

The Connection between Self-Enrichment and Campaign Spending

Holding office is financially lucrative in many democracies around the world. However, politicians' official salaries usually place them nowhere near the highest-paid professions in their country. Instead, lawmakers often enrich themselves by stealing state resources or accepting money from special interests. But staying in office can also be expensive. Every few years, incumbents have to convince a sufficient number of voters that they deserve to stay in the job. Whether they do so through advertising or clientelistic vote buying, this is often costly. So even if their position gives them plenty of access to money, politicians cannot engage in unrestrained personal enrichment. They must also accumulate enough resources for their reelection campaigns.

In the previous chapter, I argued that the different types of money in politics form a common system, and that the legal and electoral campaign environments govern their relative prevalence. In this and the next couple of chapters, I provide empirical evidence that this is indeed the case. Because enrichment in office and golden parachute jobs should not frequently occur in the same environment, I conduct a series of studies that involve two forms of money at a time. I use detailed case knowledge to identify data and research designs that make it possible to study how several types of money in politics are connected to each other, and how the legal and electoral campaign environments determine which is more prevalent in a particular context. Taken together, these studies blend into a coherent macro-level picture that is in line with the theoretical account laid out in Chapter 3.

In this chapter, I begin by examining the connection between campaign spending and personal enrichment while in office. I do so in the contexts of India and Brazil – two countries in which both of these

uses for money in politics are well known. In *India*, there are countless examples of politicians whose wealth increased at suspiciously high rates while they held office. In addition to the case of Andimuthu Raja discussed in Chapter 1, other recent scandals include the “Coalgate scam” involving the allocation of coal blocks at throwaway prices, the “Commonwealth Games scam” surrounding the construction of sports venues in Delhi, or the “NRHM scam” related to rural health care delivery. As the former governor of India’s central bank and ex-member of the upper house of parliament, Bimal Jalan, admitted: “It is no secret that politics is generally regarded as the most lucrative business in the country” (Jalan, 2007, 60).

But staying in this lucrative business is not cheap. Election campaigns in India have been getting more expensive, and candidates must invest considerable resources to be serious contenders. As a consequence, “recourse to extra-legal sources of political contributions is now widely accepted as being unavoidable” (Jalan, 2007, 26). For example, Gopinath Munde, a former leader of the Bharatiya Janata Party (BJP), acknowledged that his 2009 reelection campaign had cost him Rs80 million (around \$1.6 million at the time).¹ An anonymous candidate for the state parliament of Andhra Pradesh followed by Vaishnav (2017) mentioned a similar figure, which exceeds the legal spending limit thirty to forty times over. A large chunk of such expenditures is spent on cash and liquor handouts as well as other clientelistic goods, which are major tools of voter mobilization (Krishna, 2007; Wilkinson, 2007; Chauchard, 2018). Due to the high costs, candidates are expected to self-fund most of their campaigns (Bryan and Baer, 2005; Vaishnav, 2017). Since direct contributions to candidates are against the law in India, incumbents “tend to use their term of office to accumulate war chests for future elections and for nursing their constituencies” (Gowda and Sridharan, 2012, 236).

Money in politics also plays an important role in *Brazil*. The country’s largest corruption scandal, “Operação Lava Jato” (Operation Car Wash), erupted in 2014. It became known that for years, the state-owned oil company Petrobras diverted up to 3 percent of the value of its contracts to politicians, which amounted to more than \$1.7 billion.² The former speaker of the lower house, Eduardo Cunha, was arrested on suspicion of embezzling around \$40 million.³ João Vaccari Neto, the former treasurer

¹ “Munde Admits Spending Rs. 8 Crore in 2009 Polls,” *The Hindu*, June 28, 2013.

² “What is the Petrobras Scandal that is Engulfing Brazil?,” *Financial Times*, April 1, 2016.

³ “Brazilian Lawmaker Who Led Impeachment of President Is Arrested,” *New York Times*, October 19, 2016.

of the then-governing Partido dos Trabalhadores, was also arrested in connection to the scandal. But, unlike Cunha, he was not accused of personally benefiting from the kickback scheme. Vaccari Neto was instead charged with accepting “irregular donations” for the party.⁴ Thus, both personal enrichment while in office and exorbitant campaign spending are common in Brazil as well.

In this chapter, I use data from these two countries to empirically test the argument that personal enrichment in office and campaign spending are directly, and inversely, linked – and that their relative prevalence is driven by a country’s legal and electoral campaign environments. To do so, I build on a growing literature that makes use of new disclosure laws and “forensic” methods to detect potential wrongdoings. Some countries (including India and Brazil) compel candidates for political office to disclose their assets (Djankov et al., 2010), which makes it possible to infer how their wealth has increased if they run in consecutive elections. For both countries it is thus possible to directly or indirectly infer how much emphasis politicians place on spending for their reelection campaigns, and how much they enrich themselves. This allows me to take the study of money in politics a step forward by examining the connection between the two types.

First, I focus on the effect of the electoral campaign environment in India. I show that members of Indian state legislatures who can expect to be in a close reelection race hold larger cash reserves, which are crucial for campaigning. Conversely, those who are electorally more secure tend to enrich themselves, for example, by acquiring land or houses.

In a second step, I repeat the analysis using Brazilian asset and campaign spending data. I again find that vulnerable incumbents spend more on their campaigns, whereas secure ones increase their personal assets. Then, I examine the effect of the legal environment on how money enters politics. I exploit a discontinuity in Brazil’s campaign spending limits to show that stricter regulation has the unintended second-order effect of leading to more personal enrichment.

4.1 MONEY AND POLITICS IN INDIA

From 2018 to 2020, India ranked between 78th and 86th out of 180 countries in Transparency International’s Corruption Perceptions Index.

⁴ “Brazil Police Arrest Workers’ Party Treasurer Joao Vaccari Neto,” *Wall Street Journal*, April 15, 2015.

In the World Bank's Control of Corruption Indicator, it came between 106th and 110th out of 209 between 2017 and 2019. It is widely acknowledged that money has increasingly influenced politics since the country started to liberalize its economy in the early 1990s (Jalan, 2007; Debroy and Bhandari, 2012; Gowda and Sridharan, 2012). Many politicians are presumed to accept illegal payments in return for legislative favors or providing services, and to misappropriate state resources (e.g. Bussell, 2018). As a consequence, corruption scandals have marred national- as well as state-level politics (Bussell, 2012; Gowda and Sridharan, 2012; Vaishnav, 2017).

In 2011 and 2012, the ubiquity of such scandals galvanized Indian voters into action. The India Against Corruption movement drew tens of thousands of protesters demanding measures such as an independent anti-corruption ombudsman. A political party that grew out of the movement, the Aam Aadmi Party, in 2015 won a majority of seats in the legislature of the National Capital Territory of Delhi and its leader, Arvind Kejriwal, became chief minister. Concerns about corruption also played a major role in the 2014 national elections, and helped the BJP gain a parliamentary majority and make Narendra Modi prime minister (Sukhtankar and Vaishnav, 2015).

Money – particularly money obtained in dubious or illicit ways – plays a variety of roles in Indian politics. For one, politicians often substantially increase their wealth while in office. Anecdotes of particularly egregious examples that ended up being prosecuted were mentioned earlier, but the phenomenon is much more widespread. Since candidates for national and state assemblies must submit asset disclosure affidavits, we can systematically study the wealth development of ordinary Indian politicians. Bhavnani (2012) and Fisman, Schulz, and Vig (2014) use a regression discontinuity design to identify the causal effect of holding office on asset development. They compare the change in reported assets of candidates who won their first-past-the-post election by a narrow margin to those of candidates who lost by a narrow margin.

Bhavnani finds that the assets of narrow winners grew by Rs24.2 million (more than \$550,000 given exchange rates at the time) over five years – Rs9.6 million *more* than narrow losers. This amounts to a winner's premium of 4–6 percent annually. Members of the Lok Sabha, the national parliament, earn a yearly salary of Rs600,000 (about \$9,000), plus Rs2,000 (\$30) daily when parliament is in session.⁵ Base salaries

⁵ "Government Spends Rs. 2.7 Lakh a Month per MP," *The Hindu*, September 29, 2015.

for members of state parliaments vary, but ranged between Rs96,000 and Rs840,000 annually for the relevant time period. Even taking into account that legislators receive various other perks such as free housing and travel, the official payments can hardly explain why their assets grew by almost Rs5 million per year. Fisman, Schulz, and Vig use a similar research design and find a winner's premium on net asset development of 3–5 percent per year. The effect is larger for ministers and more pronounced in states that are known for corruption. All in all, it is lucrative to be a politician in India.

