

Decoding Local Public Finance: The Interplay of the Legislature and the Executive

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Abstract

In the world of government and politics, the interaction between the executive and the legislature raises a fundamental question: Does an increased political class boost financial resources or burden the state's finances? Using unique administrative data from Italian municipalities and an instrumental difference-in-difference strategy, this paper explores how roles that politicians play within the government matter. The study finds that the presence of more executive politicians leads to increased expenditure, primarily driven by higher investments financed through capital transfers, while a surplus of councilors exerts a constraining effect on public spending. These patterns are explained through the lens of specialization within a larger executive body and political fragmentation within a larger council. Voters respond positively to the additional spending by the executive, supporting upward career movements for the mayor and the re-appointment of executive board members. However, councilors' careers do not benefit from their spending behavior. This research contributes to the understanding of the complex relationship between political class size and state finances, which the literature found ambiguous. **JEL:** D72, H11, H71, H72, P16

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1. Introduction

In the vast domain of government and politics, where every decision carries a fiscal consequence, the age-old question persists: Does a larger political class bolster budgets or burden the treasury? This study explores these complexities, aiming to uncover the elusive connection between government size and its financial well-being.

Does the size of a government's political class impact its financial health? More specifically, I inquire whether the relative sizes of two essential branches of a democratic government—the executive, tasked with governing and making day-to-day decisions, and the legislature, responsible for guiding and overseeing executive actions—significantly affect budgetary outcomes. I posit that the bargaining dynamics between these branches during budget drafting processes bear greater weight in shaping a government's financial picture than merely the overall size of the political class.

It is during the budget drafting process that the interplay between the executive and the legislature becomes most pronounced. The compromises reached in this process exert a substantial influence on government finances. This paper contends that understanding the impacts of the numbers within these branches, rather than the size of the entire political class, is essential to grasping the dynamics of fiscal responsibility and budget management.

To explore these dynamics, I delve into the context of Italian municipalities. By leveraging comprehensive administrative data covering a vast array of Italian local governments, their political representatives, and budget figures, this research establishes a robust empirical foundation. It capitalizes on the rich cross-sectional and longitudinal variations in the sizes of the executive and legislative arms of Italian municipalities, which are determined by exogenous factors like population and electoral schedules.

The ideal experiment would be to randomly assign a certain number of councilors

and executive board members to each municipality and to compare their average outcomes. However, this is not possible. To make the identification of the effect more cumbersome, municipalities experience simultaneous changes in the size of their political bodies, making it hard to generate a good counterfactual. I thus approximate the ideal identification by comparing municipalities that experience large versus small changes in the size of their government branches. These two groups are comparable as they were on similar trends for their public finance outcomes before any change in size.

I then proceed to combine all the cross-sectional and longitudinal variations in political body sizes in a generalized difference in difference specification to separately estimate the effect of a change in the size of the council and the executive board. It is important to note that the actual sizes of the city council and the executive board can deviate from the ones assigned by the law due to factors endogenous to local public finance conditions. These factors include the mayor's choice to appoint fewer executive board members than the maximum allowed or the resignation of a city councilor. Therefore, I complement my strategy with instrumental variables, using legally mandated sizes as instruments for actual sizes.

I find that a 10% increase in the size of the executive board leads to a 1.7% increase in expenditure and a 1.5% rise in revenues. These changes are primarily driven by substantial increases in investments (+5.3%) and capital transfers (+4.6%). In per capita figures, this translates to an expenditure increase of 50.93 EUR and a revenue increase of 46.8 EUR. Importantly, these shifts do not alter the municipal deficit. Conversely, the same increase in council size results in a 1.8% reduction in expenditure and a 2% decrease in revenues.

These findings can be attributed to two contextual mechanisms: specialization within the executive board and political fragmentation within the council. A larger executive board allows the mayor to assign fewer departments per board member,

enabling specialization and larger projects. Conversely, a larger city council allows for a broader representation of the opposition, translating into a negative effect on expenditure.

Beyond these fiscal dynamics, I also investigate how these changes are perceived by voters and how they affect local politicians' careers. A 10% increase in the size of the executive board decreases the probability of the mayor's reelection by 0.9% but increases the probability of ascending to higher offices, both at the provincial (1.2%) and regional (0.27%) levels.

To conclude our analysis, I study how the political careers of councilors change with shifts in the sizes of the two bodies. While the size of the council does not affect the probability of reelection or joining the winning coalition in subsequent elections, a 10% increase in the number of executive board members decreases both probabilities.

These findings collectively demonstrate that the number of politicians can exert both positive and negative effects on government size. The critical factor is not just the numerical count of politicians but also the roles they undertake within the government structure. An increased number of executive politicians tends to expand the size of government, whereas a larger city council has the opposite effect, reducing government size. This reconciliation of previously conflicting findings in the literature highlights the importance of distinguishing between distinct roles within the political class.

This paper makes significant contributions to various strands of literature. It enriches the extensive body of research on the connection between the number of politicians and government size. Since the seminal work by [Weingast et al. \(1981\)](#), which postulates a positive link between the number of representatives and government spending, numerous studies have examined this hypothesis. However, [Primo and Snyder \(2008\)](#) uncovered flaws in this hypothesis, revealing that it heavily relied on stringent assumptions that, when relaxed, could lead to an opposite relationship. Subsequent empirical

studies further compounded this contrast, with some affirming the original findings (Baqir 2002; Gilligan and Matsusaka 2001; Bradbury and Crain 2001), while others discovered contradictory results (Pettersson-Lidbom 2012; Garmann 2015; De Benedetto 2018; Castellon 2016), or null effects (Baskaran 2013). My work extends these findings by introducing a new element into the relationship - the roles held by politicians within the government structure - and reconciles the apparent disparities in the empirical literature. Furthermore, it broadens the conventional analysis of government expenditure by delving into how expenditures are financed, providing a more comprehensive perspective on local public finance.

More broadly, this paper aligns with the literature on various forms of local government, delving into the dynamics of the mayor-council system and its influence on public finance decisions. This area of research has a substantial history in the United States, with initial contributions dating back to the 1960s (Booms 1966; Clark 1968). More recent contributions have centered on comparisons between the council-manager and mayor-council systems, as well as modeling the behavior of local politicians based on their chosen form of government (Coate and Knight 2011; Levin and Tadelis 2010; Vlaicu 2009). The finding that the mayor-council system leads to smaller and more efficiently allocated expenditures aligns with the idea that a larger city council can exert greater control over the decisions made by the mayor and her executive board.

Finally, this study also connects with the literature addressing the distortions arising from politicians' career concerns. Commencing with the pioneering work of Romer and Rosenthal (1978), which illuminated how political incentives could lead to the excessive production of public goods, this body of literature has expanded, incorporating numerous pertinent contributions (Diermeier et al. 2005; Mattozzi and Merlo 2008; Persson et al. 2000; Ash et al. 2017; Gratton et al. 2021). Collectively, these works have demonstrated that career incentives compel politicians to engage in excessive productivity to

signal their competence. My contribution is to take these dynamics into the context of local governments. This allows me to distinguish between the career perspectives of the executive and the council when they are on opposite sides of the budget bargaining. And to explore how the politicians' behaviors are perceived by the voters and how their actions translate into electoral benefits.

The remaining sections of this paper are structured as follows: Section 2 offers an overview of the Italian institutional context, with a focus on the political system and local public finance. It also presents a conceptual framework outlining the interactions between the city council and the executive board. Section 3 provides detailed information on the administrative data utilized in the analysis and outlines the procedures for constructing the sample. In Section 4, I delve into the empirical strategies employed, while Section 5 presents the results obtained. Section 6 then delves into an evaluation of the mechanisms underlying these findings. Section 7 analyzes the consequence of public finance choices on politicians' careers. Finally, Section 8 serves as the conclusion of the paper.

2. Institutional Background and conceptual framework

In Italy, municipalities constitute the lowest tier of government. They are administered by a mayor and her executive board, and a city council. The size of the two collegial bodies is determined by the law based on population and electoral schedule. Interestingly, both the executive and the legislature engage in the drafting of the budget, which determines the local fiscal policy. This makes it an ideal setting to study the effect of changing the size of local political bodies on public finance outcomes.

