute to election campaigns to change the candidate's stance on a given policy issue or since such a position is compatible with their aspirations. In turn, in the context of increased state power and discretion over a pool of public resources, the incumbent may reward the donors by restricting other market competitors' chances to partake in the public delivery of such resources.

Against this background, public procurement emerges as a vulnerable area to corruption in view of the resources at stake, the persistent interaction between bureaucrats and tycoons, and the vexing regulatory framework. However, donors' interests seem to be a function of the donation size, for which reason small donors are not expected to influence policy outcomes. Finally, a cross-cutting element to the previous variables relates to the level of financial disclosure of campaign finance, as it has been praised as a deterrent to corruption and holds an important place in PFS.

From the previous arguments, I derived the following hypotheses:

- H₁: The higher the share of donations, the higher the public procurement corruption risks.
- H₂: The higher the share of small donations, the lower the public procurement corruption risks.
- H₃: The lower the level of funding disclosure, the higher the public procurement corruption risks.

3. Related Literature

This section aims to survey the literature on the association between campaign finance and corruption risks in public procurement. Concretely, I focus on three salient aspects of campaign finance: Donations, small donations, and disclosure. As I will show, scholarly attestation on this link on the local level remains under-researched, in part, due to severe data limitations on both sides of the equation. Even though campaign finance disclosure has been primarily regulated, in some countries, campaign reports are not made available to the public (Falguera, Jones, and Ohman 2014). In second place, the debate over corruption measurement remains lively, with direct consequences for academic inquiry (Fazekas and Kocsis 2020; Fazekas, Tóth, and King 2013; Heywood 2017).

To quantify corruption, observers have long used subjective measures such as perception and attitudes surveys, reviews of regulations, and case studies (Fazekas, Tóth, and King 2013). However, the introduction of transparency measures and state and non-state actors' appetite for corruption indicators have allowed developing objective, comparable indices based on microlevel public procurement data. At the end of the section, I outline a series of conceptual and methodological implications of this work's literature review.

3.1. Campaign donations and corruption risks in public procurement

The idea that donations lead to corruption risks in public procurement has gained significant traction. Ruiz (2018) studied close mayoral races between donor- and non-donor-funded mayors in Colombia's 2011 elections implementing a regression discontinuity design (RDD). His causal study revealed that electing a donor-funded politician over a non-donor funded candidate increases the influence of money in politics and the likelihood of corruption. It doubles donors' chance of receiving public contracts from 5.9 percent to 15.5 percent, an increase of 9.6 percentage points. Moreover, when a donor-funded politician seizes power, the incumbent's likelihood of prosecution over charges related to public procurement mishandling also increases. Since contracts awarded to donors are primarily short-term, the likelihood of getting paid over the incumbency is higher. Contracts tend to be awarded to donors under a minimum value modality, where standards of transparency, competition, and multilateral selection processes are not observed. Under this procurement type, contracts can be awarded more easily to people than companies, thereby reducing transparency. Donor-contractors are

more local and lack specialization. Remarkably, they enjoy a "price premium" of 2 million COP³ over similar contracts awarded to non-donors.

Campaign donations might impact distinctive levels of public administration and policy areas differently, as a recent work of Baltrunaite (2020) illustrated. Drawing on data from 250 thousand public contracts with 600 thousand bids from more than eight thousand unique contractors between 2008 and 2013 in Lithuania, she used a difference-in-differences regression framework to figure out the effect of a ban on campaign donations on government procurement. She concluded that the ban reduced the probability of donors receiving contracts by five percentage points compared to non-donor firms. Although the ban leveled the playing field between donor- and non-donor firms, its effect was larger on top and middle levels of public administration and the health care sector.

Another significant contribution of this paper was unpacking the possible mechanisms through which bureaucrats might favor donor firms. The first likely approach is manipulating the contract design so that just one contractor is eligible for the bid (contract design channel). The other is to leak information on competing bids to preferred firms to improve their stances vis-à-vis the tender (information channel). The findings led to conclude that the reform marginally affected the number of sole-bid tenders won by contributing firms. For that reason, the contract design was disregarded as the main driver of corruption. Notwithstanding, the information channel appeared the most plausible one for contracting favoritism, as multiple-bid tenders determined the chances of winning after the reform was put in place.

Campaign donations can translate into highly profitable government contracts for donors. Using data from 850 contract transactions in the USA between 2001 and 2006, Bromberg (2014) found a positive relationship between campaign contributions and contract value: An increase of 100 USD in campaign contributions resulted in a change in the contract amount by approximately 0.8 percent. Since the median contract amount was 31,861 USD over the studied period, a 0.8 percent increase was estimated to be about 250 USD, giving contractors a 150 percent return to their campaign contributions. In his cited study on Colombia, Ruiz (2018) estimated that contracts allocated to donors were 13.8 times higher than the campaign's money invested. Auriol, Straub, and Flochel (2011) used all public procurement operations over four years in Paraguay and corroborated that firms assigned corrupt contracts enjoyed high extra returns. In line with this study, Boas, Hidalgo, and Richardson (2014) contended that firms specializing in public works expect a considerable nudge in government contracting by 8.5

³ 729 USD at the average exchange rate in 2015.

times the value of their contributions. Besides, Arvate, Barbosa, and Fuzitani (2013) examined state-level deputy elections in eight Brazilian states in 2006 and projected campaign donations to account for only two percent of the total value of contracts awarded to donors. They added two further conclusions: Donor firms' returns were higher when a politician from a traditional political party held office and campaign finance was more voluminous when the margin of victory was lower.

Interestingly, the contract size matters. Contributions might have a larger effect on smaller contracts, thereby expanding the returns. When considering contracts of less than 150 thousand USD (referred to as small contracts), contributions increased the return (to 750 USD) per every 100 USD increase in contributions (Bromberg 2014). Similarly, Davi and Portugal (2020), drawing on data from donor firms during the 2006 and 2010 Brazilian elections, indicated that donor contractors saw their stock value rise after elections and enjoyed a higher profitability a year on the election. Donations to either winning candidates or candidates from the ruling coalition benefited from a higher impact relative to cumulative abnormal return, as Fisman (2001) and Faccio (2006) had already claimed. McMenamin (2012) arrived at the same conclusion, adding that political donations (which he refers to as a part of the lobbying process) by pragmatic firms could be used to advance their interest through cash contributions and other strategies like charitable giving and networking.

Alongside that line of reasoning, a study by Mironov and Zhuravskaya (2016) measured corruption in public procurement in localities by relating financial transactions of the near population of large Russian firms around election time to the allocation of public contracts by municipalities. They traced "tunneling," which is an illegal transfer of cash from legitimate firms to fly-by-night ones. They identified that companies with government contracts intensively adopted this mechanism during regional elections compared to their counterparts without government contracts. Most interestingly, they discovered that trends in tunneling could only be explained by firms paying brides to bureaucrats to gain government contracts. This correlation was higher in regions perceived to be corrupt according to a state-level measure by Transparency International. Although it falls outside the present thesis' scope, having this empirical finding at hand reveals that the relationship between campaign finance and corruption risks suffers from reverse causality. I will come back to this point in the data and method section.

However, donors might seek to improve their chances of getting government contracts by investing in political parties rather than candidates. To this conclusion came Denis (2016), after analyzing data from big enterprises partaking in Burkina Faso's public procurement operations

between 2010 and 2013. Financing candidates was found more beneficial in terms of the number of contracts awarded, while bigger firms preferred to finance political parties instead of candidates. This effect was also held for legislative campaigns. Witko (2011) explored the relationship between campaign contributions and government contracts between 1979 and 2006 in the USA. After controlling for past contracts, firms that provided more money for campaigns received more contracts during the legislative term. Remarkably, Peoples (2013) looked closely at the properties of exchanges between donors and politicians along the legislative process and called attention to their social relationship's central role over the contribution volume.

Studying the channels through which campaign donations derive into corruption in public procurement has been puzzling in part due to two reasons. First, based on disclosed procurement data and existing indicators, it is often unclear if the donor received a government contract through corrupt mechanisms. Instead, this could reveal conflicts of interests, ethical breaches, and even be a consequence of the market size (Bauhr et al. 2019). Second, based on existing data, it has been challenging to unpack associations with corruption risks during the post-bidding phase. In response, the literature has adopted two primary measurement tactics: Relying on government contracts (number and volume) as profit indicator and looking at politically connected firms' financial performance. One potential concern with the former is that it regards the full contract amount as company profit by assuming the provider is not compelled to delivering any goods or services. Neither does it bestow a robust measure of net return from the contract execution. Besides, this approach focuses on two stages of the procurement process, design and assessment. The delivery phase, during which underlying corruption acts might be committed, is not considered.

The second tactic to measure donors' dividends from campaign donations relies on the contractor's financial information. The central assumption is that companies that financially supported politicians may have been rewarded with government contracts and have seen their financial profile improved (Ruiz 2018). For instance, Fisman's (2001) classic text uncovered the relationship between political connections and firm profits due to such ties. His research suggested that a large share of politically connected firms derived their value from political connectedness. A recent contribution by Schoenherr (2019) exploited the fact that the Korean president discretely appoints former businesspeople as CEOs of state-owned firms. He pointed out that politically linked firms increased their annual public procurement contract volume to three percent of the firm's assets after the reviewed election.

Nevertheless, this strategy might yield inaccurate results as firms' financial outcomes are contingent on a diversity of ingredients, and the benefit materializes after some time has passed. Again, it remains unclear how to disentangle the direct advantage of supporting an electoral campaign (if any). I concentrate on corruption risks across public procurement stages as an objective way to identify the mechanisms through which an incumbent favors its donors and get a sense of this link's drawbacks for the provision of public goods and services.

Empirically, the paper by Fazekas and Cingolani (2016) investigated the effect of political finance regulations on corruption risks in public procurement using panel data regressions on 29 European Union (EU) member countries. Their main finding yet contradicts the aforementioned within-country analyses. The impact of adding institutional tools to the menu of political finance regulations on the share of single-bidder tenders⁴ and a composite corruption risk index was positive. In countries that underwent a more profound political finance reform, the effect on the risk of corruption was moderate when looking at the same indicators. This finding is consistent with Bértoa et al.'s (2014) on party corruption perceptions.

Analogously, Hummel, Gerring, and Burt (2018) inquired into the effect of political finance subsidies on the Varieties of Democracy's (V-Dem) Corruption Index, which is not based on objective administrative data. Hinging on a sample of 154 countries from 1900-2012, they argued that political finance subsidies reduced corruption by cutting off private money's influence in politics and increasing legal and media sanctions. This conclusion was supported by Joignant (2013) in his analysis of 18 Latin American countries.

That most relevant literature dates from 2013 onward suggests how recent measures of corruption risks in public procurement are and the level of interest they have gained from scholars. Variations in corruption risks in public procurement have been associated with and explained by a broader menu of institutional arrangements. Insight has been gained thanks to the works of Fazekas, Tóth, and King (2013) on the effect of EU funds on grand corruption risks in 212 European regions; Broms, Dahlström, and Fazekas (2019) on the role of political competition and tenure in non-competitive procurement outcomes in Sweden; Bauhr, Czibik, Licht, and Fazekas (2019) on the role of transparency in curbing corruption risks in 28 EU-member countries; and Romero (2019) as to the causal impact of re-electing political parties on increased price overruns in public tenders in Colombian municipalities. Hence, focusing on

⁴ The average of tenders' ratio in which just one bidder submitted an offer and the CRI.

a different political arrangement might help better understate corruption risks in local governments' public procurement.

3.2. Do small donations help reduce corruption risks?

A general belief among campaign finance scholars pinpoints that small donations are unlikely to affect election and policy outcomes because they are insignificant to the large sums an electoral race requires (Culberson, McDonald, and Robbins 2013). These authors used campaign finance data to "profile" small donors to candidates in the 2006 and 2010 US congressional elections. They corroborated that small donors helped "democratize" and foster political participation as their contributions hardly depended on income levels. Furthermore, small donors tended to support incumbents, challengers, and open-seat candidates indistinctly, unlike their large counterparts. They seemed to affect the most competitive elections and supported more ideologically extreme incumbents. Material incentives, hence, do not seem to drive small donors to get access to politicians. Instead, they are motivated by purposive considerations and are ideologically determined.

A second piece of the puzzle goes in the reverse direction: Who can attract small donors? Experienced politicians (those who have held office) could plausibly be effective in raising money from small donors. The size of the small-donor market may also determine who succeeds in getting them on board. A literature survey by Culberson, McDonald, and Robbins (2013) highlighted that donating and volunteering campaigns generally drive the better-off more. Another predictor of campaign donations is technology access. Vulnerable communities, like Afro-Americans, older adults, countryside dwellers, and the less educated are less likely to donate based on their restricted handling of online websites, where most fund-raising campaigns are carried out.

After getting a sense of significant small-donor properties, it is worth scrutinizing if politicians reward their bighearted contributors more. Nonetheless, this relationship has received much less attention from scholars. Baltrunaite's (2020) above-cited paper on campaign donations and procurement processes in Lithuania provided a more significant ground for looking at such a link. She encountered that banning campaign donations ill-affected large contributors in getting government contracts. The probability of winning contracts, she claimed, was minor for small donors in comparison with their larger peers before and after the ban. She estimated contributors with above-median donations to experience a reduction of 6.8 percentage points, while it was 2.6 percentage points for small donors. Overall, the size of returns derived from the total amount of donations.

3.3. The mixed effects of campaign finance disclosure

Scholars have not reached a consensus over the effect of campaign finance disclosure on corruption. Rowbottom (2016) looked at the role of disclosing political donations in corruption and undue influence in the UK. Whereas campaign disclosure was introduced to foster trust in politics, it has proved to promote a culture of mistrust. Rowbottom also upheld that transparency has not reached its goals and, instead, has increased suspicion over political donations. It has effectively triggered people to inquire into what campaign donors can receive in return, even though this does not imply corruption. The work of Ansolabehere (2007), who is a campaign finance disclosure advocate, pointed out that campaign finance hardly constitutes a gateway to corruption, regardless of the principles governing campaign finance systems oriented to cope with public misconduct.

One additional pervasive effect of campaign disclosure can be underlined: It may also raise corrupt donors and politicians' stakes. Gilbert and Aiken (2014) argued that campaign finance disclosure had provided useful information for enforcement agencies and voters and corrupt actors. Disclosed records can inform politicians of which donors support obedient candidates, and private actors can opt to support a generous politician in future elections (which only applies to incumbents eligible for re-election). Henceforth, campaign disclosure, they uphold, is a double-edged sword: It can shed light on unacceptable donations and decrease illegal transactions' uncertainty. Nevertheless, it can also upturn the profitability of rewarding politicians.

Surprisingly, scholars have been less attentive to the empirical analysis of campaign finance disclosure and corruption risks. Related policy and position papers by international and non-governmental organizations officials abound. These stress the advantages of campaign finance transparency and accountability for electoral competition, voter turnout, and trust in politics (Casas-Zamora 2008; Casas-Zamora and Zovatto 2015; Falguera, Jones, and Ohman 2014; Transparencia por Colombia 2010). Yet two descriptive analyses directly link campaign finance disclosure and corruption risks. One is a report on campaign finance during the 2014 congressional elections by Transparency International Colombia (2015), who traditionally advocates that campaign disclosure is an antidote to corruption throughout the electoral cycle. Based on expert interviews, the report identified a set of disclosure issues that might translate into corruption risks. Those comprise overall lack of compliance with disclosure updating measures. The mishandling of campaign disclosure could lead to corruption risks associated

with hiding, manipulation, or destruction of public records, fraud, and misconduct, which are subject to prosecution.

Another report of interest for the present study highlighted the underreporting of financial records in municipal elections. In its analysis of campaign finance during the 2015 municipal elections in Colombia's seven largest cities⁵, Transparency International Colombia closely looked at the difference between campaign expenditures and expenditure limits. Two significant conclusions were derived from the report. First and foremost, possibly campaign expenditures suffer from misreporting. Qualitative information on the magnitude of spending on public events gathered through fieldwork in the municipality of Soacha was not consistent with disclosed campaign expenditures in the district. Second, disclosed campaign finance by winning candidates was a small share of the expenditure limits. For instance, the elected mayors of Barranquilla and Soacha, Colombia's third and sixth largest city, respectively, reported expenses totaling 41 percent of their districts' spending limits. This was partly due to two issues: Candidates opted not to report expenditures fully, or expenditure limits had been artificially set up.

A final piece of empirical inquiry relevant to this study is the relationship between decentralization and corruption, a cross-cutting link lying behind the three hypotheses. The role of decentralization in curbing corruption is less clear conceptually (Faguet 2014; Huther and Shah 2000; Neudorfer and Neudorfer 2015; Shah 2006). Opportunities for corruption at the subnational level might arise because accountability and horizontal controls can be weaker and less exercised or make contacts between officials and businesses closer (OECD 2016). Yet this is the same reasoning used by proponents of decentralization as a barrier to corruption in the sense that devolved government tasks might help hold public officials and politicians accountable to their constituents. Citizens can be better able to discern their decisions and the delivered results when made on the local level. Bringing politicians and citizens closer, instead, can equip the latter with better information about their demands and expectations (Faguet 2014; Fisman and Gatti 2002).

3.4. Summary and implications

The study of the political influence of private donors has had a long tradition in the political economy. The emerging literature addressing campaign donations and corruption in public

⁵ Bogotá, Medellín, Cali, Barranquilla, Cartagena, Bucaramanga, and Soacha.

procurement has been possible thanks to a cumulative curiosity in corruption indicators and campaign finance reforms. There has been agreement among academics about the positive relationship between campaign donations and corruption risks in public procurement, relying on several measures. Receiving donations upsurges the likelihood for mayors to be prosecuted over corruption in public procurement and the odds of local governments drawing on a procurement method that poses risks of lack of competition, transparency, and bidder selection.

Imposing a total restriction on private donations radically affects large donors and those who received health care contracts. Besides, the local level is less sensitive to the reform because public scrutiny over contracting favoritism is lower, and patronage preponderates on the local level. It is plausible that bureaucrats reward donors by disclosing relevant information concerning the contract, which raises awareness over open-bid contracts with multiples competitors. By contrast, less dialogue can be identified between supporters and critics of the role of campaign finance disclosure in curbing corruption.

The literature review leads to at least four conclusions and implications for the present thesis. First, even though the scholarly interest has been placed in micro-level studies, the predominant object of study has been the political influence of firms; hence, the analysis and observation levels have been preponderately donor firms. The private sector's central role in politics could explain this bias (Denis 2016). However, it disregards that a donor-funded candidate has a double condition as a candidate and incumbent and, in office, is theoretically in charge of procurement management. Therefore, the local government matters.

Second, and consistent with the first aspect, corruption has been measured in several, often disparate ways, ranging from the total contract amount to donor-contractor companies' financial performance. Harnessing recently developed, robust corruption risk indicators based on objective administrative data might yield more reliable results. This leads to the third point. By following this strategy, the literature gap concerning the contract delivery process could be filled. Finally, it is crucial to empirically address the role of campaign disclosure, whose analysis has not allowed an accepted conclusion. This master's thesis seeks to address these elements. Precisely, in the next chapter, I will refer briefly to Colombia's campaign finance system, local governments' role, and public procurement framework.

4. Context and Institutional Framework

Colombia is a unitary, decentralized republic located in the northern corner of South America. Deemed a flawed democracy (The Economist's Intelligence Unit 2019), the country recently became an upper-middle income economy (The World Bank 2019). It has been branded as Latin America's oldest democracy as, unlike its peers, it experienced one instance of semi-dictatorship throughout the 20th century. Its territory is resource-rich; hence, Colombian exports depend primarily on oil, coal, and coffee. A predominantly urban country, it is estimated that 81.4 percent of Colombians live in urban areas (CIA's World Factbook 2020). Colombia recently became a full OECD member and has been an active member of the Pacific Alliance.

4.1. The political system and government

Colombia's political system is presidential. The President is elected by direct, universal suffrage to a single four-year incumbency period and serves as head of state and government. The legislature is bicameral, with members of the Senate and the House of Representatives being directly elected to four-year terms with the possibility of re-election. Seats of the House of Representatives (172) are allocated differently among 34 districts comprising the departments, indigenous groups, Afro-Colombian communities, and the diaspora. The Senate (108 seats) is conformed through a national vote. The electoral system for congressional elections is proportional representation drawing on the D'Hont formula.

Its multi-level governance system (MGS) consists of three layers of directly elected authorities. Besides the central government, the sub-national level consists of two government tiers: Municipalities *(municipios)* and departments *(departamentos)*. On the local level, there are 1103 municipalities, including the capital district of Bogotá, and at the intermediate level 32 departments, of which off-shore San Andrés, Providencia, and Santa Catalina, is both a department and a municipality. Municipality sizes range from 976 to 7.9 million inhabitants, with an average of 43,759 inhabitants per municipality. At the intermediate level, the smallest department has 40,797 inhabitants and the largest one 8.1 million inhabitants, with an average of 1.3 million inhabitants at this level (Centro de Estudios sobre Desarrollo Económico (CEDE) 2020).

4.2. Local electoral system

The essential political institutions on the municipal level are the mayoralty (*Alcaldia municipal*) and the municipal council (*Concejo municipal*), corresponding to single-office and multi-member office elections, respectively. Electoral rules for mayoral elections are of a plurality system in nature. Borrowing Bormann and Golder's categorization of political systems worldwide (2012), under this system, the candidate who reaches most votes becomes incumbent. Mayors are elected to a four-year incumbency period by direct, universal suffrage.

Candidates can be placed onto the ballot either by political parties or ad-hoc political movements (*grupos significativos de ciudadanos*), which can nominate a runner by gathering signatures totaling at least 20 percent of the district's voting roll. Since 2011, pre-electoral coalitions among parties or ad-hoc movements can compete in sub-national elections.

Rules for municipal-council elections are different. The electoral system used is proportional representation with the entire municipality as a multi-member electoral district. District magnitude ranges from seven to 21 seats in local councils, contingent on population and annual revenues. The formula applied for the translation of votes into seats in the municipal council is D'Hont and a threshold equal to 50 percent of the electoral quotient (Milanese, Abadía, and Manfredi 2016). Parties and coalitions can introduce either closed-and-blocked lists or open ones, a strategy that entitles voters to choose one party and one candidate from the party list simultaneously.