Obtaining (and keeping) such a lucrative position requires spending a lot of money. The cost of Indian elections are second only to those in the United States, and candidates finance a large part of their campaigns themselves (Bryan and Baer, 2005; Gowda and Sridharan, 2012; Vaishnav, 2017; Bussell, 2018). A long-time observer of Indian politics notes that “[a]fter watching several Indian general elections, I had come to think they were ... designed for the public to fleece aspiring politicians as payback for the previous years when the transaction had gone in the opposite direction” (French, 2011, 85). A news article described Indian general elections as a “quasi-Keynesian boost ... rich with multiplier effects from boardroom to tea shop.”⁶ Voters expect candidates to provide benefits and handouts. A set of PowerPoint slides assembled by the Election Commission of India used to train election monitors mentions no less than forty ways in which candidates try to spend money to secure votes. Examples include “cash in envelopes in morning newspapers pushed beneath the door of the voter,” “giving Rs500 note rolled up inside a ball pen/stem of party flag,” and “distribution of liquor, drugs, poppy husks among the voters.”⁷ Candidates and parties also form long-term materialistic relationships, for example, by providing social services (Thachil, 2014). And while these expenses may not automatically convert into votes, candidates who do not provide handouts may not stand a chance of winning (Björkman, 2014; Chauchard, 2018). For example, an article in the *New York Times* describes a hapless candidate who hands out cash to voters, but is overwhelmed by the number of “supporters” who show up. He is forced to hand out less money to each attendee, leading one indignant voter to exclaim: “Does he think we are beggars, giving us only 20 rupees? We will teach him a lesson.”⁸

⁶ “The Economics of India’s Election Machine,” *Bloomberg View*, May 1, 2014.

⁷ “Election Expenditure Monitoring (EEM)-Briefing of Expenditure Observers,” *Election Commission of India*, August 16, 2018.

⁸ “Financing Indian Elections Turns Costlier and Murkier,” *New York Times*, July 5, 2013.

The need to engage in such spending forces candidates to raise money for electoral purposes. There are unrealistically low spending limits once an election is announced – since 2014, Rs5.4–7 million (\$80,000–104,000) for parliamentary elections and Rs2–2.8 million (\$30,000–42,000) for state assembly elections⁹ – so any serious candidate exceeds them (Bryan and Baer, 2005; Gowda and Sridharan, 2012; Sukhtankar and Vaishnav, 2015; Sridharan and Vaishnav, 2016). Although candidates are expected to spend lavishly on their campaigns, Indian law prohibits individuals and companies from contributing directly to candidates. This restriction, combined with the fact that most transactions have to take place off the books to circumvent the unrealistic spending limits, forces candidates to accumulate sufficient cash reserves before an election. Prior studies have documented a number of creative ways in which they do so. Sukhtankar (2012) shows that sugar mills in India pay lower cane prices to farmers in election years if their chairman runs for office. The freed-up funds are presumably siphoned off to help finance the campaign. Kapur and Vaishnav (2018) demonstrate that cement consumption falls during the months in which state assembly elections take place. They argue that this is the result of a liquidity shortage in the construction sector because builders use their cash to support candidates' campaigns.

Taken together, anecdotal as well as systematic evidence thus suggests that money plays an important role in Indian politics, and that it does so in a couple of ways. Politicians use their office to enrich themselves, but accumulating sufficient resources for upcoming election campaigns is a priority as well. So far, these two uses have been looked at separately. In the following section, I describe how mandatory asset disclosure affidavits allow me to study the connection between them.

4.2 MANDATORY ASSET DISCLOSURE AFFIDAVITS IN INDIA

In the early 2000s, the Association for Democratic Reforms (ADR), a Delhi-based non-governmental watchdog organization, filed public interest litigation seeking access to information about the financial, educational, and criminal backgrounds of candidates for political office. In late 2002 and again in early 2003, the Supreme Court agreed and ordered the Election Commission to collect this data. Since November 2003, all

⁹ "Handbook for Candidate, February 2019," *Election Commission of India*, March 16, 2019.

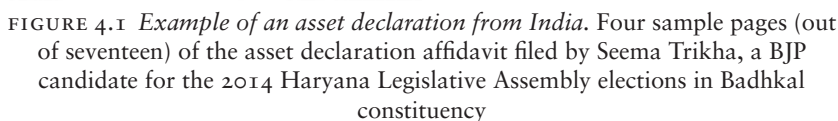
candidates for national and state elections have been required to submit judicial affidavits disclosing detailed information on the assets held by themselves, their spouse, and any dependents. They are submitted a few weeks before the election as part of the candidate registration paperwork, which ensures complete coverage. Scanned copies of the affidavits are made available on the internet (see Figure 4.1 for an example). ADR digitizes and posts the affidavits on its website to provide easily accessible information to voters.¹⁰

How to Detect Personal Enrichment and Campaign Spending in the Asset Declarations

So far, the Indian candidate affidavits have been used to analyze the causes and consequences of having politicians with criminal backgrounds as well as the development of the total assets of incumbents who run for reelection (Bhavnani, 2012; Fisman, Schulz, and Vig, 2014; Aidt, Golden, and Tiwari, 2015; Vaishnav, 2017; Asher and Novosad, 2020). But because direct campaign contributions to candidates are prohibited and expenditure limits are unrealistically low, there is no neat separation between personal enrichment and campaign spending. Indian politicians accumulate money over the course of their term in office, and once their reelection contest starts they spend some of it on campaigning. Because the affidavits reflect their assets a few weeks before the election (i.e. in advance of the campaign), they likely contain resources destined for campaign spending that should not be considered personal enrichment.

To determine whether the listed assets are designated for politicians' personal enjoyment or an upcoming reelection campaign, I exploit the level of detail in the affidavits. Candidates have to itemize their assets into a number of categories. For example, they have to declare their cash holdings and bank account balances, list all motor vehicles, and provide information on land and buildings they own. As the second and third pages in Figure 4.1 illustrate, candidates are required to provide specific details such as bank account and insurance policy numbers, make and registration numbers of vehicles, locations and area measurements of land, addresses and sizes of buildings, and so on. Rather than simply looking at total asset development, which conflates resources intended for campaign spending with belongings that reflect personal enrichment, I instead look at changes over time in the different *asset categories*.

¹⁰ See www.myneta.info.



Some assets are more clearly intended for personal enrichment than others. If a candidate owns more jewelry, increases land holdings, or accumulates houses and buildings, they do so for their personal benefit. In contrast, cash reserves are a very inconvenient way to hold wealth, but are of crucial importance for reelection campaigns.¹¹ An article by the news portal *NDTV* states that: “[I]llicit cash is the unacknowledged lifeblood for political parties that collect money from candidates and businessmen, and then spend it to stage rallies, hire helicopters and hand out ‘gifts’ to win votes.”¹² The writer Patrick French observes that during elections, “[m]oney that had been stored up in cash for years would be paid out to officials and supporters” (French, 2011, 85). When the Indian government unexpectedly demonetized all 500 and 1,000 rupee notes in November 2016, this was thought to have profound implications for the election campaign in the state of Uttar Pradesh early the following year. A senior leader of the Congress Party explained, “[w]e will have to plan the entire election strategy all over again,” and predicted that candidates would hold smaller rallies and distribute fewer “freebies.”¹³ Indian politicians have therefore devised numerous ways to make sure they have enough cash on hand during campaign season (Sukhtankar, 2012; Kapur and Vaishnav, 2018). One of those ways is accumulating cash reserves in the years prior to an election (Gowda and Sridharan, 2012). Because the affidavits are submitted *before* an election campaign, a large growth in cash holdings thus likely indicates higher planned spending during the campaign.

How Accurate are the Asset Declarations?

While legislators can be disqualified from holding office if they understate their true assets, it is still natural to ask how accurate the affidavits are. It is impossible to say for sure, but there are at least three reasons to believe they reliably reflect politicians’ true assets.

First, the declarations exhibit face validity. Reported asset growth is larger for winning candidates than for losers (Bhavnani, 2012; Fisman,

¹¹ While all candidates are required to submit election expense reports to the Election Commission, the unrealistically low spending limits virtually guarantee that the reported spending has little relation to the actual spending.

¹² “How Ban On 500 and 1,000 Rupee Notes Could Hit Uttar Pradesh Election,” *NDTV*, November 17, 2016.

¹³ “How Ban On 500 and 1,000 Rupee Notes Could Hit Uttar Pradesh Election,” *NDTV*, November 17, 2016.

Schulz, and Vig, 2014). This winner's premium is greater for incumbents and more seasoned candidates as well as for ministers, and it is more pronounced in states with a reputation for high levels of corruption (Fisman, Schulz, and Vig, 2014). Incumbents' reported asset growth is also higher if minerals are mined in their district, especially when global prices are high (Asher and Novosad, 2020). Such patterns are unlikely to emerge if the data had no relation to reality. As Cox and Thies (2000) put it in a different context: "Simply put, if these data have been fabricated, they have been fabricated so as to preserve a number of expected correlations and even to fit the theories of political scientists – which does not seem too likely" (Cox and Thies, 2000, 45).

The second reason the affidavits are likely to be truthful is that the accuracy of the data is thought to be higher for state-level members of legislative assemblies (MLAs), the population I study in this chapter. MLAs face intense scrutiny in their comparatively small constituencies. V. B. Singh, a former director of a Delhi-based research institute, states that "[i]t is hard for MLAs to hide details of their assets because of the localised nature of their politics."¹⁴ Consistent with this assessment, Fisman, Schulz, and Vig (2019) show that the introduction of the disclosure requirement led to a 13-percentage-point decrease in incumbents running for reelection when their *second* affidavit was due to be submitted. They provide evidence that those who decided not to run for reelection likely had more to hide rather than more qualms about lying. This means that many politicians preferred not running again to either revealing their (presumably large) asset growth or, more relevant here, to lying about its true magnitude. This suggests that politicians take the disclosure requirement seriously.