2.1. Institutional Background

The size of local government bodies In Italy, municipalities have their local government, which follows the mayor-council system. The mayor (*Sindaco*) is directly elected alongside the council (*Consiglio Comunale*) for a 5-year mandate with a 2-term limit for consecutive terms. Once elected, the mayor appoints an executive board (*Giunta*), which functions akin to a government cabinet¹. The sizes of both the executive board and the city council are defined by the law. Originally, they only depended on the municipal population. More recently, they changed across electoral schedules.

The first reference to the size of city councils and executive boards dates to 1990 when the law stipulated that the sizes of both municipal bodies would be determined based on the most recent Census population counts^{2,3}. The right plot of Figure A1 shows the distribution of municipalities by population for municipalities below 15,000 inhabitants, which are the focus of this work.

In 2000, a reform imposed a maximum limit on the executive board's size and gave the mayor the power to choose the actual size of the executive board by appointing the preferred number of members⁴. Following the 2008 economic crisis, a series of reforms further adjusted the political body sizes based on the municipal electoral schedule. For the detailed distributions of city council and executive board sizes across population counts and election years, please refer to Tables 1 and 2.

¹In municipalities with fewer than 15,000 inhabitants, executive board members are selected from among the city councilors. Conversely, in larger municipalities, the two roles are incompatible, and executive board members must vacate their council seats upon appointment.

²The Census relevant for computing the city council and executive board sizes is the one published at the time of the elections. If a new Census is published during the electoral term, the sizes remain unchanged until the next elections.

³The relevant population for determining the sizes of the two bodies depends on the election year. The 1991 Census population was used until 2002, the 2001 Census population was used until 2012, and the 2011 Census population for elections from 2013 onwards. Moreover, province capitals with populations below 100,000 inhabitants are assigned the size of municipalities with populations between 100,000 and 250,000 inhabitants.

⁴There is an exception when the municipal statute stipulates a fixed number of board members.

This last set of reforms made the size of the two political bodies not only dependent on population but also on the electoral schedule the municipality belongs to. Interestingly, Italian municipalities have staggered elections; they adhere to five distinct election schedules, as depicted in Figure A1. The grouping of municipalities under each schedule rests on historical reasons (Coviello and Gagliarducci 2017; Repetto 2018)⁵.

Altogether this creates a large variety of council and executive board sizes across municipalities at any point in time. Sizes are increasing in population. However, municipalities with the same population in the same year, but on two different electoral schedules, have distinct sizes of their political bodies. For example, a municipality as Cuggiono, which has roughly 8000 inhabitants, had ten councilors and up to four executive board members in 2012, while Marzano, which has 1500 inhabitants, only had six councilors and a maximum of two executive board members in the same year. However, Bascapé, which has the same population as Marzano, has twelve council members and up to six executive board members because it belongs to a different electoral schedule.

The budget drafting process Fiscal decentralization allows Italian municipalities to have full control of a wide range of essential public services: environment protection and waste management, social services to elderly and disabled persons, childcare and nursery schools, school-related services (school meals and transportation), local police, maintenance of municipal roads, management of civil registries, town planning, culture, recreation, and economic development.

Municipalities are granted large autonomy and manage around 8% of total public expenditure (over € 55 billion). Current expenditure is financed by municipal fiscal

⁵For example, some municipalities adopted these schedules due to the replacement of war councils following World War II in 1946. Most municipalities held their elections from March to November 1946. In the subsequent years (1947, 1948, and 1949), elections occurred in municipalities facing governmental crises and in cities like Bolzano or Gorizia, which officially became part of Italy after 1946. In 1950, elections to renew local governments elected in 1946 were postponed approving a new electoral law (only municipalities experiencing governmental crises voted in that year), and they took place in 1951.

revenues (87%) plus transfers from the central government (13%), while borrowing is allowed only to finance investment expenditures and is subject to strict quantitative limits ([Grembi et al. 2016](#)). Fiscal revenues come from two main sources: (1) local taxes, among which the most relevant are the property tax and the local income tax surcharge; (2) local fees related to building permits, traffic fines, and other services.

The budget process unfolds in three sequential phases. It starts with the municipality's accounting department drafting the budget based on input from the mayor and the executive board. Following the drafting of the budget, it is subject to a vote by the executive board, inclusive of the mayor. Upon receiving approval, the budget is presented to the city council. During this phase, councilors have the right to propose amendments, and these amendments subsequently undergo a voting process. Following comprehensive discussions and votes on all proposed amendments, the entire budget is subjected to a vote by the city council. The budget must receive approval by December 30th of each year⁶. It is worth noting that the failure to pass the budget constitutes one of the reasons leading to the early termination of the local administration.

When the budget is approved, the reported figures become legally binding⁷. At the end of the fiscal year, typically before April 30th of the subsequent year, a comprehensive budget report is finalized. This report provides a detailed account of the actual funds collected and spent throughout the year. Once again, the city council convenes to vote on this year-end budget report. This marks the end of the annual budgeting process.

⁶In cases where the provisional budget fails to secure approval by December 30th, the municipality can request an extension until March 30th. During this extended period, the municipality can continue functioning, albeit with certain restrictions. These restrictions include a prohibition on borrowing and limited commitments to current expenses and urgent interventions. Additionally, monthly commitments are capped at one-twelfth of the appropriations from the second year of the previously approved budget.

⁷In cases where changes become necessary during the fiscal year, the executive board holds the authority to propose additional spending measures along with corresponding revenue sources. These proposals are subsequently put to a vote by the city council.

2.2. Conceptual Framework

The purpose of this paper is to estimate the effect of a change in the number of local politicians on local public finance outcomes. However, the direction of the effect is ambiguous a priori: more politicians might increase the size of the budget if there is a common pool of resources and the number of constituencies increases (Weingast et al. 1981); it can also decrease the size of the budget if it increases decision-making costs (Buchanan and Tullock 1962) or facilitates oversight of the executive (Pettersson-Lidbom 2012).

Unlike the previous work on this topic, I consider the possibility that politicians with distinct roles have different effects on spending and revenue collection. The interaction of these two sets of politicians makes the setting close to the legislative bargaining model by Baron and Ferejohn (1989).

In this setting, there are two groups of politicians: the executive and the legislature. The crucial feature of this scenario is that the executive and the legislature have distinct objective functions and distinct ideal budget sizes, which is what creates space for bargaining.

In practice, I want to estimate how public finance outcomes change with the number of politicians with distinct roles within the government. In practice, I estimate the signs of the following derivatives:

$$(1) \quad \left. \frac{dx}{dc} \right|_{c,z} \quad \text{and} \quad \left. \frac{dx}{dc} \right|_{ex,z}$$

where x is the size of the budget measured by expenditures or revenues, ex is the number of executive board members, c is the number of city councilors, and z is a set of controls for other correlates of public finance outcomes. The main difference with

the previous literature is to consider the changes in c and ex as two distinct treatments, rather than a unique change in the size of the whole political class.

Different from the original model, in this setting, the executive is always the first proposer. If the executive could choose their desired budget size, they would.

The size of the budget varies with the size of the executive. It can increase with the number of executive politicians if each one of them claims a share of the budget, if this creates competition within the executive to signal competence, or if a larger executive allows better specialization of its members.

However, the bargaining process has an open rule, which allows each member of the council to present amendments to the original proposal. Thus, once the executive presents its proposal to the council, councilors can present amendments, which will substitute the original proposal and be voted on.

This explains why the size of the council matters for the budget outcomes. A larger council is more representative of all political forces, including the opposition. So, a larger representation of the opposition increases the number of amendments, and the budget outcome will be farther from the executive's bliss point ([Alesina and Rosenthal 1996](#)).

Hypothesis: The size of the budget changes in opposite directions when the legislature size increases versus the executive size increases.

What remains to test is in which direction the budget size changes when the legislative vs executive politicians are in larger numbers. To do that, I estimate the comparative statics exercise as described in Section .

