

Why Has Participatory Budgeting Adoption Declined in Brazil?

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Version 3.1

Prepared for the 114th Annual Meeting & Exhibition of the American Political Science Association, “Democracy and Its Discontents”
Boston, Massachusetts
August 30 – September 2, 2018

The authors wish to acknowledge Paolo Spada for providing the PB dataset and are thankful for his comments about the paper. The authors appreciate the extremely important comments and suggestions made throughout different stages of this paper made by Marta Arretche, Ruth Berins Collier, Adrian Gurza Lavalle, Ursula Peres, Wagner Romão, Rachel Bernhard, Anna Callis, Christopher Carter, Tanu Kumar, Natália Moreira, Rhea Myerscough, Mathias Poertner, Andres Schipani and Guadalupe Tuñón. The authors also wish to acknowledge the National Council for Scientific and Technological Development – Brazil (CNPq) funding.

Abstract

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Participatory Budgeting (PB) is a policy innovation that originated in Brazil and is recognized worldwide by scholars and international organizations as an effective policy tool for directly involving the population in decisions about the local budget. Its diffusion in Brazil was strongly stimulated by the Workers' Party (Partido dos Trabalhadores - PT), as a showcase of the "Petista Way of Governing". However, when the Party took the Federal Office, it abandoned PB as its main participatory policy priority.

The motivation for such drastic change in policy preference remains unexplained, by both scholars and the Party itself. To understand the reasons for it, we present an original hypothesis, based on party adaptation to increasing fiscal and budgetary rigidity. To test this hypothesis, we use a mixed-methods approach, with qualitative data, such as interviews and newspapers content analysis, and quantitative panel-data analysis: the correlation between the state of public finances and the local PB adoption probability. Our results show that the most significant factors for explaining PB adoption by a municipality are: having the PT as incumbent, a bigger population and a higher budget per capita. The factors that stood out to explain PB continuity are: political-administrative continuity and a higher investment rate.

Keywords: Participatory Budgeting; Workers Party; Fiscal Policy; Political Institutions.

Participatory Budgeting (PB) is a democratic innovation policy tool that enables direct involvement of the population in decisions about the local budget. Brazilian Worker's Party (PT-Partido dos Trabalhadores) activists, politicians and bureaucrats created it in the city of Porto Alegre, Brazil, in 1990. Later, in 1996, UN Habitat acknowledged it as a "Good Practice for Urban Governance"¹. Since then, the World Bank and activist networks have promoted its diffusion worldwide, which made PB and its foundational experience, the subject of several scholarly studies (Douglass and Friedmann 1998, Abers 2000, Avritzer and Navarro 2003, Baiocchi 2003, Wampler 2007, Santos and Avritzer, 2002). It has been adopted both nationally or by local governments worldwide, but the most successful and well known cases are in Latin America (Brazil, Peru, Argentina, Uruguay, Ecuador, Colombia) and Europe (Portugal, Italy, Germany, Spain and France)² (Cabannes 2004, Shah 2007, Oliveira 2018, Goldfrank, 2012, Sintomer, Herzberg, Röcke, Allegretti 2012).

Between 1989 and 2012, 256 Brazilian prefectures, of various political parties, adopted Participatory Budgets at least for one administration period. However, the PT accounts for most

¹ The government that received such an award was the prefecture of Belo Horizonte, capital of the state of Minas Gerais, during Patrus Ananias' (PT) administration (1993-1996), and not Porto Alegre as some might assume. For complete information check UN Habitat Best Practices Database: <http://mirror.unhabitat.org/bp/bp.list.aspx>.

² We have found reports from the World Bank and Un Habitat mentioning at least one local PB at the following countries: Bolivia, Guatemala, Nicaragua, Brazil, Uruguay, Peru, USA, Canada, Italy, France, Spain, Belgium, Germany, Greece, Sweden, Portugal, Albania, Armenia, Bulgaria, Moldova, Poland, Romania, Russia, Ukraine, Bangladesh, India, Indonesia, the Philippines, Thailand, Kenya, Mozambique, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe (Shah 2007, Cabannes 2004). USA and Canada have an activist's network that promotes PB along local authorities: participatorybudgeting.org.

of the cases, both in relative and absolute numbers, and the policy is clearly associated with this party³.

[Figure 1]

[Figure 2]

The peak of PB adoption in Brazil occurred precisely at the moment of the PT's election to the Federal Government in 2002 (for the 2003-2006 term), followed by a continuous decrease until 2012, which, if kept constant, would mean the disappearance of Participatory Budgeting in Brazil by the year 2024 (Spada 2012). Despite decreasing in Brazil, its place of origin, PB keeps expanding worldwide (Oliveira 2018, Cabannes 2004, Shah 2007, Sintomer, Herzberg, Röcke, Allegretti 2012).

PB diffusion follows the PT's electoral growth, at least until the early 2000s. However, when the PT took the Federal Office, it abandoned Participatory Budgeting as a high priority policy, stimulating other forms of civil society participation instead. Although Lula's 2002 presidential proposals included "to implement a national PB", the proposal simply disappeared from the Party's documents and debates since then (Bezerra 2014). Similarly, while in Federal Office, the PT did not create any policy mechanism to promote local governments to keep adopting PB.

We argue that the set of fiscal rules created during the early 2000s reduced PB effectiveness, by diminishing local budgetary discretion and limiting investment expenditure

³ Municipalities with more than 50 thousand inhabitants in 2008 (total of 578 municipalities). Others: parties with at least one PB case: PPS, PTB, PV PPB/PP/PPR/PTR, PL/PR, PCdoB, PRP, PSC, PHS, PRTB, PSDC, PSN. For detailed name and information of each Brazilian party: <http://www.tse.jus.br/partidos/partidos-politicos/registrados-no-tse>.

Due to a greater rigidity of local budgets, local governments had less capability to deliver the city works and improvements defined by the citizens over the budget. Faced with such disincentives, the PT switched its party strategy to implement participatory policies. To test this hypothesis, we use a mixed-methods approach, with qualitative data, such as interviews and newspaper content analysis, and quantitative panel-data analysis: the correlation between the state of public finances and local PB adoption. Our results show that budgetary variables are relevant both for explaining the first adoption, as well as the continuity of PB implementation. Our model shows that the most significant factors for explaining PB adoption by a municipality⁴ are: having the PT as incumbent, a bigger population and a higher budget per capita. The factors that stood out to explain PB continuity are: political-administrative continuity and a higher investment rate.

The article is organized into four more sections and final considerations, in addition to this introduction. The first section presents how the topic of diffusion and decline of PB adoption was addressed by scholars and how our argument fits into this debate. In the third section, we present the cases of Recife and Belo Horizonte as examples of how greater budgetary rigidity has reduced the capacity of municipalities to make the investments as defined by the population during PB assemblies. In the fourth section, we present how the changes in legislation generated constraints that reduced mayors' discretions over budget allocation, which would also reduce incentives to implement Participatory Budgets. The fifth section presents our quantitative model

⁴ Brazil is a Federative Republic, divided into four autonomous government spheres: Union (or Federal Government), States, Municipalities and the Federal District (a special sphere where the Federal Capital is located). There are no county or unincorporated areas, nor anything equivalent to such administrative divisions. In this article, we use the terms municipality or local government as synonyms.

to test the hypothesis that the reduction of municipal fiscal autonomy had an impact on the adoption and continuity of PBs. Lastly, we present our final considerations.

The literature on Participatory Budgeting

Participatory Budgeting (PB) is a policy focused on the discussion of the local budget by the citizens. Its output is the definition of priority investments, usually by neighborhood. Wampler (2008, p. 69) defines PB as:

a decision-making process that extends throughout the fiscal year. In assemblies organized for this purpose, citizens engage, along with administration officials, in negotiations on the allocation of expenditures involving new capital investments in projects such as health care clinics, schools, and paving of public roads.

While the emergence and expansion were the subject of numerous case studies, the reduction of the adoption of PB in Brazil received little attention. Dias (2002), Nylén (2003) and Souza (2011) represent the few case studies that point out that the incumbent political party, as well as the established relationship between executive and legislative, is crucial for the continuity in adopting PB in a given municipality.