Finally, unlike previous studies, I am not interested in the growth of politicians' *overall* assets. Instead, I examine changes in the different asset categories *relative to each other*. Even if some candidates underreport their total wealth, it is unlikely that they would do so selectively in some categories, and that the choice of which categories to underreport depends on their electoral campaign environment.¹⁵ If a consistent picture of different growth rates in different assets emerges, we can be confident that it is not the result of systematic measurement error.

¹⁴ "MLAs Getting Richer Faster than MPs," *Business Standard*, November 1, 2014.

¹⁵ Of course, it may be easier to hide wealth in some categories than in others. However, this is constant across MLAs and does not depend on their campaign environment.

Data Characteristics

To analyze the development of the different asset categories during a legislative period, I use pairs of affidavits from re-contesting incumbents for state legislative assemblies.¹⁶ I examine MLAs' disclosure statements at the end of a legislative period, just before they run for reelection, and compare it to the statement they submitted just before the previous election. The first set of affidavits is from 2005 to 2009 and the second is from 2010 to 2014, giving a sample of 2,493 MLAs from 27 states.¹⁷

The left panel of Figure 4.2 displays basic descriptive statistics of the candidates' assets in the first and second affidavits. The total asset value of the median candidate in the first affidavit is roughly Rs6.4 million (about \$155,000 given exchange rates in 2007). In the second affidavit, it is Rs17.6 million. A legislative term is usually five years, so this amounts to an annual increase of about Rs2.25 million. Even taking into account that the average inflation rate between 2005 and 2014 was over 8 percent, this is a large increase in wealth.

As mentioned, the affidavits categorize politicians' assets into detailed categories, which I group as follows: cash; bank deposits, bonds, debentures, and shares in companies; national savings scheme (NSS) and postal savings, as well as Life Insurance Company of India (LIC) and other insurance policies; motor vehicles; jewelry; agricultural and non-agricultural land; commercial and residential buildings.

The right panel of Figure 4.2 plots the mean growth from the first to the second affidavit in the various asset categories. Mean total assets increased by 139 percent. However, this masks considerable heterogeneity across different types of assets. The largest growth was in the

¹⁶ Because wealth development can only be inferred for the subset of incumbents who run for reelection, it is not possible to test the effect of the legal and electoral campaign environments on the option to engage in self-enrichment and not run again (Path 4 in Figure 3.1).

¹⁷ The following elections are included: Andhra Pradesh (2009 and 2014), Arunachal Pradesh (2009 and 2014), Assam (2006 and 2011), Bihar (2005 and 2010), Chattisgarh (2008 and 2013), Goa (2007 and 2012), Gujarat (2007 and 2012), Haryana (2009 and 2014), Himachal Pradesh (2007 and 2012), Jharkhand (2009 and 2014), Karnataka (2008 and 2013), Kerala (2006 and 2011), Madhya Pradesh (2008 and 2013), Maharashtra (2009 and 2014), Manipur (2007 and 2012), Meghalaya (2008 and 2013), Mizoram (2008 and 2013), Nagaland (2008 and 2013), Odisha (2009 and 2014), Punjab (2007 and 2012), Rajasthan (2008 and 2013), Sikkim (2009 and 2014), Tamil Nadu (2006 and 2011), Telangana (2009 as part of Andhra Pradesh and 2014), Uttarakhand (2007 and 2012), Uttar Pradesh (2007 and 2012), and West Bengal (2006 and 2011). I exclude politicians with very low assets (less than Rs100,000 in the first election).

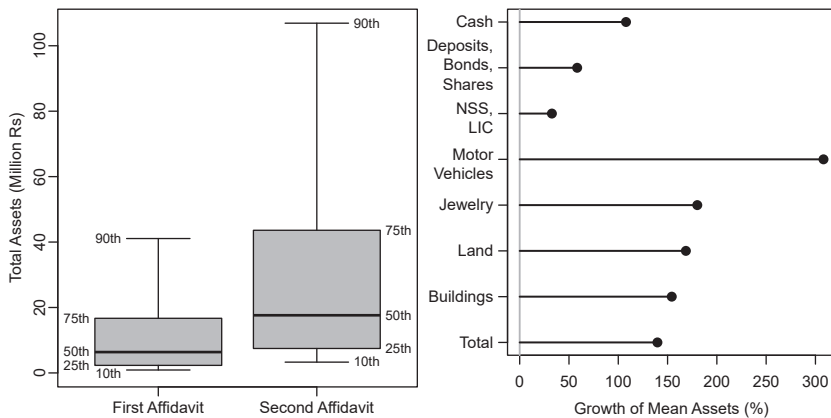


FIGURE 4.2 *Assets of Indian candidates in the first and second affidavits.* Left panel: The black bar denotes total assets of the median legislator. The gray box shows total assets of legislators in the 25th and 75th percentiles, and the whiskers of those in the 10th and 90th percentiles. Right panel: For each category, the line shows the percentage growth from the mean value in the first affidavits to the mean value in the second affidavits. NSS = National Savings Scheme, postal savings; LIC = Life Insurance Corporation of India, other insurance policies

motor vehicles category, with mean assets increasing by 308 percent. This was followed by jewelry (180 percent), agricultural and non-agricultural land (169 percent), and commercial and residential houses and buildings (154 percent). Mean cash holdings increased by 107 percent, assets in deposits and bonds by 58 percent, and money in savings schemes and insurance policies (NSS and LIC) by 33 percent. In the next section, I examine whether MLAs' *electoral campaign environment* influences which categories of assets they increased.

4.3 ELECTORAL SECURITY, SELF-ENRICHMENT, AND CAMPAIGN SPENDING IN INDIA

In Chapter 3, I argued that politicians decide how to best use the money they accumulate during their term in office, and that the electoral campaign environment they operate in plays a major role in such decisions. I hypothesized that incumbents with greater a priori electoral security invest less in their electoral campaigns; and as a second-order effect they have more leeway for self-enrichment. This means that the expected closeness of the upcoming election should influence how incumbents decide to

use the money they have accumulated. Candidates who know they are likely to be in a close race in India's first-past-the-post system will want to spend more on their campaign, whereas those who are more secure have more room for personal enrichment.

The key empirical challenge is measuring a priori competitiveness. Ideally, I could analyze preelection district-level polling data. Since such information is not available, I use several alternative strategies in this chapter. I start by using the past as a guide to the future: MLAs who were elected in a landslide are more likely to be electorally secure than those who eked out a narrow win. Thus, the higher the margin with which an incumbent won office, the more they should be able to dedicate themselves to personal enrichment; the smaller their margin of victory, the more they should accumulate cash reserves to finance their reelection campaign.

Empirical Approach

To test this prediction, I examine the effect of the margin of victory on subsequent asset development in the various categories. I estimate the following regression for asset type a of legislator i in state s :

$$\log(\text{Final Assets}_{ais}) = \alpha_s + \beta \text{Margin}_{is} + \gamma \log(\text{Initial Assets}_{ais}) + \delta' X_{is} + \varepsilon_{is} \quad (4.1)$$

That is, I regress the logged value of all assets in category a (say, the value of all the buildings MLAs own) in the second affidavit on the margin of victory with which they won the first election, the logged value of the assets in the first affidavit, and a set of controls X_{is} .¹⁸ To avoid dropping MLAs who reported zero in any category, I add 1,000 to the initial and final assets before taking the log. Note that I estimate a separate intercept α_s for each state to account for any observed and unobserved differences between them.

However, the margin of victory is obviously not random. Candidates who won by different margins likely also differ in other ways. To address this potential problem, I pre-process the data using a matching approach

¹⁸ The controls are i 's total initial log assets, a dummy indicating whether the candidate had any criminal convictions or criminal cases pending against them, their gender, age, education level, whether they belonged to a scheduled caste or scheduled tribe, as well as the log number of voters in their constituency, the level of turnout, and the log number of candidates (all in the initial election). I exclude a small number of outliers who won office with a margin larger than 50 percent.

(see Ho et al., 2007). The goal is to weight the observations such that incumbents with different winning margins are similar to each other on other observable characteristics. Of course, we cannot know whether the matching also achieves balance on unobserved variables, so it does not solve the problem entirely.

Because the margin of victory is continuous, I rely on the Covariate Balancing Propensity Score (CBPS) method (Imai and Ratkovic, 2014; Fong, Hazlett, and Imai, 2018). This approach seeks to balance the covariates in order to minimize the weighted correlations between the margin of victory and all observed variables. The weights that achieve this are then used when estimating Equation (4.1). I match on all covariates included in X_{is} as well as log assets in each category from the first affidavit. After re-weighting the observations, all correlations between the outcome of interest and the covariates are close to zero. The CBPS weighting thus effectively breaks the link between the independent variable of interest and the observed covariates.

Electoral Security Leads to Less Campaign Spending and More Personal Enrichment

Table 4.1 shows the effect of the margin of victory on subsequent asset development in each category. Each coefficient comes from a separate regression, where the first column uses the unweighted sample and the second column uses the weights from the CBPS approach. For readability, control variables are not displayed.

The first row reports the effect of the margin of victory on the development of MLAs' *cash* reserves over the following legislative period. Consistent with the argument that less electorally secure incumbents must acquire larger cash reserves to spend on their reelection campaigns, the coefficient is negative and significant. Using the weighted sample, a one-percentage-point increase in an MLA's margin of victory leads to a 0.9 percent *decrease* in his or her subsequent cash holdings, all else equal and controlling for initial cash assets. Note that this does not imply that safer incumbents have less cash in the second affidavit than in the first; most legislators report an increase. The results instead mean that electorally more secure MLAs increase their cash reserves to a lower extent than their less secure counterparts.