3. Data and Sample

The unit of observation of this study is the Italian municipality. To answer my research question, I collect a set of administrative data including information on city councils' and executive boards' members, and budgetary figures. After sample restrictions, I obtain a consistent and representative panel of Italian municipalities.

3.1. Data Sources

The primary data source for this study consists of administrative datasets provided by the Italian Ministry of Internal Affairs.

The *Anagrafe degli Amministratori Locali* (Registry of Local Administrators) dataset includes comprehensive information on municipal administrations and their political representatives. The data spans the period from 1995 to 2022. It covers municipal-level information such as the size of the city council and the executive board, the role that each local administrator covers in the municipality, and a wealth of demographic characteristics such as age, gender, level of education⁸, and last occupation⁹.

This data is complemented with Census population counts from 1991, 2001, and 2011. Population figures are used to assign the size that the law prescribes for the city council and the executive board to each municipality in the sample¹⁰.

Regarding the main outcomes, I collect budget figures for expenditures and revenues by category. To ensure consistency and eliminate outliers, all measures are winsorized at the 1% level and computed in 2015 real euros per capita. Due to a substantial number

⁸The level of education is quantified in completed years, where a value of 0 years signifies an absence of formal education, while 13 years signifies the attainment of a higher secondary education diploma as in [De Paola and Scoppa \(2011\)](#).

⁹I use this information to identify politicians that had a professional occupation as engineers, medical doctors, or architects ([Baltrunaite et al. 2014](#)).

¹⁰Figure [A2](#) shows the distribution of the population over the three Censuses.

of small municipalities, budget figures exhibit a highly left-skewed distribution (Figure A3). To address this, I transform all outcomes using the natural logarithm.

Finally, I construct a set of control variables using data from various sources. I obtain information on the age structure of the population, specifically the share of young people (ages 0-14) and old people (ages 65+), as well as the share of foreigners in the population, from the Censuses at the Italian Statistical Institute (ISTAT). Additionally, I collect average per capita taxable income data from the Ministry of Finance. Finally, I gather information on the fiscal rules in place in each municipality and year, and their membership to an inter-municipal community (Sovera 2023).

3.2. Sample Construction and Summary Statistics

I perform several sample restrictions to ensure municipalities are comparable in terms of fiscal context and political structure.

First, I restrict the sample to municipalities with fewer than 15,000 inhabitants to maintain a uniform political context. There are two main changes when moving above 15,000 inhabitants. First, municipalities above this threshold can experience run-off elections if no candidate obtains the majority in the first electoral round, while this is not the case for those below. Second, in municipalities above 15,000, the roles of executive board member and councilor are exclusive, while below, they are complementary¹¹. Importantly, this restriction does not affect the representativity of the sample: more than 90% of Italian municipalities are still included in the sample¹².

Additionally, I exclude municipalities belonging to Special Status Regions¹³. These

¹¹In municipalities above 15,000 inhabitants, the executive board members do not need to be chosen among the elected councilors; the mayor can appoint anyone that satisfies the requisites.

¹²Table A1 shows the distribution of Italian municipalities by population size in the last available Census. The median population is 1980 inhabitants; small municipalities are more representatives of the Italian context than larger ones.

¹³The Special Status Regions are Sicilia, Trentino-Alto Adige, Friuli-Venezia-Giulia, Sardegna, and Valle d'Aosta.

Regions operate under different fiscal rules and receive more substantial transfers. Next, I drop municipalities that underwent boundary modifications, such as mergers with other municipalities. The rationale behind this exclusion is that the decision to merge may be influenced by fiscal outcomes.

Finally, I remove municipalities that experienced an early city council dismissal. Following a council dismissal, a commissary or a commission is appointed to manage all municipal functions until the subsequent elections. This leaves the municipality without a council and executive board for up to three years¹⁴. These exclusions are necessary as municipalities subject to early dismissals lack data for the main explanatory variables, the size of the city council, and the executive board. Moreover, early dismissals can be endogenous to the public finance conditions of the municipality.

The final sample includes 4,028 municipalities over the period 2000-2015. The summary statistics are displayed in Table 3.

Panel A presents descriptive figures about public finance outcomes. On average, a municipality spends 850 euros and collects around 900 euros per capita. A sizable proportion of these expenditures are dedicated to current spending, which encompasses the day-to-day functioning of the municipality, as personnel wages. Conversely, capital expenditures are modest, averaging approximately 76 euros per capita. This is attributed to the nature of investment spending, which is typically recorded in a single year despite the long-term nature of the projects themselves. On the revenue side, the primary sources are taxes, contributing an average of 204 euros per capita, and transfers, amounting to approximately 277 euros. These transfers are further categorized into current and capital sources, forming a significant component of the overall revenue stream.

¹⁴Depending on the reason for early dismissal, the commissioner can be in place until the subsequent election or, in case of mafia dismissal, the commission is in place for a minimum of 18 months and up to three years.

Panel B offers valuable insights into the composition of municipal governing bodies. On average, a municipality has approximately 13.5 councilors, while the average executive board comprises around 4 members. Importantly, these figures closely align with the average sizes assigned by the law. The slight difference between actual and law-assigned sizes is due to the possibility for councilors to resign from their position and to the fact that the law only prescribes a ceiling for the size of the executive board.

Panel C provides a demographic snapshot of local politicians, revealing that, on average, they fall within the age range of 45 to 50 years old. Furthermore, it highlights that female representation within all local political bodies remains notably low. Specifically, only 12% of mayors are females, with a similar figure of 21% for both council and executive board members, indicating a gender imbalance in local politics. When it comes to educational backgrounds, mayors and local politicians exhibit similar levels of education, boasting around 13 to 14 years of completed education, which equates to a high school diploma. Furthermore, it is worth noting that mayors are slightly more inclined to originate from professional careers when compared to councilors or board members, although this career path remains uncommon, accounting for approximately 26% of the total.

Lastly, Panel D indicates that the average municipality has around 5,700 inhabitants over the period 2000-2015. 23% of the population is above 65 years old, while 13% is below 14. On average, 6% of the population is made up of foreign citizens. Roughly 40% of municipalities are subject to fiscal constraints, while the same share belongs to an inter-municipal community.

4. Empirical strategy

In this section, I discuss the identifying variation used to estimate the impact of a change in the size of the city council and the executive board on public finance outcomes. I start by outlining a small-scale natural experiment that allows me to estimate the effect of the reduction of one executive board member, employing a difference-in-difference estimation. Next, I describe the main specification that allows me to estimate both treatment effects at the same time via an instrumental variable strategy.

4.1. The Identifying Variation

The identification of the effect of a change in the city council and executive board sizes on public finance outcomes relies on the variation in sizes across different municipal populations and electoral schedules. Thus, the size of the political bodies changes across municipalities with different populations but also across municipalities with the same population but belonging to distinct electoral schedules. This is summarized in Figure 1 which shows the distribution of the sizes of the council and the executive board over time by population size. The figure reports the assigned size of the council and the executive board for municipalities of different population sizes by the year of election of their mayor. This shows how from 2010 on, the size of the municipal political bodies changes with the electoral schedule a municipality belongs to.

The main difference between the distribution shown in Figure 1 and the actual size of the council and the executive board is that there is a discrepancy between the actual and assigned sizes of the local political bodies. This discrepancy occurs because the measured size of the city council and the executive board may deviate from the assigned sizes. The former because councilors may resign, and their replacements might not be appointed before the data collection on December 31st or if not enough councilors ran

at the elections; the latter because the law only prescribes a ceiling, and mayors are free to select any number of executive board members below that number¹⁵. These facts justify the adoption of an instrumental variable approach, which will be extensively discussed in Section 4.3.

These figures show that the municipal population is the primary factor influencing the size of the city council and the executive board. The existence of population cutoffs would make a Regression Discontinuity design a natural choice for the empirical strategy. This approach has been employed in prior studies by [Pettersson-Lidbom \(2012\)](#), [De Benedetto \(2018\)](#), and [Castellon \(2016\)](#) among the others. However, this method encounters two significant limitations within the current study.