Figure 1 illustrates the political parties with the highest vote share in percentage points during the last three mayoral elections, held in 2011, 2015, and 2019. The figure shows a tendency of political parties to converge at five percent share of the vote last time round. The second confirmed trend is that mainstream political forces like the conservatives, the liberals, and the National Unity have been losing ground to the favor of relatively new incomers to the political arena such as the greens, the independent social alliance, and the indigenous movement.





Source: Author's own elaboration based on Misión de Observación Electoral (2020).
4.3. Financing mayoral electoral campaigns

How is campaign finance regulated? The argument for regulating campaign finance is twofold. Regulations should ensure that sufficient funds are made available to political parties and candidates to perform their role in politics, and money does not jeopardize democratic processes (Falguera, Jones, and Ohman 2014). This sub-section is a bird's eye view of the main areas of campaign finance rules in Colombia, structured around the Institute for Democracy and Electoral Assistance's (IDEA) Handbook of Political Finance. A caveat at this point concerns the concept of political finance presented in the theoretical framework. In this text, I focus on election campaigns' finance and, in particular, mayoral election campaigns. Neither the financing of political parties nor direct democracy mechanisms are the focal point of this text, although these areas have been widely regulated in Colombia lately. The sub-section is then divided into public subsidies; donations and bans; spending and bans; and financial reporting and enforcement.

4.3.1. Donation bans and limits

Colombia imposes rules on who has the right to finance electoral campaigns. The following actors are forbidden to make financial contributions to campaigns: Foreign entities, illegal actors, anonymous sources, individuals indicted, prosecuted, or sentenced over the financing or fostering of criminal groups (drug gangs or guerrillas), crimes against public administration or direct democracy mechanisms, and crimes against humanity. Additionally, public officials, firms with government contracts⁶, individuals or firms that manage public resources or extract state monopolies, and donations stemming from asset recovery or forfeiture are banned.

Further rules to permitted donations apply. For instance, donations to candidates are restricted to 10 percent of the expenditure limit. Grants and contributions from candidates' resources, spouses, partners, or relatives are not subject to funding limits. Neither are loans obtained from individuals and firms, and up to 10 percent of a bank loan can be canceled upon the Electoral Board's agreement. Remarkably, political parties are thus allowed to channel donations to their candidates, yet the former cannot receive donations destined to political campaigns of more than ten percent of the expenditure limit nor the actual campaign expenditure. The second most important source of campaign finance is public funding.

⁶ Whose revenues originated by 50 percent from government contracts or public subsidies.

4.3.2. Public subsidies

Colombia's campaign finance system is premised on the assumption that public funding should account for half of the campaign finance volume. As already discussed, subsidies respond to who is eligible and how funds should be distributed. Regarding eligibility, not only political party candidates but also those from ad-hoc movements are entitled to public funding. As to allocation criteria, public subsidies are channeled through advances (*anticipos*) and a kind of proportional allocation called "vote-based reimbursements" (*reposición de gastos por votos*), where funds are allocated in proportion to the share of votes or seats.

Advances are meant to ensure equality and competition among candidates and favor small political organizations by equipping candidates ahead of the election with the necessary resources to compete (Misión de Observación Electoral 2016). As a general rule, candidates may request up to 80 percent of their total campaign funding from electoral authorities. Special rules for getting public subsidies in the form of advances apply, depending on the political organization's previous electoral experience. The second channel concerns proportional reimbursements distributed after the election to mayoral candidates whose vote share has topped four percent of the valid vote, among other requisites. In any case, the volume reimbursed must not be larger than the reported expenditure. This type of funding has been severely criticized as a reward to the strongest candidates (Londoño 2018; Transparencia por Colombia 2015). Finally, the state may secure indirect public funding by granting free or subsidized access to media, tax waivers for political parties or donors, and subsidized postage.

4.3.3. Spending bans and limits

Candidates need to incur in a broad spectrum of expenses to reach out to the electorate. For instance, campaigns rent offices, run public events, and hire pollsters. Unlike limits to donations, campaign spending is less regulated in Colombia, focusing instead on limiting how much a candidate is entitled to spend in the election. A candidate is bound by a municipality categorization of campaign spending limits contingent on voting roll. Table 1 shows spending caps⁷ by municipality category for the 2015 mayoral elections, according to the Electoral Board. During the 2015 mayoral elections, eight categories applied, and spending limits ranged from 94.69 million COP (34,520 USD⁸) for category eight to approximately 3,450 million COP

⁷ Updated every four years by the Electoral Board and the Ministry of Finance, based upon the Electoral Campaigns' Cost Index, prepared by the Statistics Office.

⁸ At the average exchange rate of 2,743 COP in 2015, according to the Central Bank (Banco de la República 2019).

(12.58 million USD) for the capital of Bogotá. Candidates from around 9 in 10 municipalities pertained to the lowest category.

Municipality category	Voting roll	Spending cap (COP)	Number of municipalities
1	More than 5 million	3,449,505,141	1
2	1,000,001 - 5,000,000	1,726,086,150	3
3	500,001 - 1,000,000	1,617,936,803	2
4	250,001 - 500,000	1,221,956,853	13
5	100,001 - 250,000	1,080,672,789	19
6	50,001 - 100,000	541,087,905	53
7	25,001 - 50,000	180,362,635	99
8	Less than 25,000	94,690,384	908

Table 1: Spending caps by municipality category

Source: Author's own elaboration based on Resolution 0130/03-02-2015 of the National Electoral Board.

4.3.4. Financial reporting, disclosure, and enforcement

A crucial component of any campaign finance system is political organizations and candidates' requirements to report campaigns' funds and expenditures. Mayoral candidates must register the campaign account sheets in the National Registry Office at least six months before the polling day. Furthermore, depending on the volume of private donations they raise, candidates have to appoint a campaign manager and open a bank account to have a detailed track of campaign finance activities. Since 2013⁹, the financial report is mandatorily carried out through an e-reporting system called *Cuentas Claras en Elecciones*, whose properties will be presented in the next section. Detailed campaign financial reports must be submitted no later than two months after the electoral authorities' election.

Enforcement mechanisms are a pillar of campaign finance systems. In Colombia, political finance regulations have been in place since 1985, in part due to the imperative enforcement and oversight of political parties (Londoño 2018). Primarily, enforcing electoral campaigns is the National Electoral Board's primary duty, composed of nine magistrates appointed by political parties in Congress. Political parties and candidates are held accountable for any violations of the previously described political finance rules. Consequently, they may face punishments ranging from removal from office to fines and a partial repayment of disbursed public funds. Figure 3 in the annex summarizes the main features of campaign finance.

⁹ According to Res. 3097 of 2013 National Electoral Board.

4.4. The role of local governments

By constitutional mandate, municipalities are the quintessential level of Colombia's public administration. Municipalities are in charge of providing a wide range of public services such as primary and secondary schooling, schoolchildren nutrition, health care, care for the elderly, and social services for minorities like conflict victims, displaced people, ethnocultural groups, and the rural population. Local governments are also responsible for the public infrastructure, sanitation and sewage, water supply, housing, citizen security, and physical planning, land use, and building permits. Since most of these government functions are carried out on behalf of the central government, municipalities have been regarded as single vectors of the central government's spending priorities (López 2016).

According to Martinez (2016), municipal revenues originate mainly from a formula-based transfer system from the central government named *Sistema General de Participaciones*, which makes up 63 percent of total municipality revenue. Taxes' share in total revenues equates to 13 percent, on average. These include the property tax, the business tax, and the oil surge-charge. Municipalities are entitled to discretion over the expenditures originated from their revenues. A budget segment targeted at schooling and health care is annually discussed and ratified by the municipal council, which oversees its execution. The third primary source is royalties from natural-resource extraction (mainly oil and coal), paid by firms to the central government.

For policymaking purposes, municipalities are clustered into three groups and seven categories according to population size and annual revenues (measured in minimum monthly wages). As Table 2 shows, large-sized municipalities comprise those who belong to the special and first category; middle-sized ones make up categories two to four; and small-sized municipalities are those in categories five and six.

Group	Category	N. inhabitants	Annual revenue	Number	Percentage
I anna aimed	Succial	Mana than 500 001	(Wilvi v)	1	0.26
Large-sized	Special	More than 500,001	More than 400,000	4	0.30
	1	100,001 - 500,000	100,000 - 400,000	9	0.82
Middle-sized	2	50,001 - 100,000	50,000 - 100,000	93	8.47
	3	30,001 - 50,000	30,000 - 50,000	16	1.46
	4	20,001 - 30,000	25,000 - 30,000	57	5.19
Small-sized	5	10,001 - 20,000	15,000 - 25,000	85	7.74
	6	Less than 10,000	Less than 15,000	834	75.96

Table 2: Municipality categories

Source: Author's own elaboration based on Law 136 of 1994.

By 2017, the local government's share in government revenues totaled 17 percent, yet their investment accounted for 45 percent of overall government investment (OECD 2020). A year before, subnational governments accounted for 51 percent of total public procurement, which equated to 41.4 trillion COP (Saavedra and Conde 2018). Against this backdrop, municipalities have been claimed as effective public service providers in areas like schooling and social transfer, outperforming the central government (Hernández, Barreto, and Junguito 2018). Their main challenge is access to sewage and gas connection: 56.6 percent of Colombians had sewage and 66.8 percent gas service by 2018 (DANE 2018). For this reason, municipalities purchase and supply goods and services through the public procurement system.

4.5. The public procurement system at a glance

As the previous sub-section illustrated, local governments fulfill a wide menu of tasks that involve the supply of goods and services to the public. Public procurement is the government activity through which agencies contract goods, services, and works (OECD 2016). It is often seen as a trigger for improving the efficiency and effectiveness of public spending. Public procurement is a matter of governmental concern according to its share in economic output. By 2017, it accounted for 9.9 percent of GDP, below the OECD average, yet it represented 35.7 percent of total government expenditure, above the OECD average (OECD 2020). Colombia's subnational public procurement accounted for 63 percent of overall contracting spending by the same fiscal year (OECD 2019).

Similar to most legislative frameworks, public procurement in Colombia is structured around the following stages: Procurement planning, need assessment, advertising, invitation to bid, prequalification, bid qualification, contract award, contract implementation, and completion (OECD 2013). Contractors can be selected through a diversity of methods, yet open, competitive procedures must prevail by law mandate. On the one hand, competitive selection methods are public tender, merit contest (used for consultancy services where price is not the main consideration), low-value contract process, and abbreviated selection process (for standardized products). On the other hand, procurement can be carried out through direct awarding.

Direct awarding is contingent upon the following specific cases: Manifest urgency, loan agreements, agreements between government agencies, goods and services for defense government agencies that require keeping data in reserve, trust agreements by subnational governments, when there is no plurality of bidders, for personal professional services to support operations of the government agency, and for lease and sale of real state (OECD 2013). Along

with direct awarding, the legal framework entitles a number of government agencies that compete in private markets (such as state-owned businesses) to self-regulate their contracting activities, which is broadly deemed "special regime". This is besides the set of rules applied for borrowing procedures from international creditors. Colombian government agencies can lengthen a contract provided that the increased contract value does not exceed 50 percent of its initial value (OECD 2013).

According to Table 3, direct awarding, special-regime, and public tendering were the most prominent procurement mechanisms at Colombia's subnational level between 2012 and 2014. By 2014, direct awarding accounted for 38.71 percent of the total contract volume (6.3 billion USD), followed by public tenders (30.98 percent), and special regime contracts (15.17 percent). Subsequently, more than 50 percent of total contract value was awarded under exceptional rules. Likewise, 55.92 percent of contracts were awarded directly and 17.63 percent through public tendering at the subnational level by the same fiscal year. According to Zuleta, Ospina, and Caro (2019), even though, more recently, the share of competitive procedures has been higher than that of direct awards, the former remained the central selection method on the subnational level. Direct awarding on this level, which should be an exception by law mandate, has been grounded in the hiring of professional services and support of management operations by 84 percent.

Type of contract	Value of contracts, 2014, in USD millions	Value of contracts, 2012, in USD millions	Number of contracts, 2014	Number of contracts, 2012
Public-private partnership	0.116	0.524	4	6
Open merit competition	326.352	95.049	3 584	1 278
Merit competition with a short list	3.621	23.508	67	154
Merit competition with multipurpose list	1.391	4.658	7	21
Direct awarding	6 308.525	4 020.246	299 419	180 435
Contracting with minimum budget	450.133	344.596	94 370	86 739
Public tender	5 049.591	1 530.382	6 232	2 032
Special regime	2 472.717	1 065.888	117 650	13 149
Abbreviated selection with low budget	1 008.578	371.357	9 233	6 418
Abbreviated selection article H	22.844	7.098	88	47
Abbreviated selection health services	17.847	14.792	113	73
Auction	620.288	261.400	4 466	2 768
Demand aggregation	15.446	0.000	154	
Minimum amount	0.058	0.000	17	
Total	16 297.508	7 738.975	535 404	293 120

Table 3: Number and value of contracts by selection method in 2012 and 2014

1. Currency exchange: COP 1.00 = USD 0.000343080, 30 October 2015.

Source: OECD (2013).

All government agencies are required by Law 1150 of 2007 to disclose procurement activity via the e-procurement system *Sistema Electrónico de Compra Pública*, SECOP by its Spanish acronym. It is made up of three sub-platforms: SECOP I, SECOP II, and the virtual shop (*Tienda Virtual del Estado Colombiano*), TVEC by its Spanish acronym. SECOP I is used

exclusively for disclosure and was the main transparency mechanism since its inception in 2010 until 2014. It supported contract publishing, call for tenders, award information, and procurement documents like amendments, statements of conditions, the contract, and the evaluation report. Instead, the second platform is a next-generation transactional mechanism. It allows bidders to submit tenders, request clarifications, submit invoices, and electronic communication at all stages. The Virtual shop contains all records of demand aggregation or public procurement through framework agreements.

Table 11 in the annex shows the number of contracts and total contract value disclosed to SECOP and TVEC between 2014 and June 2018. Two main conclusions can be drawn from disclosure to the SECOP platforms. First, the number of published contracts has increased, yet as a result of technical and political efforts to increase contracting transparency. Second, it highlights the electoral cycle's relevance to public procurement at the subnational level. By 2016, which marks the beginning of a mayoral term, the contracting volume plummets compared to 2015, as the new incumbents are mandated to continue executing the public budget set up by their predecessors during the first half of the fiscal year. This explains why the incumbents' distinctive policies and programs are made visible in procurement spending as of the term' second fiscal year (Zuleta, Ospina, and Caro 2019).

5. Data and Empirical Design

The purpose of this section is twofold. On the one hand, it describes the study's variables of interest, the data sources used to measure the variables, and presents descriptive statistics. On the other hand, it outlines the correlational models to conduct the analysis and discusses how they were specified. This sub-section is accompanied by an introduction into further possible ways to carry out the correlational analysis and hinge on diverse variable construction.

5.1. Data

5.1.1. Dependent variable

As aforementioned, the present study's outcome variable is the public procurement corruption risks on the municipal level. To quantify these, I drew on the novel "Index of Corruption Risk in Public Procurement (CRI)", measured by Zuleta, Ospina, and Caro (2019) of the University of Los Andes (Colombia) with support from the Inter-American Development Bank (IDB). In the context of public procurement, corruption risks emerge thanks to "the absence of competition, the persistence and concentration of bidders, the lengthening of contracts, and the lack of access to public information and transparency over conflicts of

interest policies" (Zuleta, Saavedra, and Medellin 2018, 155). Zuleta, Ospina and Caro rely on contract-level information disclosed by public organizations to the National Procurement Office's electronic reporting system¹⁰.

With a sample of approximately 3.46 million public contracts totaling 123.24 million USD, the CRI relies on 75 percent of disclosed contracting at all public administration levels between January 2014 and June 2018. Since this study seeks to link campaign finance to corruption risks during one mayoral term, I strived to use a similar technique to Bromberg (2014), where he collected data while one mayor's administration was in office. However, the CRI time coverage spans the second half of the mayoral incumbency period 2011-2015 and more than the first half of the mayoral incumbency 2016-2019. Due to variation in administrations and timing, the CRI can only provide a proxy for corruption risks in public procurement for officeholders over 2016-2019.

Twenty-five percent of disclosed public contracts during such a period was not accounted for by the CRI to accurately reflect international public procurement standards. These include service contracts longer than six months¹¹, inter-administrative agreements¹², loans and credits¹³, and records whose disclosure and signature dates are incompatible. The municipality score spans mayoralties, secretariats, utility providers, and entities whose head is appointed by the mayor or is hierarchically accountable to the mayor. Therefore, decentralized organizations such as hospitals, schools, universities, kindergartens, health care providers, airports, bus terminals, public broadcasters, and public companies are not accounted for either.

The CRI consists of three dimensions: Competition restrictions, lack of transparency, and violations or abnormalities of public procurement rules and proceedings. The index results from the three areas' arithmetic mean, whose scores are obtained by their indicators' arithmetic mean. Table 4 illustrates the definition and number of indicators per dimension. The index

¹⁰ The SECOP contract-level dataset (see link in Table 18 in the annex), contains 72 variables spanning the unique contract identifier, issuing agency, contract type, value, lengthening (time and value), bidder id, bidder information, procurement type, good/service type, selection method, disbursements, etc.

¹¹ Service contracts are primarily employed to hire full-time employees at public entities by bypassing the publicemployment legal framework. Even though the rules for these entail the procurement of services, strictly speaking, these contracts do not qualify as procurement. Yet Zuleta, Ospina, and Caro (2019) call the attention to the fact that service contracts help expand and nurture clientelist networks.

¹² This procurement type does not entail the acquisition of goods or services for the benefit of the public body but the exchange of assets (buildings, offices) among entities to fulfill their mission accordingly. Even though such contracts do not imply any procurement type, they are often employed to transfer financial resources to public organizations (Zuleta, Ospina, and Caro 2019)

¹³ Neither credits nor loans qualify as public procurement, yet they are disclosed to the Procurement Office as part of transparency standards.

ranges from 0 (lowest corruption risk) to 100 (highest corruption risk). Furthermore, the following risk categories apply: Low 0-25; lower-middle 26-50; higher-middle 51-75, and high 76-100. Table 12 in the annex outlines a comprehensive list of indicators by component, data sources, and measurement strategies.

All corruption indexes are vulnerable to measurement errors (Fazekas, Tóth, and King 2013; Hummel, Gerring, and Burt 2018). Corruption transactions are typically an "indirectly observable" phenomenon. Unless every single corrupt activity is unveiled, researchers approach the phenomenon using experts' and citizens' perceptions, experiences of program users (victimization), and statistical inference. Fewer studies rely on "direct observation", thereby employing data on disciplinary sanctions, sentences, or fines (Fazekas, Tóth, and King 2013.) In particular, the CRI fails to capture significant corruption risk areas such as adhering to procurement guidelines, stakeholders' stances on the procurement system, or decisions that might lead to corruption acts. By nature, corruption inputs are hard to trace and demand expert case-by-case analyses, such as setting up requirements, the unequal use of information, or manipulating the bidder's profile to favor a pre-arranged bidder (Zuleta, Ospina, and Caro 2019). Due to such measurement pitfalls, this research focuses on corruption outcomes as exposed by Fazekas, Tóth, and King (2013).

Component	Number of indicators	Description
Competition restrictions	15	Measures the extent to which public procurement proceedings are open, competitive, and merit-based, guaranteeing the turn-up of a diversity of bidders and equal treatment to them.
Lack of transparency	9	Quantifies the extent to which the entity actively guarantees access to contract- level information by disclosing critical information through the different procurement stages.
Violations to public procurement rules	17	Calculates the degree to which the entity fulfills public procurement rules, guidelines, and proceedings.

Table 4:]	Descri	ption of	CRI	dimensions
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Source: Author's own elaboration based on Zuleta, Ospina, and Caro (2019).

Furthermore, several CRI indicators are not representative (see Table 12 in the annex). This is triggered by the existence of two e-procurement platforms in Colombia: SECOP I and II. The latter, the upgraded version, offers key variables to measure several indicators on

competition restrictions, yet the level of reporting to SECOP II is too low to draw generalizations¹⁴. Nonetheless, the CRI provides our best guests about the risk of corruption in public procurement. It offers a significant improvement in coverage compared to other measurements, such as Transparency International Colombia's Municipal Transparency Index (2015-2016), bound to 28 capital cities on its latest issue. Since the CRI covers an unprecedented number of observations, its internal validity is strengthened.

Table 13 in the annex shows the results for the composite CRI and each of its dimensions and indicators. The average CRI is 34.79, that is, a lower-middle risk level. The lowest CRI equals 19.01 and the highest to 48.15, meaning that no municipality ranks in high-risk categories. It is also crucial to take a look at each component and its underlying indicators. The dimension "lack of competition", with an average of 29.44, shows the lowest corruption risk. However, three indicators signal higher-middle and high-risk levels, taking the average score: Bidder diversity (82.90), change in annual average of bidders (69.23), and concentration index of the four firms with the largest contract value (52.13). The mean percentage of single bidder tenders was 60.99, but this indicator was measured for 20 municipalities. These indicators have in common that they measure the recurrent selection of firms over a given time period to unveil continuous rent extraction. By contrast, the indicator showing the lowest risk level is IHH the by number of direct awards, with an average of 4.28. This result might suggest that the number of direct awards implies no concentration in municipalities' procurement.

In second place, violations of public procurement rules average 35.89, pertaining to the lower-middle risk category. It should be remarked that this component is less reliable in the analysis as most indicators were measured with a significantly low number of contracting records and municipalities. This component, however, bestows a set of corruption inputs as highlighted in the theoretical framework. Interestingly, the share of competitive bids whose bidding period lasted less than 90 days averages 95.89. Following this indicator are the percentage of modified contracts, averaging 58.86 and middle-higher risk, and special regime contracts with bidding periods of less than five days, whose average is 51.77 and risk level is middle-higher. The lowest scoring indicator is the share of tender values awarded to punished firms, with a mean of 0.04.