This effect is of substantial magnitude. A one-standard-deviation increase in the winning margin (8.7 percentage points) leads to a growth in cash assets that is 8 percent lower, compared to a baseline cash asset

TABLE 4.1 *Effect of margin of victory on asset development in India.* Coefficients of the margin of victory on log asset values in the second affidavit, controlling for log asset values in the first affidavit. All coefficients come from separate regressions. Controls not displayed

Cash	<i>Unweighted</i>	<i>CBPS</i>
Margin of Victory	−0.00679** (0.00302)	−0.00926** (0.00330)
Deposits, Bonds, Shares	<i>Unweighted</i>	<i>CBPS</i>
Margin of Victory	0.00761** (0.00358)	0.00628* (0.00383)
NSS, LIC	<i>Unweighted</i>	<i>CBPS</i>
Margin of Victory	0.00596 (0.00603)	−0.00039 (0.00651)
Motor Vehicles	<i>Unweighted</i>	<i>CBPS</i>
Margin of Victory	−0.01585** (0.00643)	−0.01924*** (0.00706)
Jewelry	<i>Unweighted</i>	<i>CBPS</i>
Margin of Victory	0.00162 (0.00374)	−0.00325 (0.00435)
Land	<i>Unweighted</i>	<i>CBPS</i>
Margin of Victory	−0.00628 (0.00569)	−0.00617 (0.00570)
Buildings	<i>Unweighted</i>	<i>CBPS</i>
Margin of Victory	0.01151** (0.00551)	0.01026* (0.00603)
Total	<i>Unweighted</i>	<i>CBPS</i>
Margin of Victory	0.00148 (0.00175)	−0.00030 (0.00188)

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. $N = 2,493$ for each regression. All regressions include state fixed effects and control for initial log assets overall and in the specific category. Additional controls: Criminal conviction dummy, gender, age, education, log number of electors, turnout, number of contesting candidates (all in the first election). Robust standard errors in parentheses. NSS = National Savings Scheme, postal savings; LIC = Life Insurance Corporation of India, other insurance policies.

growth of 107 percent. Going from the lowest winning margin in my sample to the highest corresponds to 45 percent lower cash asset growth.

In contrast, a one-percentage-point increase in the winning margin *increases* the assets held in *bonds, deposits, and shares* by roughly 0.7 percent. Incumbents who are electorally more secure are more likely to prefer accumulating wealth in these long-term assets. A one-standard-deviation increase in the winning margin implies 5.5 percent higher growth in this category, and a move from the sample minimum to the maximum leads to 31 percent higher growth, given a baseline increase of 58 percent. Investment in national savings schemes, postal savings, and insurance policies (NSS and LIC) does not change based on the margin of victory, likely because holdings in these forms change little over time in the sample.

Electoral security affects the value of the *motor vehicles* owned by an MLA and his or her family. A one-percentage-point increase in the victory margin leads to a 1.6–1.9 percent *decrease* of the stated value in the second affidavit. A one-standard-deviation increase in the winning margin thus means asset growth in this category is expected to be about 16.5 percent lower. Based on the assumption that cars are used for personal enjoyment, we would expect asset growth in this category to be higher for MLAs who won by a larger margin, but the opposite is true. There are two ways to interpret this finding. One possibility is that even electorally precarious incumbents engage in some form of self-enrichment. After all, it makes sense to hedge against losing reelection by accumulating at least some personal wealth (see Figure 3.7). It might also be more practical to do so via one-off purchases such as cars rather than taking on long-term commitments like real estate, which are more expensive and harder to hold on to if their income drops due to leaving office.

However, owning a number of cars may also be helpful to candidates fighting for reelection. Vaishnav (2017) relays the following account of a visit by Bihar MLA Anant Singh to a rural village:

Our quiet gossiping was abruptly interrupted by the sound of car engines approaching. Soon a convoy of ten or so high-end SUVs roared into the village, and Singh hopped out of one of the cars, sauntering over to the group accompanied by several burly-looking men and a well-armed bodyguard (Vaishnav, 2017, 182).

A fleet of expensive cars therefore helps candidates to project a certain image to voters. In addition, the distribution of cash and gifts occurs mostly in the forty-eight to seventy-two hours before election day. Owning a number of cars makes it easier to reach as many localities as possible during this crucial time window. Thus, a greater increase in the value of

motor vehicles among electorally vulnerable candidates may also reflect an attempt to beef up their campaign operations.

For the next two categories, jewelry and land, electoral security again has no significant effect. It does, however, have a sizable influence on the last asset type – commercial and non-commercial *buildings*. For each additional percentage point in the margin of victory, the value of an MLA's real estate *increases* by 1 to 1.1 percent. This is a sizable effect in accordance with the theoretical argument that more secure incumbents have leeway to grow their personal assets. A one-standard-deviation increase in the winning margin is associated with a roughly 9 percent increase in the reported value of buildings, and moving from the sample minimum to the maximum corresponds to a 50 percent increase, given a baseline growth of 154 percent.

Finally, the last row in Table 4.1 shows that the margin of victory has no effect on *total* asset growth. This addresses a potential objection to the findings, since one might suppose that more electorally secure incumbents accumulate more assets overall. However, incumbents who won by a narrow or wide margin do *not* differ in *how much* their assets increase during a legislative period; they only differ in *how* they increase.

Taken together, the Indian asset disclosure affidavits show that less secure incumbents increase their holdings of cash and motor vehicles. More secure incumbents instead accumulate more deposits and bonds as well as houses and buildings. The results of this first empirical analysis are thus consistent with the argument I made in Chapter 3: An incumbent's electoral campaign environment, particularly how competitive they expect their reelection race to be, influences whether they have the leeway to enrich themselves personally, or whether they invest more into their campaign.

4.4 REDISTRICTING, SELF-ENRICHMENT, AND CAMPAIGN SPENDING IN INDIA

The first analysis has shown that the growth of different asset categories predictably reacts to the margin by which MLAs won office. However, while the CBPS weighting broke the link between the treatment and observable covariates, it is still possible that these results are confounded by unobserved differences related to the margin of victory. I therefore conduct a second analysis, in which I examine how a shock to incumbents' reelection chances affects how they use the money they have access to.

In 2008, MLAs' constituencies were redrawn for the first time in more than forty years, which meant that incumbents competed in different areas than previously. Name recognition and credit for constituency service thus decreased; voters in new areas of the incumbent's district knew little about them and had to be won over. In other words, more redistricting increases electoral competition. As a consequence, affected incumbents should spend more on campaigning. And as a second-order effect, this should give them fewer opportunities to engage in personal enrichment.

The 2008 Delimitation Process

In the early years of the Indian republic, constituencies were regularly redrawn to reflect the country's changing demographics. Delimitation commissions were set up after the censuses of 1951, 1961, and 1971. During the authoritarian "emergency" period between 1975 and 1977, however, Indira Gandhi's government passed a constitutional amendment suspending the process. Due to differential birth and death rates as well as migration, constituency sizes became unequal over time, resulting in significant malapportionment (Delimitation Commission of India, 2008; Bhavnani, 2018). For example, two neighboring parliamentary constituencies in Delhi had populations of 0.35 and 3.1 million, respectively. In 2003 another constitutional amendment was passed to allow redistricting to resume based on the 2001 census.

India's redistricting process is designed to be non-political. The 2003 delimitation commission was headed by Kuldeep Singh, a retired Supreme Court judge, and included the chief election commissioner as well as the respective state election commissioners. While political parties were consulted, their influence was limited. There was no political controversy over the redistricting process, and systematic analyses confirm that it was mostly non-partisan (Iyer and Reddy, 2013).

This was partly because the commission operated under strict guidelines and was expected to "remove the gross inequalities in the population size of the Constituencies, on the principle of 'One vote and one value'" (Delimitation Commission of India, 2008, 1). The commission was tasked with creating districts that were of approximately equal size, subject to a number of conditions: They had to be geographically compact and contiguous, all state assembly constituencies had to wholly lie within administrative districts, and the number of constituencies could not be altered. This meant the commission had to draw up constituencies of

roughly equal size within districts, which left limited opportunities for political gerrymandering.

Empirical Approach

Of the twenty-seven states in my data, eleven held the election for which the first affidavit was submitted pre-delineation and the one for which the second affidavit was submitted post-delineation.¹⁹ This allows me to exploit variation in the degree to which incumbents were affected by redistricting, and to examine the impact it had on their asset development in different categories.

It is difficult to determine the exact extent to which delimitation affected sitting MLAs. To date, there has been no successful effort to link old and new state-level boundaries to census data for the entire country, or even for more than a few states. To proxy for the extent of redistricting, I exploit the fact that constituencies were of different sizes before 2008, and that the primary goal of delimitation was to equalize the population in each district. This means that MLAs in pre-delineation constituencies that were larger or smaller than the district average were more affected by redistricting (see also Fisman, Schulz, and Vig, 2019). Indeed, population deviation from the district average is highly predictive of the extent of redistricting in the states for which direct data is available (Iyer and Reddy, 2013).