Firstly, the same population cutoffs that determine changes in both the city council and executive board sizes also impact other municipal policies. These policies encompass various aspects, such as local politicians' wages, electoral rules, the presence of neighborhood councils, requirements for inter-municipal cooperation, and the application of the Stability Pact¹⁶. This compound treatment creates the first issue. Secondly, there is evidence suggesting manipulation in population measurements to sort municipalities on the desirable side of the cutoff. In Italy, the Census population is initially collected at the local level and then aggregated nationally, introducing the possibility of manipulation at the source ([Egger and Koethenbuerger 2010](#)).

Due to these concerns, the following subsections focus on more precise identification strategies to pin down the causal determinants of these correlations.

¹⁵While both measured numbers can be affected by measurement error as they are self-reported by the municipality, the information is validated by the Ministry of the Interior, which limits concerns about accuracy.

¹⁶Refer to [Gagliarducci and Nannicini \(2013\)](#) for more details

4.2. What's the comparison and is it believable?

As shown by Tables 1 and 2, for most population bin-election year combinations, both the council and the executive board sizes change at the same time. The major challenge in studying the effects of a change in the size of the legislature and the executive in this context is the fact that the two branches always change size contemporaneously. This means that the two treatments are always changing at the same time and no clear control group as all municipalities face changes.

The ideal experiment would involve randomly assigning city council and executive board sizes to different municipalities and then comparing their public finance outcomes. However, this is not possible. The closest comparison I can make is between municipalities whose government branches change a lot versus those whose government branches change less. However, the latter is not necessarily a good counterfactual for the former.

I assess if this is the case similarly to testing for parallel trends in a difference-in-difference specification. The idea is that outcomes before the changes in political body sizes happen, should not change because of them. This would ensure that before the changes in size, the two sets of municipalities were on parallel trends. As shown in Figure 1, the post period is defined as 2010 and after for the executive board and 2011 and after for the city council. To do that, I compute three variables: Δy_{pre} , Δy_{post} and $\Delta size_{post}$, which represent the change in the outcomes before and after the size change and the magnitude of the size change itself, respectively. These changes are computed as yearly differences in the outcomes and the size of the city council and its executive board.

Figure 2 demonstrates the results of this test. The figure shows four binscatter plots. On the left, the plots report the correlation between the change in city council and

executive board size and total expenditures before the change happened (pre-period), while on the right the plots show the same correlation for the post-period. The x-axis has only negative values because the changes in political body sizes over time led to a lower number of members as shown in Figure 1.

Both pictures on the left show no correlation between changes in total expenditures in the pre-period and changes in either the council or the executive board sizes. Both linear fits are flat, and the estimates slopes are not significant. The plots on the right, instead, show that there is indeed a correlation between changes in total expenditures after the change in sizes happened and the change in sizes themselves. There is a significant negative correlation between expenditure and council size and a positive significant relationship between the outcome and executive board size.

4.3. Instrumental variable estimation

Having established that the comparison between municipalities which experience a large vs a small change in political body sizes is meaningful, there is an additional issue. Both the size of the city council and the executive board are endogenous. The law only prescribes a ceiling for the size of the executive board. Thus, each mayor is free to choose how many board members to appoint. Also, the city council size might depart from the size assigned by law if a councilor resigned and was not replaced at the time of the data collection. Both these events might correlate with determinants of public finance. This poses identification challenges when trying to estimate the effect of a change in the size of either of the political bodies.

To address these issues, I adopt an instrumental variable (IV) approach. This approach involves using the sizes assigned by the law for the city council and executive board as instruments for the actual sizes. I claim that these are valid instruments for endogenous treatments.

Figure 3 presents binscatter plots of the actual and assigned council size (left) and executive board (right) sizes. In both figures, the bins are aligned along the 45-degree line, indicating a strong correlation between the assigned and actual size of the two political bodies. The correlation is striking for the city council for which the two sizes might differ at most by one (0.97), while it is weaker, even though compelling, for the executive board (0.81). This indicates a strong first stage, or that the instruments effectively predict the changes in the treatment variables. Later, I report the [Sanderson and Windmeijer \(2016\)](#) F statistic since there are two endogenous variables and compare it to the [\(Stock and Yogo 2005\)](#) critical values. Across all tables, the F statistics significantly exceed the 1% critical value.

Regarding the exogeneity assumption, the law prescribes sizes for the city council and executive board based on population Census counts and election years. Both criteria are exogenous to current public finance choices. There is a delay between the collection and the publication of the Census population counts so that the collection happens a few years before the population is used to determine the size of the municipal political bodies. Also, as mentioned before, the election schedules a municipality is assigned to depend on historical factors leading back to the end of the Second World War and thus cannot be influenced by current public finance conditions.

Given that the instruments satisfy both assumptions, they are deemed valid, and I proceed to estimate a Two-Stage Least Square (TSLS) regression as follows:

$$(2) \quad CSIZE_{mt} = \beta_1 CDUE + \beta_2 EXDUE + \theta X_{mt} + \mu_m + \eta_t + \varepsilon_{mt}$$

$$(3) \quad EXSIZE_{mt} = \beta_1 CDUE + \beta_2 EXDUE + \theta X_{mt} + \mu_m + \eta_t + \varepsilon_{mt}$$

$$(4) \quad Y_{mt} = \gamma_1 \widehat{CSIZE} + \gamma_2 \widehat{EXSIZE} + \theta X_{mt} + \mu_m + \eta_t + \varepsilon_{mt}$$

Equations 2 and 3 represent the first-stage regressions where the actual council and executive board sizes are regressed on the two instruments, i.e., the sizes prescribed by law. Equation corresponds to the second-stage regression. It estimates the parameters of interest, γ_1 and γ_2 , which denote the effect of a one-unit increase in the council and executive board sizes on the outcome Y_{mt} . The model includes municipality fixed effects μ_m and year fixed effects η_t . X_{mt} represents the set of controls as described in the difference-in-difference example. The error terms are clustered at the municipal level.

In this specification, the council and executive board sizes are taken in natural logarithms to account for the fact that the marginal effect of an additional councilor/board member can be different depending on the starting size of the body. Also, this allows the interpretation of the estimates as elasticities when the dependent variables are also in logarithms.

5. Results

This section presents the main results. The focus is on the public finance outcomes measured by the budget figures for expenditures and revenues. The analysis begins with a natural experiment that estimates the effect of reducing the size of the executive board by one member. Next, the analysis proceeds to simultaneously estimate the effect of a change in the size of both the city council and the executive board employing an instrumental variable strategy that exploits all the variation in the data.

5.1. The impact of a change in the size of the city council and the executive board

I now proceed to estimate the effect of a change in the size of both the city council and the executive board at the same time, as commonly happens in most municipalities

over time. This complements the evidence of the previous section by showing that the direction of the effect depends on the role of the politicians, and not only their number.

The tables that follow present both the reduced form (RF) and instrumental variable (IV) estimates for the expenditure and revenue outcomes. Notably, the reduced form and IV estimates for the city council treatment are almost indistinguishable, given the close-to-one first-stage relationship. However, for the executive board, the IV estimates are larger, reflecting the attenuation bias in the OLS estimates. [Sanderson and Windmeijer \(2016\)](#) F statistic is reported, and it is always larger than the 1% critical value. For the remainder of this section, I will focus on the IV estimates.

Column (2) of Table 5 shows that a 10% increase in the size of the executive board leads to a 1.7% increase in total expenditure. The estimate is statistically significant at the 1% level. The same is true for the effect of a 10% increase in the size of the city council but the sign is reversed: this leads to a reduction of total expenditure by 1.8%. These estimates are driven by changes in investment expenditure (column (6)), which increases by 5.3% when the executive board size increases by 10% and decreases by 3.3% when the city council size increases by the same amount. The negligible impact on current expenditure can be attributed to its stability over time, as it heavily depends on historical levels, particularly covering wage bills with limited autonomy for mayors in hiring and firing public servants¹⁷.