Finally, the transparency dimension average tops the components means with 39.05, placing it in the lower-middle risk category. Theoretically, the lack of transparency is an essential

¹⁴ For instance, while in 2015, public organizations disclosed over 770 thousand contracts to SECOP I, only 99 were reported to SECOP II.

corruption input that can feed into competition restriction outcomes. Three of its indicators' averages suggest middle-higher and high-risk levels: Tenders lacking a published award document (100), numbers of tenders lacking explanation documents (83.85), and percentage of direct awards lacking disclosed documents (51.48). A point in common among these indicators is that they portray the lack of transparency during the bidding and post-bidding processes, which could harden accountability during the delivery stage.

Analytically it is relevant to figure out how the composite CRI and its components vary among underlying municipality characteristics in order to account for possible confounders of public procurement corruption risk. To this end, Figure 4 in the annex shows a box chart of CRI mean, maximum, and minimum values by the six municipality categories presented in the previous chapter. The graph illustrates that smaller municipalities score higher CRIs with means around 35 points, meaning that less advantageous municipalities could be more prone to public procurement corruption. CRI means are lower for municipalities belonging to categories 0, 1, and 3, while the mean of category 2 is nearly as high as those of smaller municipalities. Since the main takeaway from this short description is that more privileged municipalities perform better than their peers, characteristics like annual revenues and population should be accounted for in the empirical analysis.

5.1.2. Independent variables: Constructing a candidate-level campaign finance dataset

One of this study's primary goals is to introduce critical conventional campaign finance tools to assess its effects on public procurement corruption risk. Therefore, three campaign finance variables are of interest to this section: Donations, small donations, and disclosure. I obtained a contribution-level database from the 2015 municipal elections from the National Electoral Board (*Consejo Nacional Electoral*). The National Electoral Board is, by constitutional mandate, an autonomous body tasked with ruling, overseeing, and monitoring elections. The database, consisting of 18,177 campaign finance records from mayoral candidates, stems from a novel e-reporting system named *Cuentas Claras en Elecciones*¹⁵. This electoral accountability platform was built up by Transparency International Colombia and the US Agency for International Development (USAID) and later donated to the Electoral Board to enhance transparency over campaign finance and ease its enforcement. Campaign finance

¹⁵ See the website in Table 18 in the annex.

disclosure through *Cuentas Claras en Elecciones* is mandatory for national and subnational elections by a Board ruling since 2013¹⁶.

The database spans contribution-level features such as candidate name, gender, political affiliation, contribution type and value, donor name and unique id, donor type, date of disbursement, and a statement about the contribution source. The data must be reported between the three months to the election day (usually in late October) and one month after elections. With that in mind, I built up a candidate-level database since I focus on the effects of donations and disclosure of a would-be incumbent on corruption risk in public procurement during his incumbency. Therefore, the working database is a cross-section of elected mayors comprising 1,097 of 1,101 municipalities¹⁷.

Campaign finance disclosed to *Cuentas Claras en Elecciones* is primarily sorted by types of raised funds and expenditures. Hence, I focused on the former according to the following codebook set up by the Board:

Code	Type of fund	Description
101	Self-funding	Grants and contributions from the candidate's
		assets or those of the candidate's partner or
		relatives within the fourth degree of
		consanguinity.
102	Donations	Donations, contributions, and loans, in cash or in-
		kind given by private actors.
103	Bank loans	Loans from authorized commercial banks.
104	Crowdfunding	Revenues from public events, fundraisers,
		publications, and other for-profit activities held
		during the campaign.
105	Public funding	Public funding following legal provisions. The
		state can provide funding on an ex-ante basis
		totaling up to 80 percent of the campaign
		expenditure.
106	Political party funding	Funds from political parties and other political
		organizations exclusively bound to electoral
		campaigns.

Table 5: Funding sources' codebook

Source: Author's own elaboration based on Law 1475 of 2011.

¹⁶ According to Resolution No. 3097 of the National Electoral Board.

¹⁷ Four municipalities were not included in the dataset: Cachipay (Cundinamarca), El Tarra (Norte de Santander), and Santa Catalina (Bolívar) since the winning candidates refused to disclose their records to *Cuentas Claras en Elecciones*. In El Tarra, however, elections were not held due to disruptions to public order (MOE, 2015). In Santa Catalina the incumbent was stripped from office in 2017. It was not possible to get records from subsequent winners. It is also important to note that as of 2015, two new municipalities have been created.

Donations

As Table 5 shows, the first variable of interest is captured through code 102. Following Ruiz (2018), not only did I consider private donations but also contributions from relatives. An official at Transparency International Colombia undoubtedly endorsed this strategy during an interview I conducted, contending that it is plausible that candidates breach donations caps by unlawfully reporting those as sponsorship by relatives. Misleading records are also likely incentivized due to the Electoral Board's weak enforcement capacity and lack of power to monitor disclosed campaign account sheets on a timely basis (Misión de Observación Electoral 2019). Consequently, to account for the share of private donations for a winning candidate ¹⁸ more accurately, I coded donations the share of disclosed donations, grants, loans, and contributions by relatives, individuals, and firms, reported under codes 101 and 102¹⁹.

A potential pitfall with this measurement choice is that it disregards loans. However, as these stem from a financial commitment that must be repaid by the candidate in any case after the election, bank loans cannot be deemed donations. That means that, as aforementioned, bank loans are commonly paid back via proportional reimbursements. To qualify for a reimbursement, the Electoral Board multiplies the number of votes cast by a "sum" set up as a reference according to the office level. For the 2015 mayoral elections, such a reference fee equated to 1,815 COP per vote cast, which the candidate is entitled to receive so far as a set of conditions are met, including reaching at least four percent of the vote, disclosing the campaign account sheets (electronically and physically) to the Board, and having these scrutinized by its officials. Candidates are also entitled to request public funding ahead of the campaign totaling up to 80 percent of the campaign expenditure limits, yet they must submit a policy alongside to endorse the request. Non-profits deem this rule a tremendous barrier for obtaining state funding (Misión Electoral Especial 2017; Transparencia por Colombia 2016).

As Table 14 in the annex shows, winning candidates self-funded, on average, 79.13 percent of their electoral campaigns, whereas an average of 16.90 percent of campaign funds stemmed from donations. However, when both donations and family sponsorship are computed, the average percentage of donations rises to 34.07, being the second funding source for electoral rallies on the local level. Interestingly, state funding accounted for 0.004 percent and party funding for 0.91 percent of campaign funds. As Table 15 in the annex portrays, non-donor funded candidates (40.41 percent of incumbents) self-funded, on average, 96.77 percent of their

¹⁸ For the sake of uniformity, I labeled all private resources "donations".

¹⁹ I dropped donations of less than 100 COP.

rallies. Conversely, donor-funded politicians (59.74 percent of incumbents) received an average of 28.29 percent of funds from donors and 57.23 percent from overall donors. Public funding is almost non-existent for donor-funded and non-donor funded types of winning candidates. Donations might help reduce the burden on the candidates' assets and, therefore, it might be in the incumbents' interest to allow for rent extraction via public procurement corruption.

Figure 2 shows the average share of donations in winning candidates' campaign funds by municipality category. Apart from the high reliance on donations showed by the would-be incumbent of the largest cities, donations seem to interact with municipality category marginally. The share is above average and around 50 percent for categories one to five, except for category three, which shows a more pronounced share compared to their peers of similar categories. Yet the share for Incumbents of municipalities of category six, which account for 75 percent of Colombian local governments, falls to around 30 percent, exhibiting their lower reliance on donations.





Source: Author's own elaboration based on Cuentas Claras en Elecciones.

To account for underreported private donations via self-funding or family-related funding, Figure 5 in the annex portrays both the percentage of donations and the percentage of donations and grants labeled self-funding. It shows that raised donations for categories three to eight, with a more dramatic climb for categories six to eight. Municipalities categorized one and two do not experience any change when the measurement strategy shifts.

Small donations

As to the second independent variable, small donations, I adopted four measurement strategies, of which two appear in the robustness checks. For the first choice, I calculated the share of small donations value in the candidate's donations volume. Unlike Culberson, McDonald, and Robbins (2013), who relied on the US legal definition of small donations as those below 200 USD, I pursued a relative measure since no analogous legal framework in Colombia exists. Alternatively, I calculated the standard deviation for donation value per municipality category and coded small donations those contributions whose value was under one standard deviation. Table 16 in the annex shows the standard deviation by municipality category. Since this variable can only be measured for donor-funded politicians, the number of observations goes down to 656. Then I computed the share of the small donations value. The second strategy was calculating the share of small donations in the candidate's number of donations.

The third identification mechanism replicates Baltrunaite's work (2020), who labeled "small" a donation with a value below the mean donation by firms in Lithuania. Table 6 shows descriptive statistics for the first two coding ways and Table 17 portrays descriptive statistics for the third option (robustness checks). Following the first one shows that, on average, 39.90 percent of campaign donations were small, while it raises to 49.62 using the second path. Baltrunaite's small donation identification reduces the sample to 653 observations and the average to 39.12, that is, one point below the first and preferred mechanism. For this reason, I do not expect the empirical analysis to be contaminated by sample selection. Figure 6 in the annex shows the average share of small donations in the candidate's donations volume by municipality category. Smaller municipalities exhibit lower medians and more normal distributions than their middle-sized counterparts. The graph also shows that politicians from bigger municipalities tend to rely on small donations more.

Misreporting

The third variable of interest, misreporting, is measured by the difference (in percentage) between the candidate's disclosed campaign funds and the applicable spending cap for the municipality in which she competed. This variable's measurement is premised on the assumption that the spending cap accurately reflects a good pool of resources guaranteeing the candidate the necessary goods and services for electoral competition on an equal footing.

Nevertheless, as the following sub-section will dig down into, candidates face incentives to misleadingly disclose campaign records. They can be praised as political outsiders on the grounds of their non-reliance on private companies, thereby showing up as genuine people's representatives. The downside of pursuing this measurement tactic is twofold: The Electoral Board might have been overestimated the spending caps and, certainly, no candidate will be able to near those, or the local race could have been competitive, making the distribution of resources more or less equal among candidates.

According to Figure 7 in the annex, the mean of misreporting for all incumbents was 55.91 percent, that is, candidates reported an average expenditure of 45 percent relative to the spending cap. Interestingly, disclosure was higher in bigger municipalities. Winning candidates in municipalities from category two reported expenditures totaling, on average, 60 percent of the spending cap. In category three, the average expenditure relative to the cap was 45 percent and in category four was roughly 50 percent. In smaller municipalities, the smallest expenditure was reported by winning candidates from categories five and six, while the expenditure of those in categories seven and eight was nearly the overall average. By and large, this might reflect that spending caps are systematically overestimated (more so for smaller municipalities). Another potential explanation, which seems more plausible, is that candidates regularly misreported campaign spending. For instance, winners in the six largest departments²⁰ reported expenditures of 75.66 percent of the spending cap (Transparencia por Colombia 2016). Since analogous empirical efforts in the literature are lacking and other tactics could be applied based on information quality, and timeliness, this indicator should be interpreted as a proxy for misreporting.

Control variables

To adjust for covariates of public procurement corruption risk and campaign finance, I included a number of variables highlighted in the related literature. Extensive literature has identified a group of variables making corruption flourish. I sorted covariates into two groups, according to their potential to affect public procurement corruption on the local level. One mantra of empirical research on corruption has been that it negatively correlates with economic development (Ades and Di Tella 1999; Treisman 2000, 2007) and positively with state size (Martinez 2016; Ruiz 2018; Treisman 2007). Therefore, I controlled for municipality-level characteristics such as total annual government revenues, annual royalties from natural resources extraction, and GDP per capita (Treisman 2000, 2007).

²⁰ Antioquia, Atlántico, Bolívar, Cundinamarca, Santander, and Valle del Cauca.

Similarly, donations are likely to be influenced by such factors, as the literature review showed. A second stream of the related literature shows that corruption thrives in the absence of democratic institutions. Determinant factors to quantify political rights or democratic institutions on the local level could be voter turnout, electoral dominance, and political competition (Broms, Dahlström, and Fazekas 2019; Carreras and Vera 2018; Castañeda 2018; Ruiz 2018; Tanzi 1998). Still, since voter turnout and electoral dominance are plausibly a consequence of campaign finance, they cannot be used as controls. Hence, to account for political competition, I relied on the number of candidates during the electoral race.

The second group of control variables originates from the embryonic national literature on corruption and campaign finance and spans plausible drivers of such factors according to Colombia's political and economic characteristics. Another deep belief among Colombian scholars suggests that corruption on the local level emerges from a deeply rooted lack of statehood (Garay 2008; López 2016; Newman and Ángel 2017; Pino 2017; Revelo and García-Villegas 2018).

Subsequently, I incorporated the following indicators of local institutional capacity: Integral performance index, measured by the Ministry of Planning, which assesses public management at the municipal level during the policymaking, implementation, and oversight stages, as well as public decision-making and allocation of resources, and distance (in km) to the capital of Bogotá. Furthermore, a dummy for the existence of coca crops in the municipality (Newman and Ángel 2017), and a dummy for the Andean region (Saavedra and Conde 2018; Villar and Alvarez 2018).

I gathered such data from the Municipal Panel, an endeavor of the Center for Economic Development Studies (CEDE, by its Spanish acronym) at the University of Los Andes²¹ and fed with databases from different public institutions, think tanks, and international organizations. Table 12 in the annex describes the variable name, variable type, measurement strategy, time span, and data source of all control variables. Table 6 contains descriptive statistics for control variables. The average number of candidates during the 2015 mayoral race was 4.08, 57 percent of municipalities were located in the Andean region, and 17 percent had coca crops. The average integral performance index was 72.02. The rest of the controls were log-transformed.

²¹ I am thankful to CEDE for letting me access the databases.

Variable	Mean	Std. Dev.	Min	Max
Dependent				
CRI	34.794	3.352	19.012	48.148
Competition	29.44	5.397	14.114	66.667
Violations	35.891	7.492	8.267	65.425
Transparency	39.052	5.991	10.2	62.485
Number of direct awards	41.461	16.021	0	98.336
Share of direct awards value	26.639	14.286	0	98.839
Independent				
Share of private funding	34.195	35.266	0	100
Share of small donations value	39.904	40.710	0	100
Share of small donations	49.62	40.892	0	100
Misreporting	56.156	25.7	-2.707	98.905
Controls				
GDP per capita (log)	.008	.018	088	.07
Royalties (log)	21.267	.912	19.137	25.452
Revenues (log)	9.919	.953	8.182	15.375
Coca crops (d)	.168	.374	0	1
Distance to Bogota in km (log)	5.531	.738	2.478	7.147
Int. Perf. Index	72.029	9.445	29.212	93.557
Andean region (d)	.57	.495	0	1
Number of candidates	4.083	1.747	1	11

 Table 6: Descriptive statistics

Note: The statistics indicate the variables' average, the standard deviation, the mean, the minimum and maximum value. (Log) indicates de logarithmic transformation of a variable and (d) a variable taking a value from 0 to 1.

Further data limitations

A significant data limitation this research face is associated with the reliability of disclosed campaign finance (Londoño 2018; Misión de Observación Electoral 2019; Transparencia por Colombia 2015, 2018). Extensive journalistic investigations and descriptive studies have alerted that genuine campaign finance has been persistently underreported, with candidates' expenditures overwhelmingly above the legal bounds²². Candidates and party officials might evade disclosing funds and expenditures to avoid scrutiny over the lawfulness and legitimacy of funds taken from forbidden donors. These include drug cartels, warlords, foreign companies,

²² For instance, Londoño (2018) points to a survey study by Cifras & Conceptos, a pollster, commissioned by the United Nations Program for Development (UNDP) and the Netherlands Institute for Multiparty Democracy (NIMD), pointing out that political the senatorial campaign could have cost at least four times the campaign expenditure.

politically-connected businesses²³, foreign governments, and public officials (Misión de Observación Electoral 2019). Another point of concern is surpassing the spending cap. Donations can be reported as "loans" to bypass electoral rules forbidding donations of more than 10 percent of the expenditure limit (Transparencia por Colombia 2015, 2018).

Second, candidates' reluctance to report on private sponsorship might be grounded in the potential cost vis-à-vis the electorate. Voters might be concerned about their preferred choice being overly reliant on private money, thus increasing the chances to become beholden not to the constituents' interests (Ruiz 2018). Hence, one can assume a candidate could hide private funds into those stemming from relatives, which are less likely to be traced by authorities (Misión de Observación Electoral 2019). Since family funding is not subject to expenditure limits, relatives can entirely finance an electoral campaign, paving the way for accepting money from private actors.

Furthermore, the so-called phenomenon of "triangulation" (La Silla Vacia 2020; Manetto and Palomino 2017) could surface, through which banned funding sources (e.g. foreign companies) might legitimately finance a political party, which might therein support the company's preferred candidate. Thus, it is plausible to identify electoral corruption hidden into disclosed campaign finance, seemingly reducing private resources' reliance. As Table 14 shows, this option is less convincing, though, as political parties donated 0.91 percent of total winning candidates' campaign expenditures.

Finally, reverse causality poses a challenge for the present work. Taxpayer's money grafted through public contracts might be channeled to electoral campaigns via donations. Corrupt politicians might ask for bribes by blackmailing bidders to improve their chances of getting a contract. The bribe could be transferred to finance the campaign of a politician connected to the bureaucrats or nurture a political clientele or serve vote-buying, election rigging, and other electoral disorders. Therefore, it reinforces the idea that family sponsorship could be used to channel corrupt money to political campaigns. However, provided that the Electoral Board is entitled to punish candidates and political organizations on misleading disclosure of campaign finance (Misión de Observación Electoral 2016), I expect *Cuentas Claras in Elecciones* to provide a good guest about campaign finance²⁴.

²³ Law 1475 of 2011 bans donations from companies whose two percent of profits over the last fiscal year has originated from public contracts.

²⁴ It is also advantageous as 96 percent of mayoral candidates disclosed to it (Transparencia por Colombia 2015).

5.2. Empirical strategy

To test the effect of campaign finance on corruption risk in public procurement, it is vital to think about the relationship's functional form carefully. One explanation leads to assuming a linear relationship between variables, with every increase in the independent variables directly affecting the dependent variable. Hence, I conducted multiple regression analyses with crosssectional data to test the relationships. For hypothesis one, where the variables of interest are continuous, I estimated an Ordinary Least Squares (OLS) model with the following equation:

$$CRI_{i} = \alpha + \beta_{1} Donations_{i} + \beta_{2} Controls_{i} + \varepsilon_{i}, \qquad (1)$$

where CRI_i is the Public Procurement Corruption Risk Index of a local government, *Donations_i* is the share of donations in the would-be incumbent campaign funds, $Controls_i$ a series of confounders of corruption risk in public procurement, and ε_i the error term. Regarding hypothesis two, a series of multiple regressions were implemented to test the effect of the share of small donations on campaign funds on corruption risks in public procurement. Although I focus on the effect of the share of small donations value in campaign funds, I also analyze the impact of the share of small donations in the count of donations. If powerful stakes in campaign finance translate into malfeasance in public procurement, the latter should experience a decrease as the elected mayor will not be beholden to mighty contributors. I estimated the following equation:

$$CRI_{i} = \alpha + \beta_{1}Small Donations_{i} + \beta_{2}Controls_{i} + \varepsilon_{i} , \qquad (2)$$

where CRI_i is the Public Procurement Corruption Risk Index of a local government, Small Donations_i is the share of small donations value in the donations volume, Controls_i a series of confounders of corruption risk in public procurement, and ε_i the error term.

The same approach applies to the last hypothesis I studied: The use of a small proportion of campaign funds signals underreport of campaign finance, more concretely, of donations, and thus paves the way for an increased corruption risk in public procurement. The advantage of this hypothesis is that it can be tested on the total number of observations. I estimated the following equation:

$$CRI_{i} = \alpha + \beta_{1}Misreporting_{i} + \beta_{2}Controls_{i} + \varepsilon_{i} , \qquad (3)$$

where CRI_i is the Public Procurement Corruption Risk Index of a local government; *Misreporting_i* stands for an indicator of underreported funds by the elected mayor; *Controls_i* a series of confounders of corruption risk in public procurement and, and ε_i the error term.

Admittedly, public procurement corruption risks might vary significantly depending on a number of factors. Hence, I bestowed a sub-group analysis to test the hypotheses under different conditions. The three analyses sort municipalities according to population size, poverty level, and close races between the two runners-up. Table 19 in the annex offers descriptive statistics for the three sorting factors. I obtained population and poverty data from the aforementioned CEDE's Municipal Panel. Regarding the latter, I used the Unmet Needs Index (NBI, by its Spanish acronym) as a poverty indicator. Concerning close race information, I obtained data from the Electoral Oversight Mission's Datoselectorales.com platform, a repository of databases on national and subnational electoral races.

6. Main Results

This section presents the results for the previously outlined equations. Hence, the chapter is split into three parts according to the variables of theoretical interest: Donations, small donations, and disclosure.

6.1. Donations

Do campaign donations affect corruption risks in public procurement in Colombian municipalities? Table 7 shows the results using OLS regressions, which provide a first estimation of the effect of campaign donations on the public procurement corruption risk index, holding other confounders fixed. Model one examines the primary variable of interest. Model two adds a series of confounders of corruption risks deemed fundamental determinants by the literature. Similarly, model three incorporates the second group of explanatory variables of corruption and campaign finance, long referred to as predictors of local corruption in Colombia. Model four reproduces model three by computing robust standard errors, as does model five by ruling out outliers.

Strikingly, a strong negative effect of campaign donations on the CRI is found. Estimations in models three to five denote that a one-percentage-point rise in campaign donations, on average, is associated with a drop of 0.008 points in the CRI, to a p-value below 0.05 in model three and 0.01 in model four. In model five, the regression coefficient drops to 0.007 to a p-

value below 0.01. All in all, coefficients for corruption risks in public procurement are negative and significant at the one percent level across the most robust models, rejecting hypothesis one.