The efforts to provide a quantitative analysis of Participatory Budgeting were also very limited, partially due to the low reliability of the data available, but there are some examples on both its diffusion⁵ (Wampler 2008, Spada 2014) and on its effects on human development and

⁵ Until the release of the Brazilian Participatory Budgeting Census (Spada 2012), the data available about Participatory Budgets in Brazil was sparse and imprecise. Among the efforts undertaken, we have an initial survey from the National Forum of Popular Participation (FNPP), for the period 1989-1996, to which Ribeiro and Grazia (2003) added data for the period 1997-2000. Finally, Wampler (2008) enlarges the survey for the period 2000-2004. That is, for each period we had a different methodology of data collection, which makes comparison and reliability

social expenditure (Boulding and Wampler 2010, Gonçalves (2014). Wampler (2008) is the first effort to understand PB's diffusion mechanisms. He does so by updating Ribeiro and Grazia's (2003) PB dataset up to 2004 and thus analyzing the effects of the PT as an incumbent, Left Party Presence in Legislative, Civil Society Networks, HDI, Region (South), and Investment Expenditure. The only significant factor for explaining diffusion in his work is the PT as incumbent party, followed by low significant investment expenditure, though inversely correlated.

The Brazilian Census of Participatory Budgeting of 1989-2012 provided more reliable and homogeneous data for a longer period (Spada 2012). Spada 2014 also developed a model that incorporates variables from case studies and Wampler's work, analyzing both the diffusion and decline of PB. He tests the effects of having the PT as an incumbent party, proximity with other cities with PB, the availability of resources, and the political vulnerability of local government. Spada (2014) concludes that the most relevant mechanism responsible for a decline in the expansion and survival of PB would be a change in the political strategy of the Workers Party, motivated by the election of Lula for Federal Office in 2002. Despite the originality of his study, Spada's conclusion seems to us insufficient to adequately respond to the real reasons for the abandonment of politics. Spada (2014) suggests this hypothesis, his only evidence being the temporal coincidence between the election of Lula and the beginning of the downward trend in PB adoption at the municipal level.

difficult. There are also authors such as Fedozzi, Lima and Martins (2014) who use data gathered by the Brazilian Participatory Budgeting Network (RBOP) for the period (2009-2012). We did not find any clear description of the methodology used by that network and even its site is down (www.redeopbrasil.com.br). Thus, the effort undertaken by Spada (2012), with a detailed and uniform data collection methodology, is unique.

Our work presents an alternative explanation. If Participatory Budgeting continued to promote positive political returns, one would expect the Party to continue investing in it, including the creation of federal incentives. Also, the mere loss of relevance for the PT does not explain the decline in PB adoption by all political parties, regardless of ideology (left-right) or positioning in relation to the government (situation-opposition). This element reinforces the operation of other institutional mechanisms, such as fiscal constraints, as a more plausible explanation for the gradual abandonment of the policy.

Increasing difficulties in implementing PB

In the late 2000s, there was a diffuse perception among PT leaders and bureaucrats of increasing difficulties to implement citizens' PB demands, albeit not explicitly in the party documents (Soriano 2014, Trevas 2014, Pontual 2014, Fragozo 2017). They would argue that resources allocated via PB were not perceived as effective to "respond to the demands of the population" because of "red tapes" that generated delays in the completion of the work beyond the fiscal year or even beyond the administration of the incumbent mayor. Another aspect highlighted by Fragozo (2017) regarding Fortaleza's PB (2005 - 2012) is that, despite the adequate fulfillment of the citizens' demands, the priorities defined in the PB process were only properly executed when they were simple works, such as street paving and sidewalks. Any major works that demanded land expropriation or for which there was no available budget - and therefore demanded external financing from the State, Federal Government or International - ended up taking longer than the duration of the administration's period for its completion.

Recife and Belo Horizonte are two cases of relatively successful and long-term adoption of Participatory Budgeting⁶ in Brazil. We use these two cases as examples of PB implementation with limitations faced in both cases. Both cities are state capitals and amongst the ten most populous cities in Brazil⁷.

Recife's PB started in 1993, during the administration of Jarbas Vasconcelos of the PMDB⁸, but under the administration of João Paulo (PT) in 2001 gained greater visibility, a new methodology that significantly expanded the number of participants and investments ⁹ (Wampler 2007, Wampler 2008). The PT remained for three consecutive administrations in charge of this

⁶ According to the Census of PBs in Brazil, only eight other municipalities adopted Participatory Budgeting for a period similar or superior to the ones in Recife and Belo Horizonte. They are: Teresina - PI, Vitória da Conquista - BA, Betim-MG, Ipatinga-MG, Vitória-ES, Volta Redonda-RJ, Piracicaba-SP and Porto Alegre-RS.

⁷ Recife is the capital of Pernambuco State, in the Northeastern region of Brazil. Recife's main socio-economic indicators: Population 1.537.704 - 9th in Brazil; GDP ~ R\$ 48 billion (~US\$ 12 billions) - 13th in Brazil; HDI: 0,772; monthly income per capita: R\$ 1,144.26 (US\$ 305,10). Belo Horizonte is the capital of Minas Gerais State, in the Southeastern region of Brazil. Belo Horizonte's main socio-economic indicators: Population 2.375.151 - 6th in Brazil; GDP ~ R\$ 87 billion (~US\$ 23 billion) - 4th in Brazil; HDI: 0,810; monthly income per capita: R\$ 1.497,29 (US\$ 399,07).

⁸ The Brazilian Democratic Movement Party (Partido do Movimento Democrático Brasileiro) is one of the main political parties in Brazil that originated from the bipartisan system created during Brazilian Military Dictatorship (1964-1985). During the 1980's a left wing party gradually migrated to a center-right wing position in the 1990s. It currently switched its name back to the original acronym "MDB".

⁹ According to Wampler (2008): "In Recife, the amount negotiated by the citizens was initially 10% of new capital investments (1995/1996), an index that subsequently, between 1997 and 2000, had been reduced again, but expanded to over 50% in 2001. "

city hall¹⁰, succeeded in 2013 by the current mayor Geraldo Júlio (PSB)¹¹. He ended up closing the program, reformulating it into a non-binding consultation of the population, renamed “Recife Participa”. Thus, PB was adopted continuously by five consecutive administrations of different parties (PMDB, PT and PSB). Despite the PT’s high political effort to keep the program, Recife’s PB has always had difficulties in its execution due to the scarcity of resources for investments, as well as an inefficient bureaucracy (Wampler 2007). The author described the program as a good funnel for population demands, but with a low capacity to respond to them. The news below shows the negative effects of increasing unfulfilled demands:

Created by the PT 14 years ago, the Participatory Budgeting of Recife still has overdue demands¹²

Created by Recife’s Prefecture during the João Paulo administration, in 2001, Participatory Budgeting (PB) still leaves behind overdue demands 14 years later, and [sic] even having been transformed into “Recife Participa” by the current mayor, Geraldo Julio (PSB).

When he took office in 2013, Geraldo Julio announced that there were 1,045 works from former PB that had been approved and had not yet begun to be implemented by the local government. From those, 320 projects were chosen as priorities by the current administration.

(...)

During Participatory Budgeting times, delegates voted on which infrastructure works they wanted the city to do and the winners would go into the municipal budget, but not always did the city hall have the means to carry them out.

The problem is that when there was no money to pay for them, the works were delayed until the following year. That is how they dragged themselves along João Paulo’s and João da Costa’s terms (PT).

From the 1,045 work demands received by Geraldo Julio, only 180 had an executive project.

¹⁰ João Paulo was re-elected and later elected João da Costa as his successor.

¹¹ Geraldo Júlio was reelected in 2016 for the 2017-2020 term.

¹² Translated by the authors, original in Portuguese. Blog do Jamildo, UOL columnist, published in April 5th 2017, available at: <http://blogs.ne10.uol.com.br/jamildo/2015/04/05/criado-pelo-pt-ha-14-anos-orcamento-participativo-do-recife-ainda-tem-demandas-atrasadas/>.

In order to avoid the excess of demands, when he instituted “Recife Participa”, Geraldo determined that the works debated may or may not be adopted by the PCR [Recife City Hall], as they were not mandatory.