Taking one step ahead, I evaluate if the change in investment expenditure comes from a change in its composition. Investment expenditures are divided into twelve functions in the budget, so I explore how a change in the number of councilors and executive board members affects the spending in each category¹⁸. Table 6 shows the

¹⁷Rank-and-file employees, constituting the majority municipal employees, are typically hired through public competitions with permanent contracts agreed at the national level through collective bargaining, while the mayor and executive committee exercise more discretion over public managers' hiring and departures ([Bellodi et al. 2022](#))

¹⁸In the analysis, I exclude the *Justice* category because it is equal to zero for 99% of the municipality-

IV estimates¹⁹. A 10% increase in the executive board size increases investments in *Environment* spending by 5.9%, *Transport* by 4.1%, *Tourism* by 2.2% and *Culture* by 1.5%. There is no detectable effect on any other category of spending. The effect of a 10% increase in the size of the city council has the opposite sign and amounts to a reduction of 3.9% in *Environment*, 2.7% in *Tourism*, and 1.8% in *Culture*. I do not find that a larger city council affects *Transport* expenditure. This exercise shows that a change in the size of local political bodies does not trigger a reallocation of expenditures, but it causes a true increase in total investments.

Table 7 presents the estimates for the revenue outcomes, with a focus on the main sources of revenues, namely taxes and transfers. Column (2) shows that the estimates for total revenues mirror the ones for total expenditure: a 10% increase in the size of the executive board leads to a 1.5% increase in revenues, while the same increase in the city council size reduces them by 2%. Moving to the different sources of revenue, I find that a 10% increase in the number of executive board members does not affect both taxes²⁰, and current transfers, while it increases capital transfers by 4.6%. The null effect on current transfers can be explained by the fact that these transfers can be used to finance only current expenditures, which are not affected by a change in the number of local politicians. On the other hand, capital transfers can be used to finance additional investments, and consequently, they increase with a larger executive board. The effect of a 10% increase in the number of city councilors is the opposite: it reduces capital transfers by 6.6%, while it does not affect taxes and current transfers. The changes in revenues mirror those in expenditures as the law prescribes that the budget needs to be balanced as every expenditure needs to be covered by a stream of

year cells.

¹⁹The reduced form estimates can be found in Table A2.

²⁰I also explore the effect of these changes on fees, encompassing costs for accessing public services and a range of small taxes, which are less salient to voters (Bracco et al. 2019). Although they could potentially serve as viable revenue sources, I find no significant effects, with coefficients close to zero.

revenues²¹.

Altogether these changes do not affect the budget remainder and thus do not affect the fiscal sustainability of the municipality²². However, I cannot make claims about the welfare effects of these changes in investments.

These results align with the theoretical predictions. A larger executive board leads to higher expenditure, primarily driven by increased investments, and necessitates a rise in capital transfers to finance this additional spending. Conversely, a larger city council counteracts these increases, with an additional councilor exerting a similar-sized effect on finances compared to that of an additional executive board member. This helps reconcile the contrasting findings of previous literature. The total effect of a change in the number of politicians can indeed go either way depending on which set of politicians is the largest. This more generally applies to contexts where there are two sets of politicians with contrasting objective functions as in a divided government situation (Ortner 2017) or with legislators belonging to opposite groups.

Robustness Before moving to the investigation of the mechanisms behind the consequences of differently sized executive boards and city councils on public finance outcomes, I provide some robustness checks to corroborate the findings of the previous sections.

First, I assess the robustness of the estimates to the inclusion and exclusion of control variables in the main specification. Table A4 shows the estimates of the effect of increasing the size of the executive board and the city council by 10% without controls. Removing controls does not affect the conclusions and the estimates are consistent with the main findings. I also run a specification where I include additional controls that can

²¹In particular, current expenditures must be covered by current revenues, such as taxes, fees, and public service revenues.

²²Estimates can be found in Table A3.

interact with public finance conditions as the age structure of the population, the share of foreign population, fiscal rules in place, and the membership to an inter-municipal community. Table A5 shows that the results are again unchanged.

Next, I show that the main results hold when using a linear or a log-linear specification. Table A6 shows the reduced form and IV estimates for the linear specification, where the dependent variables are in real per capita terms and the sizes of the council, and the executive board are in absolute numbers. Table A7, instead, shows the estimates for the log outcomes using the political bodies' sizes in absolute numbers. The estimates have slightly different magnitudes, but the conclusions stay the same. The findings do not depend on the functional form, but the interpretation changes.

After that, I examine the robustness of the estimates to the exclusion of very small municipalities, those below 1000 inhabitants. That is because these municipalities are so small that their functioning might be peculiar compared to larger municipalities and I do not want the main estimates to be driven by this subsample. Table A8 shows the estimates. The conclusions for the total expenditure and the investments are invariant compared to the full sample; if anything, the magnitude of the estimates is larger. What changes when excluding these municipalities is that now the size of the executive board matters for current expenditure: a 10% increase in the size of the executive board increases current expenditure by 0.8%. The size of the council does not affect it. Moving to the revenues, the main conclusions stay the same; there is a positive effect of the executive board size on current transfers that are used to finance current expenditure. A 10% increase in the number of executive board members increases current transfers by 2.7%; the council size does not matter.

Finally, I show that the main conclusions stand true when considering the planned budget figures, instead of the actual ones. Planned budget figures are the ones that are discussed by the executive board and the city council, and they determine the

actual spending and revenue patterns. Table A9 shows the estimates. A 10% increase in the number of executive board members increases total expenditure by 1.5% and investment expenditure by 3.9%, while there is no effect on current expenditures. The same increase in the number of city councilors reduces the outcomes by 2.2% and 5%, respectively. Similar conclusions can be drawn for the revenues with a 10% increase in the executive board size increasing total revenues, through an increase in capital transfers by 4.1% and a larger city council decreasing them by 6.3%. The magnitudes of the effects are very comparable to those found in Section 4.3. This is in contrast with the findings of Morelli and Bellodi (2023) that finds that an Italian reform that reduced the size of the executive board only affects the planned budget but not the actual figures because of bureaucratic bottleneck.

6. Mechanism

In this section, I explore the mechanisms behind the main findings. I will explain the positive spending effect of a larger executive board with higher specialization among the members and the negative council effect with stronger political fragmentation within the council.

6.1. Specialization

The executive board of Italian municipalities works as a government cabinet. The mayor appoints its members and assigns them a department such as Welfare, Urbanism, or Education to be responsible for. The idea is that the mayor can create a cabinet to delegate some of her functions to individuals who have better expertise in the field or have more opportunities to develop it. The departments on which the municipalities have power are eleven, further subdivided into eighty-four sub-mandates, as listed in

Table [A10](#).

Each executive board member can be assigned one or more departments, while the unassigned ones stay within the mayor's responsibilities. The executive board members are fully responsible for their department. They can choose and plan projects and allocate a share of the budget to finance them. Once defined, all the proposals are voted on by the executive board. If approved, they become part of the budget draft that is voted on by the council.

Given this setting, a change in the maximum number of executive board members that a mayor can appoint might influence the distribution of the departments and related responsibilities among the mayor and the board members. For example, let us imagine an executive board made of two individuals and five departments to be assigned. The mayor can assign two departments to each board member and keep one for herself. If at the next elections, the maximum size of the executive board becomes four, the mayor can now assign one department to each member and keep one for herself. This allows each board member to focus on one specific field and consequently to specialize and be able to produce larger projects.

To test this hypothesis, I collect data from the Italian Ministry of Interior on executive board members' delegations, which are available for the electoral rounds from 2009 onwards. The data is self-reported by municipalities, but the report is not mandatory, leading to some incompleteness. Nevertheless, I gather the information for 4612 municipalities, each with data for at least two consecutive electoral rounds. Figure [6](#) shows the distribution of executive board members' delegations across municipalities, highlighting the most popular delegations (e.g., Welfare, Public Works, and Environment).