			-		
	(1)	(2)	(3)	(4)	(5)
Share of donations	-0.007**	-0.004	-0.008**	-0.008***	-0.007***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
GDP per capita (log)		-27.109***	-9.580	-9.580*	-4.173
		(5.657)	(6.155)	(5.588)	(5.164)
Revenues (log)		-0.625***	-0.616***	-0.616***	-0.588***
		(0.129)	(0.136)	(0.133)	(0.115)
Royalties (log)		0.325**	-0.055	-0.055	-0.063
		(0.134)	(0.144)	(0.132)	(0.120)
Coca crops (d)			1.047***	1.047***	0.719***
			(0.285)	(0.278)	(0.240)
Distance to Bogota in			0.452***	0.452***	0.413***
km (log)					
			(0.169)	(0.171)	(0.141)
Integral Performance			-0.010	-0.010	-0.007
			(0.012)	(0.012)	(0.010)
Andean region (d)			-0.735***	-0.735***	-0.752***
			(0.262)	(0.243)	(0.219)
Number of candidates			0.055	0.055	0.006
			(0.063)	(0.066)	(0.053)
_cons	35.026***	34.440***	40.617***	40.617***	40.785***
	(0.141)	(2.412)	(2.886)	(2.829)	(2.425)
Obs.	1098	1091	1091	1091	1039
R-squared	0.005	0.053	0.095	0.095	0.109

Table 7: Regression results for share of donations

Public Procurement Corruption Risk Index (CRI)

Note: The table reports the marginal effects. (Log) reports the variable logarithmic transformation and (d) the discrete change of a dummy variable from 0 to 1. Outliers identified with Cook's D statistic. Standard errors are in parenthesis. *** p < 0.01, ** p < 0.05, * p < 0.1

In light of such challenging findings and premised on the assumption that corruption risks respond to campaign donations differently (Hummel, Gerring, and Burt 2018), I unpacked the CRI into its three dimensions. For instance, campaign donations could be attributed to a less influential role in transparency yet an overly hazardous impact on market competition (Fazekas, Tóth, and King 2013). Besides, campaign donations could severely increase the share of direct awards, as Transparency International Colombia (2019) has claimed. As columns in Table 20 reveal, turning the analysis to three underlying risks of corruption, nonetheless, does not lead to a substantial change in the observed associations. As the share of campaign

donations rises by one percentage point, only violations of procurement rules fall by 0.012 points to a p-value below 0.1.

To dive deeper into the likelihood of a differentiated effect of campaign donations on reliable corruption risk indicators, I considered as dependent variables two further CRI indicators that frequently the literature refers to as suggestive of corruption risk: The share of direct awards and the share of direct awards value. However, the primary variable of interest is associated with neither indicator. Up to this point, a higher share of campaign donations is estimated to be firmly and negatively related to the composite index of corruption risks in public procurement. Unveiling the CRI into major corruption risks shows no statistically significant associations with campaign donations.

6.2. Small donations

Does the size of donations matter? Hypothetically, small donations might curb corruption risks in public procurement. Still, it may be the case that small donations are highly positively correlated with overall campaign donations, overlapping with the previous hypothesis. To rule it out, I ran a correlation and found that the two variables are moderately negatively correlated (coefficient of -0.3). Therefore, it proceeds to test the second hypothesis. Table 8 shows the estimated effect of the share of small donations value on the CRI. In model one, the CRI is regressed on small donations value as the primary variable of interest. Model two presents the estimated effect while controlling for several covariates of corruption risks. Model three adjusts for the second set of confounders related to corruption in Colombia, and, in model four, the previous model is replicated by computing robust standard errors. Finally, in model five, I adopted an alternate measure of small donations, as discussed in 5.1.2, where coding is assumed as the share of the number of small donations in total donations.

Extraordinarily, small donations uphold no statistical association with corruption risks (even if the coefficient for CRI has the expected sign), rejecting hypothesis two. Neither estimates in model five show correlation. This may provide some assurance that no measurement error explains the results.

To substantiate the analysis in terms of different responses from corruption risk dimensions to small donations, I replicated the structure of section 5.1. Small donations could heavily affect certain types of risks, but in general, I expect them to negatively and significantly make competition, transparency, and the indicators of direct awards drop. Columns in Table 21 present the estimations for every corruption risk type and the two direct-awarding indicators, computing robust standard errors. Implausibly, changes in small donations are not statistically

associated with lower corruption risks, even if the coefficients of violations, direct award, and direct award value are negative, as expected.

	Public Procurement Corruption Risk Index (CRI)				
	(1)	(2)	(3)	(4)	(5)
Share of small	-0.002	0.000	0.000	0.000	
donations value					
	(0.003)	(0.003)	(0.003)	(0.003)	
Share of small					-0.002
donations					
					(0.003)
GDP per capita (log)		-25.536***	-10.490	-10.490	-9.745
		(7.439)	(8.125)	(7.563)	(7.539)
Royalties (log)		0.242	-0.034	-0.034	-0.080
		(0.159)	(0.173)	(0.156)	(0.160)
Revenues (log)		-0.607***	-0.625***	-0.625***	-0.603***
		(0.142)	(0.154)	(0.148)	(0.149)
Coca crops (d)			1.246***	1.246***	1.248***
			(0.360)	(0.344)	(0.343)
Distance Bogota km			0.252	0.252	0.250
(log)					
			(0.225)	(0.230)	(0.230)
Int. Performance			0.003	0.003	0.002
			(0.016)	(0.016)	(0.016)
Andean region (d)			-0.581*	-0.581*	-0.593*
			(0.342)	(0.316)	(0.317)
Number of			0.044	0.044	0.056
candidates					
			(0.080)	(0.086)	(0.087)
_cons	34.699***	35.774***	40.004***	40.004***	40.924***
	(0.191)	(3.060)	(3.675)	(3.514)	(3.567)
Obs.	656	652	652	652	649
R-squared	0.000	0.053	0.083	0.083	0.083

Table 8: Regression results for share of small donations value

Note: The table reports the marginal effects. (Log) reports the variable logarithmic transformation and (d) the discrete change of a dummy variable from 0 to 1. Outliers identified with Cook's D statistic. Standard errors are in parenthesis. *** p < 0.01, ** p < 0.05, * p < 0.1

6.3. Misreporting

Columns in Table 9 present the estimated effect of campaign finance misreporting on corruption risks in public procurement. Model one merely exhibits the dependent variable regressed on the main variable of theoretical interest. Model two controls for a set of main confounders of corruption risks and political finance. Model three presents a specification where the second group of covariates of the two variables is controlled for. Model four portrays the previous specification with robust standard errors, and model five excludes outliers.

Undisclosed campaign finance is not statistically associated with corruption risk in public procurement across the proposed specifications. When controlling for a set of confounders and computing robust standard errors, a one-percentage-point increase in underreported campaign finance leads to 0.005 points increase in the corruption risk index. Model five shows that disregarding outliers reduces the observed effect. The estimations reject the last hypothesis.

	Public Procurement Corruption Risk Index (CRI)				
	(1)	(2)	(3)	(4)	(5)
Misreporting	0.004	0.004	0.005	0.005	0.002
	(0.004)	(0.004)	(0.004)	(0.004)	(0.003)
GDP per capita		-27.058***	-10.199*	-10.199*	-5.036
(log)					
		(5.661)	(6.165)	(5.579)	(5.201)
Royalties (log)		0.329**	-0.037	-0.037	-0.062
		(0.136)	(0.146)	(0.138)	(0.119)
Revenues (log)		-0.657***	-0.673***	-0.673***	-0.652***
		(0.126)	(0.134)	(0.130)	(0.108)
Coca crops (d)			1.019***	1.019***	0.678***
			(0.285)	(0.277)	(0.231)
Distance Bogota			0.416**	0.416**	0.392***
(log)					
			(0.170)	(0.174)	(0.151)
Int. Performance			-0.009	-0.009	-0.006
			(0.012)	(0.012)	(0.010)
Andean region (d)			-0.708***	-0.708***	-0.720***
			(0.263)	(0.247)	(0.216)
Number of			0.049	0.049	0.005
candidates					
			(0.063)	(0.066)	(0.052)
cons	34.553***	34.314***	40.435***	40.435***	41.042***
	(0.243)	(2.536)	(2.973)	(2.989)	(2.508)
Obs.	1098	1091	1091	1091	1039
R-squared	0.001	0.052	0.090	0.090	0.101

Table 9: Regression results for misreporting

Note: The table reports the marginal effects. (Log) reports the variable logarithmic transformation and (d) the discrete change of dummy variable from 0 to 1. Outliers identified with Cook's D statistic. Standard errors are in parenthesis.

*** p<0.01, ** p<0.05, * p<0.1

Nonetheless, contrary to hypotheses one and two, unpacking the CRI into its components and most sensitive indicators allow for substantially different conclusions, as shown in Table 22. A one-percentage-point increase in underreported campaign finance is associated with a rise in the restricted competition component by 0.015 points to a p-value below 0.05. Likewise, the share of direct awarding value goes up by 0.044 points, also to a p-value below 0.05. Despite a lack of statistical significance, the transparency component and the share of direct awards indicator also see regression coefficients respond positively.

7. Extending the Analysis and Robustness Checks

Corruption risks in public procurement might surface in divergent socio-economic contexts, and this may provide an additional point of leverage into the impact of campaign finance on divergent types of risks. In this sub-section, I test the three working hypotheses on distinct sub-samples based on three municipality-level socio-economic and political properties: Population, close races between the two runners-up, and poverty. Following this subsection, I perform a series of robustness checks with distinct variable constructions to figure out how valid the previous results of section 6 are. The first task is conducting the analysis on sub-groups according to population size.

7.1. Sub-group analysis

7.1.1. Population size

I test the three working hypotheses on three municipalities' sub-groups based on population size. Hence, I conduct the following analyses drawing on two sub-sets of 365 and one of 368 municipalities. While group one spans the smallest municipalities, group three covers the largest ones. This sub-section describes the estimations by hypothesis and sub-group. The analysis to follow spans simultaneously the CRI, its three components, two indicators of direct awarding, computing robust standard errors, and two groups of corruption and campaign finance confounders in line with related national and international scholarly works. Population size ranged from 976 to 8,941 inhabitants for group one, from 8,946 to 20,653 for group two, and 20,897 to 2.46 million for group three. The mean population size was 5,268 inhabitants for group one, 13,929 for group two, and 90,133 for group three.

Donations

Regarding group one, Table 23 in the annex shows that, unlike the initial tests, estimated coefficients remain negative yet statistically insignificant. However, the quantified changes are slightly more significant for the two indicators of direct awarding. For middle-sized municipalities, a considerably different picture emerges. Campaign donations are associated with a drop in the CRI by 0.017 points and violations by 0.032 points to p-values below 0.01.

The competition component is also negatively affected by a one-unit rise in campaign donations by 0.009 points, yet to a p-value below 0.1 (See Table 24).

Contrarily, for group three, Table 25 in the annex shows that campaign donations are positively associated with the share of direct awards, with a coefficient of 0.043, and the share of direct awards value, with a coefficient of 0.050, to p-values below 0.1 and 0.05, respectively. These results suggest that corruption risks respond differently to campaign donations, and the effect varies among municipality sizes. While in middle-sized municipalities, by and large, higher campaign donations relate to lower corruption risks in public procurement, in larger municipalities, the former firmly pushes direct awarding up.

Small donations

For group one, small donations have a negative effect on violations to a p-value below 0.1 and a positive impact on the share of direct awards to a p-value below 0.1. As shown in Table 26, a one-percentage-point increase in the share of small donations value is associated with a 0.051 percentage-point increase in direct awards. This finding contradicts the expected direction of the association. Concerning group two, the share of small donations seems not to affect any CRI component or indicator. For group three, the expected effect holds. Small donations negatively affect the share of direct awards as a one-percentage-point increase in these is associated with a decrease of 0.055 points in the share of direct awards to a p-value below 0.05 (see Table 27 and Table 28 in the annex).

In general, this sub-group analysis suggests that small donations might also affect corruption risks differently among divergent types of municipalities. The most populous municipalities tend to behave as hypothesized, as less reliance on mighty donors relates to a lower share of direct awards. Group three suggests that small donations might be an opportunity to stem direct awarding. In group one, even other factors hold fixed, as small donations rise, opportunities for corruption triggered by direct awarding also surge, yet violations might drop.

Misreporting

Table 29 in the annex shows that no strong association between underreported campaign finance and corruption risks can be stated in municipalities belonging to group one. However, similarly to the previous hypothesis, direct awarding indicators experience the most sizeable positive changes as a response to undisclosed campaign finance (coefficients of 0.045 and 0.024, respectively). According to Table 30, in line with the previous hypotheses' results, group two estimations are positive and statistically significant to a p-value below 0.05 for the competition dimension (coefficient 0.027). Finally, for group three, the relationship between

underreported campaign finance and corruption risk is positive and statistically significant. The former is associated with competition and direct awarding value to p-values below 0.05 (coefficients of 0.026 and 0.069, respectively). However, the association with violations remains negative, with a coefficient of 0.026 to a p-value below 0.05 (See Table 31).

7.1.2. Close races

In line with Ruiz (2018), I also tested the working hypothesis on two different groups, on the basis that close races could trigger both campaign donations and, thus, corruption risks in public procurement. Theoretically, candidates facing strong contenders could crucially draw on campaign donations and diversify funding sources to increase the chances of seizing power. As a result, the elected mayor will be willing to benefit her patronage circle by deviating from a clean public resources execution and, more importantly, to award contracts without market competition.

To code close races, I calculated the margin of victory over the first runner-up, computed the standard deviation, and coded municipalities where margins of victory were below one standard deviation as a close race. Table 19 in the annex shows descriptive statistics for the margin of victory and close race. The mean margin of victory in 2015 was 26.48 percent and 18.25 percent the standard deviation. Therefore, close races took place in 38.13 percent of municipalities. The following sub-section describes the estimations by hypothesis for group one (close race) and two (no close race). Table 32 in the annex illustrates the results.

Strikingly, for group one, campaign donations are negatively associated with corruption risks. Increasing campaign donations by one percentage point leads to a decrease in the overall CRI by 0.009 points and the competition dimension by 0.016 points to p-values below 0.1. For group two, a higher share of campaign donations is also associated with a drop in the CRI by 0.007 points with the same statistical significance. Rising campaign donations by one-percentage point, though, relates to an upsurge of 0.035 points in the share of direct awards value to a p-value below 0.05. In conclusion, the sub-group analysis reveals that, in municipalities where close races between front-runners took place, corruption risks in general and competition risks in particular on average tend to decrease. Besides, contrary to expected, where elected mayors enjoy a more placid victory, the share of direct awards value positively responds to campaign donations with high statistical significance.

As to the second hypothesis, regarding group one, small donations are linked statistically to no corruption risk indicator. However, for group two, the share of small donations is associated negatively with the share of direct awards value to a p-value below 0.1 (See Table 33).

Regarding misreporting, for group one, it is statistically significantly associated with competition risks and the share of direct awards value to a p-value below 0.01. One unit rise in the percentage of underreported campaign finance translates into a climb of 0.033 and 0.076 points in such indicators, respectively. On the other hand, for group two, underreporting relate positively and significantly at the ten percent level to transparency, with a coefficient of 0.016 (See Table 34).

7.1.3. Poverty

I grouped municipalities into three categories according to the Unmet Needs Index (NBI by its Spanish acronym) to implement the third sub-group analysis. The measurement is developed by Colombia's National Statistics Office and constitutes the official poverty indicator. Since the index's level of observation is the household, I took the mean municipality index reported most recently in 2005. The index's underlying indicators are related to housing conditions, such as overcrowding, lack of public utilities, state handouts dependency, and low school attendance. The index ranges from 0 to 100, where the higher the score, the more impoverished the household.

To group municipalities according to multidimensional poverty, unfortunately, the index lacks categorizations. For that reason, I arbitrarily sorted municipalities into three categories of predominantly equal sizes: Group one spanned the 363 most impoverished municipalities for hypotheses one and three. Groups two and three covered 365 and 362 observations respectively, and the latter group covered the most privileged municipalities. For hypothesis two, the sample was restricted to 228, 182, and 238 observations for groups one, two, and three, respectively. Whereas the mean NBI index for the whole sample was 44.27, it was 67.60 for group one, 41.90 for group two, and 23.38 for group three.

For municipalities with higher poverty incidence, the competition component is projected to drop by 0.019 points as the share of campaign donations increases by one unit, to a p-value below 0.05. The CRI is negatively associated with the share of campaign donations to a p-value below 0.1. It is estimated to drop by 0.009 points as the share of campaign donations increases by one percentage point. For relatively well-off municipalities, campaign donations are negatively associated with the violations' component to a p-value below 0.1. Strikingly, in a sub-set of municipalities with a relatively lower poverty incidence, campaign donations, and corruption risks in public procurement are not associated. Seemingly, campaign donations are associated with lower possibilities of corruption in less privileged municipalities.

On small donations, no strong association can be stated neither for group one nor group two. On the contrary, for group three, a negative relationship with the share of direct awards is found with a coefficient of 0.042 and p-value below 0.1. As previously seen, the sub-group analysis for hypothesis two on several municipalities with a higher standard of living shows that with the presence of a more robust economic platform, it is estimated that more involvement in campaigns via small donations might translate into lower chances of corruption in public procurement. Finally, as to undisclosed campaign finance, the association with risks of competition restrictions is positive to p-value below 0.1 only for the most impoverished municipalities.

7.2. Alternative measurement strategies

This section aims to test the robustness of the results given different variable constructions on both sides of the equations. I present a distinct measurement approach to campaign donations strictly based on private ones, two for small donations, and one for public procurement corruption risks related to transparency. Alternatively, I coded campaign donations only those reported to have been provided by individuals and firms, in cash or inkind, outside the winning candidate's kinship. 42.43 percent of winning candidates in the sample were donor-funded, and, on average, the share of donations in campaign funds was 39.83 percent. By municipality category, winning candidates from the most prominent cities accounted for the highest average share of donations in campaign funds with 68.09 percent. However, this indicator holds no association with corruption risks.

I also adopted two further measurement strategies for small donations. I computed both the value of small donations and to that added the value of fundraising campaigns. Fundraising campaigns in Colombia are disclosed via code 104. These include public events, gatherings, and other activities organized for candidates and parties to raise campaign funds. Forty-eight elected mayors reported having organized such events, and, on average, they accounted for 37.01 percent of total raised funds. These municipalities are typically small ones of category six, followed by municipalities in category five and seven. Candidates that organized fundraisers were also regularly donor-funded, and only five non-donor-funded candidates organized such events. Therefore, the sample grew from 653 to 661 observations. Following this strategy, I was allowed to treat fundraising campaigns as small donations. To that end, to the previously calculated value of small donations, I added the total value of funds raised via fundraisers. Then, I calculated the share of these funds in the total amount of the candidate campaign revenue. Non-donor funded candidates either via donors or fundraising campaigns

were not taken into account. Candidates who adopted the strategy of small donations covered, on average, 22 percent of campaign funds with small donations, with a standard deviation of 25 percent.

Using this measurement strategy does not allow finding out any strong correlation between small donations and the overall CRI, even when following different models. The estimations in Table 35 and Table 36 in the annex shows that, on average, the share of small donations seems to push up corruption risks by 0.004 points, although without statistical significance. Overall, no correlation can be claimed from this measurement strategy, which clarifies that the initial tests do not seem to suffer from measurement error. This holds when looking into different types of risks of corruption.

Alternatively, I measured small donations as implemented for the case of Lithuania by Baltrunaite (2020). The strategy identifies small donations as those below the average donation by the municipality category rather than its standard deviation. Through this mechanism, the number of observations declines to 654, and the mean share of small donations value falls from 40.1 to 39.1 percent. Results show that, across different specifications, the percentage of small donations seems not to be associated with neither CRI nor its components and core indicators. Results are presented in and in the annex (See Table 37 and Table 38).

As the third robustness check, I changed the indicator for undisclosed campaign finance. Instead of using the CRI and its components, I used the mean of the procurement transparency indicator, which is part of a broader Open Government Index (OGI) measured by the Inspector's General Office (*Procuraduría General de la Nación*). The OGI is a composite index quantifying the level of public disclosure and implementing a set of policies seeking to guarantee a strong subnational public administration. It is neither corruption nor a corruption victimization index, yet it measures compliance with a set of strategic measures to tackle corruption country-wide.

The indicator of interest for this work is procurement transparency, which delves into the level of compliance with procurement reporting. The index ranges from zero to hundred, the highest level of compliance possible. The average index for 2015 and 2016 was 68.79 points. Donor-funded candidates averaged 68.97 points in the index. Unfortunately, estimations across different models do not show any correlation between underreported campaign finance and levels of compliance with procurement disclosure.

8. Discussion and Implications

This thesis' results suggest that the idea of a relationship between campaign finance (donations, small donations, and disclosure) and public procurement corruption risks has some merit. Theoretical and practical implications follow these findings. Theoretically, this research supports the notion that quantifying the relationship between campaign finance and corruption risks could be more nuanced on the local level (Baltrunaite 2020; Bromberg 2014), more so in small municipalities. The study challenges the notion that corruption on the local level might be contained when constituents get closer to their representatives and, therefore, might hold the former accountable more easily. Instead, it might supply the decentralization literature with evidence that corruption could surge as incumbents and constituents have closer social relationships.

Furthermore, it gives some assurance that rent extraction is advanced via public procurement in contexts of increased state power. This research found that donations have a pervasive effect on open, competitive procedures in more populous cities. Donations are associated with a higher share of direct awarding and restricted competition, and the effect on the former is more pronounced and positive in larger municipalities. One way for incumbents to advance the donors' interests could be by sidelining market competitors so that the connected firm is awarded a contract or by granting contracts to donors under non-competitive selection methods such as direct awarding. Incumbents can help extract public rents by repeatedly selecting a close group of firms, turning public procurement into a matter of privilege for a few private actors. Under this scenario, public procurement could be a mechanism to capture slices of government, and the local government could be buying goods and services above market prices, inducing losses for taxpayer's money. It is also possible that graft money could fund future campaigns, opening a vicious cycle between election campaigns and public procurement.

Besides, as seen in section three, a significant share of direct awards at the subnational level is grounded in hiring professionals to assume public roles in government agencies. It is plausible that donations to political campaigns are utilized to secure service contracts, common substitutes for formal public employment in Colombia. Therefore, a high share of service contracts might be worrying as bureaucrats or individuals entitled to perform public tasks could be selected based on political connections rather than merit. This is a promising research area into which, to best of my knowledge, scholars have not inquired sufficiently yet. Another implication concerns the size of donations, yet with less conclusive results. It seems that small donations could have a benevolent or hazardous effect on corruption risks depending upon municipality size. Small donations make direct awarding increase in small cities. No clear explanation of this link can be offered other than small donors expecting to be rewarded with direct contracts. By contrast, small donations foster restricted competition and procurement violations in middle-sized cities but stem the share of direct awards in more populous ones. As theory suggests (Bouton, Castanheira, and Drazen 2018; Culberson, McDonald, and Robbins 2013), micro- and middle- level socio-economic features of donors should account not only for the choice to donate but also for the expected return of the handout. One likely interpretation of such mixed effects is that small donations are beneficial when given out by more politically sophisticated voters in contexts of comparatively low political patronage.