The Belo Horizonte PB is as old as Recife’s. It also began in 1993 during Patrus Ananias’ term (PT). Since then, the PT and the PSB alternated in power at the city during six consecutive elections, always running together for elections as either mayor or vice-mayor¹³. Therefore, there was a political continuity and maintenance of the Participatory Budgeting program. As Márcio Kalil from PHS, a right-wing party, took office in 2016, this center-left-wing party alternation cycle was interrupted, but PB implementation was kept until present day. Unlike Recife, Belo Horizonte is a city with greater financial capacity for investments, as well as a better-qualified bureaucracy (Wampler 2007). PB’s limitations in this case regards its diminishing political relevance, as the resources deliberated by the citizens were gradually reduced and the technical criteria increased¹⁴. Despite such differences, the city faces the same issues regarding delays on work execution, as seen in the report below:

*BELO HORIZONTE: Participatory Budgeting adds up to R\$ 1 billion [US\$ 267 million] in unfinished works¹⁵
Engineer warns, however, what this was the expected cost for the interventions, which may have already risen*

¹³ The mayors of Belo Horizonte were: 1993-1996 - Patrus Ananias (PT); 1997-2001 - Célio de Castro (PSB), re-elected, but interrupts his mandate for health reasons; 2001-2008 - Fernando Pimentel (PT), deputy prefect who assumes and is then re-elected; 2009-2016 - Márcio Lacerda (PSB), re-elected; 2017-present - Márcio Kalil (PHS).

¹⁴ Most of the investment resources were deliberated during the standard budget approval process, in which the Executive submits a proposal to the Legislative, who may present amendments (Wampler 2007).

¹⁵ Translated by the authors, original in Portuguese. O Tempo newspaper, published in March 29th 2017, available at: <http://www.otempo.com.br/cidades/or%C3%A7amento-participativo-soma-r-1-bi-em-obras-n%C3%A3o-conclu%C3%ADdas-1.1453597>.

Belo Horizonte has an estimated amount of R\$ 1 billion [US\$ 267 million] in delayed works approved by the Participatory Budgeting (PB). Without own resources to complete the 441 interventions, that would account for 9% of the total Budget for 2017 (R\$ 11 billion) [US\$ 2.9 billion], the City Hall will start looking for loans. Such resources, however, can only be added to next year's budget. Meanwhile, there are works approved by the population in 2001 that have not yet come true.

From the total of 441 uncompleted works, 33 are being executed (7.4%). The remaining 92.6% either expect service order issuance, are in public bidding process, in the project drafting stage or, moreover, pending judicial and expropriation cases.

The Participatory Budgeting began in 1994 proposing to involve the population in the definition of city works. The occurrence of delays, however, created a snowball that affected interventions in the following PB editions. The percentage of PB's completion for 2001/2002 is now 97.6%. This rate falls steadily along the years down to 5.7% for the 2013-2014 edition - there is no information on when these works were completed [sic], nor guarantees that the interventions prior to 2001 were delivered on time.

These two cases, although anecdotic, are good illustrations of the obstacles local governments face: 1) the low availability of investment resources at the local level, even in the biggest cities; 2) inefficient bureaucratic procedures and low state capacities to process citizens' demands (low rate of drafted projects, expropriation and judicial pending); 3) PB design limitations, which allows the deliberation on works, without the budget availability for such, generating a snowball effect of unmet demands). Except for the last issue, related to PB design, all the budgetary and administrative obstacles are not related to any Party in particular, but are common challenges for anyone aiming for City Hall. The challenges for the execution of local works lead to a gradual discredit of the Participatory Budgeting program and the government itself. Moreover, the low capacity for implementation of the priorities deliberated by the population pushed towards its reformulation in more flexible frameworks: reducing the amount of resources to be discussed by the population or considering citizen deliberations as non-mandatory, in fact, just a suggestion. What has changed for a program awarded in the 1990s to become increasingly hard to be properly executed by local governments?

Fiscal discretion and financial autonomy of municipalities in Brazil

In the beginning of the 2000s, there have been major changes in fiscal regulation, that alter the budgetary reality of local government, the most important one being the approval of the Fiscal Responsibility Law (Lei de Responsabilidade Fiscal, Lei Complementar 101/2000, also known as LRF). The focus of the LRF is to ensure that all the federation's entities, especially States and Municipalities, follow controlled and sustainable fiscal parameters. The LRF is not only about general expenditures control, there is also a specific focus on the personnel expenditures and the adequate use of federal transfers into health and education policy systems (Leite and Peres 2010). Among the main innovations there are: limits on personnel expenditures and indebtedness; restrictions on the anticipation of budget revenues; and the prohibition on the creation of long-term future expenditure (more than two years) without prior source of funding.

Despite its positive effects on the State and Municipal fiscal balance, it had an undesired negative impact on the local investments availability. Menezes and Toneto Jr (2006) demonstrate that, between 1998 and 2004, there was a sharp decline in investment expenditures of 21.7%, as a direct consequence of the LRF¹⁶. The authors also show that personnel and current expenditures were not affected, and that debt interest and charges and loan amortization expenditures increased. Schettini (2012) argues that in the event of a budget imbalance, the City Hall tends to make an adjustment by reducing expenditures against the option of increasing

¹⁶ Capital expenditure comprises: investment expenditures, debt repayment and a general category named “other capital expenditures”. Total capital expenditure fell by 15.1%, reflecting only the drop in investment expenditures, as the other items increased an amount of 18.5% and 25%, respectively.

revenues. As most of the local budget is comprised of mandatory expenditures, the cut off has to be made on discretionary ones, such as investment.

Another federal regulation that had a great impact over local government fiscal autonomy during the 1990s was that of constitutional provisions of social policies, particularly health and education¹⁷. Such regulations establish compulsory resource transfers from Federal to local government, conditioning such transfers to the follow up of national policy guidelines and the binding between such revenues and its expenditures on the specific social policy. Thus, Brazilian federalism moved towards a format of decentralization of social services offered, which are in charge of the local governments, and a centralization at the Federal level of fiscal policy as well as basic operation norms and guidelines for social policies (Arretche 2012, Guicheney, Junqueira and Araujo 2017).

Therefore, the fiscal and budgetary reality under which municipalities were at the beginning of the 1990s is significantly different from that of the early 2000s. Although there has been an increase in revenue both in the period and in transfers (Leite and Peres 2010), the binding among revenues and expenditures and the inertial increase in expenditures (Peres and Mattos 2017), has significantly reduced the local executive's room for budget maneuvers. This means that the current situation of local governments is of high budgetary rigidity, in which there is a large volume of income, but also a large volume of compulsory expenditure. Thus, even

¹⁷ The most important legislation is the Education Basis and Guidelines Law (Lei de Diretrizes e Bases da Educação - Lei n 9394/1996, also known as LDB) and the creation of the National Fundamental Education Fund (FUNDEF - Fundo Nacional do Ensino Fundamental - Constitutional Amendment 14/1996), changed to FUNDEB - Fundo Nacional da Educação Básica, in 2006. On health policy, the Constitutional Amendment 29/2000 introduced a binding of 15% of tax revenues for health expenditure.

within a balanced budget, a local government may have little room to manage its discretionary budget (Leite and Peres 2010, Barberia and Avelino 2015, Peres and Mattos, 2017), the only type of budget resource deliberated in PB process.

Model Analysis

Hypothesis

Our hypothesis is that local governments gradually stop adopting PB because of a combination of increasing fiscal and administrative constraints and no longer having a central political actor as its promoter.

The set of fiscal regulations created throughout the 1990s directly affects PB effectiveness, because it limited the local fiscal discretion by reducing investments expenditures (public works)¹⁸ and increasing budgetary rigidity, through revenues and expenditures binding. In such a scenario, the PT stops promoting PB, as it also seizes other participatory policy alternatives in the Federal Government¹⁹.

If our hypothesis is correct, we should expect our model to predict that municipalities that have higher investment expenditures are more likely to adopt and continue PB. Also, that having the PT as the incumbent in a given municipality increases the probability of adopting PB during the whole period, with reduced effects after it takes Federal Office (2003).

¹⁸ The qualitative data has also shown a relevant impact of bureaucratic procedures and low local state capacities over the delay of the public works delivery. Although relevant, such issue will not be the focus of analysis in this paper.

¹⁹ During the period as head of the Federal Office, the PT kept its participatory program by expanding so called National Public Policy Councils and Conferences (Bezerra, 2018).

Model

Our model tests the probability of adoption and continuity of PB in Brazilian municipalities, having as a baseline Spada's model (2014), which incorporates most of the variables described by qualitative and quantitative literature (Dias 2002, Nylén 2003, Wampler 2008, Souza 2011). From this baseline, we add other variables to address the issue, grouped into three sets: economic, demographic and temporal adjustment variables²⁰.