If the specialization story is true, the number of mandates per executive board member should decrease when the executive board gets larger, while the variety of mandates within the executive board should increase. To test this hypothesis, I employ

the same IV strategy from Section 4.3 and Table 8 presents the estimates. The columns report the reduced form estimates with and without controls and the IV estimates (columns (3) and (6)). As noticed in the previous Figure, the city council size does not matter for specialization within the council. The size of the executive board does: a 10% increase in the number of executive board members reduces the number of mandates per member by 5% and increases the variety of mandates within the executive board by 40%.

6.2. Political fragmentation

Municipal elections in Italian municipalities smaller than 15,000 inhabitants follow a majoritarian system. The councilors and the mayor are contextually elected. Each party presents a list of candidates for the council and one mayoral candidate. A candidate is elected mayor if she gets the majority of the votes; consequently, two-thirds of the council seats are assigned to the councilors in the mayor's list or coalition. The remaining seats are assigned to the other lists following a D'Hont rule, which amounts to a proportional distribution of the remaining seats.

This means that when the size of the city council changes, the number of seats assigned to the losing parties changes. For example, in a municipality with a council of twelve members, eight seats are assigned to the mayor's party or coalition and four to the other parties. At the same time, in a larger municipality with a council size of sixteen, eleven seats are assigned to the mayor's party, while five are the opposition. Nothing changes in terms of seat distribution between the majority and the opposition, but the larger the city council, the larger the number of seats that the opposition gets.

This is enough to explain the behavior of a larger council because I do not claim that the opposition councilors will be able to overthrow the mayor's party policies (unless cases where the majority of councilors support the opposition claims) but having a

larger opposition makes it easier to filibuster the executive's proposals and to hinder the budget drafting process so that the executive will allow some concessions to the opposition.

To measure this, I build some indicators of political fragmentation: the number of opposition parties with at least one seat in the council, the number of seats occupied by opposition councilors, and a measure of seat concentration, based on the HHI index²³.

Table 9 shows that this is indeed the case. As anticipated, the results reveal that the size of the executive board holds no sway over political fragmentation. Conversely, the size of the city council exhibits a significant impact. Specifically, a 10% increase in the number of city councilors corresponds to a 2.9% surge in the number of opposition parties, accompanied by a decrease of roughly 1.2% in both the proportion of seats held by the mayor's party or coalition and the degree of seat concentration. Taken together, these findings display remarkable consistency, indicating that a larger city council accentuates political fragmentation, thereby reinforcing opposition groups that potentially wield greater influence in the process of budget negotiation.

7. Does the size of the political bodies affect the politicians' careers?

The main analysis concludes that the number of local politicians does influence public finance outcomes. However, the direction of the effect depends on the role that politicians play within the administration. A larger executive board, responsible for administrative tasks alongside the mayor, leads to increased expenditure and higher revenues. Conversely, a larger council, representing all political forces and acting as the legislative arm, results in the opposite effect. Investments and transfers are the primary drivers behind these results.

²³The measure is defined as the sum of the squared party shares of seats within the council, or $\sum_i s_i^2$, where i is the number of parties represented in the council.

These estimates speak to a partial equilibrium result. Thus, I am not able to make any claim about the welfare effects of these behaviors. I cannot claim that the executive board is overspending or that the council is reducing expenditure to a more efficient level as is commonly acknowledged ([Pettersson-Lidbom 2012](#)). However, I can study how these behaviors are perceived by voters and what are the consequences for the politicians' careers.

All politicians have career objectives, and local politicians are not different. Mayors aim at being re-elected or being elected to a higher office in the regional or provincial government. The board members hope to be re-appointed, or appointed as deputy mayor, but can also aim at running for mayors themselves or to reach a higher level of government. Finally, opposition councilors want their parties to win the next elections and be themselves the next mayor or board member, or at least being reelected as councilor.

The actions of local politicians are salient to voters; thus, their behavior might influence their future political careers. Figure [A4](#) illustrates the high saliency of local politicians in the news, as reported by ANSA²⁴. The data are collected from the Factiva database, and they report the mentions of councilors, executive board members, or mayors in newspaper articles. The mayors are the most cited in articles with an average of 67,000 mentions per year, followed by executive board members (11,000) and councilors (9000).

To explore this, I complement the data on municipal politicians with information on all politicians in the regional and provincial governments. This allows me to follow the transitions between offices. Since transitions to a higher government office are rare events, I consider transitions to any of the offices within the region or province

²⁴ANSA is a not-for-profit cooperative, distributing fair and objective news reporting through multiple media channels such as newspapers, TV news, and internet articles.

(president, executive board member, and councilor). These data are aggregated at the election year level, yielding five electoral rounds for each municipality.

Table 10 presents the estimates for mayors' career outcomes. As before, odd columns report the reduced form estimates, while even columns show the IV estimates. I will focus on the IV estimates. Notably, a 10% increase in the number of executive board members decreases the likelihood of mayoral re-election by 9.7%, a statistically significant estimate. However, this is more than compensated by an increase of 12.4% and 0.3% in the probability for the mayor to move up to an office in the provincial or regional government. This means that the additional spending of the executive pays off in terms of career advancement for the mayor. Provincial and regional offices are more prestigious than municipal offices because they encompass larger responsibilities covering a larger geographical area and higher compensation. This aligns with the proposed mechanism explaining the additional spending of a larger executive board due to career prospects. The size of the city council does not matter for the career perspectives of the mayor as a change in its size does not affect the likelihood of reelection or transition to a higher office.

Table 11 displays the estimates for the executive board members' career outcomes. A 10% increase in the size of the executive board increases the probability of a member being reappointed by 3.2% and the probability of being appointed deputy mayor by 1.01%. There is no detectable effect on the probability of being elected as mayor or in a regional or provincial office in the next electoral round. This is because these are rare events and thus estimation lacks power. Again, a change in the size of the city council does not affect these probabilities. These effects are interesting per se because mayors are less likely to be reelected so the effect is not the mechanical consequence of the mayors' career development, but a direct consequence of the additional effort put in by the board members.

To conclude, I analyze how changes in the executive board and city council sizes affect the careers of the councilors. Table 12 reports the estimates. I find that a 10% increase in the size of the executive board reduces the probability of reelection of a councilor by 4.6% and the probability that the councilor becomes an executive board member by 0.2%. This latter finding matches the fact that a larger executive board increases the likelihood of reappointment of the current board members. I do not find any effect on the transition from councilor to mayor. The size of the council does not matter for the career of councilors. This points to the fact that the executive board is the one with the greatest power within the government so even if the council can tame the executive's spending behavior, it is not enough to guarantee them reelection or to win the next elections.

Discussion If voters are sophisticated, they can distinguish between the size effect and other explanations. However, if they are not, they only care about the outcome. Why should voters award additional spending? That might be the explanation. They only see additional spending that translates in higher investments and better public goods. Also, these investments are financed through transfers and not taxes so they only get benefits and they do not lose anything. This is similar to the findings in (Gratton and Morelli 2022), where politicians use production of laws to signal competence and benefit in the electoral round. At the same time this explains why the councilors do not benefit from investment cuts. The voters perceive the investment cut as a reduction in public good provision and thus they do not benefit from their behavior.

8. Conclusion

One key determinant of local public finance choices is the local political class. While existing literature has explored how the number of local politicians affects public

finance outcomes, this paper contends that this masks substantial heterogeneity. A crucial aspect that previous literature overlooked is the role that politicians play in the local government and how the number of politicians that cover distinct roles differently affects public finance outcomes.

Using a rich administrative dataset covering Italian municipalities and local politicians, I estimate the impact of a change in the size of the executive board and the city council on local budget outcomes. The main finding is that the number of politicians affects outcomes differently depending on their roles. Specifically, a larger executive board leads to higher spending, particularly on investments. This additional spending is financed through increased capital transfers. On the other hand, a larger city council has the opposite effect.

I find that the positive effect of a larger executive board can be attributed to the increased specialization of its members who can be assigned to fewer departments and thus focus on a smaller range of projects. On the other hand, the negative effect of a larger city council can be explained by its oversight function, which is strengthened by a more politically fragmented, and thus more representative, set of councilors.

