Active and Passive Transparency: Substitutes or Complements?*

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Abstract

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1 Introduction

Institutional scholarship often claims that government transparency is a key factor for good governance and economic development (Kaufmann et al., 1999; Bo Rothstein, 2012). When governments make their business public, they increase the scrutiny and oversight of actions taken by elected officials and civil servants. In many countries, for instance, citizens can check the use of public resources by accessing expense reports filed by politicians and, if unhappy, demand proper use of government funds. Institutional transparency thus creates an accountability mechanism aligning the interests of agents and principals, further supporting economic and social progress. In this study, I contribute to this literature by investigating the simultaneous effects of two transparency policies on municipal governance in Brazil.

Beyond transparency, recent debates in the institutional scholarship highlight the need for a more in-depth understanding of how exactly institutions promote development. For instance, what qualifies a institution as strong? Is it stability or the enforcement of the rule of law? (Levitsky and Murillo, 2009) Alternatively, is institutional quality the same within a certain country? A comparison of Departments of Motor Vehicles (DMV) across the United States and the Federal Bureau of Investigation (FBI) would anecdotally suggest vertical variation (across levels of government) and horizontal variation (across government offices) of institutional quality. Institutions are also endogenous (Acemoglu et al., 2005; Dal Bo et al., 2010), such that similar rules, norms, or policies can yield different social outcomes depending on their context. Though the United Kingdom and Brazil both have national public health systems, health care quality differs greatly between the two countries.

Transparency analyses particularly suffer from these limitations. While there is substantial evidence on the power of public audits (a form of enforcement) in reducing corruption (Olken, 2007; Ferraz and Finan, 2008; Bobonis et al., 2016), we do not know why corruption practices are so durable, even in countries where enforcement mechanisms are strong. There is mixed evidence on whether cultural and social norms are responsible for the unexplained persistence of corruption (Fisman and Miguel, 2007; Barr and Serra, 2010; Serra and Wantchekon, 2012), so investigating the mechanisms behind the durability of corruption remain as an interesting research agenda. In addition, scholars have mostly analyzed transparency policies in isolation, but these policies are rarely implemented as such in actuality. Anti-corruption instruments such as audits and freedom of information legislation (*henceforth* FOI) have been separately featured in different studies, though they have the same objective and coexist in many jurisdictions across the world. Thus, understanding whether these initiatives are substitutes or complements in preventing corruption is another interesting research agenda.

Using Brazil as a case study, I overcome this latter limitation in the literature and present the first simultaneous analysis of *active* and *passive* transparency policies. I define active transparency as action initiated by government to release public information (such as audits) and passive transparency as action making information available only upon request (such as freedom of information requests). What differentiates each policy is whether government releases information by action

(active) or by request (passive). I take advantage of a unique policy set-up in Brazil in which these policies coexisted for a period of about fifteen years. Between 2003 and 2015, the Office of the Comptroller-General (CGU) implemented a random audit program investigating the use of federal resources by municipalities across Brazil. This program is the source of exogenous variation in active transparency across Brazilian municipalities. In 2012, Brazil also enacted its Freedom of Information Act establishing channels of information release across all government levels. This legislation provides another source of exogenous variation in passive transparency when comparing municipal outcomes before and after FOI. By overlaying audits and FOI, I artificially create a two-by-two factorial experiment where municipalities fall into one of four treatment conditions (figure 1): (i) control (unaudited municipalities before FOI); (ii) passive transparency (unaudited municipalities after FOI); (iii) active transparency (audited municipalities before FOI); (iv) active and passive transparency (audited municipalities after FOI).[1]

To analyze the effects of transparency policies, I use performance, development, and sanction outcomes between 2003 and 2017. These measures form a comprehensive picture of the quality of municipal administration in Brazil. They also contribute a granular, in-depth analysis of institutional quality at the municipal-level, a significant improvement from country-wide measurements in cross-country studies. The results show that the joint implementation of active and passive transparency contributes to an improvement of 10.7 percentage points in the municipal human development index (HDI). To put this in perspective, this gain in Brazil's country-wide HDI would move it from 72^{th} to 36^{th} place in the United Nations' 2019 Human Development Index – thus a substantial improvement. Passive transparency significantly improves all three outcomes, indicating an overall improvement in institutional quality, while active transparency only improves municipal administration performance. I explore the mechanisms behind these effects in the results section.