Interestingly in line with theory, campaign finance secrecy also leads to higher competition restrictions and direct awarding volume in more populous cities. Section four stated that this variable's construction was exploratory yet sustained on the assumption that public bodies correctly determine campaign spending caps. Results go in that direction: More campaign spending relative to the legal cap should therefore stem corruption risks. How does the linkage work? According to theory, disclosure regulations might disincentivize candidates to transparently disclose their sponsors, thereby obstructing voters' inquiries into links between politicians and powerful donors and the consequences of their handlings. Hidden donors can be rewarded in any case. However, even after controlling for determinants of overall campaign expenditures, such a measurement tactic remains limited by the chance that spending limits could have been artificially set up. This is a remarkable finding because it lends some weight to the popular idea that election campaign "predict" corruption when in office.

The previous effects of donations hardly vary among municipalities where close races between the two frontrunners took place or not. In close-race municipalities, donations decrease CRI and competition, as does the CRI in no-close races. Although not consistent with the literature, it is plausible to believe that the incumbent will fear increased accountability pressures from the first runner-up in close races. Being more cautious with public resources could avoid facing a revocation.

Looking at different types of corruption risks, two areas seem to challenge the expected relationship with campaign finance: Violations of procurement rules and lack of transparency. Intriguingly, violations of public procurement decrease as a response to the percentage of donations in middle-sized municipalities. Theory and empirical evidence seem not to offer a potential explanation for this, especially since violations of procurement rules do not decrease

in the other two municipality groups. It is yet possible to venture into devising two hypotheses worthy of further scrutiny. On the one hand, that tendering could follow strict rules, yet the contract can favor the connected donor (institutionalized corruption). On the other hand, that donations could, in turn, spur accountability by the private sector to level the playing field among contractors.

The second puzzling finding is the nearly non-existent response of lack of transparency to campaign finance, which certainly rejects this study's assumption that donations must be reflected in the procurement's delivery phase. Seemingly, it is more important to pay attention to who and how the contract is awarded.

What does all this imply for public policy? To deal with the hazardous effect of donations on market competition, public authorities could consider easing access to subsidies to candidates in more populous municipalities during election campaigns. Since campaign finance is a precursor of electoral success (Alexander 2005; Stratmann 2005), state funding could spur electoral competition and accountability by placing the first runner-up in a better position to hold the incumbent responsive. However, there seems to be no current policy in that direction, nor initiatives to allocate public subsidies differently on the basis of further criteria. Nonetheless, two caveats regarding this implication: Public subsidies might also end up in corrupt politicians' pockets, as found in South Africa (Hummel, Gerring, and Burt 2018). Hence, public institutions should explicitly demand candidates' and political parties' administrative and criminal records to become eligible for public funding before the election.

According to Transparency International Colombia, on average, 31.6 percent of donors to mayoral candidates received contracts between 2016 and 2019, which does not straightforwardly imply corruption but, as this research exposed, could pave the way for procurement corruption risks. Donations accounted for 34.6 percent of campaign funds. Still, nearly 60 percent of donors failed to receive a contract. Regardless of further types of beneficial treatment, they might have received from incumbents, donations should not be stripped of its legitimate role in democratic politics. Rather, public, private, and non-profit organizations should give the relevance campaign donations deserve as a fuel for a diversity of legitimate interests and not only as a *quip pro quo* transaction. Raising public awareness and training citizens on the promises and perils of campaign finance could contribute to that.

Besides, public authorities such as procurement agencies could require contractors to disclose their donations to election campaigns during the bidding process and double-check if procurement rules banning specific donors from public contracts could be violated. This should be accompanied by a thorough assessment of general direct awarding rules in order to assure

that government agencies will use it extraordinarily and below a given contract amount. Transparency International Colombia (2019) revealed that between 2016 and 2019, 80 percent of contracts granted to donors were direct awards. Overusing the special regime allowed bypassing general procurement standards (Misión de Observación Electoral 2018).

Politicians spend nearly half of allowed spending caps, reflecting either that expenditure limits are set too high, or they misleadingly disclose their campaign records. As aforementioned, campaign finance misreport is associated with restricted market competition and enhanced direct awarding. Therefore, public institutions, media, and civic actors should continue to increase scrutiny over campaign finance and call voters' attention to campaign finance disclosure as a determinant of electoral behavior. If candidates are failing to report accurately, one could speculate that an incumbent will use office to extract public resources through procurement in cooperation with hidden supporters and members of the incumbent's patronage circle, if any. Hence, it is crucial to provide the Electoral Board with institutional, financial, and administrative might to oversee, hold accountable, and impose sanctions on candidates and political parties who default on their transparency duty.

9. Final remarks

This master's thesis aimed to uncover the effect of campaign finance on public procurement corruption risks on the local level. Using publicly disclosed campaign finance and procurement data from Colombian local governments, multiple regression analysis was conducted to test the relationship between campaign donations, small donations, and financial misreporting with a novel composite public procurement corruption risk index, its components, and two prominent direct awarding indicators. The study was structured in a way that allows linking the would-be incumbent's campaign finance with his subsequent administration procurement outcomes.

This analysis was driven by the urge to answer the existing gap regarding campaign finance and corruption on the local level. Past works have focused on congressional votes on the federal and state levels as a direct result of donors' influence, in polities where incumbents' reelection is permissible. By contrast, this thesis tried to shift the focus to subnational governments where officeholder's re-election is not a chance, and public procurement is under the mayors' control as a way to directly discern a link between the incumbent's campaign finance and corruption risks. In line with that, this master's thesis harnessed distinct corruption risk indicators based on objective administrative contract-level data, in the hope that the mechanisms through which campaign finance affects different corruption risks could be unveiled.

Broadly speaking, findings suggest that campaign finance matters for curbing public procurement corruption risks on the local level. Yet it affects distinct corruption risks differently, which, in other words, contributes to understanding the mechanisms through which candidates' funding might turn into corruption outcomes. As theory predicts, market competition restrictions seem to constitute the prominent device to favor a connected bidder, rather than twisting procurement rules or fostering government contracting secrecy. Findings also confirm that direct awarding could be the primary selection method to respond to campaign donations. What makes it particularly worrying is that rent extraction could be institutionalized through public procurement rules, putting public goods and services delivery at risk. Lastly, bigger municipalities could be resenting corruption risks more, yet small donations could offset the effect. The remainder of this section draws conclusions according to the variables of interest.

First, this master's thesis concluded that, strikingly, campaign donations are negatively associated with the composite public procurement corruption risk index yet have no effect on different corruption risk dimensions. As shown in section 5, local election campaigns are predominantly self-funded. Hence, it may be the case that campaign donations instead might help curb corruption in Colombia as a counterbalance to the overwhelming campaign self-funding originated from the candidate's or his family income and assets. This kind of funding is unlikely to be traced, audited, and overseen, coupled with the Electoral Board's flawed enforcement power. Future research should decisively delve into the link between self-funding and public procurement corruption, as well as the effect of the latter on self-funded campaigns. Whereas the effect of campaign donations on corruption risks is higher in bigger municipalities, concretely pushing direct awarding (by number and contract value) up, the association is negative in middle-sized municipalities. In contrast to theory, close electoral races seem not to back such an impact.

This thesis also contributed to advancing the knowledge about the effect of small donations, which theoretically should be strongly associated with lower corruption risks. Despite the fact that small donations account for, on average, 40 percent of contributions to politicians, they do not affect corruption risks in public procurement. Methodologically, I presented four ways of measuring small donations (by value and number, donations below one standard deviation by spending cap category, donations below the average value by spending cap category, and
donation value plus fundraising campaigns). Only the first measure yielded strong statistical associations when taking a look at different sub-samples.

For instance, when sorting municipalities by population size, small donations have a positive effect on direct awarding in smaller municipalities, though a negative impact in bigger municipalities. A plausible interpretation for this could be that, in the first sub-group, small donations carry a "give-to-get" consideration, seeking the awarding of direct contracts by the incumbent because government activities could dominate the local economic structure. By contrast, small donors may be ideologically driven in less impoverished municipalities: Their contributions are associated with lower corruption risks, implying that, as theory poses, citizens may tend to donate with purposive determinations when they are more affluent and political sophistication is higher. Small donations should continue to be open to academic scrutiny. Even though this thesis was, to best of my knowledge, the first empirical attempt to uncover their effect on corruption risks in Colombia, much more should be written as to the small donors' profiles in developing countries, flawed democracies, and subnational governments.

The third and final empirical finding comes down to campaign finance misreporting. It is worth underlining that the latter variables' construction was exploratory, given the lack of systematic empirical approaches to defining financial disclosure. I first attempted to measure it by estimating the gap between total campaign funds and the spending cap set by the enforcement body. This measurement approach was discussed in section 4.1.2 and supported by previous descriptive studies suggesting a comparatively low level of campaign finance reporting by mayoral candidates. This thesis concluded that undisclosed campaign finance is associated with higher market competition restrictions and direct awarding value. Likewise, the effect is more robust in bigger municipalities.

Another point of concern is that the indicator employed accounted for all campaign funds, which could have overestimated the reporting level. However, appealing to different indicators confirm that campaign disclosure might help predict procurement outcomes. At the same time, it reveals that the candidates' expenditures strikingly low relative to spending caps. This area yields a tremendous prospect for future research. Further academic inquiries should be conducted to assess transparency in campaign finance related to the quality, timeliness, and consistency of reported account sheets. Besides, applied studies should devise innovative approaches to uncover and trace hidden campaign funds, thereby contributing to enforcement bodies' duties.

The previous results help pinpoint a number of policy recommendations for campaign funding and public procurement. On the one hand, the enforcement body, political parties, and

the executive should improve campaign finance disclosure on the local level. Electoral authorities may also increase the level of state funding to candidates from more populous municipalities by easing application requirements or granting an equal sum to all candidates that fulfill specific criteria. Candidates may increase fundraising campaigns limited to specific amounts to empower small donors and reduce large donations' dependence. On the other hand, regarding public procurement, Colombian purchasing agencies must pay attention to public awarding regulations and restrict the conditions under which they are used. This should be coupled with upgrades to the procurement disclosure system, hoping that the whole process can be tracked and scrutinized. Public procurement is as essential for local governments that more attention should be called in order to curb it as a trade-off of paying for democracy.

References

- Ades, Alberto, and Rafael Di Tella. 1999. "Rents, Competition, and Corruption." *American Economic Review* 89(4): 982–93.
- Alexander, Brad. 2005. "Good Money and Bad Money: Do Funding Sources Affect Electoral Outcomes?" *Political Research Quarterly* 58(2): 353–58.
- Andía, Rossana, and Yukihiko Hamada. 2019. "The Integrity of Political Finance Systems in Latin America: Tackling Political Corruption." : 37.
- Ansolabehere, Stephen. 2007. "The Scope of Corruption: Lessons from Comparative Campaign Finance Disclosure." *Election Law Journal: Rules, Politics, and Policy* 6(2): 163–83.
- Ansolabehere, Stephen, John M de Figueiredo, and James M Snyder. 2003. "Why Is There so Little Money in U.S. Politics?" *Journal of Economic Perspectives* 17(1): 105–30.
- Arvate, Paulo, Klenio Barbosa, and Eric Fuzitani. 2013. "Campaign Donation and Government Contracts in Brazilian States." : 43.
- Auriol, Emmanuelle, Stéphane Straub, and Thomas Flochel. 2011. "Public Procurement and Rent-Seeking: The Case of Paraguay." *World Development* 77: 395–407.
- Baltrunaite, Audinga. 2020. "Political Contributions and Public Procurement: Evidence from Lithuania." *Journal of the European Economic Association* 18(2): 541–82.
- Banco de la República. 2019. "Tasa Representativa del Mercado (TRM Peso por dólar)." Banco de la República (banco central de Colombia). https://www.banrep.gov.co/es/estadisticas/trm (October 5, 2020).
- Bauhr, Monika, Ágnes Czibik, Jenny de Fine Licht, and Mihály Fazekas. 2019. "Lights on the Shadows of Public Procurement: Transparency as an Antidote to Corruption." *Governance* n/a(n/a). https://onlinelibrary.wiley.com/doi/abs/10.1111/gove.12432 (May 7, 2020).

- Bértoa, Fernando, Fransje Molenaar, Daniela Piccio, and Ekaterina Rashkova. 2014. "The World Upside down: Delegitimising Political Finance Regulation:" International Political Science Review. https://journals.sagepub.com/doi/10.1177/0192512114523302 (May 6, 2020).
- Boas, Taylor, Daniel Hidalgo, and Neal Richardson. 2014. "The Spoils of Victory: Campaign Donations and Government Contracts in Brazil." *The Journal of Politics* 76(2): 415– 29.
- Bormann, Nils-Christian, and Matt Golder. 2013. "Democratic Electoral Systems around the World, 1946–2011." *Electoral Studies* 32(2): 360–69.
- Bouton, Laurent, Micael Castanheira, and Allan Drazen. 2018. *A Theory of Small Campaign Contributions*. Cambridge, MA: National Bureau of Economic Research. http://www.nber.org/papers/w24413.pdf (September 30, 2020).
- Briffault, Richard. 2010. "Campaign Finance Disclosure 2.0." *Election Law Journal* 9(4): 273–83.
- Bromberg, Daniel. 2014. "Can Vendors Buy Influence? The Relationship Between Campaign Contributions and Government Contracts." *International Journal of Public Administration* 37(9): 556–67.
- Broms, Rasmus, Carl Dahlström, and Mihály Fazekas. 2019. "Political Competition and Public Procurement Outcomes." *Comparative Political Studies* 52(9): 1259–92.
- Carreras, Miguel, and Sofia Vera. 2018. "Do Corrupt Politicians Mobilize or Demobilize Voters? A Vignette Experiment in Colombia." *Latin American Politics and Society* 60(3): 77–95.
- Casas-Zamora, Kevin. 2008. "Political Finance and State Funding Systems: An Overview." : 33.
- Casas-Zamora, Kevin, and Daniel Zovatto. 2015. "The Cost of Democracy: Campaign Finance Regulation in Latin America." : 20.
- Castañeda, Néstor. 2018. "Electoral Volatility and Political Finance Regulation in Colombia." *Colombia Internacional* 95: 3–24.
- Centro de Estudios sobre Desarrollo Económico (CEDE). 2020. "Panel Municipal del CEDE." https://datoscede.uniandes.edu.co/es/datos-municipales/observatorio-municipal (October 4, 2020).
- Charron, Nicholas, Carl Dahlström, Mihaly Fazekas, and Victor Lapuente. 2017. "Careers, Connections, and Corruption Risks: Investigating the Impact of Bureaucratic Meritocracy on Public Procurement Processes." *The Journal of Politics* 79(1): 89–104.
- CIA's World Factbook. 2020. "Colombia." https://www.cia.gov/library/publications/resources/the-worldfactbook/attachments/summaries/CO-summary.pdf (October 4, 2020).

- Culberson, Tyler James, Michael P. McDonald, and Suzanne M. Robbins. 2013. *Small Donors in Congressional Elections*. Rochester, NY: Social Science Research Network. SSRN Scholarly Paper. https://papers.ssrn.com/abstract=2403861 (September 30, 2020).
- DANE. 2018. "Censo Nacional de Población y Vivienda. Resultados Colombia Total Nacional." https://www.dane.gov.co/files/censo2018/infografias/info-CNPC-2018total-nal-colombia.pdf (October 2, 2020).
- Davi, Mariana, and Marcelo Portugal. 2020. "Politics and Finance: A Study on the Impact of Campaign Donations on Brazilian Firms." *Empirical Economics* 58(3): 1057–1105.
- Denis, Akouwerabou. 2016. "Entrepreneurs Establishing Political Connection: Do They Finance Political Parties or Politicians?" SAGE Open 6(3): 2158244016665889.
- El Tiempo. 2017. "Dinero de Caso Odebrecht Habría Llegado a Campaña de Santos En 2014." https://www.eltiempo.com/justicia/cortes/dinero-de-odebrecht-habria-llegado-acampana-santos-presidente-32541.
- Faccio, Mara. 2006. "Politically Connected Firms." The American Economic Review 96(1): 91.
- Faguet, Jean Paul. 2014. "Decentralization and Governance." London School of Economics and Political Science. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1892149.
- Falguera, Elin, Samuel Jones, and Magnus Ohman, eds. 2014. Funding of Political Parties and Election Campaigns: A Handbook on Political Finance. Stockholm: International Institute for Democracy and Electoral Assistance - IDEA.
- Fazekas, Mihaly et al. 2013. "Are EU Funds a Corruption Risk? The Impact of EU Funds on Grand Corruption in Central and Eastern Europe." *SSRN Electronic Journal*. http://www.ssrn.com/abstract=2363545 (May 7, 2020).
- Fazekas, Mihaly, and Luciana Cingolani. 2016. "Breaking the Cycle? How (Not) to Use Political Finance Regulations to Counter Public Procurement Corruption." SSRN Electronic Journal. https://www.ssrn.com/abstract=2795821 (May 7, 2020).
- Fazekas, Mihály, and Lawrence King. 2019. "Perils of Development Funding? The Tale of EU Funds and Grand Corruption in Central and Eastern Europe." *Regulation & Governance* 13(3): 405–30.
- Fazekas, Mihály, and Gábor Kocsis. 2020. "Uncovering High-Level Corruption: Cross-National Objective Corruption Risk Indicators Using Public Procurement Data." *British Journal of Political Science* 50(1): 155–64.
- Fazekas, Mihály, and István János Tóth. 2016. "From Corruption to State Capture: A New Analytical Framework with Empirical Applications from Hungary." *Political Research Quarterly* 69(2): 320–34.
- Fazekas, Mihaly, István János Tóth, and Lawrence P. King. 2013. "Anatomy of Grand Corruption: A Composite Corruption Risk Index Based on Objective Data." SSRN Electronic Journal. http://www.ssrn.com/abstract=2331980 (May 5, 2020).

- Fisman, Raymond. 2001. "Estimating the Value of Political Connections." *The American Economic Review* 91(4,): 1095–1102.
- Fisman, Raymond, and Roberta Gatti. 2002. "Decentralization and Corruption: Evidence across Countries." *Journal of Public Economics*: 21.
- Francia, Peter et al. 2003. *The Financiers of Congressional Elections: Investors, Ideologues, and Intimates.* Columbia University Press.
- Garay, Luis Jorge, ed. 2008. *La captura y reconfiguración cooptada del estado en Colombia*. 1. ed. Bogotá: Método : Avina : Corporación Transparencia por Colombia.
- Gilbert, Michael, and Benjamin Aiken. 2014. "Disclosure and Corruption." *Election Law Journal: Rules, Politics, and Policy* 14(2): 148–64.
- Hernández, Antonio, Luis Hernando Barreto, and Roberto Junguito. 2018. "Descentralización y finanzas territoriales." : 106.
- Heywood, Paul. 2017. "Rethinking Corruption: Hocus-Pocus, Locus and Focus." *The Slavonic* and East European Review 95(1): 21.
- Hopkin, Jonathan. 2004. "The Problem with Party Finance: Theoretical Perspectives on the Funding of Party Politics." *Party Politics* 10(6): 627–51.
- Hummel, Calla, John Gerring, and Thomas Burt. 2018. "Do Political Finance Laws Reduce Corruption?" *SSRN Electronic Journal*. https://www.ssrn.com/abstract=3095523 (December 9, 2019).
- Huther, Jeff, and Anwar Shah. 2000. "Anti-CorruptionPolicies and Programs.": 24.
- Jancsics, David. 2014. "Interdisciplinary Perspectives on Corruption." Sociology Compass 8(4): 358–72.
- Joignant, Alfredo. 2013. "La democracia y el dinero. Vicios privados, fallas públicas y evoluciones institucionales de los sistemas regulatorios de financiamiento político en 18 países latinoamericanos." *Política y gobierno* 20(1): 38.
- Kaufmann, Daniel, and Pedro Vicente. 2011. "Legal Corruption." *Economics & Politics* 23(2): 195–219.
- Klitgaard, Robert. 1988. Controlling Corruption. Berkeley: University of California Press.
- La Silla Vacia. 2020. "Seis preguntas (y sus respuestas) sobre nuevo escándalo de financiación a Duque." *La Silla Vacia*. https://lasillavacia.com/seis-preguntas-y-sus-respuestas-sobre-nuevo-escandalo-financiacion-duque-77385 (October 15, 2020).
- Londoño, Fernando. 2018. Estudio sobre financiamiento político en Colombia. https://www.academia.edu/36199547/Estudio_sobre_financiamiento_politico_en_Col ombia_pdf.
- López, Claudia. 2016. *¡Adiós a Las FARC! ¿Y Ahora Qué?* Bogotá D.C.: Penguin Random House.