Italy serves as an ideal setting for this investigation due to the substantial autonomy municipalities enjoy and the considerable variation in size across municipalities and over time. However, similar political structures exist in other countries such as the US, Brazil, Canada, Israel, and New Zealand, where many municipalities have mayors supported by executive boards or cabinets and a city council with legislative functions. Moreover, these results extend to higher levels of government where the executive and the legislative power are held by opposing sides.

It is essential to clarify that I cannot make any claims about the welfare effects of the changes in spending promoted by the executive or the council. Whether a larger board necessarily leads to overspending remains uncertain. And the same holds for

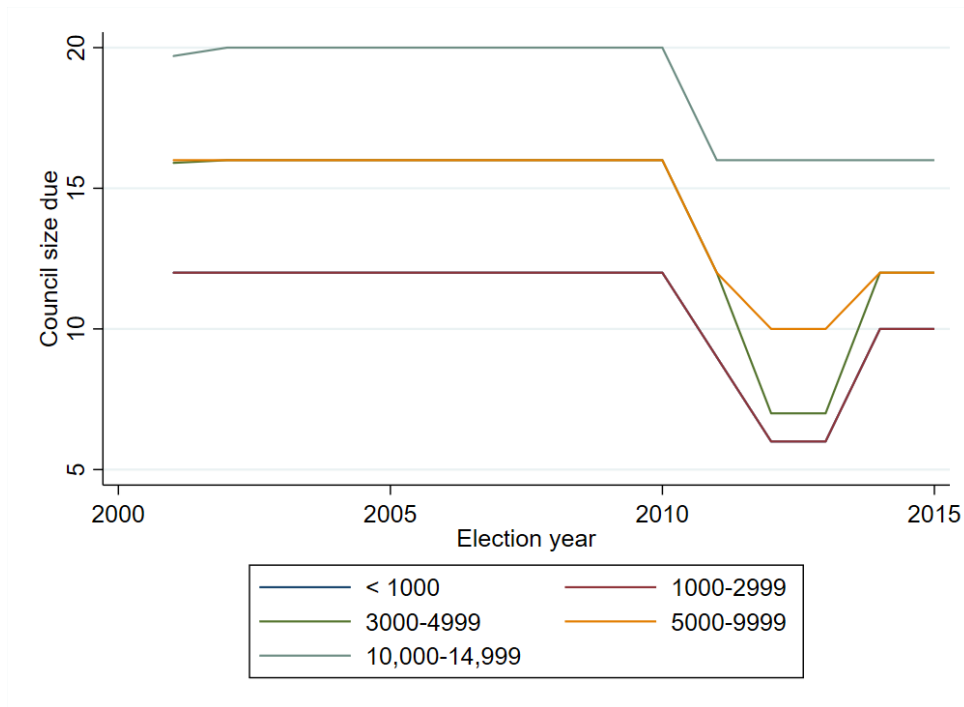
the smaller expenditure promoted by the council. Existing literature on council size and public goods suggests that politicians tend to prioritize the more salient public goods, not necessarily the most desired ones, to secure electoral benefits ([Cepaluni and Mignozzetti 2019](#)). Further exploration is needed to estimate the optimal size of the executive board and the city council, striking a balance that maximizes collective welfare. This would be a crucial step toward enhancing policy-making processes and promoting the effective allocation of public resources.

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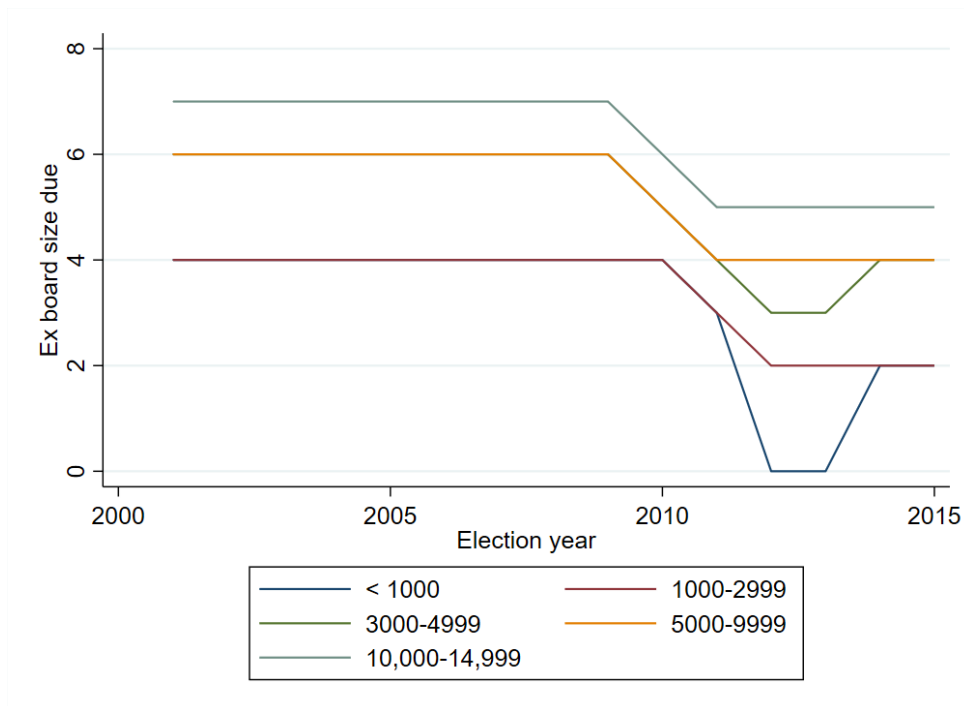
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FIGURE 1. Council and executive board size evolution over time