Since these transparency programs also had evaluation components, they allow for two additional, cross-effects experiments. First, the random audits produced objective measures of corruption (extensively discussed in Ferraz and Finan, 2008, 2011; Brollo et al., 2013; Zamboni and Litschig, 2018; Avis et al., 2018), such that I can compare municipalities audited before and after FOI to measure the effect of passive transparency on corruption (*corruption* experiment). Second, CGU also collected objective, FOI compliance measures between 2015 and 2017 for a subset of municipalities, such that I can compare audited and unaudited municipalities in this subsample to measure the effect of active transparency on information release (*information* experiment). Thus, I additionally contribute to the literature the analysis of (i) the effects of FOI on corruption and (ii) the effects of audits on FOI compliance. In the corruption experiment, I show significant negative effects of passive transparency on corruption. Enacting FOI legislation reduces acts of corruption in public spending by 22.3 percent. These results are not explained by differential corruption trends over time. In the information experiment, the effect of active transparency is even stronger. Audited municipalities almost perfectively correlates with accurate and timely responses

[1]This *quasi*-experimental design is the same as a randomized-controlled trial that follows treatment and control units over time.

to FOI requests. Though only passive transparency has a consistent effect on institutional quality, both policies have substantial cross-effects and help prevent corruption and improve citizen accountability mechanisms.

The remaining of this paper is organized as follows: in section 2, I discuss the institutional design that allows for the causal identification of both active and passive transparency effects; section 3 suggests the theoretical mechanisms and hypotheses of behind the relationship between transparency on institutional quality; section 4 presents the data; section 5 outlines the empirical strategy (whose results are reported in section 6); finally, section 7 concludes.

2 Transparency Policies in Brazil

Transparency policies are the responsibility of the Brazilian Office of the Comptroller-General (CGU), which was established in 2003 to oversee the use of federal resources across the country. Its mission involved investigating and guaranteeing the proper allocation of resources not only across the federal executive, but also across all levels of executive government – states and municipalities included. Over time, its attributions expanded from a purely monitoring function to rule-making and even the imposition of legal sanctions on state and municipal governments, public officials, and private parties contracted by the Brazilian government. Since its inception, CGU has been the most important anti-corruption agency in the country and, despite political changes, it has maintained its high-profile status as an autonomous oversight agency within the federal government.

CGU is responsible for a number of transparency programs. It processes FOI requests at the federal executive level; it hosts annual conferences on fighting corruption; it works jointly with other law enforcement (Federal Policy and the Office of the Prosecutor-General) to conduct investigations on misuse of public resources; it publishes civil servant wages, and etc. – just to name a few of its responsibilities. One of its most recognized programs is the random audit of municipalities, which begun in 2003 and ended in 2015.[2] This program consisted of a short visit, generally a week or two long, to a municipality for the investigation of the use of federal resources in public services. The central CGU office provided state teams with a list of inspection orders, covering transfers from the federal government to municipalities in the previous three to four years. The state team would check this list against the records provided by municipal officials. After the visit, auditors summarized their findings in a report which was then made available on CGU's website and forwarded to all prosecuting authorities, such as the Federal Police and local legislative branches, i.e. city councils and state legislative bodies.

The program has been successful since the beginning. In 2004, CGU fed the Federal Police evidence of a corruption scheme covering over 100 procurement contracts for the purchase of emergency vehicles in 119 municipalities between 2000 and 2002, with an estimated loss of $7 million (in 2002 dollars). In addition, the program's design has made it a prolific source of academic research. CGU randomly selected a set number of municipalities in each state and assigned teams

[2]The program still exists today but, instead of randomly selecting and auditing municipalities, CGU uses an internal risk score model to assign audits to municipalities most at risk of corruption.

of independent, highly-qualified bureaucrats to scrutinize all expenditures made by municipalities under policy programs. CGU officials are tenured civil servants who have been approved in national competitive exams and whose income is both independent of their audit findings and higher than the national average for professionals of same qualification. The audit reports contain detailed information about the program under investigation, the amount of funds that should have been spent, what goods or services should have been procurement, etc. CGU officials had a low-medium-high severity scale to classify irregularities in program spending. These reports have been extensively used in the political science and economics literature, and some of its most important studies are Ferraz and Finan (2008, 2011); Brollo et al. (2013); Zamboni and Litschig (2018). Thus, not only the random audit program is an excellent source of unbiased, objective measures of municipal corruption, but also constitutes an exogenous shock of active transparency imposed on a sample of municipalities starting in 2003.