- Lott, J. R. 2000. "A Simple Explanation for Why Campaign Expenditures Are Increasing: The Government Is Getting Bigger." https://kopernio.com/viewer?doi=10.2139%2Fssrn.245336&token=WzIwOTE10DYs IjEwLjIxMzkvc3Nybi4yNDUzMzYiXQ.bkkZTKDU-EF76P_RF1jQyV_DioY (October 22, 2020).
- Manetto, Francesco, and Sally Palomino. 2017. "La fiscalía de Colombia confirma pagos de Odebrecht a las campañas de Santos y de su rival." *El País*. https://elpais.com/internacional/2017/07/12/colombia/1499886477_264659.html (October 15, 2020).
- von Maravic, Patrick. 2007. "Public Management Reform and Corruption Conceptualizing the Unintended Consequences." *Administratie si Management Public*: 18.
- Martinez, Luis. 2016. "Sources of Revenue and Government Performance: Evidence from Colombia." *SSRN Electronic Journal*. https://www.ssrn.com/abstract=3273001 (November 24, 2019).
- McMenamin, Iain. 2012. "If Money Talks, What Does It Say? Varieties of Capitalism and Business Financing of Parties." *World Politics* 64(1): 1–38.
- Milanese, Juan Pablo, Adolfo Abadía, and Luciana Manfredi. 2016. "Elecciones Regionales En Colombia 2015: Análisis de Las Nuevas Gobernaciones y Asambleas Departamentales." http://www.scielo.edu.uy/scielo.php?pid=S1688-499X2016000100001&script=sci arttext&tlng=pt (April 16, 2020).
- Milani, Riccardo. 2019. "Multi-Level Corruption Risk Indicators in the Italian Public Procurement."
- Mironov, Maxim, and Ekaterina Zhuravskaya. 2016. "Corruption in Procurement and the Political Cycle in Tunneling: Evidence from Financial Transactions Data." *American Economic Journal: Economic Policy* 8(2): 287–321.
- Misión de Observación Electoral. 2016. "Entre reglas e incertidumbres. Financiación de campanas políticas y la rendición de cuentas en Colombia." https://moe.org.co/wp-content/uploads/2017/07/Libro_MOE_Entre_reglas_e_incertidumbres_2016.pdf (April 27, 2020).
- ———. 2018. Democracias Empeñadas. De Financiadores Privados a Contratistas Públicos. Bogotá D.C.: Imprefácil.
- 2019. Mapas y Factores de Riesgo Electoral. Elecciones de Autoridades Locales Colombia 2019. Bogotá D.C.: MOE. https://moe.org.co/wpcontent/uploads/2019/11/Mapas-de-Riesgo-Electoral-2019-_DIGITAL.pdf (May 26, 2020).
- ------. 2020. "Datos y resultados electorales." *Datos Electorales de Colombia*. https://www.datoselectorales.org/datos-y-resultados-electorales/ (November 1, 2020).
- Misión Electoral Especial. 2017. Propuestas Reforma Político Electoral. Bogotá D.C. https://moe.org.co/wp-content/uploads/2017/04/Libro-Reforma-completo-2017-1-1.pdf (May 6, 2020).

- Mungiu-Pippidi, Alina. 2015. The Quest for Good Governance. How Societies Develop Control of Corruption. Cambridge: Cambridge University Press.
- Mungiu-Pippidi, Alina, and Mihaly Fazekas. 2020. "How to Define and Measure Corruption." In *A Research Agenda for Studies of Corruption*, Cheltenham, UK ; Northampton, MA: Elgar Research Angendas. https://www.e-elgar.com/shop/gbp/a-research-agenda-forstudies-of-corruption-9781789904994.html (October 6, 2020).
- Neudorfer, B., and N. S. Neudorfer. 2015. "Decentralization and Political Corruption: Disaggregating Regional Authority." *Publius: The Journal of Federalism* 45(1): 24–50.
- Newman, Vivian, and Maria Paula Ángel. 2017. Sobre La Corrupción En Colombia: Marco Conceptual, Diagnóstico y Propuestas de Política. Bogotá: Fedesarrollo and Dejusticia.

https://www.repository.fedesarrollo.org.co/bitstream/handle/11445/3436/CDF_No_56 _Agosto_2017.pdf?sequence=1&isAllowed=y (September 7, 2020).

- OECD. 2007. "Integrity in Public Procurement. Good Practice from A to Z." *OECD iLibrary*. https://read.oecd-ilibrary.org/governance/integrity-in-publicprocurement_9789264027510-en (May 6, 2020).
 - ——. 2013. "Towards Efficient Public Procurement in Colombia." *OECD iLibrary*. https://read.oecd-ilibrary.org/governance/towards-efficient-public-procurement-in-colombia 9789264252103-en (May 6, 2020).

-----. 2016. "Preventing Corruption in Public Procurement." http://www.oecd.org/gov/ethics/Corruption-Public-Procurement-Brochure.pdf (May 6, 2020).

------. 2019. Government at a Glance 2019. OECD. https://www.oecdilibrary.org/governance/government-at-a-glance-2019_8ccf5c38-en (May 6, 2020).

— 2020. Panorama de las Administraciones Públicas América Latina y el Caribe 2020. OECD. https://www.oecd-ilibrary.org/governance/panorama-de-las-administracionespublicas-america-latina-y-el-caribe-2020_1256b68d-es (October 2, 2020).

- Peoples, Clayton. 2013. "Campaign Finance and Policymaking: PACs, Campaign Contributions, and Interest Group Influence in Congress." Sociology Compass 7(11): 900–913.
- Pino, Juan Federico. 2017. "Entre democracias y autoritarismos: una mirada crítica al estudio de la democracia subnacional en Colombia y Latinoamérica." *Colombia Internacional* 91: 215–42.
- Pinto-Duschinsky, Michael. 2002. "Financing Politics: A Global View." *Journal of Democracy* 13(4): 69–86.
- della Porta, Donatella, and Alberto Vannucci. 1999. Corrupt Exchanges. Actors, Resources, and Mechanisms of Political Corruption. New York: Aldine de Gruyter.

- Revelo, Javier, and Mauricio García-Villegas. 2018. *El estado en la periferia: historias locales de debilidad institucional*. Dejusticia. https://cdn.dejusticia.org/wp-content/uploads/2018/11/El-Estado-en-la-periferia.pdf.
- Romero, Adriana. 2019. "Risks of Corruption in Colombian Public Procurement: Does It Relate to Electoral Re-Election?"
- Roper, Steven. 2002. "The Influence of Romanian Campaign Finance Laws on Party System Development and Corruption." *Party Politics* 8(2): 175–92.
- Rose-Ackerman, Susan. 1996. The Political Economy of Corruption- Causes and Consequences. The World Bank.
- Rowbottom, Jacob. 2016. "Corruption, Transparency, and Reputation: The Role of Publicity in Regulating Political Donations." *The Cambridge Law Journal* 75(2): 398–425.
- Ruiz, Nelson. 2018. "The Power of Money. The Consequences of Electing a Donor Funded Politician." SSRN Electronic Journal. https://www.ssrn.com/abstract=3123592 (December 10, 2019).
- Saavedra, Victor, and Javier Conde. 2018. "Descentralización y corrupción en Colombia."
- Schoenherr, David. 2019. "Political Connections and Allocative Distortions." *The Journal of Finance* 74(2): 543–86.
- Shah, Anwar. 2006. "Corruption and Decentralized Public Governance." In Handbook of Fiscal Federalism, eds. Giorgio Brosio and Ehtisham Ahmad. Cheltenham, UK; Northampton, MA: Edward Elgar, 478–98.
- Sharma, Sunil Kumar, Atri Sengupta, and Subhash Chandra Panja. 2019. "Mapping Corruption Risks in Public Procurement: Uncovering Improvement Opportunities and Strengthening Controls." *Public Performance & Management Review* 42(4): 947–75.
- Stratmann, Thomas. 2005. "Some Talk: Money in Politics. A (Partial) Review of the Literature." *Public Choice* 124(1/2): 135–56.
- Tanzi, Vito. 1998. "Corruption Around the World." : 36.
- The Economist. 2017. "How Latin America Deals with Campaign Finance." https://www.economist.com/the-americas/2017/03/02/how-latin-america-deals-with-campaign-finance.
- The Economist's Intelligence Unit. 2019. "EIU Democracy Index 2019 World Democracy Report." https://www.eiu.com/topic/democracy-index (October 4, 2020).
- The World Bank. 2019. "Data for Colombia, Upper Mddle Income." https://data.worldbank.org/?locations=CO-XT (September 30, 2019).
- Thompson, Dennis. 2018. "Theories of Institutional Corruption." *Annual Review of Political Science* 21(1): 495–513.

- Transparencia por Colombia. 2010. *El financiamiento de la política en Colombia*. Bogotá D.C.: Konrad Adenauer Stiftung. https://www.kas.de/documents/252038/253252/7_dokument_dok_pdf_21775_4.pdf/8 3cb156d-5f3a-a4b5-89dc-dd11d10412bd?version=1.0&t=1539660186618 (December 8, 2019).
- . 2015. "Análisis de La Financiación de Campañas Legislativas En Colombia En 2014." https://www.registraduria.gov.co/IMG/pdf/Transparencia_por_colombia.pdf (April 9, 2020).
- ———. 2016. "Informe de financiación de campañas y rendición de cuentas en elecciones 2015."
- 2018. "Propuestas de Ajuste a Los Procesos de Revisión, Control y Sanción Del Financiamiento de Las Campañas Políticas:Promoción de La Transparencia y El Acceso a La Información Pública." https://transparenciacolombia.org.co/Documentos/Publicaciones/sistemapolitico/Propuestas-de-Ajuste-a-los-Procesos-del-Financiamiento-de-Campanias-Politicas.pdf (April 28, 2020).
 - —. 2019. "Informe Elecciones y Contratos 2018-2019."
- Transparency International. 2019. "2018 Corruption Perceptions Index." https://www.transparency.org.
- Treisman, Daniel. 2000. "The Causes of Corruption: A Cross-National Study." Journal of Public Economics 76(3): 399–457.
 - 2007. "What Have We Learned About the Causes of Corruption from Ten Years of Cross-National Empirical Research?" *Annual Review of Political Science* 10(1): 211– 44.
- United Nations. 2003. United Nations Convention Against Corruption. http://www.unodc.org/documents/treaties/UNCAC/Publications/Convention/08-50026_E.pdf.
- Villar, Leonardo, and Daphne Alvarez, eds. 2018. Lucha Integral Contra La Corrupción En Colombia: Reflexiones y Propuestas. Bogotá: Fedesarrollo. https://www.repository.fedesarrollo.org.co/bitstream/handle/11445/3642/LIB_2018_C orrupci%c3%b3n_Colombia.pdf?sequence=12&isAllowed=y (September 7, 2020).
- Wilhelm, Bruno, and Paloma Baena. 2013. "Money in Politics: Sound Political Competition and Trust in Government." https://www.oecd.org/gov/ethics/Money-in-politics.pdf (September 30, 2020).
- Witko, Christopher. 2011. "Campaign Contributions, Access, and Government Contracting." Journal of Public Administration Research and Theory 21(4): 761–78.
- Zuleta, María Margarita, Santiago Ospina, and Carlos Andrés Caro. 2019. "Índice de riesgo de corrupción en el sistema de compra pública colombiano a partir de una metodología desarrollada por el Instituto Mexicano para la Competitividad."

Zuleta, María Margarita, Victor Saavedra, and Juan Camilo Medellin. 2018. "Fortalecimiento Del Sistema de Compra Pública Para Reducir El Riesgo de Corrupción." In *Lucha Integral Contra La Corrupción En Colombia: Reflexiones y Propuestas*, Bogotá, D.C.: Fedesarrollo.

Legislative Sources

Law 130 (1994). Retrieved from:

https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=4814#:~:text=Todos% 20los%20colombianos%20tienen%20derecho,y%20a%20participar%20en%20eventos%20po 1%C3%ADticos. Last access: October 30, 2020.

Law 136 (1994). Retrieved from

http://www.secretariasenado.gov.co/senado/basedoc/ley_0136_1994.html#:~:text=El%20fom ento%20de%20la%20cultura,la%20Ley%20397%20de%201997. Last access: October 30, 2020.

Law 1475 (2011). Retrieved from <u>http://wsp.presidencia.gov.co/Normativa/Leyes/Documents/ley147514072011.pdf</u>. Last access: October 30, 2020.

Political Constitution of 1991. Retrieved from <u>http://www.secretariasenado.gov.co/senado/basedoc/constitucion_politica_1991.html</u> Last access: October 30, 2020.

Resolution 3097 (2013). National Electoral Board. Retrieved from <u>https://www.polodemocratico.net/wp-content/uploads/2015/06/Resolucion-3097-Uso-obligatorio-Cuentas-Claras.pdf</u>. Last access: October 30, 2020

Resolution 0130 (2015). National Electoral Board. Retrieved from <u>https://www.polodemocratico.net/wp-content/uploads/2015/06/Res-0130-15-VR-VOTOS-ELECCIONES-OCTUBRE-2015.PDF</u>. Last access: October 30, 2020

A. Annex

The present annex is divided into three parts. A1 provides tables and figures related to the theoretical and institutional frameworks. A2 contains mainly descriptive statistics and figures expanding the data and empirical design section. A3 presents regression output tables for the results and sub-group analysis sections.

A.1 Theoretical and institutional framework

phase	indicator name	indicator definition		
	Single bidder contract	0=more than one bid received 1=ONE bid received		
submission	Call for tender not published in official journal	0=call for tender published in official journal 1=NO call for tenders published in official journal		
	Procedure type	0 =open procedure 1=invitation procedure 2=negotiation procedure 3=other procedures (e.g. competitive dialogue) 4=missing/erroneous procedure type		
	Length of eligibility criteria	number of characters of the eligibility criteria MINUS average number of characters of the given market's eligibility criteria		
	Length of submission period	number of days between publication of call for tenders and submission deadline		
	Relative price of tender documentation	price of tender documentation DIVIDED BY contract value		
	Call for tenders modification	0=call for tenders NOT modified 1=call for tenders modified		
	Exclusion of all but one bid	0=at least two bids NOT excluded 1=all but one bid excluded		
	Weight of non-price evaluation criteria	proportion of NON-price related evaluation criteria within all criteria		
assessment	Annulled procedure re-launched subsequently*	D=contract awarded in a NON-annulled procedure 1=contract awarded in procedure annulled, but re- launched		
	Length of decision period	number of working days between submission deadline and announcing contract award		
	Contract modification	0=contract NOT modified during delivery 1=contract modified during delivery		
delivery	Contract lengthening	relative contract extension (days of extension/days of contract length)		
	Contract value increase	relative contract price increase (change in contract value/original, contracted contract value)		

Table 10: Corruption input and outputs by procurement stage

Source: Fazekas, Tóth, and King (2013).



Figure 3: Colombia's campaign finance system

Source: Author's own elaboration based on Transparencia por Colombia (2010).

Platform	2014	2015	2016	2017	2018
Secop I					
Number of contracts	664475	770756	912448	984087	133736
Total contract value (COP)	79.31	105.37	71.87	75.37	15.01
Contract value (USD)	28.13	37.38	25.49	26.74	5.32
Secop II					
Number of contracts	-	99	1011	7160	14414
Total contract value (COP)	-	0.03	0.66	7.4	4.69
Contract value (USD)	-	0.10	0.23	2.60	1.66
TVEC					
Number of contracts	1129	4819	7149	10799	4959
Total contract value (COP)	0.48	1.26	1.49	2.43	1.15
Contract value (USD)	0.17	0.45	0.53	0.86	0.40

Source: Zuleta, Ospina, and Caro (2019).

			Data	
Component	Phase	Indicador	source	Description
	Submission	Percentage of single-bidder tenders	Secop II	Number of single-bidder tenders as of 2015
	Submission	Average of bidders	Secop II	Average of bidders per open bid as of 2015
	Submission	Change in annual average of bidders	Secop II	variation between 2018 and 2017 in average number of bidders
	Delivery	Company diversification	Secop I - II	Number of different awardee companies
	Delivery	Number of direct awards	Secop I - II	Number of non- competitive procedures
	Delivery	Share of direct awards value	Secop I - II	Value of non- competitive procedures
	Delivery	IHH by number of contracts	Secop I - II	Level of concentration of public procurement
	Delivery	IHH by contracts value	Secop I - II	Level of concentration of public procurement value
Competition	Delivery	ID by number of contracts	Secop I - II	Number of contracts awarded to a reduced number of companies
restrictions	Delivery	ID per value of contracts	Secop I - II	Level of concentration of contract value
	Delivery	Change in percentage of direct awards	Secop I - II	Year-on-year change in direct procurement
	Submission	Bidder turn-up index	Secop II	Volume of bids for open procedures
	Submission	Bidder diversity	Secop II	Number of bidders in competitive procedures
	Delivery	Concentration index for the four companies with most contracts	Secop I - II	Number of bids awarded to the bidders with most awarded contracts
	Delivery	Concentration index for the four companies with most contracts	Secop I - II	Contract value concentration for the companies with the most awarded value
Transparency	Delivery	Missing data	Secop I - II	Number of contracts whose bidder id or value are missing or erroneous
	Delivery	Percentage of direct contract lacking a published contract	Repository	The number of bids whose contract was not reported.
	Delivery	Percentage of special regime contracts lacking a published contract	Repository	The volume of special regime procedures whose contract was not published
	Submission	Percentage of open bid lacking a published call	Repository	Open bid records whose documents are not published. This indicator does not include the winning bid.
	Assessment	Number of tenders lacking clarification documentation	Repository	Number of open bids whose replies to comments from interested parts are not published

Table 12: CRI indicators and data sources

		Assessment	Open bids lacking a published winning bid	Repository	Number of open bids whose winning offer was not published.
		Assessment	Tenders lacking a published award document.	Repository	The number of open bids lacking a published award certificate.
		Assessment	Percentage of tenders lacking the final contract	Repository	Number of procedures whose final contract was not published
		Submission - Assessment	Average of tender files	Repository	Number of reported files by the municipality
Violations abnormalities public	or in	Assessment	Value share of bids awarded to punished companies	SECOP Sanctions	The total value of contracts awarded to sanctioned companies
procurement		Submission	Percentage of tenders with modifications in tendering documents	Secop I – II	Number of tenders whose documents were modified
		Delivery	Percentage of contract modifications	Secop II – I	The average number of contracts subject to document modification
		Submission	Missing call for tenders	Repository	Number of contracts missing a call for tenders
		Submission	Number of bidders as a share of the number of unique bidders	Secop I	Number of bidders in single bidder open tenders
		Submission	Open bids completed in less than 90 days	Secop II	open bids with a short assessment period
		Submission	Special regime contracts with tenders below 5 days	Secop II	special regime contracts likely to be non- competitive
		Submission	Unpublished annual procurement plan	Repository	Publishing annual procurement plan

Source: Zuleta, Ospina, and Caro (2019).

Figure 4: Mean CRI by	municipality	category
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Source: Author's own elaboration based on Zuleta, Ospina, and Caro (2019).

A.2 Data and empirical design

Table 13: Descriptive statistics for the CRI, dimensions and indicators

	Mean	St.Dev	min	max
CRI	34.794	3.352	19.012	48.148
Competition	29.44	5.397	14.114	66.667
Percentage of single-bidder tenders	60.99	39.592	0	100
Average of bidders	47.199	6.514	20	50
Change in annual average of bidders	69.231	47.068	0	100
Company diversification	32.892	10.343	0	80.213
Number of direct awards	41.461	16.021	0	98.336
Share of direct awards value	26.639	14.286	0	98.839
IHH by number of direct awards	4.255	6.736	.104	100
IHH by contracts value	14.739	9.817	3.078	100
ID by number of contracts	11.419	9.23	.252	100
ID by contracts value	41.693	13.218	9.648	100
Change in percentage of direct a	39.661	18.726	0	100
Bidder turn-up index	15.363	20.992	0	65.606
Bidder diversity	82.902	29.782	0	100
Concentration index for the four	22.175	12.096	1.318	100
Concentration index for the four	52.182	11.499	22.097	100
Violations	35.891	7.492	8.267	65.425
Value share of bids awarded to p	.048	.552	0	12.972
Percentage of tenders with modif.	39.753	22.122	0	95.276
Percentage of contract modificat.	58.867	11.166	3.185	95.833
Missing call for tenders	5.021	10.055	0	100
Number of bidders as a share of	35.283	32.572	0	100
Open bids completed in less than	95.896	10.336	0	100
Special regime contracts with.	51.776	45.547	0	100
Undisclosed annual procurement plan.	15.446	29.041	0	100
Transparency	39.052	5.991	10.2	62.485
Missing data	.314	.725	0	15.862
Percentage of direct awards lack	51.483	16.839	0	100
Percentage of special regime con	2.242	5.751	0	58.65
Percentage of open bid lacking p	5.008	17.323	0	100
Number of tenders lacking clarify.	83.858	14.116	0	100
Open bids lacking published winner	55.915	22.904	0	100
Tenders lacking published award	100	0	100	100
Percentage of tenders lacking fi.	16.697	12.629	0	100
Average of tender files	15.331	4.058	3.606	35.472

	Mean	St. Dev	min	max
Share of self-funding	79.139	29.73	0	100
Share of donations	16.907	26.605	0	100
Share of loans	1.421	9.803	0	100
Share of fundraising campaigns	1.618	8.965	0	100
Share of public funds	.004	.125	0	4.156
Share of party funds	.911	6.338	0	100

Table 14: Descriptive statistics by funding source

Note: The statistics indicate the variables' average, the mean, the minimum and maximum value, and the standard deviation.

Table 15: Descriptive statistics by funding source for dnor-funded and non-donor-funded politicians

Non-donor funded

	mean	St. dev	min	max
Share of self-funding	96.775	15.546	0	100
Share of donations	0	0	0	0
Share of loans	1.558	11.137	0	100
Share of fundraising campaigns	.699	7.619	0	100
Share of public funds	0	0	0	0
Share of party funds	.968	8.133	0	100
Donor-funded				
Share of self-funding	67.256	31.085	0	100
Share of donations	28.298	29.371	0	100
Share of loans	1.329	8.799	0	98.592
Share of fundraising campaigns	2.238	9.724	0	87.963
Share of public funds	.006	.162	0	4.156
Share of party funds	.873	4.768	0	43.902



Figure 5: Share of donations including family grants

Source: Author's own elaboration based on Cuentas Claras en Elecciones.

Table 16: Small donations - Standard deviation by municipality category

Municipality category	Ν	mean
2	3	20,194,864
3	2	29,061,520
4	13	30,916,008
5	19	19,334,354
6	51	18,154,420
7	80	8,783,332
8	490	6,920,000

Note: The statistics indicate the variables' count and the mean.

Table 17: Descriptive Statistics for new measures of small donations

	Mean	St. Dev	min	max
Share of small donations + fundraisers	22.04	25.538	0	100
Share small donations below mean don. value	39.128	40.618	0	100



Figure 6: Mean share of small donations value by municipality category

Source: Author's own elaboration based on Cuentas Claras en Elecciones.



Figure 7: Mean percentage of misreporting

Source: Author's own elaboration based on Cuentas Claras en Elecciones.