First, to verify our hypothesis, we use as financial variables the municipal budget per capita and the rate of investments (in relation to the total budget). These variables have a strong and consistent effect of predicting the chances of a municipality adopting PB²¹.

Second, we add population in its natural logarithm as a control variable, for PB has greater presence in large cities, regardless of the mayor's party. As population correlates to a series of factors²², ignoring this variable may bias the model. We use interactive models to demonstrate that left and right parties have a different probability of adopting PB according to population size.

Third, we have to model the path dependence, or temporal adjustment variables. We chose to work with interactive modeling, using the complete sample and interacting the existence

²⁰ We do not use the geographic variables of the Spada model (2014). This option occurs due to the lack of significance in the original model with respect to continuity and no theoretical reason to try a different measure.

²¹ Spada (2014) uses other financial variables (percentage of tax collection on total revenue and total expenditure on total revenue), finding no statistical significance. In fact, these are not the most adequate to analyze neither the volume of resources available nor the fiscal discretion of municipalities.

²² Larger cities tend to have a higher tax collection and higher budgets, for example.

of PB in the previous period with highly significant variables to explain the chance of continuity or abandonment.

The analysis follows a panel data model with fixed effects of time. The model follows the following basic reasoning, with the respective matrices of variables detailed below.

$$E(PB_i) = \alpha + \beta_1 PATH_i + \beta_2 POL_i + \beta_3 ECO_i + \beta_4 POP_i + \beta_5 INT_i + \beta_6 FE_i + \varepsilon$$

1. PB Variable: The dependent variable is a dummy, with value one, when the municipality adopts PB for that term, and zero, when not adopting the program. For cases valued as one, the Path variables informs if there is a new adoption or a continuation of the program already adopted in previous administrations. In some situations, the variables behave differently when it is a first time adoption or when it is a continuation of the program.

2. Path Variables (PATH). To evaluate the effect of path dependence, we use two variables. The first is whether the municipality had PB in the previous period or not; that is, the lagged dependent variable. The second is the amount of accumulated periods during which the municipality adopts PB. The assumption of this last variable is that the longer the policy stays in the city, the more difficult it is to remove it.

3. Political variables (POL). These variables include partisan control variables, political continuity and political vulnerability variables. First, for partisan control variables, we use a dummy variable that has value 1 when the incumbent mayor is a PT partisan²³. We also insert a variable indicating whether the incumbent is from a left leaning party (PT, PSB, PDT or

²³ We are referring to the incumbent mayor, not a recently elected mayor. Thus, for the variable to have a value of 1 in a given city in 2000, it is necessary that a PT mayor was elected in that city in the 1996 election, for the 1997-2000 term.

PCdoB²⁴) to control for the effect of the left in general (not just the PT) on the probability of PB adoption. Finally, we control for different PT behavior before and after it takes Federal Office in 2003, by using a dummy that has value 1 for the periods after 2003.

Second, we control for political continuity effects. For that, we use a dummy that has value 1 in cases where there is party continuity, and another dummy that takes value 1 if there is a mayor continuity (re-election). These variables may overlap, but there are cases in which the mayor has a successor from the same party (because it cannot be reelected anymore, for example) or cases in which mayors switch parties (and reelects himself). If a Party or a mayor adopts PB in the first term, we expect that he is more likely to also do so in the second term.

Third and finally, we control for the mayor's political vulnerability, measured by the runner-up over the winner's ratio vote and by the percentage of City Council seats (legislative body) occupied by the City Hall incumbent party.

4. Economic and Fiscal Variables (ECO). Our hypothesis - that the availability of investments correlates with the occurrence of PB - is measured by the investment rate (total investment over total expenditure). We also use the municipal public budget per capita (in its natural logarithm) as a control variable, for there might be other discretionary expenditures not captured by our first variable.

²⁴ PSB stands for Brazilian Socialist Party (Partido Socialista Brasileiro), PDT for Labour Democratic Party (Partido Democrático Trabalhista) and PCdoB for Communist Party of Brazil (Partido Comunista do Brasil). These three party are very likely to make alliances with PT. Other Brazilian left parties that were not considered in this study for not holding office at any City Hall are: Socialism and Liberty Party (PSOL – Partido do Socialismo e Liberdade), Brazilian Communist Party (PCB – Partido Comunista Brasileiro), Unified Workers' Socialist Party (PSTU – Partido Socialista Unificado dos Trabalhadores).

5. Population or scale variables (POP). We use the natural logarithm of the population as a control variable. From the descriptive statistics, larger cities adopt PB proportionally more than smaller cities, but it is not clear how much this effect is due to Budget (also correlated to population size).

6. Interactions (INT). We present three different interactions. The first two are interactions with the lagged dependent variable, which helps explain what factors are the most important to explain PB's continuity (political continuity variables and the financial variables) and the third regards population and party behavior. For political continuity, we use two interactions of PB lagged variable: mayor and party reelection. Regarding financial variables, also another two interactions with PB lagged variable: investment rate and total budget per capita (log). Finally, as party behavior may change according to the population size, we interact population with the following variables: PT mayors, left leaning mayors and PT mayors after 2002.

7. Fixed Effects (FE): These are dummies for each analyzed period. The fixed effects model aims to capture influences not explained by the model variables in a certain period. That is, how much unknown factors explain changes observed in specific period. The database contains four periods: 1997-2000, 2001-2004, 2005-2008 and 2009-2012. The first two refer to periods of PB diffusion and the last two are periods PB retraction.

We tested four models in this study, derived from the basic equation above. The first two use all the terms of the equation presented above, except the interactions. These models are more easily interpreted by simply looking at the coefficients on Table 1 (see appendix). The other two models include the interactions. As the interpretation of interactive models is not very intuitive, we use a graphical approach to present and discuss the results (for the complete table, see Table

2, on appendix). Both for the non-interactive and for the interactive models, we ran a Fixed Effects Linear Predicted Model (LPM), which simply consists of the ordinary least squares method on a binary dependent variable. We also tested the same variables with the Logit model, whose results did not differ significantly from the LPM.

Data Sources

Our database uses preferably primary sources²⁵, drawn from four different sources. Our dependent variable comes from the Brazilian Participatory Budgeting Census for the 1989-2012 period²⁶ (Spada 2012), which unified and updated available data on existing Brazilian Participatory Budgeting (Ribeiro and Grazia 2002, Avritzer and Wampler 2004). The variable is a dummy that informs about the existence or not of Participatory Budgeting in a municipality, for each administration period. Only municipalities with more than 50 thousand inhabitants in 1996 are considered. The data uses as reference the existence of PB in the municipality during the three years preceding the reference year, which is always the end of political term. For example, the year 2000 refers to mayors elected in 1996 for the 1997-2000 term.

²⁵ The complete database and model replication codes are available at:

<https://github.com/Murilojunqueira/FinancasParticipacao2018>.

²⁶ The data and methodology of the Brazilian Participatory Budgeting Census for 1989-2012 are available at:

<https://participedia.net/en/content/brazilian-participatory-budgeting-census>. The Census was updated for the 2016 period. In this work, we only use data covering a period until the 2012 period, but we intend to update the entire base for the year 2016, which would allow to cover all periods leading up to the present time, for the next municipal elections are to be held in 2020. The PB downward trend in 2016 is steeper.

Our political variables come from official electoral data from the Brazilian Superior Electoral Court (TSE), pre-treated by CEPESP Data²⁷. For financial variables, we used dataset provided by the National Treasury Department of the Ministry of Finance (STN/MF) called Brazil Finances: Accounting Data of Brazilian Municipalities (FINBRA)²⁸. All data were deflated, using 2015 as reference year. Finally, for the demographic data (population) we used the Brazilian Statistics and Geography Institute (IBGE) data, pre-treated by the Applied Economics and Planning Institute (IPEA) data²⁹. For all financial data, we use the average of the four years period to avoid distortions caused by atypical economic behavior in a specific year.

Main results

Our results demonstrate that the most significant factors for explaining a PB adoption by a municipality at least once are: having the PT as incumbent party, a bigger population and a higher budget per capita. The factors that stood out to explain PB continuity are: political-administrative continuity and a higher investment rate. These results are consistent with our initial hypothesis, but they add more complexity to the issue. The investment rate is relevant only

²⁷ TSE stands for “Tribunal Superior Eleitoral”. CEPESP FGV is a Brazilian Research Center. For more information, please visit: <http://www.cepesp.io>. For the 1996 election, we use information obtained directly from the TSE website, since this election is not on Cepesp dataset.