I estimate the following regression for the states in the sample affected by delimitation:

$$\log(\text{Final Assets}_{ais}) = \alpha_s + \beta \text{Redistricting}_{is} + \gamma \log(\text{Initial Assets}_{ais}) + \delta' X_{is} + \varepsilon_{is} \quad (4.2)$$

where I proxy for the extent of redistricting in two ways. First, I take the absolute difference between the pre-delineation constituency size and the average constituency size in the district (in 100,000). Second, I compute the absolute percentage deviation of the constituency relative to the district average. Figure 4.3 shows a map of the distribution of this second variable for the re-contesting incumbents in the eleven states. I again add 1,000 to the initial and final assets before taking the log, and the controls in X_{is} are the same as above.²⁰ I estimate separate intercepts for each state to account for any observed and unobserved differences.

¹⁹ These states are: Bihar, Goa, Gujarat, Himachal Pradesh, Kerala, Meghalaya, Punjab, Tamil Nadu, Uttar Pradesh, Uttarakhand, and West Bengal.

²⁰ Because the crucial piece of information for the delimitation propensity is constituency size, I drop that control variable.

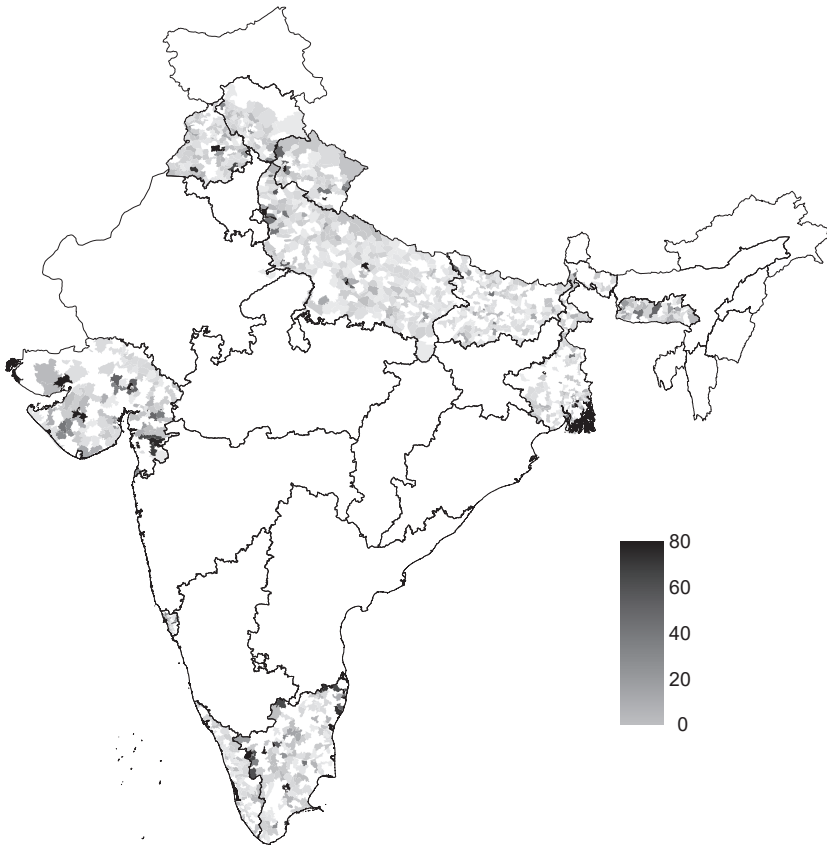


FIGURE 4.3 *Extent of redistricting between elections in eleven Indian states.* Absolute percentage deviation of the pre-delineation constituency size relative to the district average. Black indicates a larger percentage; light gray indicates a smaller percentage. Entirely white states were not redistricted between the two elections included in the data. White areas in states that are included in the sample indicate that the incumbent did not run for reelection and therefore did not submit a second affidavit

Redistricting Leads to More Campaign Spending and Less Personal Enrichment

Table 4.2 shows the effects of the two proxies for the extent of redistricting on asset development in the various categories. Higher values for the redistricting variables indicate greater changes in an incumbent's constituency. Again, each coefficient comes from a separate regression and the results for the control variables are not displayed for ease of readability.

TABLE 4.2 *Effect of redistricting on asset development in India.* Coefficients of the propensity of being affected by delimitation on log asset values in the second affidavit, controlling for log asset values in the first affidavit. All coefficients come from separate regressions. Controls not displayed

Cash	<i>Population Difference</i>	<i>Percentage Difference</i>
Redistricting	0.11970*** (0.04641)	0.00314** (0.00144)
Deposits, Bonds, Shares	<i>Population Difference</i>	<i>Percentage Difference</i>
Redistricting	0.00848 (0.05600)	-0.00110 (0.00203)
NSS, LIC	<i>Population Difference</i>	<i>Percentage Difference</i>
Redistricting	0.05681 (0.11179)	0.00093 (0.00311)
Motor Vehicles	<i>Population Difference</i>	<i>Percentage Difference</i>
Redistricting	-0.15086 (0.13809)	-0.00533 (0.00394)
Jewelry	<i>Population Difference</i>	<i>Percentage Difference</i>
Redistricting	0.06462* (0.03628)	0.00234* (0.00125)
Land	<i>Population Difference</i>	<i>Percentage Difference</i>
Redistricting	-0.25760** (0.12992)	-0.00883** (0.00437)
Buildings	<i>Population Difference</i>	<i>Percentage Difference</i>
Redistricting	0.05902 (0.07462)	0.00153 (0.00232)
Total	<i>Population Difference</i>	<i>Percentage Difference</i>
Redistricting	0.02154 (0.03087)	0.00062 (0.00093)

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. $N = 1,166$ for each regression. All regressions include state fixed effects and control for initial log assets overall and in the specific category. Additional controls: Margin of victory, criminal conviction dummy, gender, age, education, turnout, number of contesting candidates (all in the first election). Robust standard errors in parentheses. NSS = National Savings Scheme, postal savings; LIC = Life Insurance Corporation of India, other insurance policies.

The first row displays the results for *cash* reserves. For both specifications, the effect is positive and significant. The larger the expected changes to an MLA's constituency, the *more* cash reserves they accumulate between the two elections. Based on the second model, for each percentage point that an incumbent's constituency deviates in size from the district average, they increase their cash holdings by 0.3 percent. A one-standard-deviation change in the redistricting variable is associated with a 6.9 percent increase in cash assets. This effect size is roughly comparable to the one of a standard deviation change in the initial margin of victory found in the previous section.

The extent of redistricting does not affect holdings of bank deposits, bonds or shares, NSS and LIC policies, or motor vehicles. However, it has a positive effect on how much *jewelry* an MLA holds: A one-percentage-point deviation in constituency size from the district average leads to a 0.2 percent increase in the value of the incumbent's jewelry. Again, this is possibly the result of an "insurance" mechanism: While electorally precarious incumbents invest more in their campaign to try to keep their seat, they also make some one-off purchases for themselves and their families. However, the result is only significant at the 10 percent level.

Being affected by more redistricting has a large *negative* effect on how much *land* an MLA reports holding in the second affidavit, controlling for its value in the first disclosure. Again, this does not mean they have lost land, but that their assets in this category grew by a smaller amount. For each percentage-point deviation from the district average, land value decreases by around 0.9 percent. This means that a one-standard-deviation shift in the variable amounts to about 19 percent less land holdings in the second affidavit, controlling for holdings in the first affidavit. There is no effect on buildings. Finally, the extent to which a legislator is affected by redistricting has no effect on total asset development.

Thus, the results of this second, independent analysis are again in line with my theoretical predictions. Incumbents who expect more competitive elections accumulate larger cash reserves, which are crucial for campaigning. This in turn has consequences for other uses of money in politics. Specifically, it comes at the expense of growth in long-term assets for personal use, such as land or buildings. Taken together, this first set of analyses thus has shown that self-enrichment in office and campaign spending are directly, and inversely, linked to each other.

4.5 MONEY AND POLITICS IN BRAZIL

In many ways, Brazil is similar to India when it comes to money and politics. Between 2017 and 2020, it ranked between 94th and 106th out of 180 in the Corruption Perceptions Index and 121st to 134th out of 209 in the Control of Corruption Indicator. Corruption scandals have also rocked Brazilian politics, particularly “Operação Lava Jato” (Operation Car Wash). What began in 2014 as a minor investigation into money laundering at a gas station in Brasília became a record-setting inquiry that has implicated dozens of politicians, including multiple presidents.²¹ And while this is the most eye-catching case, it is by no means the only one. In 2016, almost 60 percent of the members of the lower and upper houses faced charges or were investigated for corruption and other serious crimes.²²

Also like in India, this glut of corruption cases led to a significant protest movement. On March 15, 2015, 2.4 to 3 million people took to the streets. A year later, after a new round of corruption allegations against leading politicians, 3.6 to 6.9 million demonstrated against the government.²³ According to surveys, corruption ranked as the most important issue among voters (Jucá, Melo, and Rennó, 2016), and played a significant role in helping the populist Jair Bolsonaro become president in 2019 (Hunter and Power, 2019).

But again, money does not solely enter politics for politicians to enrich themselves. Parties are weak and do not provide voters with strong partisan cues, so campaigns are highly individualized. A strong link has been identified between money spent and votes gained (Samuels, 2001b), and the country's elections are among the most expensive in the world (Samuels, 2001c). The 2014 elections cost more than \$3 billion.²⁴ As a consequence, “Brazil newspapers report in complete seriousness that elections serve as a strong boost to local economies, principally in the country's poorer regions” (Samuels, 2001a, 32).