Indicator	Туре	Period	Source
GDP per capita	Continuous	2005	Ministry of Planning
Total revenues	Continuous	2015-2018	Ministry of Planning
Total capital revenue from	Continuous	2015-2018	Ministry of Planning
royalties			
Integral performance	Continuous	2015-2017	Ministry of Planning
Administrative capacity	Continuous	2015-2017	Ministry of Planning
indicator			
SGR total	Continuous	2015 and 2017	Ministry of Planning
Coca	Dummy	2015-2018	Ministry of Defense
Andean region	Dummy	Constant	Municipality-level panel
Population	Continuous	2015-2018	Statistics Office
Close races	Dummy	2015	MOE
UNI	Continuous	2005	Statistics Office

Table 18: Control variables

Source: Author's own elaboration.

Table 19: Descriptives for population, poverty, and close races

	Mean	St. Dev	min	max
Unmet Needs Index	44.27	20.244	5.36	100
Close race	.383	.486	0	1
Population	36590.45	129000	976	2464322

	(1)	(2)	(3)	(4)	(5)
				Direct	
	Competition	Violations	Transparency	Award	DA Value
Share of private funding	-0.004	-0.012*	-0.006	0.011	0.017
	(0.005)	(0.007)	(0.005)	(0.014)	(0.013)
GDP per capita (log)	0.683	-26.295*	-3.127	110.227***	100.860***
	(8.677)	(14.981)	(10.216)	(27.359)	(26.109)
Revenues (log)	-0.583***	0.253	-1.519***	5.247***	1.034**
	(0.199)	(0.294)	(0.184)	(0.681)	(0.520)
Royalties (log)	0.217	-0.486	0.103	-0.685	-0.754
	(0.212)	(0.312)	(0.219)	(0.639)	(0.563)
Coca crops (d)	-0.303	2.012***	1.432***	0.423	1.967
	(0.510)	(0.705)	(0.505)	(1.379)	(1.277)
Distance Bog. km (log)	1.048***	0.459	-0.151	-0.390	0.577
	(0.250)	(0.369)	(0.295)	(0.736)	(0.684)
Int. Performance	-0.095***	0.115***	-0.049**	0.087	-0.056
	(0.021)	(0.028)	(0.021)	(0.057)	(0.052)
Andean region (d)	-0.326	-1.085*	-0.793*	4.291***	2.492**
	(0.386)	(0.598)	(0.477)	(1.144)	(1.090)
Number of candidates	0.224**	-0.170	0.111	0.408	0.654**
	(0.103)	(0.142)	(0.113)	(0.289)	(0.268)
_cons	31.051***	34.490***	56.311***	-5.523	27.448**
	(4.461)	(6.268)	(4.986)	(12.446)	(11.646)
Obs.	1091	1091	1091	1091	1091
R-squared	0.083	0.045	0.077	0.151	0.039

A.3 Main results, sub-group analyses, and robustness checks

Table 20: Regression results for share of donations and CRI dimensions

Standard errors are in parenthesis *** p < 0.01, ** p < 0.05, * p < 0.1

Table 21: Regression results for share of small donations value and CRI dimensions

	(1)	(2)	(3)	(4)	(5)
	Competition	Violations	Transparency	Dir. award	DA. value
Share of small don. value	0.002	-0.003	0.001	-0.009	-0.008
	(0.005)	(0.007)	(0.006)	(0.015)	(0.014)
GDP per capita (log)	7.083	-38.855**	0.301	130.229***	121.075***
	(12.176)	(17.658)	(13.864)	(36.585)	(33.400)
Royalties (log)	0.130	-0.242	0.009	-0.494	-1.142
	(0.260)	(0.377)	(0.296)	(0.780)	(0.712)
Revenues (log)	-0.662***	0.464	-1.675***	5.627***	1.057*
	(0.231)	(0.335)	(0.263)	(0.693)	(0.633)
Coca crops (d)	-0.331	2.702***	1.367**	1.830	2.506*
	(0.539)	(0.782)	(0.614)	(1.620)	(1.479)
Distance Bog. km (log)	1.413***	-0.449	-0.209	-0.690	1.165
	(0.338)	(0.490)	(0.385)	(1.015)	(0.926)
Int. performance	-0.071***	0.101***	-0.022	0.073	-0.013
	(0.024)	(0.034)	(0.027)	(0.071)	(0.065)
Andean region (d)	0.295	-0.579	-1.461**	5.331***	2.821**
	(0.512)	(0.742)	(0.583)	(1.538)	(1.404)
Number of candidates	0.248**	-0.237	0.121	0.626*	0.991***
	(0.120)	(0.174)	(0.136)	(0.360)	(0.328)
_cons	29.277***	32.497***	58.239***	-11.852	28.526*
	(5.508)	(7.987)	(6.271)	(16.549)	(15.108)
Obs.	652	652	652	652	652
R-squared	0.082	0.055	0.104	0.213	0.064

	(1)	(2)	(3)	(4)	(5)
	Competition	Transparency	Violations	Dir. Award	DA Value
Misreporting	0.015**	0.007	-0.009	0.019	0.044**
	(0.006)	(0.008)	(0.009)	(0.018)	(0.018)
GDP per capita (log)	0.394	-3.645	-27.347*	111.191***	102.403***
	(8.660)	(10.192)	(14.841)	(27.120)	(25.595)
Royalties (log)	0.308	0.141	-0.558*	-0.553	-0.453
	(0.212)	(0.226)	(0.318)	(0.657)	(0.570)
Revenues (log)	-0.572***	-1.556***	0.109	5.410***	1.336***
	(0.193)	(0.181)	(0.288)	(0.668)	(0.498)
Coca crops (d)	-0.286	1.417***	1.927***	0.525	2.161*
	(0.509)	(0.506)	(0.701)	(1.374)	(1.265)
Distance Bog km (lg)	0.968***	-0.198	0.478	-0.459	0.398
	(0.253)	(0.300)	(0.372)	(0.746)	(0.695)
Int. performance	-0.096***	-0.049**	0.118***	0.084	-0.062
	(0.021)	(0.021)	(0.028)	(0.057)	(0.052)
Andean region (d)	-0.413	-0.797*	-0.915	4.057***	2.010*
	(0.387)	(0.478)	(0.602)	(1.139)	(1.091)
Number of candidates	0.208**	0.102	-0.164	0.392	0.614**
	(0.102)	(0.113)	(0.144)	(0.292)	(0.272)
cons	28.622***	55.527***	37.157***	-9.848	17.995
	(4.509)	(5.219)	(6.487)	(12.951)	(11.807)
Obs.	1091	1091	1091	1091	1091
R-squared	0.088	0.077	0.043	0.151	0.043

Table 22: Regression results for misreporting and CRI dimensions

	(1)	(2)	(3)	(4)	(5)	(6)
	CRI	Competi.	Violations	Transparency	Di.Aw.	DA.Value
Share of private	-0.008	-0.005	-0.006	-0.013	-0.020	-0.023
funding						
	(0.006)	(0.009)	(0.013)	(0.010)	(0.022)	(0.022)
GDP per capita (log)	0.339	15.894	-13.215	-1.662	115.042**	74.759*
	(10.558)	(14.380)	(25.908)	(18.252)	(47.845)	(43.438)
Revenues (log)	-0.675	-1.654	0.590	-0.961	-3.235	-7.387**
	(0.692)	(1.061)	(1.701)	(1.375)	(3.250)	(3.381)
Royalties (log)	-0.099	0.947	-1.210	-0.033	6.833***	6.975***
	(0.442)	(0.694)	(0.967)	(0.907)	(2.076)	(2.047)
Coca crops (d)	0.797	-0.415	1.527	1.278	-1.069	3.677
	(0.774)	(1.121)	(2.213)	(1.527)	(3.582)	(2.992)
Distance Bg km	0.783***	0.817*	1.466**	0.067	1.388	1.761*
(log)						
	(0.284)	(0.431)	(0.579)	(0.511)	(1.108)	(1.057)
Int. performance	-0.032	-0.085**	0.096*	-0.106**	0.259**	0.023
	(0.019)	(0.037)	(0.051)	(0.044)	(0.100)	(0.095)
Andean region (d)	-1.135**	-1.283*	-1.134	-0.987	2.272	2.205
	(0.505)	(0.715)	(1.298)	(0.963)	(2.209)	(1.870)
Number candidates	0.003	0.243	-0.317	0.084	-0.067	0.958*
	(0.138)	(0.222)	(0.328)	(0.261)	(0.580)	(0.560)
_cons	42.174***	26.526**	42.791**	57.205***	-	-67.359*
					100.955***	
	(8.060)	(11.470)	(17.613)	(16.290)	(33.973)	(34.287)
Obs.	363	363	363	363	363	363
R-squared	0.091	0.058	0.055	0.038	0.074	0.056

	(1)	(2)	(3)	(4)	(5) Direct	(6)
	CRI	Competi.	Violations	Transparency	Award	DA Value
Share of private funding	-0.017***	-0.014	-0.032***	-0.007	0.006	0.020
8	(0.005)	(0.009)	(0.012)	(0.009)	(0.025)	(0.024)
GDP per capita (log)	-13.762	4.945	-43.122*	-3.109	178.906***	161.812***
	(9.433)	(15.782)	(24.836)	(18.486)	(47.242)	(47.629)
Revenues (log)	-1.049*	-3.053***	2.214	-2.308**	-3.157	-9.141***
	(0.625)	(1.058)	(1.532)	(1.135)	(2.987)	(2.713)
Royalties (log)	0.114	1.449**	-0.706	-0.400	3.661*	2.610
	(0.419)	(0.678)	(1.089)	(0.700)	(2.101)	(1.998)
Coca crops (d)	1.412***	0.906	2.289*	1.041	1.623	1.820
	(0.421)	(0.933)	(1.177)	(0.905)	(2.298)	(2.100)
Distance to	0.139	0.808*	-0.212	-0.179	-1.711	-0.092
Bogota in km (log)						
	(0.308)	(0.448)	(0.727)	(0.534)	(1.260)	(1.227)
Int. performance	-0.018	-0.132***	0.148***	-0.071*	-0.026	-0.198**
F	(0.021)	(0.032)	(0.053)	(0.038)	(0.091)	(0.088)
Andean region	-0.770*	-0.159	-2.038*	-0.112	3.348*	2.084
(4)	(0.433)	(0.688)	(1.112)	(0.867)	(1.991)	(1.988)
Number of candidates	-0.075	0.105	-0.120	-0.210	0.412	0.228
	(0.134)	(0.171)	(0.298)	(0.211)	(0.498)	(0.479)
cons	44.538*** (6.542)	33.486*** (10.956)	22.601 (17.459)	(10.726)	-0.181 (32.399)	(30.765)
Obs.	361	361	361	361	361	361
R-squared	0.119	0.125	0.078	0.048	0.104	0.080

Table 24: Regression results for share of donations – medium-sized municipalities

	(1)	(2)	(3)	(4)	(5)	(6)
	CDI		X 7* - 1 - 4*	T	Direct	DA V-L
~1 0		Competition	violations	Iransparency	Award	DA value
Share of	0.001	0.004	-0.000	-0.002	0.043*	0.050**
private funding	/	<i></i>		/a . a	<i>(</i> , , , , , , , , , , , , , , , , , , ,	
	(0.005)	(0.008)	(0.011)	(0.007)	(0.023)	(0.021)
GDP per capita (log)	-10.607	0.501	-32.111	-0.211	91.311*	158.236***
	(9.628)	(15.849)	(27.325)	(17.178)	(50.993)	(45.808)
Revenues (log)	-0.700***	-1.009***	0.722*	-1.812***	5.021***	-0.136
	(0.193)	(0.303)	(0.421)	(0.261)	(1.045)	(0.789)
Royalties (log)	0.071	-0.263	0.252	0.223	-2.249**	-2.732***
	(0.187)	(0.303)	(0.421)	(0.268)	(0.914)	(0.755)
Coca crops (D)	0.845*	-1.534**	2.323**	1.744***	-0.497	1.174
- · · /	(0.433)	(0.704)	(0.971)	(0.658)	(2.020)	(1.879)
Distance	0.409	1.905***	-0.329	-0.350	0.006	1.593
Bogota km (lg)						
0 (0)	(0.322)	(0.458)	(0.656)	(0.497)	(1.506)	(1.287)
Int. perform.	0.011	-0.073*	0.100**	0.004	0.030	-0.017
-	(0.022)	(0.041)	(0.042)	(0.033)	(0.111)	(0.087)
Andean (D)	-0.503	0.695	-0.658	-1.546**	6.875***	4.173**
	(0.410)	(0.635)	(0.912)	(0.724)	(1.905)	(1.784)
Number of	0.158*	0.166	-0.016	0.325**	0.294	0.272
candidates						
	(0.087)	(0.161)	(0.189)	(0.155)	(0.444)	(0.405)
cons	36.535***	39.648***	16.785*	53.170***	31.655	74.838***
_	(4.951)	(8.559)	(9.842)	(7.874)	(24.066)	(21.774)
Obs.	367	367	367	367	367	367
R-squared	0.099	0.121	0.055	0.151	0.222	0.111

Table 25: Regression results for share of donations – large municipalities

	(1)	(2)	(3)	(4)	(5)	(6)
					Direct	
	CRI	Competition	Violations	Transparency	Award	DAValue
share of small	-0.008	0.001	-0.024*	-0.000	0.051*	0.023
donations value						
	(0.006)	(0.009)	(0.014)	(0.011)	(0.028)	(0.026)
GDP per capita (log)	-5.731	13.512	-23.345	-7.359	111.146	60.823
	(15.213)	(19.259)	(29.016)	(26.576)	(71.940)	(63.372)
Revenues (log)	-1.469	-2.043	-0.298	-2.067	1.890	-6.821
	(1.062)	(1.282)	(2.189)	(1.915)	(4.118)	(4.347)
Royalties (log)	-0.136	0.614	-1.060	0.038	5.651**	6.085**
	(0.719)	(0.930)	(1.331)	(1.226)	(2.828)	(2.644)
Coca crops (d)	-0.551	0.166	0.029	-1.847	-0.755	0.233
	(1.044)	(1.296)	(2.497)	(2.271)	(5.359)	(3.952)
Distance to Bogota	0.535	0.969	0.548	0.088	0.083	1.984
in km (log)						
	(0.419)	(0.619)	(0.850)	(0.603)	(1.478)	(1.274)
Int. performance	-0.000	-0.064	0.103	-0.039	0.422**	0.109
	(0.035)	(0.054)	(0.073)	(0.065)	(0.172)	(0.140)
Andean region (d)	-1.767**	-0.253	-2.225	-2.823**	2.208	1.925
	(0.751)	(0.910)	(1.623)	(1.303)	(3.006)	(2.469)
Number candidates	-0.042	0.161	-0.323	0.037	-0.532	1.233
	(0.220)	(0.324)	(0.495)	(0.367)	(0.825)	(0.801)
_cons	50.028***	34.027**	53.894**	62.163***	-	-64.345*
					130.816***	
	(12.704)	(16.981)	(22.462)	(20.742)	(45.136)	(38.305)
Obs.	160	160	160	160	160	160
R-squared	0.105	0.049	0.081	0.054	0.142	0.072

 Table 26: Regression results for share of small donations value – small-sized municipalities

	(1)	(2)	(3)	(4)	(5)	(6)
	CRÍ	Compet.	Violations	Transparency	Dir.Award	DA Value
Value share of small	0.011*	-0.001	0.026*	0.008	0.007	-0.002
donations						
	(0.006)	(0.009)	(0.015)	(0.011)	(0.027)	(0.027)
GDP per capita (log)	-11.710	27.493	-56.154*	-6.467	218.898***	206.658***
	(12.614)	(17.757)	(32.133)	(22.830)	(55.838)	(52.013)
Revenues (log)	-1.591*	-3.514***	1.098	-2.356*	-2.631	-9.461***
	(0.817)	(1.338)	(1.754)	(1.336)	(3.887)	(3.309)
Royalties (log)	0.446	1.400*	0.591	-0.655	4.494*	1.751
	(0.511)	(0.794)	(1.267)	(0.821)	(2.321)	(2.295)
Coca crops (d)	1.627***	0.541	2.912*	1.428	5.365**	4.201
	(0.517)	(0.978)	(1.513)	(1.105)	(2.710)	(2.618)
Distance to Bogota in km (log)	-0.114	0.880	-1.011	-0.210	-0.756	1.196
	(0.373)	(0.564)	(0.887)	(0.635)	(1.541)	(1.451)
Int. Performance	-0.040	-0.115***	0.080	-0.086	-0.045	-0.093
	(0.030)	(0.039)	(0.072)	(0.054)	(0.129)	(0.112)
Andean region (d)	-0.186	0.112	-0.606	-0.063	6.012**	3.464
	(0.591)	(0.850)	(1.463)	(1.180)	(2.790)	(2.734)
Number of	-0.200	0.212	-0.489	-0.323	0.111	0.317
candidates						
	(0.205)	(0.237)	(0.432)	(0.312)	(0.760)	(0.690)
_cons	44.555***	36.108***	13.087	84.469***	-28.536	77.818**
	(6.734)	(11.715)	(18.650)	(11.108)	(32.622)	(32.753)
Obs.	210	210	210	210	210	210
R-squared	0.119	0.113	0.092	0.078	0.150	0.127

Table 27: Regression results for share of small donations value- medium-sized municipalities

	(1)	(2)	(3)	(4)	(5)	(6)
	CDI	Competition	Violationa	Tuangnauanay	Direct	DAValua
		Competition	violations	Transparency	Award	DAvalue
Share of small	-0.002	0.006	-0.011	-0.002	-0.055**	-0.031
donations value						
	(0.005)	(0.009)	(0.010)	(0.008)	(0.025)	(0.023)
GDP per capita (log)	-7.431	-5.128	-33.031	15.867	92.808	155.980***
	(12.964)	(20.014)	(34.122)	(22.577)	(64.175)	(59.601)
Revenues (log)	-0.696***	-1.078***	0.901**	-1.911***	5.542***	0.377
	(0.201)	(0.312)	(0.436)	(0.279)	(1.102)	(0.807)
Royalties (log)	0.063	-0.250	0.261	0.177	-1.952**	-2.591***
	(0.203)	(0.331)	(0.472)	(0.289)	(0.951)	(0.810)
Coca crops (d)	1.264**	-1.397	3.249***	1.939**	-0.498	1.353
• • <i>i i</i>	(0.532)	(0.848)	(1.078)	(0.799)	(2.280)	(2.117)
Distance to Bogota	0.300	2.256***	-0.895	-0.461	-0.332	1.833
in km (log)						
	(0.375)	(0.532)	(0.732)	(0.549)	(1.499)	(1.324)
Int. Performan.	0.023	-0.044	0.101**	0.013	-0.020	-0.026
	(0.022)	(0.036)	(0.046)	(0.040)	(0.123)	(0.097)
Andean region (d)	-0.394	0.773	-0.053	-1.903**	7.902***	3.568*
0 ()	(0.472)	(0.717)	(1.006)	(0.827)	(2.027)	(1.997)
Number candidates	0.153	0.176	-0.002	0.286	0.896*	0.770*
	(0.099)	(0.188)	(0.210)	(0.175)	(0.487)	(0.450)
cons	36.354***	36.065***	17.645	55.350***	26.216	67.285***
-	(5.339)	(8.472)	(10.840)	(8.482)	(25.214)	(21.679)
Obs.	282	282	282	282	282	282
R-squared	0.103	0.132	0.083	0.174	0.257	0.094

Table 28: Regression results for share of small donations – large-sized municipalities

Standard errors are in parenthesis

*** p<0.01, ** p<0.05, * p<0.1

Table 29: Regression results for misreporting – small-sized municipalities

	(1)	(2)	(3)	(4)	(5)	(6)
					Direct	
	CRI	Compet.	Violations	Transparency	Award	DA Value
Misreporting	0.008	-0.003	0.017	0.011	0.045	0.024
	(0.010)	(0.012)	(0.018)	(0.019)	(0.035)	(0.036)
GDP per capita (log)	-0.530	14.842	-13.108	-3.324	114.301**	72.254*
	(10.573)	(14.340)	(25.935)	(18.102)	(47.637)	(43.241)
Revenues (log)	-0.690	-1.788	0.753	-1.034	-2.916	-7.434**
	(0.693)	(1.086)	(1.654)	(1.389)	(3.306)	(3.429)
Royalties (log)	-0.047	0.939	-1.119	0.038	7.076***	7.121***
	(0.453)	(0.697)	(0.972)	(0.908)	(2.099)	(2.059)
Coca crops (D)	0.836	-0.395	1.560	1.342	-0.958	3.789
	(0.786)	(1.114)	(2.225)	(1.528)	(3.575)	(3.003)
Distance Bogota km	0.738**	0.818*	1.394**	0.001	1.189	1.632
(lg)						
	(0.287)	(0.436)	(0.586)	(0.521)	(1.127)	(1.091)
Int. peforman.	-0.030	-0.084**	0.096*	-0.104**	0.261***	0.027
	(0.019)	(0.037)	(0.051)	(0.043)	(0.100)	(0.094)
Andean region (D)	-1.160**	-1.203*	-1.285	-0.993	1.934	2.135
	(0.513)	(0.725)	(1.333)	(0.961)	(2.187)	(1.910)
Number candidates	-0.003	0.252	-0.339	0.078	-0.121	0.939*
	(0.141)	(0.222)	(0.332)	(0.262)	(0.588)	(0.568)
_cons	40.711***	27.823**	38.714**	55.597***	-	-71.469**
					110.933***	
	(8.762)	(12.054)	(18.234)	(17.212)	(35.913)	(36.123)