²⁸ STN/MF stands for “Secretaria do Tesouro Nacional do Ministério da Fazenda”. FINBRA stands for “Finanças do Brasil: Dados Contábeis do Municípios Brasileiros”. For more information, go to: <http://www.tesouro.fazenda.gov.br/contas-anuais>.

²⁹ IBGE stands for “Instituto Brasileiro de Geografia e Estatística”. IPEA stands for “Instituto de Planejamento e Economia Aplicada”. For more information, go to: <http://www.ipeadata.gov.br>.

for explaining PB continuity, but not its first-time adoption, which budget per capita explains better. Population is *per se* a relevant explanatory variable, and in interaction with political parties, shows the existence of a different behavior according to the size of the city.

To analyze the interaction effects of the lagged dependent variable, population and the other variables in our complete model, we use a graphical approach, since interpreting interactive models from regression tables is not intuitive (Brambor, Clark, Golder, 2006). In these graphs, the vertical axis displays the expected values of the dependent variable, $E(PB_i, t = 1)$, that is, the chance of any city adopting PB in a given year. The horizontal axis displays selected independent variables in interaction. All other model variables not displayed in the graph are in its mean values. All graphs also show the confidence intervals of 90% of the estimates. The complete interactive model estimates table is available in the appendix [Table 2].

PT as incumbent: As expected and similarly to other scholars' results (Wampler 2008, Spada 2014) having the PT as incumbent is a strong predictor of PB adoption and political continuity as well, with a significant drop after 2003. The PT effect in the non-interactive model must be interpreted by combining two variables: PT and PT after 2003. For the analyzed period, having the PT in charge of a prefecture increases its probability of adopting PB by 70% ($\beta = 0.7$). However, the variable PT as incumbent after 2003 presents a negative coefficient ($\beta = -0.33$). As these variables derive from each other, they must be considered together for proper interpretation: thus, after 2003, a PT prefecture still has a 37% higher probability of adopting PB in comparison to the other parties. That is, even if there is a significant drop, the PT remains an important predictor of PB adoption.

[Table 1]

Population: Looking at the population variable, it shows the tendency of PB to occur more often in large cities. In fact, the mere descriptive statistic shows that 54% of Brazilian municipalities with more than 500,000 inhabitants have adopted PB at least once, a number that falls sharply as the population size decreases. This may help to explain how PB became a famous showcase program, even though it does not have a massive diffusion in Brazilian municipalities. Before 2003, the PT also concentrated its presence in prefectures of medium and large cities, a fact that changes after it takes Federal Office, when the Party begins to spread to small towns. Figure 2 displays the interaction between the PT and the municipal population, before and after 2003. It shows that the PT effect decreases in small and medium-sized cities. In cities with more than 1 million inhabitants, the PT influence over PB adoption remained at a level of 80% for the whole period³⁰.

[Figure 3]

Another original finding is the interaction between population and ideological spectrum. We present below, a graph that isolates the effects of the interaction between population and political parties, separated in three groups: PT only; other leftist parties (PSB, PDT and PCdoB); and, center or right-wing parties. For all three groups, the tendency to adopt PB increases as population increases, and the PT is always the main PB adopter in any population size. However,

³⁰ There are 15 municipalities in Brazil with a population larger than 1 million inhabitants, most of them are State Capitals. Eleven of them have adopted PB at least once. In decreasing order (2010 National Census): São Paulo-SP (11.3 million), Rio de Janeiro-RJ (6.3 million), Salvador-BA (2.6 million), Brasília-DF (2.5 million), Fortaleza-CE (2.4 million), Belo Horizonte-MG (2.3 million), Manaus-AM (1.8 million), Curitiba-PR (1.7 million), Recife-PB (1.5 million), Porto Alegre-RS (1.4 million), Belém-PA (1.3 million), Goiânia-GO (1.3 million), Guarulhos-SP (1.2 million), Campinas-SP (1 million), São Luís-MA (1 million).

this increase is very steep for the left-wing party group that ends up very close to the PT's level in large cities over 1, 2 million inhabitants. This finding is consistent with the strategy adopted in the examples of Belo Horizonte and Recife, where the PT and the PSB took turns in the posts of mayors and vice-mayors, always running as allies and guaranteeing the maintenance of PB as an element of the program of both parties.

[Figure 4]

Political Continuity: The political-administrative continuity analysis considers three variables: the continuity of the Party and the mayor, and their interaction with PB adoption in the previous term (lagged dependent variable). We present thus four scenarios: (a) re-elected mayors who did not adopt PB in their first term; (b) re-elected mayors adopting PB in their first term; (c) Same party succession where the previous administration did not adopt PB; and, (d) Same party succession where the previous administration adopted PB. Figure 4 shows that re-elected mayors or parties who did not adopt PB in their first term, have a very low chance of adopting PB in the following one: around 8% and 15%, for mayors, 17% and 24%, for parties, with 90% confidence. The situation changes when the previous administration already adopted PB. In this case, the re-elected mayors have between a 35% and 47% chance of continuing PB, and a same party successor, between a 29% and 44% chance of keeping everything more constant³¹. That is, even in the case of political continuity, the tendency of mayors is to abandon PB after the first adoption in more than half of the cases. Another important variable to analyze the effect of

³¹ As mentioned, figures consider the non-displayed model variables in their average value. If we estimated the expected values of the right-wing mayors who did not adopt PB in their first term, the values would be even lower. If we estimated the expected values of the PT's mayors for PB continuity, the values would be much higher.

accumulated years of PB adoption. As expected, the longer the program is implemented in the municipality, the greater its tendency for continuity, regardless of changes of party or mayor.

[Figure 5]

Financial Variables: The results show that the budget per capita is an important predictor for PB adoption. As population and budget tend to correlate, that is, the more inhabitants, the higher the budget, we use budget per capita as a measure, which allows us a better comparability of budget availability. Figure 5 displays PB adoption probability through the interaction of budget per capita and the lagged dependent variable, showing separately the effect in case of first-time PB adoption ($E(PB_t = 1 / PB_{t-1} = 0)$), and the effect of PB continuity, that is, PB adoption in a previous administration ($E(PB_t = 1 / PB_{t-1} = 1)$). In the background, there is a grey histogram with the budget per capita distribution. The figure shows that the increase in budget per capita increases the chances of a municipality to adopt PB, but the variable does not affect PB continuity probability. In other words, cities with more resources are more likely to adopt PB, but once adopted, the budget per capita size does not influence the continuity probability.

[Figure 6]

Likewise, the investment rate also presents a difference in behavior between municipalities and whether or not they have previously adopted PB, as shown in Figure 6. However, it affects both the first time adoption chance and the PB continuity, in inverse correlation. Municipalities that have already adopted PB have a greater chance of continuing to adopt the program if they have a larger investment expenditure. This finding is consistent with previous qualitative research, which focused on municipalities that had already adopted PB and reported that the lack of investment resources availability made the policy less attractive.

However, for cases where there is no previous PB adoption, the prediction is reversed: the higher the investment rate is, the lower the probability of adopting the program.

[Figure 7]

Our model presents important findings that confirm, partially, our initial hypothesis that municipalities that have more budget availability are more likely to adopt and continue PB. The data shows that municipalities with higher budgets per capita are more likely to adopt PB, but only the investment rate is an adequate predictor for the continuity of the program. In this way, we can affirm that, increasing budgetary rigidity contributed to the decline of PB, both by reducing its effectiveness and thus imposing constraints on its continuity, as our qualitative research had already suggested.

In addition to demonstrating that financial variables are key to understanding the process of a declining PB adoption rate, our model innovates by adding interactive analysis and incorporating the population variable. We reinforce the PT's key role for PB's diffusion. However, unlike in the analysis by Spada (2014), apart for party and political continuity variables, other political variables did not appear as statistically significant in any of the several models tested.