²¹ “What is the Petrobras Scandal that is Engulfing Brazil?,” *Financial Times*, April 1, 2016.

²² “The Politicians Voting to Impeach Brazil's President are Accused of More Corruption than She Is,” *Los Angeles Times*, March 28, 2016.

²³ “Mapa das Manifestações no Brasil, Domingo, 15/03,” *Globo*, March 15, 2015; “Mapa das Manifestações Contra Dilma, 13/03,” *Globo*, March 13, 2016.

²⁴ “Petrobras Corruption Case Overshadows Brazil Presidential Campaign,” *Los Angeles Times*, October 24, 2014.

A political operator in one of Rio's favelas reports: "People drive from one candidate to another, shopping around. ... Election time is a time to make money. Everybody around here knows that."²⁵

Corporations have traditionally provided most of the campaign money; they in turn receive a good return on their investment. Claessens, Feijen, and Laeven (2008) show that companies that make larger campaign contributions have higher stock returns. Boas, Hidalgo, and Richardson (2014) demonstrate that firms that specialize in public works projects and donate to a federal candidate from the ruling party who wins office can expect to receive contracts worth fourteen times their contribution. Samuels (2002) argues that legislators only spend time and effort to secure "pork" because this helps them raise campaign funds from firms. In addition, politicians often use their own financial resources to fund their campaigns (see e.g. Avis et al., 2021). In response to the corruption scandals engulfing the country, in 2015 the Supreme Court banned all corporate campaign contributions. Starting with the 2016 municipal elections, candidates could only raise money from private persons or self-finance their campaign.

The picture that emerges from these studies is quite similar to the one we saw in India. Money and politics are inexorably intertwined in Brazil, and politicians use it for their personal enrichment as well as to finance their reelection campaigns. Are the two connected, and can the balance between them in this context also be explained by the factors identified in Chapter 3?

4.6 DATA ON ASSETS AND CAMPAIGN SPENDING IN BRAZIL

Major improvements in transparency are often the consequence of major scandals (Rose-Ackerman and Palifka, 2016, ch. 13). In 1992, Brazilian President Fernando Collor de Mello resigned from office after being implicated in a corruption scheme. A few months later, ten members of parliament were dismissed in a separate corruption scandal (Fleischer, 1996; Praça and Taylor, 2014; Jucá, Melo, and Rennó, 2016; Speck, 2016). In response, Congress significantly overhauled the country's campaign finance legislation and transparency requirements. Campaign contributions to candidates had been illegal up to that point, but were

²⁵ "Brazil's Favela Dwellers are Cashing in on Campaign Season," *PRI*, October 3, 2014.

happening anyways, as they still do in India. Such donations were legalized in 1994, and were subject only to generous limitations. The new regulations allowed individuals and candidates to donate up to 10 percent of their yearly gross income to political campaigns. Corporations could give up to 2 percent of their gross annual revenues. In addition, all candidates for office were now required to submit information on all contributions and campaign expenditures. These declarations are made publicly available.²⁶

In addition to their campaign contributions and spending, candidates also have to publicly disclose specific details about their personal assets, including their estimated value. For example, candidates have to list the addresses of apartments and houses, the make and license plate numbers of cars, and so on. Figure 4.4 shows an example of a mayoral candidate's campaign finance report (top) and his asset declaration (bottom) from the 2016 election.

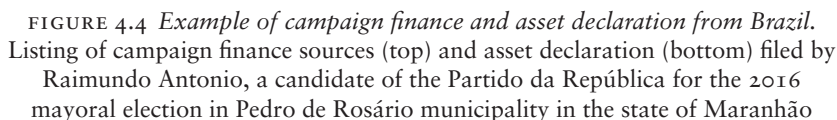
The fact that Brazilian candidates for office have to disclose both their personal assets and campaign spending allows for a more direct test of the effect of political competitiveness on the choice between personal enrichment and campaign spending than was possible using the Indian data.

Of course, one may again wonder how accurate the filings are. Just like the affidavits from India, the Brazilian data exhibit the basic pattern one would expect. For example, they show that Brazilian campaigns are extremely expensive, that candidates of right-wing parties report higher contributions and expenditures than those of left-wing parties, and that spending is higher in municipalities located near oil fields (Samuels, 2001c; Bhavnani and Lupu, 2016; Mancuso et al., 2016). There is also a positive correlation between reported contributions and vote shares (Samuels, 2001b), and companies that donate more to winning candidates of the governing party receive more government contracts (Boas, Hidalgo, and Richardson, 2014). Finally, both the reported personal assets and the reported campaign spending are higher for white candidates (Bueno and Dunning, 2017). Taken together, the data again conform to our theoretical expectations, which suggests that they are broadly accurate.

Assets and Campaign Spending of Brazilian Mayors

To examine the effect of the electoral campaign environment, particularly the level of political competitiveness, on the balance between personal

²⁶ For further details, see, e.g., Samuels (2001c); Jucá, Melo, and Rennó (2016); Speck (2016).



enrichment and campaign spending, I focus my analysis on municipal mayors. Because Brazil is one of the most decentralized countries in the world, municipal governments oversee large public budgets and have

significant power. The transfers from the federal government to municipalities amount to \$35 billion per year (Ferraz and Finan, 2011). In fact, the position is so attractive that many members of the national legislature have the ambition to become mayors. A member of Brazil's lower house interviewed by Samuels (2003) observed: "In a chamber of 513, a deputy can't stand out. ... Whereas as a mayor, even of a medium-sized city, he's the boss. He is the power, he has the power of the pen" (Samuels, 2003, 22).

Focusing on this level of government has a number of advantages. First, much of the literature on money and politics in Brazil also examines municipal mayors (Ferraz and Finan, 2008, 2011; Brollo, 2013; Hidalgo, Canello, and Lima-de-Oliveira, 2016; Avis et al., 2021). Furthermore, parties at the municipal level are even weaker than at the national level, so local campaigns are mostly about the candidates themselves (Klašnja and Titunik, 2017). This brings the choice between personal and political money especially into focus. Finally, there are thousands of municipalities in Brazil, which allows me to assemble a large dataset on the campaign spending and personal asset development of incumbent politicians.

I focus on two legislative cycles, 2008–2012 and 2012–2016. Since Brazilian mayors are limited to two consecutive terms in office, I focus on incumbents who are participating in the one reelection campaign they are permitted. For each politician, I collect data on how much money they received and spent on their campaigns.²⁷ Note that in Brazil, campaign donations received and campaign money spent correlate almost perfectly. I also assemble data on politicians' personal assets.

Data Characteristics

There were 1,394 sitting mayors running for reelection in the first cycle. For this sample, the reported asset value of the median mayor in 2008 was R\$203,000 (roughly \$125,000 given exchange rates at the time). After four years in office, this had increased by around 75 percent to R\$358,000. This is less than was the case for Indian MLAs, even after taking into account that the average annual inflation rate was lower in Brazil (around 5.5 percent from 2009 to 2012). Campaign spending of the median mayor was R\$42,920 (about \$27,000) in 2008 and R\$45,240 in 2012. The top row of Figure 4.5 shows other percentiles of declared assets and campaign money.

²⁷ This includes candidate self-finance.

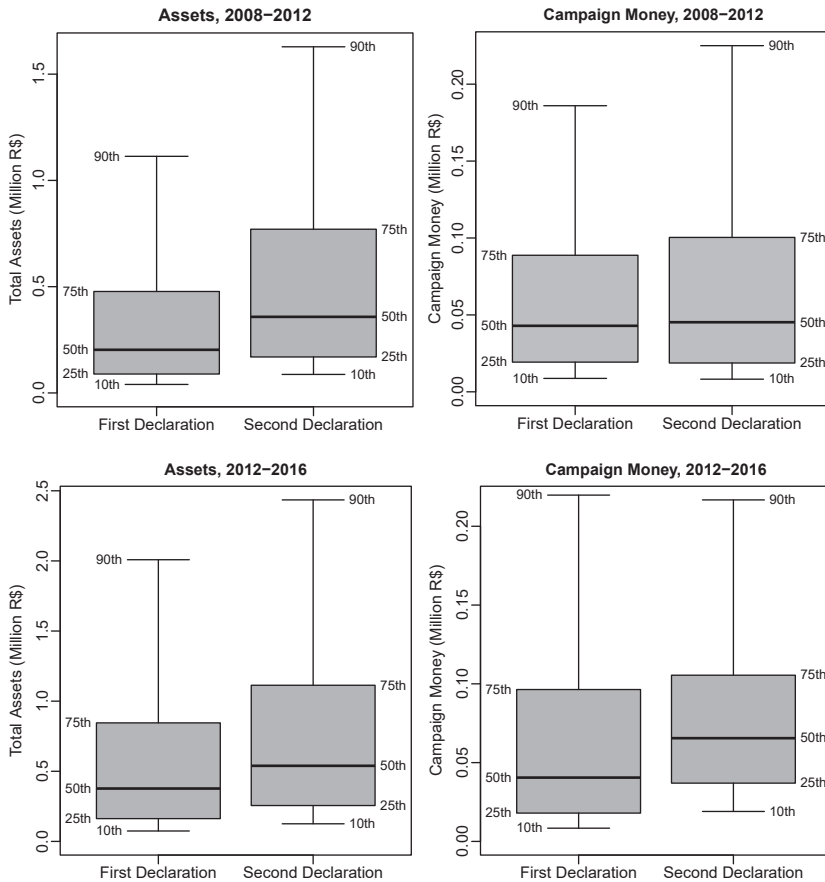


FIGURE 4.5 *Assets and campaign money of Brazilian candidates in the first and second declarations.* The gray box shows total assets or campaign money of legislators in the 25th and 75th percentiles, and the whiskers of those in the 10th and 90th percentiles

For the second cycle, there is data for 1,223 mayors. The median asset value in 2012 was R\$377,300, which increased by roughly 45 percent to R\$539,000 in 2016. Median campaign spending was R\$40,500 in 2012 and R\$66,510 in 2016. The bottom row of Figure 4.5 illustrates the other percentiles.