Obs.	363	363	363	363	363	363
R-squared	0.089	0.057	0.057	0.035	0.076	0.055

Table 30: Regression results for misreporting – medium-sized municipalities

	(1)	(2)	(3)	(4)	(5)	(6)
	CRI	Compet.	Violatio.	Transpare.	Direct Award	DAValue
Misreporting	0.010	0.027**	-0.010	0.015	0.042	0.052
	(0.008)	(0.012)	(0.019)	(0.014)	(0.033)	(0.033)
GDP per capita	-13.283	4.526	-40.992	-3.384	176.813***	158.543***
(log)						
	(9.603)	(15.550)	(25.138)	(18.383)	(46.554)	(46.167)
Revenues (log)	-1.130*	-2.916***	1.748	-2.223**	-2.641	-8.361***
	(0.647)	(1.043)	(1.592)	(1.123)	(2.974)	(2.708)
Royalties (log)	0.167	1.633**	-0.838	-0.294	3.995*	3.043
	(0.451)	(0.674)	(1.160)	(0.716)	(2.129)	(2.018)
Coca crops (d)	1.298***	0.902	1.947	1.045	1.867	2.241
	(0.419)	(0.928)	(1.181)	(0.909)	(2.272)	(2.099)
Distance to	0.070	0.677	-0.212	-0.253	-1.880	-0.283
Bogota in km						
(10g)	(0.318)	(0.452)	(0.741)	(0.542)	(1.269)	(1.247)
Int performan	-0.018	-0 133***	0 1 5 2 * * *	-0.072*	-0.030	-0 204**
inte performan.	(0.022)	(0.032)	(0.054)	(0.072)	(0.090)	(0.087)
Andean region	-0.738*	-0.251	-1 796	-0.168	3 054	1 650
(d)	0.750	0.201	11790	0.100	5.051	11020
	(0.443)	(0.692)	(1.130)	(0.860)	(1.992)	(1.997)
Number of	-0.085	0.066	-0.090	-0.233	0.339	0.134
candidates						
	(0.140)	(0.172)	(0.315)	(0.214)	(0.511)	(0.496)
_cons	43.454***	27.362**	29.037	73.962***	-12.757	54.546*
	(7.208)	(11.299)	(18.718)	(11.289)	(33.637)	(31.700)
Obs.	361	361	361	361	361	361
R-squared	0.095	0.131	0.062	0.050	0.108	0.085

	(1)	(2)	(3)	(4)	(5)	(6)
					Direct	
	CRI	Competit	Violation	Transparency	Award	DA Value
Misreporting	-0.001	0.026**	-0.026**	-0.003	-0.003	0.069**
	(0.007)	(0.010)	(0.013)	(0.010)	(0.029)	(0.027)
GDP per capita	-10.538	2.053	-33.111	-0.556	97.302*	167.922***
(log)						
	(9.626)	(15.797)	(26.471)	(17.186)	(50.726)	(45.085)
Revenues (log)	-0.694***	-0.996***	0.738*	-1.823***	5.345***	0.194
	(0.188)	(0.290)	(0.410)	(0.258)	(1.040)	(0.768)
Royalties (log)	0.067	-0.164	0.154	0.212	-2.250**	-2.463***
	(0.189)	(0.293)	(0.421)	(0.272)	(0.935)	(0.755)
Coca crops (d)	0.847*	-1.510**	2.315**	1.737***	-0.328	1.392
	(0.433)	(0.707)	(0.960)	(0.659)	(2.018)	(1.842)
Distance to	0.416	1.762***	-0.176	-0.338	0.125	1.307
Bogota in km						
(log)						
	(0.322)	(0.458)	(0.651)	(0.503)	(1.556)	(1.301)
Int. performan.	0.011	-0.079*	0.105**	0.005	0.023	-0.040
	(0.022)	(0.040)	(0.041)	(0.033)	(0.113)	(0.087)
Andean region (d)	-0.508	0.611	-0.607	-1.526**	6.507***	3.608**
	(0.409)	(0.627)	(0.887)	(0.723)	(1.883)	(1.757)
Number of	0.160*	0.152	0.002	0.325**	0.342	0.277
candidates						
	(0.087)	(0.156)	(0.189)	(0.156)	(0.448)	(0.406)
_cons	36.569***	37.580***	18.685*	53.442***	29.987	67.664***
	(4.984)	(8.306)	(9.990)	(7.927)	(24.121)	(21.805)
Obs.	367	367	367	367	367	367
R-squared	0.099	0.135	0.064	0.151	0.214	0.112

Table 31: Regression results for misreporting – large-sized municipalities

	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)	(10)	(11)	(12)
	CRI Close	CRI	Competit Close	Competit	Transpar Close	Transpar	Violation Close	Violation	DAward Close	DAward	DAVal Close	DA Val
Share of private funding	-0.009*	-0.007*	-0.016*	0.002	-0.003	-0.008	-0.009	-0.015*	-0.003	0.020	-0.013	0.035**
0	(0.005)	(0.004)	(0.00)	(0.006)	(0.00)	(0.006)	(0.011)	(0.00)	(0.022)	(0.018)	(0.020)	(0.017)
GDP per capita (log)	-5.368	-11.977	-19.193	17.171	6.112	-8.789	-3.022	-44.314**	115.513***	104.210^{***}	43.979	145.825***
	(8.897)	(7.378)	(12.984)	(11.513)	(16.888)	(12.712)	(23.279)	(19.874)	(42.511)	(36.010)	(41.086)	(33.484)
Revenues (log)	-0.487*	-0.682***	-0.631*	-0.616**	-1.393***	-1.603***	0.564	0.174	2.409*	6.222***	0.959	0.925
	(0.259)	(0.161)	(0.349)	(0.245)	(0.367)	(0.216)	(0.533)	(0.359)	(1.376)	(0.714)	(1.091)	(0.605)
Royalties (log)	-0.136	0.001	0.341	0.166	0.040	0.158	-0.789	-0.321	1.113	-1.284*	-0.242	-1.074
	(0.250)	(0.155)	(0.338)	(0.267)	(0.429)	(0.250)	(0.579)	(0.379)	(1.186)	(0.764)	(1.043)	(0.669)
Coca crops (d)	1.872^{***}	0.580*	-0.235	-0.210	1.821^{*}	1.147^{**}	4.030^{***}	0.802	-1.982	1.966	0.034	3.214**
	(0.488)	(0.332)	(0.971)	(0.577)	(0.941)	(0.574)	(1.109)	(0.900)	(2.308)	(1.715)	(2.131)	(1.607)
Distance to Bogota in km (log)	0.101	0.646***	0.300	1.449***	0.202	-0.306	-0.199	0.795*	0.124	-0.516	-0.271	1.052
	(0.267)	(0.220)	(0.421)	(0.313)	(0.525)	(0.359)	(0.625)	(0.462)	(1.271)	(0.904)	(1.273)	(0.825)
Int. performance	-0.034	0.004	-0.134***	-0.070***	-0.039	-0.056**	0.071	0.137^{***}	0.122	0.084	-0.029	-0.065
	(0.021)	(0.014)	(0.037)	(0.025)	(0.036)	(0.027)	(0.044)	(0.035)	(0.092)	(0.074)	(0.087)	(0.066)
Andean region (d)	-0.556	-0.885***	-0.717	-0.240	0.224	-1.385**	-1.173	-1.031	3.874*	4.879***	2.653	2.004
	(0.380)	(0.319)	(0.652)	(0.488)	(0.798)	(0.603)	(0.975)	(0.773)	(2.005)	(1.427)	(1.823)	(1.377)
Number of candidates	0.081	0.029	0.166	0.252*	0.059	0.146	0.016	-0.313*	0.857*	0.166	0.630	0.687**
	(0.109)	(0.084)	(0.162)	(0.131)	(0.192)	(0.141)	(0.231)	(0.180)	(0.457)	(0.374)	(0.431)	(0.347)
cons	44.397***	38.363***	36.745***	28.005***	53.047***	57.760***	43.398***	29.324***	-22.517	-1.181	21.569	32.487**
	(5.290)	(3.275)	(7.186)	(5.673)	(9.500)	(5.785)	(11.522)	(7.551)	(22.187)	(15.318)	(19.663)	(14.536)
Obs.	416	675	416	675	416	675	416	675	416	675	416	675
R-squared	0.092	0.112	0.105	0.088	0.045	0.111	0.056	0.056	0.112	0.185	0.028	0.058

Table 32: Regression results for share of donations – Close races

Standard errors are in parenthesis **** p<0.01, *** p<0.05, *p<0.1

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	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)	(10)	(11)	(12)
	CRI Close	CRI	Compet. Close	Compet.	Viol. Close	Viol.	Transp. Close	Transp.	Dir. Aw Close	Direct_Aw.	DA Val Close	DAValue
Share sm. Don. val	-0.000	0.001	0.002	0.001	0.001	-0.004	-0.004	0.005	0.029	-0.033	0.026	-0.036*
GDP per	(0.006)	(0.004)	(0.008)	(0.007)	(0.012)	(0.010)	(0.010)	(0.007)	(0.023)	(0.021)	(0.021)	(0.020)
	3.678	-18.686*	0.710	14.709	-8.195	-59.586**	18.519	-11.183	104.100*	156.165***	6.336	222.516***
Revenues	(12.415)	(10.075)	(15.056)	(15.290)	(29.172)	(25.076)	(22.038)	(16.210)	(56.835)	(48.027)	(48.922)	(42.309)
	-0.500*	-0.691***	-0.908***	-0.639**	0.914	0.376	-1.506***	-1.809***	3.165**	6.416^{***}	1.176	0.766
Royalties (100)	(0.287)	(0.181)	(0.345)	(0.270)	(0.583)	(0.398)	(0.420)	(0.245)	(1.588)	(0.794)	(1.095)	(0.638)
	-0.100	0.030	0.232	0.130	-0.507	-0.130	-0.024	0.091	1.083	-1.187	-0.771	-1.432*
Coca crops	(0.286)	(0.190)	(0.347)	(0.330)	(0.627)	(0.478)	(0.485)	(0.301)	(1.310)	(0.889)	(1.066)	(0.785)
	2.254***	0.673	-0.377	-0.226	4.595***	1.610	2.543**	0.636	-1.950	4.381**	-0.345	4.291**
Distance	(0.594)	(0.420)	(0.959)	(0.748)	(1.313)	(1.028)	(1.109)	(0.732)	(2.846)	(2.106)	(2.479)	(1.969)
Bogota km	-0.068	0.437	0.813	1.814**	-1.351*	-0.014	0.335	-0.489	0.460	-0.756	1.127	1.502
Int. perfor. Andcan	(0.347) -0.014 (0.027) -0.318	(0.302) 0.014 (0.020) -0.782*	(0.535) - $0.098***$ (0.034) 0.200	(0.404) -0.047 (0.032) 0.212	(0.746) 0.052 (0.060) -1.094	(0.622) 0.125*** (0.044) -0.345	(0.637) 0.003 (0.052) -0.060	(0.444) -0.037 (0.035) -2.214***	(1.428) 0.058 (0.122) 4.255*	(1.132) 0.105 (0.102) 6.130^{***}	$\begin{array}{c} (1.241) \\ 0.015 \\ (0.095) \\ 3.579 \end{array}$	(0.978) -0.007 (0.085) 1.748
Number	(0.494)	(0.416)	(0.736)	(0.598)	(1.157)	(0.937)	(1.004)	(0.724)	(2.393)	(1.871)	(2.238)	(1.678)
Sendida	0.097	-0.007	0.259	0.250	-0.094	-0.371	0.127	0.102	1.231**	0.398	0.867*	1.143***
cons cons Obs. R-squared	$\begin{array}{c} (0.141) \\ 42.382^{***} \\ (6.673) \\ 242 \\ 0.088 \end{array}$	$\begin{array}{c} (0.112) \\ 38.056^{***} \\ (4.054) \\ 410 \\ 0.105 \end{array}$	(0.202) 34.426*** (8.332) 242 0.087	$\begin{array}{c} (0.169) \\ 25.432^{***} \\ (7.220) \\ 410 \\ 0.093 \end{array}$	$\begin{array}{c} (0.289) \\ 41.441^{***} \\ (13.374) \\ 242 \\ 0.088 \end{array}$	(0.227) 27.585*** (9.246) 410 0.057	$\begin{array}{c} (0.233) \\ 51.279*** \\ (11.217) \\ 242 \\ 0.067 \end{array}$	$\begin{array}{c} (0.180) \\ 61.152^{***} \\ (7.180) \\ 410 \\ 0.153 \end{array}$	(0.573) -29.976 (26.569) 242 0.166	(0.475) -5.484 (18.554) 410 0.256	$\begin{array}{c} (0.505) \\ 16.882 \\ (22.403) \\ 242 \\ 0.053 \end{array}$	(0.433) 36.029** (17.609) 410 0.101

Table 33: Regression results for share of small donations - Close races

Standard errors are in parenthesis *** p<0.01, ** p<0.05, *p<0.1

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	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(6)	(10)	(11)	(12)
	CRI Close	CRI	Competit Close	Competit	Violatio. Close	Violatio	Transpa. Close	Transparency	DAward Close	Direct Award	DAVal Close	DAValue
Misreporting	0.005	0.003	0.033***	0.001	-0.011	-0.009	-0.007	0.016*	0.049	0.001	0.076**	0.019
GDP pcapita	-6.068	-12.623*	-18.148	17.220	-5.151	-44.588**	(0100) 5.094	-10.500	119.592***	105.425***	(1000) 49.312	146.543***
(1g)	(9.006)	(7.367)	(12.932)	(11.642)	(23.176)	(19.755)	(17.078)	(12.720)	(42.166)	(35.748)	(40.460)	(33.125)
Revenues (lg)	-0.573**	-0.733***	-0.714**	-0.591**	0.438	0.008	-1.443***	-1.617***	2.502*	6.412***	1.013	1.315^{**}
	(0.252)	(0.158)	(0.335)	(0.241)	(0.531)	(0.353)	(0.363)	(0.215)	(1.367)	(0.697)	(1.055)	(0.581)
Royalties (lg)	-0.086	-0.000	0.610^{*}	0.179	-0.859	-0.402	-0.00	0.223	1.488	-1.230	0.357	-0.886
	(0.268)	(0.160)	(0.344)	(0.269)	(0.598)	(0.383)	(0.458)	(0.253)	(1.240)	(0.777)	(1.067)	(0.678)
Coca crops (D)	1.783***	0.576*	-0.358	-0.202	3.925***	0.750	1.782*	1.181^{**}	-1.959	2.005	-0.017	3.334**
	(0.480)	(0.333)	(0.955)	(0.577)	(1.116)	(0.894)	(0.942)	(0.576)	(2.301)	(1.714)	(2.107)	(1.596)
Distance Bogota km (1g)	0.088	0.607***	0.192	1.449***	-0.155	0.796*	0.229	-0.424	-0.048	-0.453	-0.536	1.055
ò	(0.266)	(0.230)	(0.416)	(0.319)	(0.620)	(0.476)	(0.524)	(0.369)	(1.256)	(0.928)	(1.250)	(0.843)
Int.performan.	-0.032	0.004	-0.128***	-0.071***	0.071	0.142***	-0.040	-0.058**	0.128	0.080	-0.018	-0.075
Andean (D)	-0.495	(0.00) -0.857***	-0.920	-0.259	-0.916	(0600-0-	0.351	-1.404**	3.304*	(c.0.0) 4.754***	1.872	1.716
	(0.385)	(0.322)	(0.644)	(0.487)	(0.980)	(0.778)	(0.809)	(0.601)	(1.987)	(1.419)	(1.832)	(1.376)
Number candidates	0.085	0.019	0.154	0.253*	0.033	-0.317*	0.068	0.120	0.820*	0.184	0.580	0.698**
	(0.108)	(0.086)	(0.159)	(0.131)	(0.231)	(0.184)	(0.193)	(0.142)	(0.458)	(0.379)	(0.431)	(0.355)
cons	43.512***	38.690***	29.855***	27.558***	46.025***	32.292***	54.655***	56.220***	-33.261	-3.617	4.921	25.573*
	(5.873)	(3.380)	(7.303)	(5.752)	(12.408)	(7.620)	(10.535)	(5.837)	(23.698)	(15.580)	(20.031)	(14.673)
Obs.	416	675	416	675	416	675	416	675	416	675	416	675
R-squared	0.085	0.108	0.118	0.088	0.055	0.052	0.045	0.113	0.117	0.183	0.045	0.053

Table 34: Regression results for misreporting – Close races

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	(1)	(2)	(3)	(4)	(5)
			CRI		
Share small donations 2	0.000	0.005	0.004	0.004	0.004
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
GDP per capita (log)		-26.326***	-11.934	-11.934	-11.934
		(7.319)	(8.021)	(7.508)	(7.508)
Royalties (log)		0.271*	0.007	0.007	0.007
		(0.157)	(0.172)	(0.156)	(0.156)
Revenues (log)		-0.622***	-0.636***	-0.636***	-0.636***
		(0.142)	(0.154)	(0.147)	(0.147)
Coca crops (d)			1.183***	1.183***	1.183***
			(0.359)	(0.343)	(0.343)
Distance Bogota km (log)			0.246	0.246	0.246
			(0.224)	(0.231)	(0.231)
Int. performance			0.003	0.003	0.003
			(0.016)	(0.016)	(0.016)
Andean region (d)			-0.553	-0.553*	-0.553*
			(0.339)	(0.313)	(0.313)
Number of candidates			0.045	0.045	0.045
			(0.079)	(0.085)	(0.085)
cons	34.616***	35.204***	39.222***	39.222***	39.222***
	(0.179)	(2.999)	(3.614)	(3.502)	(3.502)
Obs.	661	657	657	657	657
R-squared	0.000	0.054	0.083	0.083	0.083

Table 35: Regression results for share of small donations including fundraisers

Standard errors are in parenthesis.

*** p<0.01, ** p<0.05, * p<0.1

Table 36: Regression results for	r share of small donations	including fundraisers
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	(1)	(2)	(3)	(4)	(5)
	Competition	Violations	Transparency	Direct_award	DA_value
Share small donations 2	-0.001	0.013	-0.000	-0.002	0.008
	(0.008)	(0.011)	(0.009)	(0.024)	(0.022)
GDP per capita (log)	4.872	-40.432**	-0.243	123.823***	112.337***
	(12.036)	(17.421)	(13.672)	(36.224)	(32.984)
Royalties (log)	0.153	-0.142	0.010	-0.288	-0.997
	(0.257)	(0.373)	(0.292)	(0.775)	(0.706)
Revenues (log)	-0.638***	0.390	-1.659***	5.683***	1.056*
	(0.232)	(0.335)	(0.263)	(0.697)	(0.635)
Coca crops (d)	-0.343	2.477***	1.416**	1.755	2.337
	(0.538)	(0.779)	(0.611)	(1.619)	(1.475)
Distance Bogota km(log)	1.393***	-0.435	-0.221	-0.658	1.149
	(0.336)	(0.486)	(0.382)	(1.011)	(0.921)
Int. performance	-0.072***	0.103***	-0.023	0.069	-0.013
	(0.024)	(0.034)	(0.027)	(0.071)	(0.065)
Andean region (d)	0.408	-0.638	-1.430**	5.629***	2.824**
	(0.509)	(0.737)	(0.578)	(1.532)	(1.395)
Number of candidates	0.260**	-0.244	0.120	0.594*	0.972***
	(0.119)	(0.172)	(0.135)	(0.358)	(0.326)
_cons	28.788***	30.681***	58.196***	-16.964	25.260*
	(5.423)	(7.850)	(6.160)	(16.322)	(14.862)
Obs.	657	657	657	657	657
R-squared	0.081	0.055	0.104	0.214	0.062

Standard errors are in parenthesis

*** p<0.01, ** p<0.05, * p<0.1

	(1)	(2)	(3)	(4)	(5)
			CRI		
Small donations value	-0.002	-0.000	-0.000	-0.000	-0.000
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
GDP per capita (lg)		-25.329***	-10.504	-10.504	-10.504
		(7.458)	(8.147)	(7.566)	(7.566)
Royalties (lg)		0.239	-0.031	-0.031	-0.031
		(0.161)	(0.175)	(0.159)	(0.159)
Revenues (lg)		-0.605***	-0.622***	-0.622***	-0.622***
		(0.144)	(0.156)	(0.152)	(0.152)
Coca crops (d)			1.247***	1.247***	1.247***
			(0.361)	(0.345)	(0.345)
Distance Bogota km (lg)			0.217	0.217	0.217
			(0.229)	(0.234)	(0.234)
Int. performance			0.002	0.002	0.002
			(0.016)	(0.016)	(0.016)
Andean region (d)			-0.589*	-0.589*	-0.589*
			(0.342)	(0.316)	(0.316)
Number of candidates			0.043	0.043	0.043
			(0.080)	(0.087)	(0.087)
_cons	34.712***	35.839***	40.194***	40.194***	40.194***
	(0.190)	(3.089)	(3.714)	(3.573)	(3.573)
Obs.	653	649	649	649	649
R-squared	0.000	0.052	0.082	0.082	0.082

Table: 37: Regression results for share of small donations below average donation

Standard errors are in parenthesis

*** *p*<0.01, ** *p*<0.05, * *p*<0.1

Table 38: Regression results for share of small donations below average donation

	(1)	(2)	(3)	(4)	(5)
	Competition	Violations	Transparency	Direct_award	DA_value
pc of small don. value	0.001	-0.002	0.001	-0.008	-0.012
	(0.005)	(0.007)	(0.006)	(0.015)	(0.014)
GDP per capita (log)	7.730	-39.358**	0.116	130.694***	122.408***
	(12.201)	(17.708)	(13.904)	(36.651)	(33.473)
Royalties (log)	0.133	-0.249	0.021	-0.364	-1.138
	(0.262)	(0.380)	(0.299)	(0.787)	(0.719)
Revenues (log)	-0.698***	0.499	-1.668***	5.513***	0.980
	(0.234)	(0.339)	(0.266)	(0.702)	(0.641)
Coca crops (d)	-0.304	2.689***	1.357**	1.756	2.556*
• • • •	(0.540)	(0.784)	(0.616)	(1.623)	(1.482)
Distance Bogota km (log)	1.363***	-0.465	-0.247	-0.707	1.021
	(0.343)	(0.498)	(0.391)	(1.030)	(0.941)
Int. performance	-0.072***	0.101***	-0.023	0.071	-0.015
	(0.024)	(0.034)	(0.027)	(0.071)	(0.065)
Andean region (d)	0.274	-0.572	-1.468**	5.283***	2.765**
	(0.513)	(0.744)	(0.584)	(1.541)	(1.407)
Number of candidates	0.261**	-0.248	0.116	0.631*	1.016***
	(0.120)	(0.175)	(0.137)	(0.362)	(0.330)
_cons	29.932***	32.429***	58.219***	-13.284	30.215**
	(5.562)	(8.072)	(6.338)	(16.707)	(15.258)
Obs.	649	649	649	649	649
R-squared	0.081	0.055	0.102	0.208	0.064

Standard errors are in parenthesis

*** p<0.01, ** p<0.05, * p<0.1