Final considerations

In the early 1990s, Brazilian municipalities had apparently smaller budgets but greater room for budgetary maneuver, for there were fewer fiscal regulations (and thus, local governments largely used resources by creating future debts) and less revenue and expenditure linkages. This scenario changes drastically with the subsequent set of fiscal regulations, notably the LRF. Besides its explicit scope for promoting financial equilibrium of the Federation, it also had some unintended

consequences, such as decreasing local investment expenditures. In addition, social policies legislation, in order to guarantee the right for education and health services, created revenues and expenditures linkages for Federal transfers to local government, which also increased local budgetary rigidity.

By the time the PT is elected to Federal Government, PB was the party's main showcase policy, adopted massively by its prefectures (93% of PT prefectures adopted PB for the period of 1996-2000 and 87.5% for the period of 2000-2004). Taking Federal Office represented new policy opportunities and political priorities, at the same time during which PB cases began to not have the same positive results as before.

The distributive conflict for budget resources among the various interested actors in the executive and in the legislative increases. As our examples showed, the PB process faced years of delay in the execution of the works approved as priority, either due to a lack of resources or low local state capacity, making PB less effective and less politically attractive, either for the population or for the Mayor in office. In this case, either the program is reformulated in a more flexible framework or the amount deliberated by the population is reduced.

In this context of strong budgetary rigidity and scarcity of resources for new investments in municipalities, the maintenance of Participatory Budgeting as a local participation policy would require some type of regulation or federal induction policy³². However, although the PT has proposed, in its programs and party resolutions, the implementation of a "National Participatory Budgeting", there is no record of any concrete action in this regard. The change in

³² Such federal induction mechanisms are common and occur in cases of Social Policy Councils with high dissemination (Gurza Lavallo and Barone 2019, Mayka 2018), or even in the case of PB in Peru, where there is a national law that obliges all municipalities to adopt Participatory Budgeting (Oliveira 2018).

the PT's strategy to promote participation ends up contributing to an institutional design that has gradually become unfavorable to PB adoption, as well as any municipal policy that requires local autonomy and discretion. In the absence of other political or fiscal incentives, the program follows a trajectory of inertial continuity, being gradually abandoned.

In summary, we argue that due to gradual changes in fiscal legislation, which have led to a greater rigidity of municipal budgets, as well as administrative obstacles to the execution of works, the effectiveness of the decisions made by the population on the budget has been reduced. In such a scenario, and without creating new institutional incentives for PB, new adoptions were discouraged and only long-term successful cases tended to continue.

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- a. Pedro Pontual, held on March 27, 2014.
- b. Joaquim Soriano, held on March 18, 2014.
- c. Vicente Trevas, held on May 26, 2014.
- d. Marcelo Fragozo, held on August 10, 2017.