4.7 ELECTORAL SECURITY, SELF-ENRICHMENT, AND CAMPAIGN SPENDING IN BRAZIL

The data on personal assets and campaign contributions for Brazilian mayors allows me to directly test the connection between money used for

personal or electoral purposes, and the impact that electoral competitiveness has on it. Mayors who have reason to think they will be re-elected relatively comfortably have leeway to use their position to enrich themselves. By contrast, mayors who expect to be in a competitive race for reelection should prioritize campaign spending. As I did for India, I use a politician's margin of victory in the previous election to proxy for the expected competitiveness of the upcoming race.

Empirical Approach

To analyze the effect of the margin of victory on subsequent asset development, I estimate the following regression for mayor i in state s during cycle c :

$$\log(\text{Final Assets}_{isc}) = \alpha_s + \mu_c + \beta \text{Margin}_{isc} + \gamma \log(\text{Initial Assets}_{isc}) + \delta' X_{isc} + \varepsilon_{isc} \quad (4.3)$$

I regress the logged value of all assets in the second disclosure on the mayor's initial margin of victory and the logged value of the assets in the first disclosure.²⁸ A set of controls is denoted by X_{isc} .²⁹ To account for region-specific observed and unobserved differences, I estimate a separate intercept α_s for each state. I also include a cycle-specific fixed effect μ_c to control for differences over time. For political money, the regression is analogous to Equation (4.3), with the log campaign money that was raised and spent as the dependent variable.

To account as much as possible for the fact that politicians with different margins of victory might differ from each other in other ways, I again pre-process the data using CBPS matching. This reduces the correlations between the margin of victory and the observed covariates to nearly zero, so coming close to breaking the link between them.

Electoral Security Leads to Less Campaign Spending and More Personal Enrichment

Table 4.3 shows the effect of the margin of victory in the first election on asset development and campaign money. The first column uses the

²⁸ I add 1,000 before taking the log and exclude a small number of outliers who won with a margin of larger than 50 percent. In addition, municipalities with more than 200,000 registered voters have a runoff election if no candidate receives a majority of the votes. This only affects a small number of politicians in my sample (seventeen). I drop these observations, but the results are robust to including them.

²⁹ They are age, gender, civil status, education, and the log of campaign contributions received in the first election.

TABLE 4.3 *Effect of the margin of victory on asset development and campaign money in Brazil.*

Coefficients of the margin of victory on log asset values and log campaign money in the second election. All coefficients come from separate regressions. Controls not displayed

Assets	Unweighted	CBPS
Margin of Victory	0.00343** (0.00155)	0.00355** (0.00158)
Campaign Money	Unweighted	CBPS
Margin of Victory	-0.00313** (0.00157)	-0.00344** (0.00169)

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. $N=2,617$ for each regression. All regressions include state and election cycle fixed effects and control for initial log assets and donations. Additional controls: Gender, age, education, civil status, log number of electors (all in the first election). Robust standard errors in parentheses.

unweighted sample, and the second one the CBPS-weighted one. Each coefficient comes from a separate regression, and control variables are omitted for brevity.

The first line reveals that more electorally secure incumbents do indeed increase their personal assets to a larger degree. A one-percentage-point increase in a mayor's initial margin of victory is associated with a 0.35 percent *increase* in reported assets. The point estimates are similar for both specifications and reach statistical significance at the 5 percent level.

A one-standard-deviation increase in the winning margin (10.2 percentage points) is associated with a 3.6 percent increase in personal assets. Going from the lowest winning margin in my sample to the highest means personal asset growth is expected to be 17.8 percent higher. These effects are smaller than in the Indian case. However, note that the baseline asset growth in the two cycles I examine was only 75 and 45 percent, respectively. Thus, the effects are again of substantial magnitude.

In contrast, the winning margin has a negative effect on campaign spending. Each percentage-point increase in the winning margin is associated with a 0.34 percent *decrease* in campaign money. A one-standard-deviation increase therefore implies 3.5 percent less campaign spending, and going from the minimum to the maximum means 17.8 percent less. Thus, mayors who won by a relatively comfortable margin see an opportunity to take their foot off the gas, at least relative to their colleagues

who won by a smaller margin and expect a tough fight for reelection. This gives them the leeway to instead augment their personal assets.

The analysis of Brazilian mayors thus comes to the same conclusion as the one of Indian state assembly members. There is clear evidence that campaign spending and personal enrichment are directly, and inversely, connected. Incumbents who expect to be in a tight race for reelection place more emphasis on campaign spending, whereas those who have an easier road to reelection have greater freedom to use their position to benefit themselves financially. Taken together, the data from India and Brazil provide support for the argument that campaign spending and personal enrichment in office are directly related to each other, and that the *electoral campaign environment* plays an important role in determining which is more prevalent.

4.8 CAMPAIGN FINANCE REGULATION AND ASSET GROWTH IN BRAZIL

In Chapter 3 I argued that another factor that determines how money enters politics is the *legal environment*, and that politicians arbitrage differences in how tightly the types of money in politics are regulated. If laws forbid one form, politicians will create a second-order effect by seeking to benefit from their position through a *different* channel. In this section I exploit a change in Brazilian campaign finance regulations to test this hypothesis. In response to the fallout from Operation Car Wash, a law passed in 2015 mandated limits on the overall amount that candidates can spend. Did this have the unintended side effect of increasing personal enrichment among politicians?

Campaign Spending Limits in the 2016 Mayoral Elections

Before 2016, there was no cap on the total amount that mayoral candidates could spend. This changed in September 2015, when Brazil's Congress passed a law that imposed a spending limit. The first elections for which the law applied were the municipal elections of October 2016.

Brazil's 5,570 municipalities differ in size and economic development. According to 2014 population estimates, the smallest municipality had just over 800 inhabitants (Serra da Saudade in Minas Gerais). The country's largest city, São Paulo, has almost 12 million inhabitants. The amount that candidates spend on campaigning thus inevitably varies greatly. The law takes this into account by conditioning the

2016 limits on the amount spent on the previous election campaign, in 2012.

To determine the caps, there are two relevant clauses in the law.³⁰ First, the limit for mayoral candidates in a given municipality was set to R\$100,000 or 70 percent of the highest amount spent by a candidate in 2012, whichever is higher. This creates a kink in the limit for 2016. In any municipality in which the highest-spending candidate spent less than R\$142,858 (70 percent of 142,858 is around 100,000), the limit was set to R\$100,000. Above this number, the cap increases linearly.

Second, a few months after the law was passed, the limits were adjusted to take inflation into account. Two different rates were used for municipalities to the left and right of the kink, which creates a discontinuity. For those that were limited to R\$100,000, the adjustment was set to 8.04 percent. For municipalities for which the limit was determined according to the 70 percent of the previous maximum spending criterion, the inflation adjustment was 33.7 percent. This means that a municipality in which the maximum spending in 2012 was just under R\$142,858, the 2016 limit was R\$108,039. But for a municipality where the 2012 maximum spending was just over R\$142,858, the limit was about R\$133,700, so around 24 percent higher. The left panel of Figure 4.6 displays these limits.

The right panel of Figure 4.6 plots the reported campaign expenditures in 2016 against the highest amount spent by a candidate in a municipality during the 2012 election. The jump in the limit at the 2012 maximum spending of R\$142,858 is clearly visible. Some candidates report greater spending than is allowed. This is possible because exceeding the cap results in heavy penalties, including a 100 percent fee on spending above the limit, but does not result in disqualification (cf. Avis et al., 2021). However, only about 0.6 percent of candidates violate the cap.

Avis et al. (2021) exploit the discontinuity to examine the effect of campaign finance restrictions on various indicators of political competition. They find that such limits increase the number of candidates running for office and decrease incumbents' reelection rates. These findings, as well as Figure 4.6, suggest that the imposed limits were binding for many candidates. Without them, they could (and would) have spent more money on their campaigns. So what happened to the money that was *not* spent because of this imposed ceiling?

³⁰ See "Lei N° 13.165," *Presidência da República, Secretaria-Geral, Subchefia para Assuntos Jurídicos*, September 29, 2015; Avis et al. (2021).