The second institutional feature making Brazil the perfect case study for this research project is the passage of its FOI act in 2011, which came into force in May 2012. The law requires that government offices at all levels, and their affiliated agencies, set up systems of access to public information. Its provisions are similar to that of other FOIAs across the world: all information is public unless expressed and justified by the agency responsible; no agency can charge for use of government data;and any individual or company, national or foreign, can file a request for data access. The nationwide scope, the immediate effect, and the standardized, mandatory rules established by FOI make it an exogenous and uniform shock of passive transparency across Brazil starting in May 2012.

While the random audit program both creates an exogenous shock of active transparency and a rich dataset of objective measures of corruption, the same is not true of FOI – which only imposes the passive transparency shock. CGU, however, implement an evaluation of FOI called *Transparent Brazil Scale* (EBT), which is the source for objective measures of FOI compliance. The EBT evaluation program ran from 2015 to 2017 and aimed at creating a national ranking of the quality of freedom of information systems across Brazilian states and municipalities. Every year, CGU randomly selected state and municipal governments across the country and sent them four information requests to asking for progress on the implementation of FOI, and data on social, education, and health programs. The responses to these information requests were coded as binary variables indicating FOI compliance, both in terms of information accuracy and response time. I construct the FOI outcomes using a subset of the data generated by the EBT program, which I detail in section 4.[3]

[3]Multiple studies have confirmed the quality of CGU programs. Yet, many of the documents detailing the random audit and the EBT initiatives are available online for further check. For instance, CGU published detailed guides on randomization strategy and outcome measurement for both programs, an initiative that lends additional support to the unbiased and thorough evaluation and implmentation of transparency programs.

3 Theory and Hypotheses

4 Data

5 Empirical Strategy

6 Results

7 Conclusion

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Tables and Figures

Figure 1: Experimental Conditions

	Pre-FOI	Post-FOI
No Audit	Control Group [1,950; 1,363]	Passive Treatment [3,513; 1,816]
Audit	Active Treatment [1,320; 897]	Active + Passive Treatment [366; 217]

Note: The first number in squared brackets is the total number of observations in each group; the second number is the number of unique observations in each group.

Table 1: Summary Statistics Across Experimental Groups

	Active + Passive Transparency (n = 217)			Active Transparency (n = 897)			Passive Transparency (n = 1,816)		
	Mean	Diff.	p-value	Mean	Diff.	p-value	Mean	Diff.	p-value
Share Urban (Pop.)	.626	−.008	.585	.627	−.005	.743	.636	.005	.771
Share Female (Pop.)	.506	.001	.699	.505	.000	.895	.505	.001	.556
Share Illiterate	.183	.009	.174	.179	.007	.342	.168	−.004	.549
Income Per Capita (ln)	9.044	−.105**	.021	9.052	−.113**	.017	9.167	.002	.960
Gini Coefficient	.508	.000	.986	.512	−.004	.364	.510	−.006	.186
Share Poor (Pop.)	.265	.010	.412	.269	.003	.787	.246	−.020	.138
Presence of AM Radio	.190	−.011	.685	.201	−.009	.750	.212	.002	.945
Presence of Health Council	.787	.012	.667	.760	.032	.274	.760	.032	.299
Presence of Education Council	.958	−.010	.462	.970	−.009	.513	.972	−.007	.630
Seat of Judiciary Branch	.517	.048	.169	.488	.022	.532	.512	.046	.222

Note: This table displays means for all covariates for observations in each treatment condition (column 1 in each group). Column 2 is the mean difference between observations in the treatment group vs. each control group. For the active and passive transparency intervention, the control group is composed of unaudited municipalities before 2012 (n = 1,363); for the active transparency intervention, the control group are unaudited municipalities after 2012 (n = 1,816); for the passive transparency intervention, the control group are the audited municipalities before 2012 (n = 897). Column 3 displays the p-values from t-tests performed on these variables across samples.