Figure 1. Municipalities adopting PB per year in Brazil

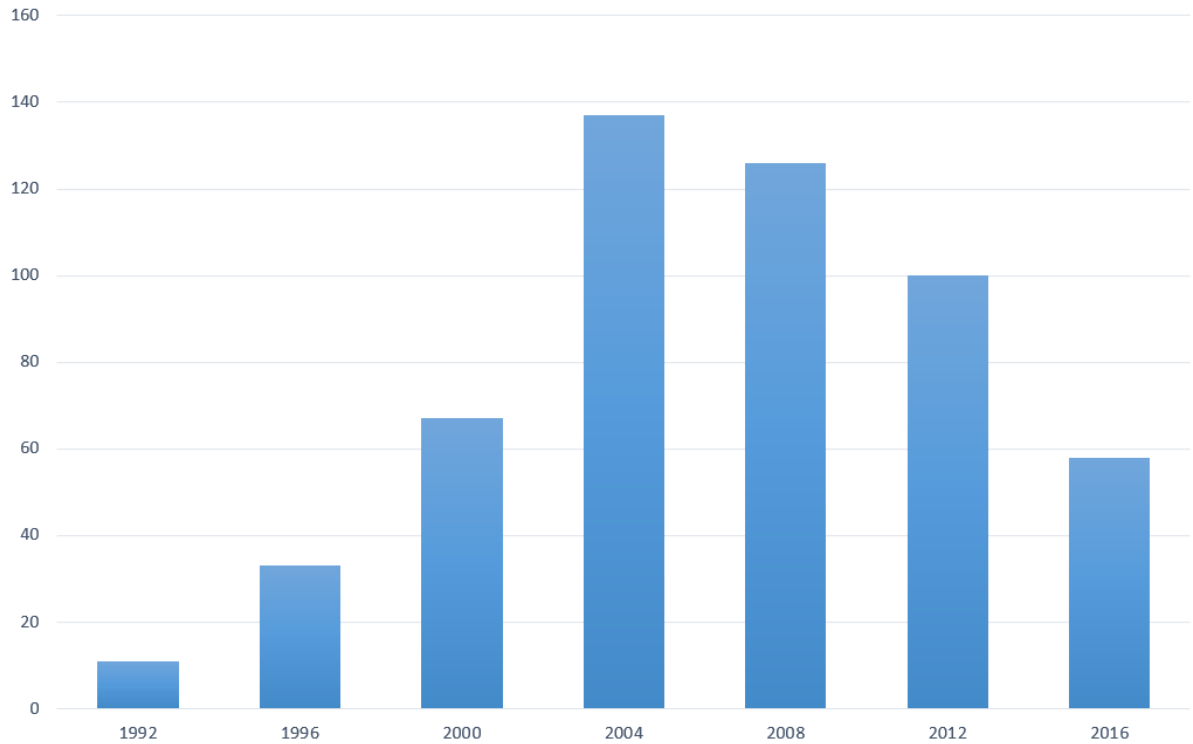


Figure 2. Municipalities adopting PB per party in Brazil

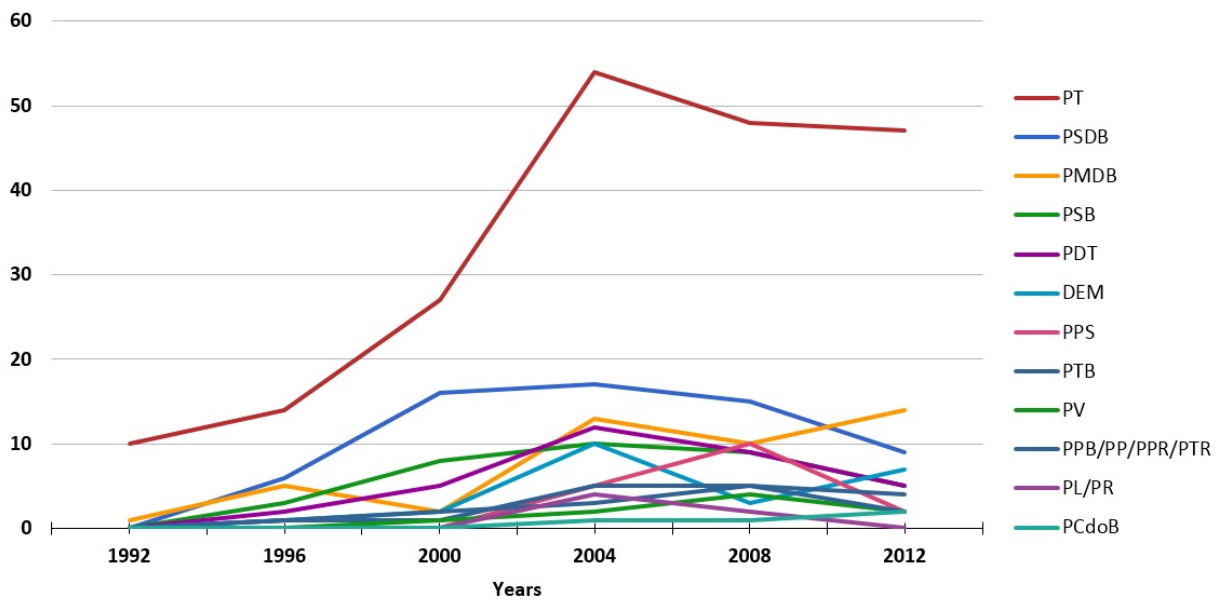


Figure 3. PB Adoption rate for PT - Population and time period interaction

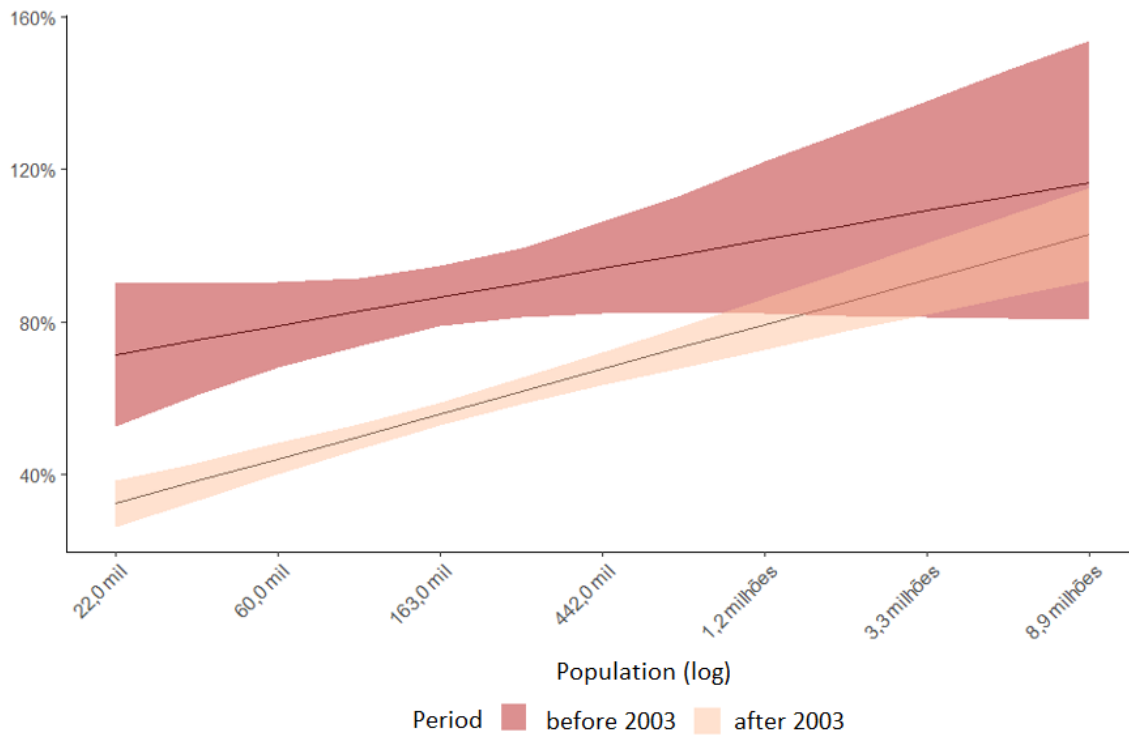


Figure 4. PB Adoption/Continuity rate - Population and ideology interaction

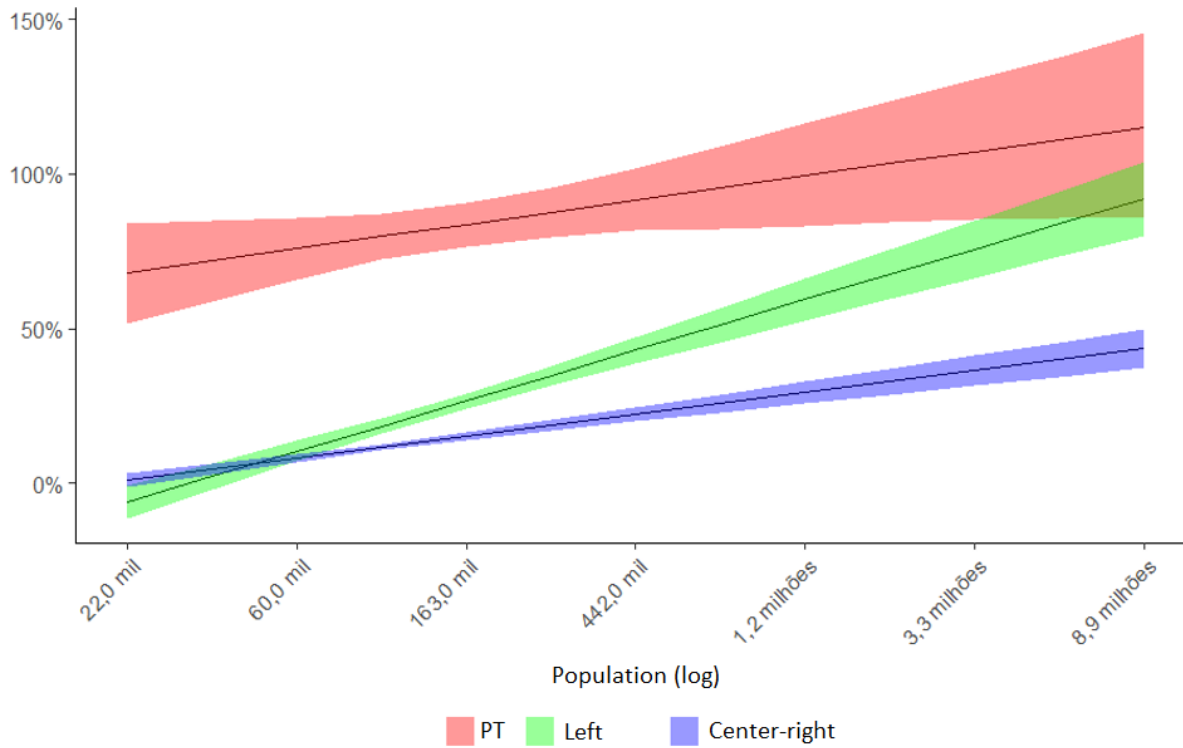


Figure 5. Administration continuity effect on PB continuity/adoption



Figure 6. PB Adoption/Continuity rate - Previous PB and Budget per capita interaction

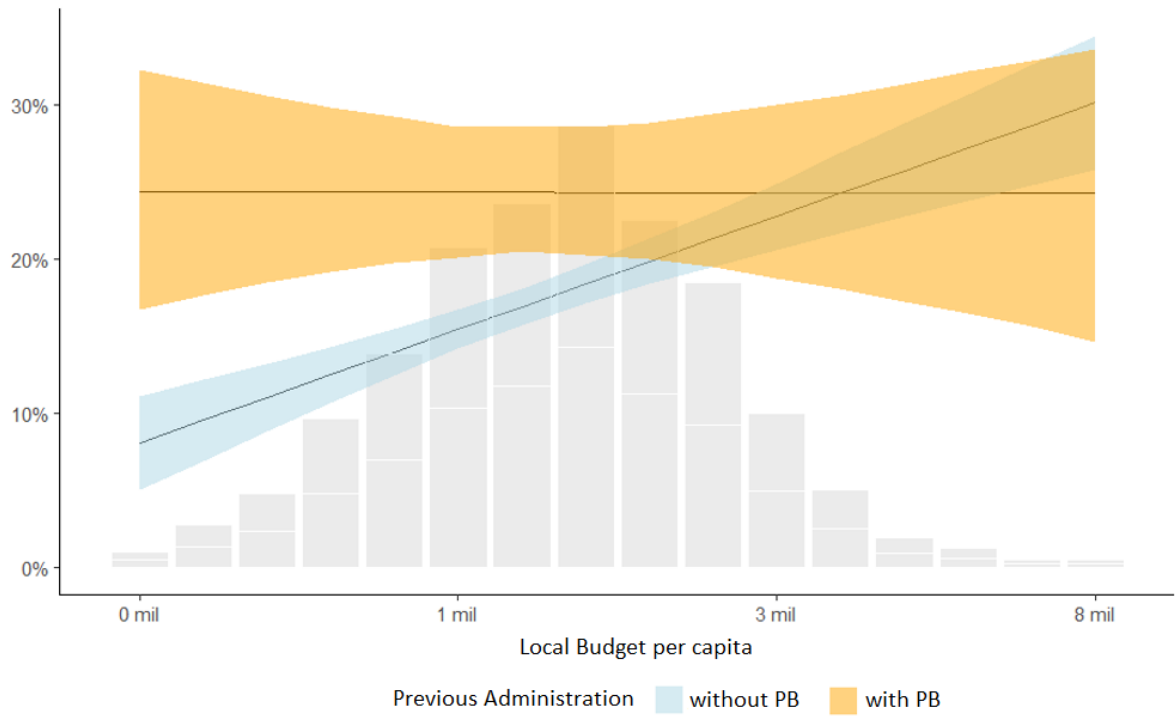


Figure 7. PB Adoption/Continuity rate - Previous PB and Investment rate interaction