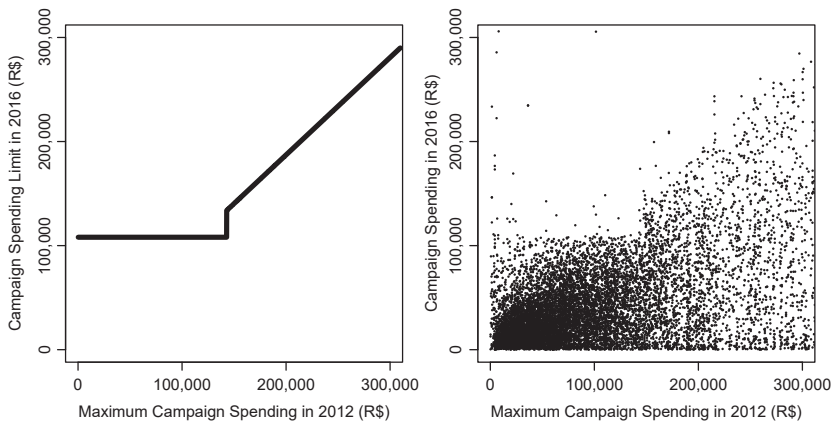


FIGURE 4.6 *Campaign spending limits in the 2016 Brazilian mayoral elections.* Left panel: Campaign spending by the highest-spending candidate in 2012 and campaign spending limit in 2016. There is a discontinuous jump at a 2012 maximum spending of R\$142,858, where the 2016 limit increases by about 24 percent. Right panel: Campaign spending by the highest-spending candidate in 2012 and campaign spending by candidates in 2016

One of the key empirical implications of Chapter 3 was that where penalties for self-enrichment are low, as they are in Brazil, stricter campaign finance regulation frees up incumbents to use their position to enrich themselves while in office. The theoretical expectation is therefore that incumbents who were more restricted in their election spending (left of the discontinuity) augmented their personal assets more than those with a more generous expenditure cap (right of the discontinuity).

Campaign Spending Limits Lead to More Personal Enrichment

To assess the effect of spending limits on the growth of personal assets, I exploit the discontinuous jump of the ceiling at the 2012 maximum spending of R\$142,858 in a regression discontinuity design. The idea underlying this strategy is that municipalities with maximum spending in the previous election just above and just below the threshold are very similar on all characteristics that could affect personal asset growth, except for the fact that the latter have a higher campaign spending limit. For example, municipalities with higher maximum spending in 2012 are more likely to be large and wealthy, which may make it easier for incumbents to enrich themselves. However, municipalities where maximum spending was around R\$142,000 are, on average, very similar to those where it was

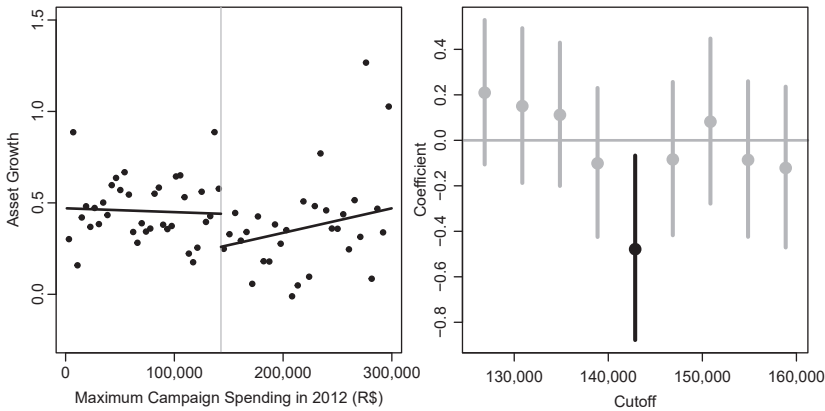


FIGURE 4.7 *Effect of campaign spending limit on personal asset growth, Brazilian mayoral elections 2016.* Left panel: Campaign spending by the highest-spending candidate in 2012 is on the horizontal axis. Binned estimates of personal asset growth from 2012 to 2016, with two separately fitted lines to the left and right of the cutoff at R\$142,858, is on the vertical axis. Right panel: Point estimate and 95 percent confidence interval of the treatment effect of a higher campaign spending limit on personal asset growth is in black ($N=1,965$, bandwidth=35,896). Gray bars indicate placebo treatment effects where the cutoff is set at lower or higher values (in increments of R\$4,000) than where the discontinuity occurred

R\$143,000. Essentially by chance, candidates in the former can spend less on campaigning than those in the latter. In other words, the assignment of municipalities located near the cutoff to a high or low spending ceiling is as good as random.³¹

The left panel of Figure 4.7 plots binned estimates of asset growth as a function of 2012 maximum spending, with two separately fitted lines to the left and right of the cutoff at R\$142,858. As hypothesized, there is a clear drop in personal asset growth where the campaign spending limit jumps.³² Incumbents just to the left of the vertical line are subject to stricter campaign finance rules, which gives them scope to grow their personal assets. Those just to the right of the line can spend more on their reelection campaign, which leaves them less room for personal enrichment. Note that since candidates can be self-financed, it is plausible

³¹ Avis et al. (2021) demonstrate the validity of the regression discontinuity design in this application. They show that there is no evidence of endogenous sorting around the threshold and no discontinuous jumps at the cutoff for other covariates such as economic development, inequality, or population.

³² The discontinuity is also present when using higher-order polynomials.

that mayors with looser campaign spending caps spent more of their own assets on their campaign, whereas those with stricter limits did not (have to) do so. This is consistent with my theoretical argument, as those to the left of the discontinuity can use the unspent money for themselves, while those on the right cannot.

To assess the impact of campaign spending limits on personal asset growth around the discontinuity in a regression, I estimate the following model for incumbent i in municipality m (where $i = m$):

$$\text{Asset Growth}_i = \alpha + \beta \text{ Higher Limit}_m + f(\text{Max. 2012 Spending}_m) + \varepsilon_i \quad (4.4)$$

The dependent variable is the change in personal asset value from 2012 to 2016.³³ Higher Limit_m is an indicator that takes a value of 1 if the 2012 maximum campaign spending was R\$142,858 or more. The quantity of interest is β , which is expected to be negative. The term $f(\text{Max. 2012 Spending}_m)$ is a function of the running variable that determines the treatment status, fitted separately to the left and right of the discontinuity. I use a first-order local polynomial.³⁴ To select the optimal bandwidth for the window around the discontinuity, I use the automated procedure implemented by Calonico, Cattaneo, and Titiunik (2014).

The right panel of Figure 4.7 displays the results. In black, it shows the treatment effect β from Equation (4.4) along with the 95 percent confidence interval. Confirming the graphical analysis, there is a significant drop in the growth of personal assets for incumbents subject to higher campaign spending limits.

In gray, I also display the results of a series of placebo tests in which the cutoff is not set at R\$142,858 but at lower or higher values, in increments of R\$4,000. If it is the discontinuous jump of campaign spending limits that caused the drop in the growth of personal assets, we should *not* see significant treatment effects if the cutoffs are set to values at which no such jump occurred. And indeed, the coefficients are not significantly different from zero in any of the placebo regressions. This provides confidence that the lower personal enrichment I observe is indeed caused by the more generous campaign spending limits.

Thus, a country's *legal environment* also strongly influences how money enters politics. Politicians arbitrage differences in how strictly

³³ To limit the possibility that outliers are driving the results, I exclude incumbents who had very large (more than threefold) increases in their personal assets.

³⁴ Results are robust to using higher-order polynomials.

the types are regulated. Therefore the consequences of, say, campaign finance regulations are not straightforward. It is true that they reduce campaign spending. But at the same time, I have shown here that this has second-order consequences on politicians' propensity to use their office for personal enrichment.

4.9 SUMMARY

In this chapter, I have begun the difficult task of testing the theory I put forward in Chapter 3. I focused here on the connection between personal enrichment in office and spending on election campaigns.

The main challenge of empirically examining these two forms of money in politics is, naturally, the lack of available data. Politicians who engage in potentially illegal, or at the very least immoral, acts have little interest in making it easy to detect them. We therefore have to use creative techniques to detect patterns of money in politics. I conducted three separate analyses, exploiting the fact that both India and Brazil require all candidates for office to disclose certain financial details.

First, I used the level of detail in the Indian affidavits to differentiate between assets that signal personal enrichment and cash holdings that are likely meant for campaign spending. Less electorally secure incumbents, identified in two different ways, report higher growth in their cash assets, while their more secure counterparts tend to increase the value of the land and buildings they own.

Second, candidates in Brazil also have to publish the value of their personal assets, as well as their complete campaign finances. This allowed me to directly test the influence of electoral security on whether politicians use their position to accumulate personal or political money. Again, the empirical results are consistent with the theoretical expectations from Chapter 3. The more secure an incumbent is likely to be, the more their personal assets grow while in office. The less secure they are, the higher their reported campaign spending.

Finally, I have shown that legal restrictions on one form of money have second-order effects on other types, which move in the opposite direction. Using a discontinuous jump in campaign spending limits in Brazil's 2016 mayoral elections, I demonstrated that stricter regulation gives incumbents more opportunities for self-enrichment.

Taken together, these analyses provide clear and consistent evidence that campaign money and personal enrichment are directly linked to each other, and that the legal and electoral campaign environments determine

which is more prevalent in a given context. I now move from the low-regulation environments of India and Brazil to an environment that more strictly regulates money in politics. In many countries, the penalties for enrichment in office are so severe that it has been all but eradicated. But this does not mean that money no longer enters politics; nor does it remove the choice between personal financial gain and enjoying the benefits of holding office.