Table 2: The Effect of Transparency Policies on Performance

	MUDP Adoption		Municipal Development Index (MDI)		Sanctions Imposed	
	(1)	(2)	(3)	(4)	(5)	(6)
Active + Passive Transparency	.419*	.323	.093*	.107***	−.121	−.133
	(.236)	(.246)	(.054)	(.033)	(.104)	(.119)
Active Transparency	.130***	.151***	−.044***	−.009	−.015	−.017
	(.036)	(.036)	(.008)	(.006)	(.016)	(.017)
Passive Transparency	.143	.207**	.073**	.037***	.278***	.285***
	(.137)	(.091)	(.031)	(.013)	(.061)	(.078)
Time Trend Interactions	Yes	Yes	Yes	Yes	Yes	Yes
Municipal Controls	-	Yes	-	Yes	-	Yes
Observations	7,149	7,149	7,149	7,149	7,149	7,149
F-stat	44.9***	156.3***	107.2***	1037.6***	7.5***	29.1***

Note: The regressions here estimate the effect of each transparency condition on three municipal outcomes: whether the administration adopts an urban development plan, their human development score, and whether the mayor or anyone in their team has been sanctioned by law enforcement authorities. Columns 1, 3, and 5 estimate the models without covariates. Columns 2, 4, and 6 include municipal covariates and time trends interactions to control for observable differences across municipalities that could simultaneously explain the outcomes. All standard errors are clustered at the municipality level. A municipality could have been audited or sampled to form the artificial control group more than once, thus the sample size (7,149) is larger than the number of unique municipalities in the study (4,316). *p<0.1; **p<0.05; ***p<0.01.

Table 3: The Effect of Passive Transparency on Corruption

	Acts of Mismanagement (ln)		Acts of Corruption (ln)		Number of Irregularities (ln)	
	(1)	(2)	(3)	(4)	(5)	(6)
Passive Transparency	.114	.104	−.228***	−.223***	−.218***	−.215***
	(.097)	(.116)	(.057)	(.062)	(.054)	(.060)
Time Trend Interactions	Yes	Yes	Yes	Yes	Yes	Yes
Municipal Controls	-	Yes	-	Yes	-	Yes
Observations	1,686	1,686	1,686	1,686	1,686	1,686
F-stat	38.7***	10.5***	10.1***	43.1***	8.7***	36.4***

Note: The regressions here estimate the effect of passive transparency (FOI laws implemented across Brazil) on three corruption outcomes: whether the municipal administration has mismanage public funds, engaged in corruption, and the number of violations to sound spending according to federal law. Columns 1, 3, and 5 estimate the models without covariates. Columns 2, 4, and 6 include municipal covariates and time trends interactions to control for observable differences across municipalities that could simultaneously explain the outcomes. All standard errors are clustered at the municipality level. A municipality could have been audited more than once, thus the sample size (1,686) is larger than the number of unique municipalities in the study (1,114). *p<0.1; **p<0.05; ***p<0.01.

Table 4: The Effect of Active Transparency on Information

	FOI Request (time)		FOI Request (accuracy)	
	(1)	(2)	(3)	(4)
Active Transparency	.943***	.963***	1.100***	1.117***
	(.197)	(.150)	(.201)	(.151)
Time Trend Interactions	Yes	Yes	Yes	Yes
Municipal Controls	-	Yes	-	Yes
Observations	3,879	3,879	3,879	3,879
F-stat	45.0***	47.5***	55.1***	47.5***

Note: The regressions here estimate the effect of active transparency (random audits of public spending) on two FOI outcomes: the probability of the municipal administration responding to FOI requests in timely and accurately manner. Columns 1 and 3 estimate the models without covariates. Columns 2 and 4 include municipal covariates and time trend interactions to control for observable differences across municipalities that could simultaneously explain the outcomes. All standard errors are clustered at the municipality level. The information outcomes were collected in three waves, for the same municipalities, so the sample size (3,879) is larger than the number of unique municipalities in the study (2,033). *p<0.1; **p<0.05; ***p<0.01.