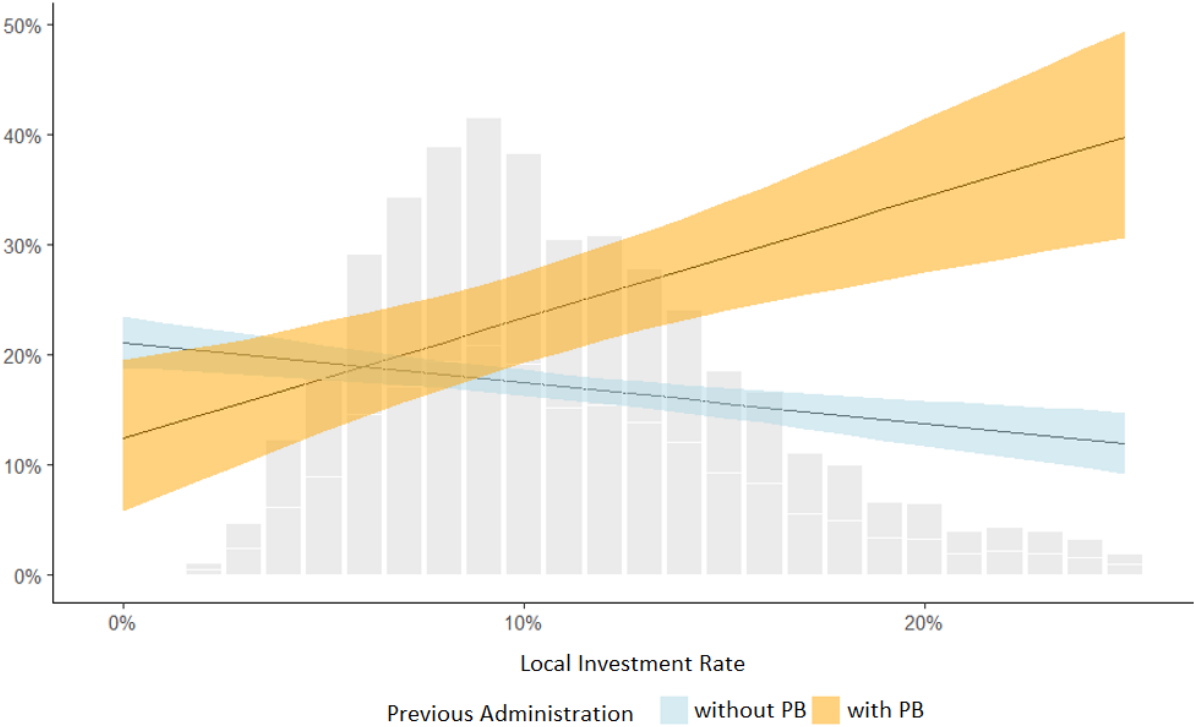


Table 1. Non-interactive models

	OLS Fixed Effects		Logit Fixed Effects	
	<i>B (CI)</i>	<i>p</i>	<i>B (CI)</i>	<i>p</i>
(Intercept)	-1.46 (-1.80 – -1.11)	<.001	-14.80 (-17.92 – -11.76)	<.001
1. Previous PB (dummy)	0.04 (-0.04 – 0.11)	.367	0.31 (-0.30 – 0.90)	.310
2. PB Years in the Municipality	0.08 (0.04 – 0.12)	<.001	0.47 (0.14 – 0.81)	.006
3. Population (log)	0.09 (0.07 – 0.11)	<.001	0.62 (0.45 – 0.80)	<.001
4. PT as incumbent (dummy)	0.70 (0.56 – 0.84)	<.001	4.96 (3.30 – 7.88)	<.001
5. PT as incumbent after 2003 (dummy)	-0.33 (-0.47 – -0.19)	<.001	-3.13 (-6.06 – -1.44)	.003
6. Left Party	0.10 (0.05 – 0.15)	<.001	0.76 (0.38 – 1.14)	<.001
7. Party Continuity	0.01 (-0.04 – 0.06)	.755	0.03 (-0.43 – 0.48)	.905
8. Ratio of runner-up votes over mayor's votes	0.00 (-0.07 – 0.08)	.901	-0.09 (-0.72 – 0.54)	.775
9. Mayor's party at City Council(%)	0.00 (-0.17 – 0.17)	.999	0.11 (-1.36 – 1.57)	.878
10. Mayor Continuity	-0.06 (-0.11 – -0.01)	.017	-0.54 (-0.98 – -0.11)	.016
11. Local Budget per capita(log)	0.08 (0.04 – 0.12)	<.001	0.72 (0.36 – 1.07)	<.001
12. Investment rate	-0.19 (-0.51 – 0.14)	.260	-1.39 (-4.50 – 1.62)	.372
2001-2004	0.13 (0.07 – 0.18)	<.001	1.19 (0.68 – 1.71)	<.001
2004-2008	0.04 (-0.02 – 0.09)	.167	0.45 (-0.06 – 0.97)	.088
2008-2012	-0.07 (-0.13 – -0.01)	.020	-0.51 (-1.10 – 0.08)	.092
Observations	1755		1755	
R ² / adj. R ²	.348 / .342		.284 / .436	
AIC	1163.411		1290.936	

Table 2. Interactive models

	OLS Fixed Effects		Logit Fixed Effects	
	<i>B (CI)</i>	<i>p</i>	<i>B (CI)</i>	<i>p</i>
(Intercept)	-1.36 (-1.74 – -0.97)	<.001	-1.36 (-1.74 – -0.98)	<.001
1. Previous PB(dummy)	0.34 (-0.37 – 1.05)	.347	0.34 (-0.37 – 1.05)	.347
2. PB Years in the Municipality	0.09 (0.05 – 0.14)	<.001	0.09 (0.05 – 0.14)	<.001
3. Population (log)	0.07 (0.05 – 0.10)	<.001	0.07 (0.05 – 0.10)	<.001
4. PT as incumbent (dummy)	2.43 (0.54 – 4.32)	.012	2.43 (0.54 – 4.32)	.012
5. PT as incumbent after 2003 (dummy)	-1.09 (-2.99 – 0.82)	.265	-1.09 (-2.99 – 0.82)	.265
6. Left Party	-1.11 (-1.75 – -0.47)	<.001	-1.11 (-1.75 – -0.47)	<.001
7. Party Continuity	-0.04 (-0.09 – 0.02)	.221	-0.04 (-0.09 – 0.02)	.221
8. Ratio of runner-up votes over mayor's votes	0.02 (-0.05 – 0.09)	.620	0.02 (-0.05 – 0.09)	.620
9. Mayor's party at local chamber(%)	0.03 (-0.14 – 0.20)	.724	0.03 (-0.14 – 0.20)	.724
10. Mayor Continuity	-0.07 (-0.12 – -0.01)	.015	-0.07 (-0.12 – -0.01)	.015
11. Local Budget per capita(log)	0.09 (0.05 – 0.13)	<.001	0.09 (0.05 – 0.13)	<.001
12. Investment rate	-0.32 (-0.67 – 0.03)	.070	-0.32 (-0.67 – 0.03)	.070
2001-2004	0.13 (0.08 – 0.19)	<.001	0.13 (0.08 – 0.19)	<.001
2004-2008	0.04 (-0.02 – 0.09)	.160	0.04 (-0.02 – 0.09)	.160
2008-2012	-0.07 (-0.13 – -0.01)	.029	-0.07 (-0.13 – -0.01)	.029
Interaction 3:4	-0.14 (-0.30 – 0.01)	.073	-0.14 (-0.30 – 0.01)	.073
Interaction 3:6	0.10 (0.05 – 0.16)	<.001	0.10 (0.05 – 0.16)	<.001
Interaction 3:5	0.06 (-0.10 – 0.22)	.462	0.06 (-0.10 – 0.22)	.462
Interaction 1:10	0.04 (-0.07 – 0.15)	.478	0.04 (-0.07 – 0.15)	.478
Interaction 1:7	0.16 (0.05 – 0.27)	.006	0.16 (0.05 – 0.27)	.006
Interaction 1:12	1.10 (0.22 – 1.98)	.015	1.10 (0.22 – 1.98)	.015
Interaction 1:11	-0.07 (-0.16 – 0.03)	.177	-0.07 (-0.16 – 0.03)	.177
Observations	1755		1755	
R ² / adj. R ²	.362 / .354		.060 / .382	
AIC	1138.505		1138.505	