Figure 2: Performance Improvement Trends

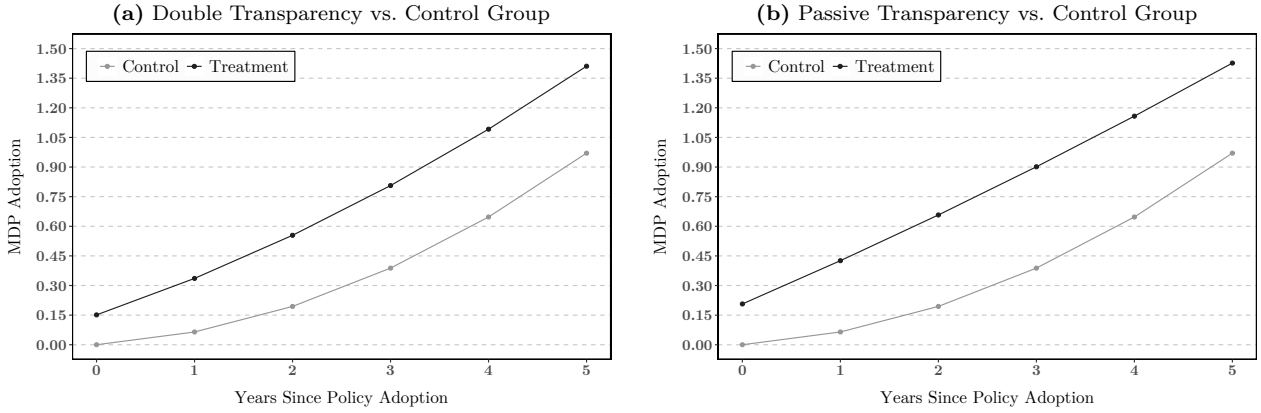

Figure 3: Development Improvement Trends

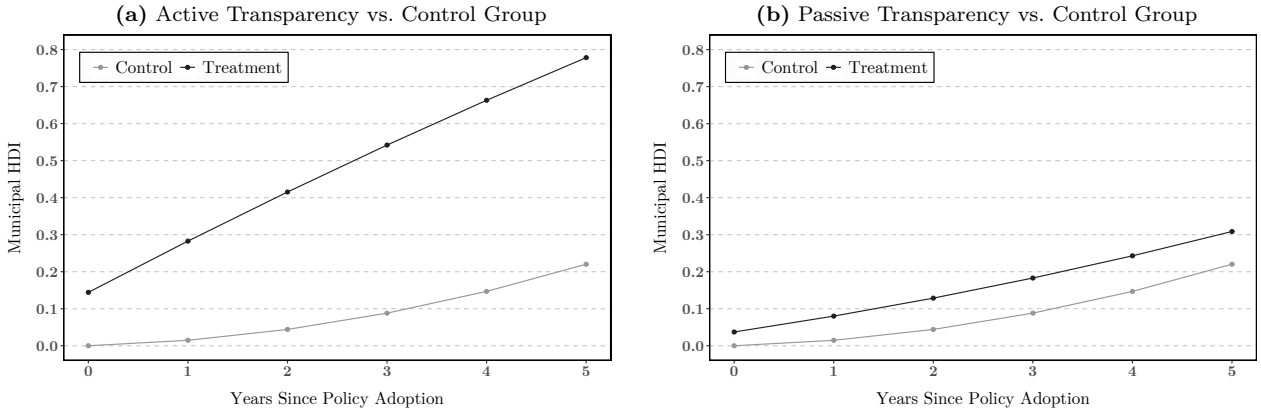

Figure 4: Corruption and Information Improvement Trends

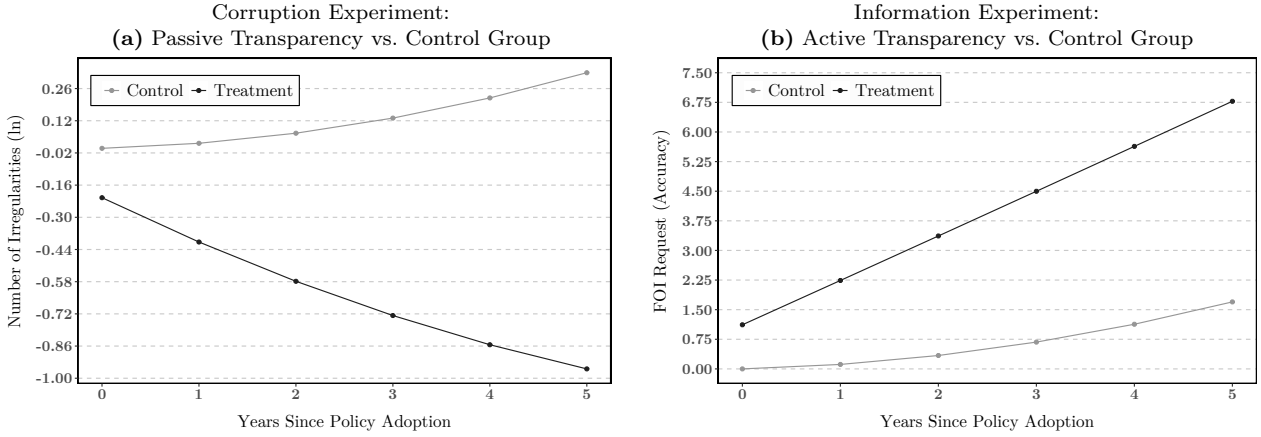

Figure 5: Figure Template