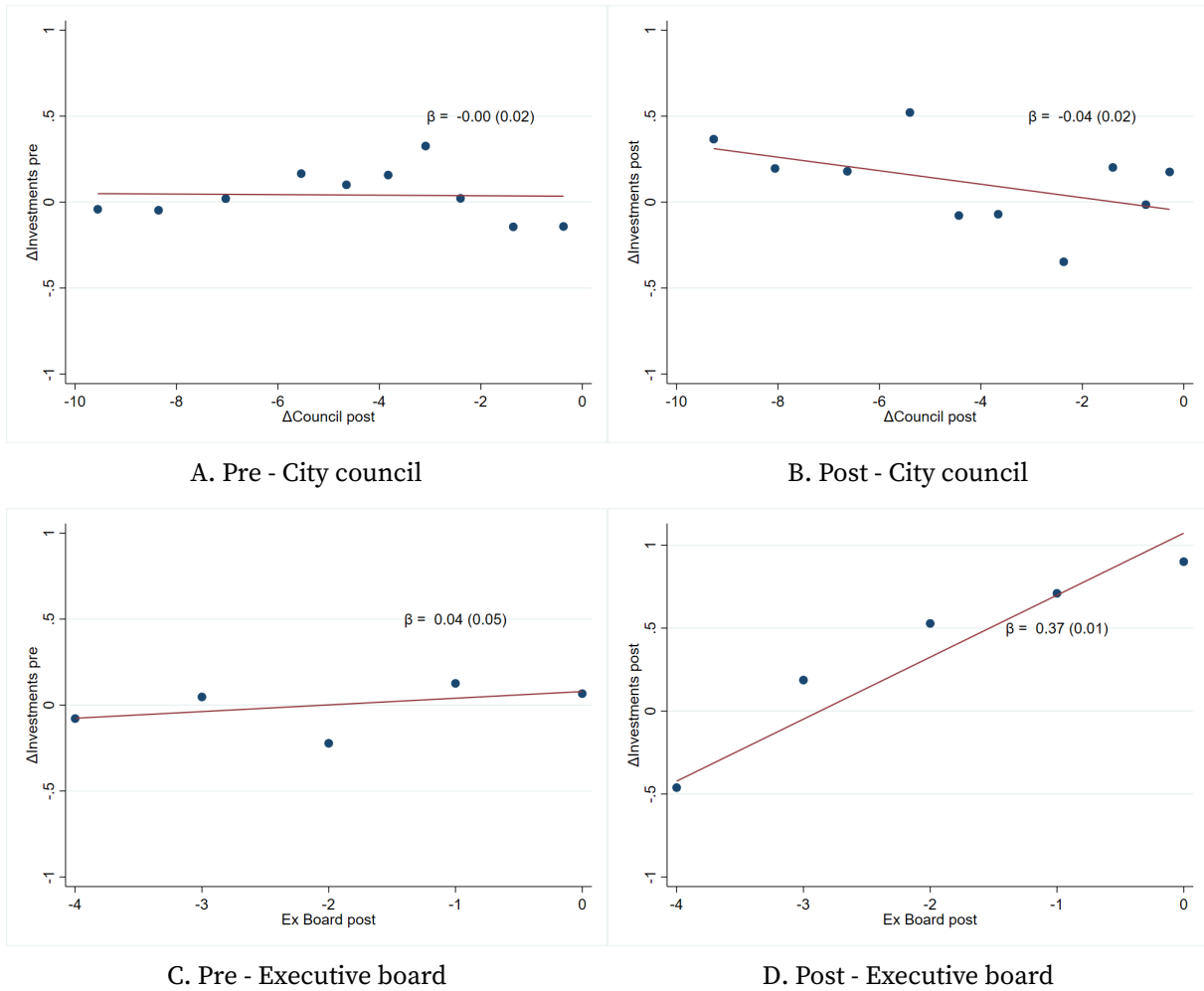
A. City council size



B. Executive board size

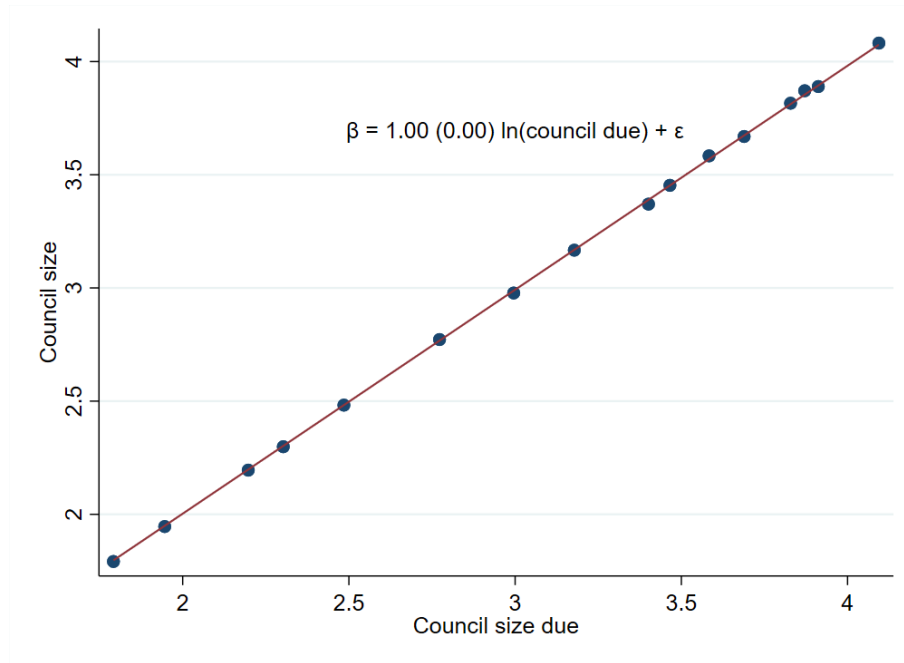
Notes: City council and executive board sizes by population bracket and year of election.

FIGURE 2. Parallel trends test

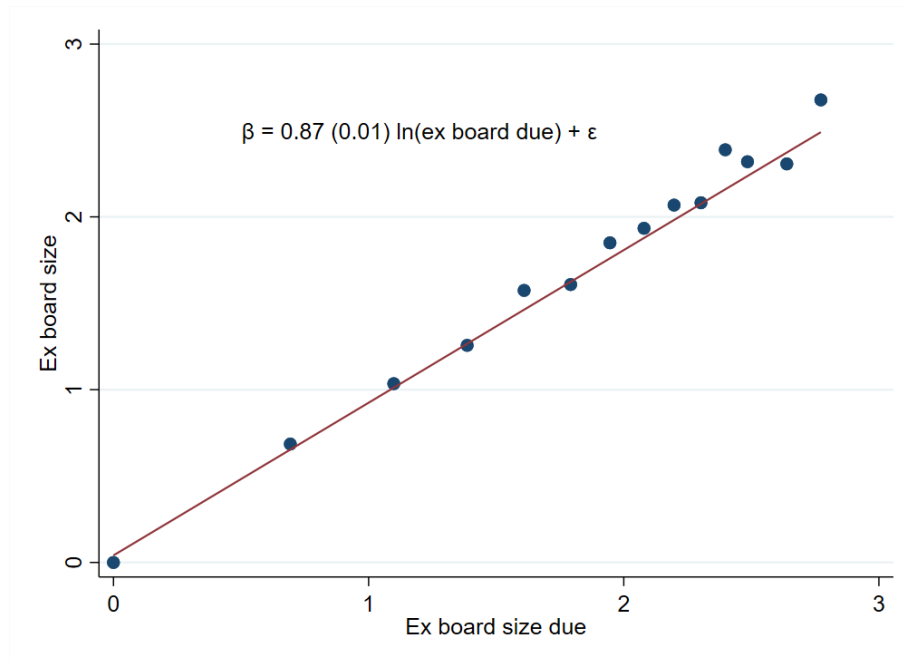


Notes: The plots show binscatter plots of the change in outcome (total expenditure) and the change in each government branch (city council and executive board). The plots on the left use the pre-period change in the outcome, while the ones on the right use the post-period change in the outcome.

FIGURE 3. First stage binscatter plots



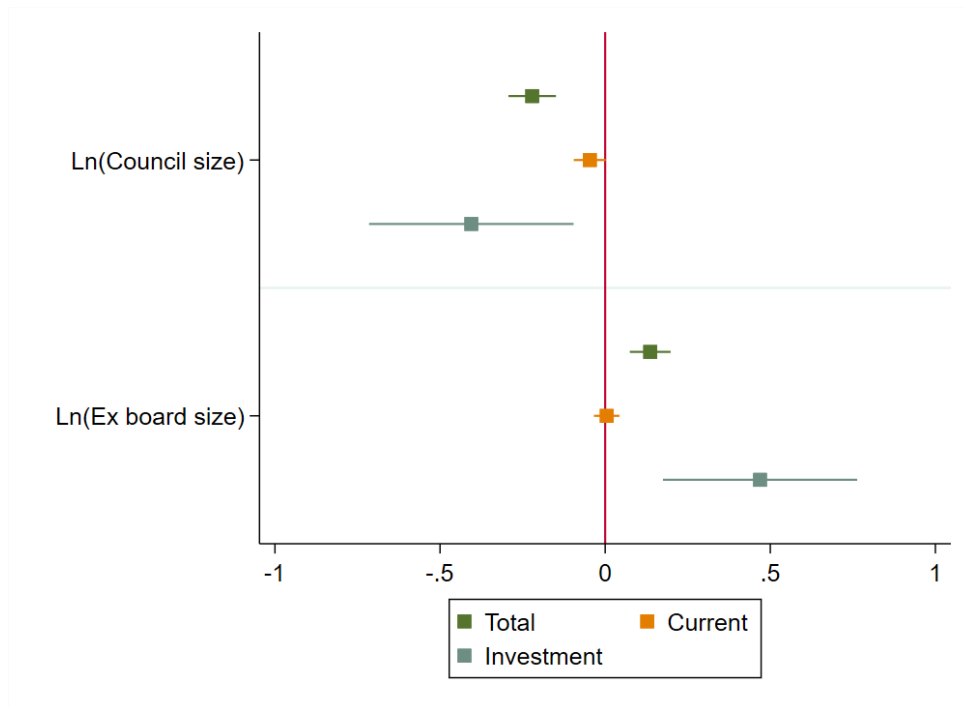
A. Council size - Actual and due



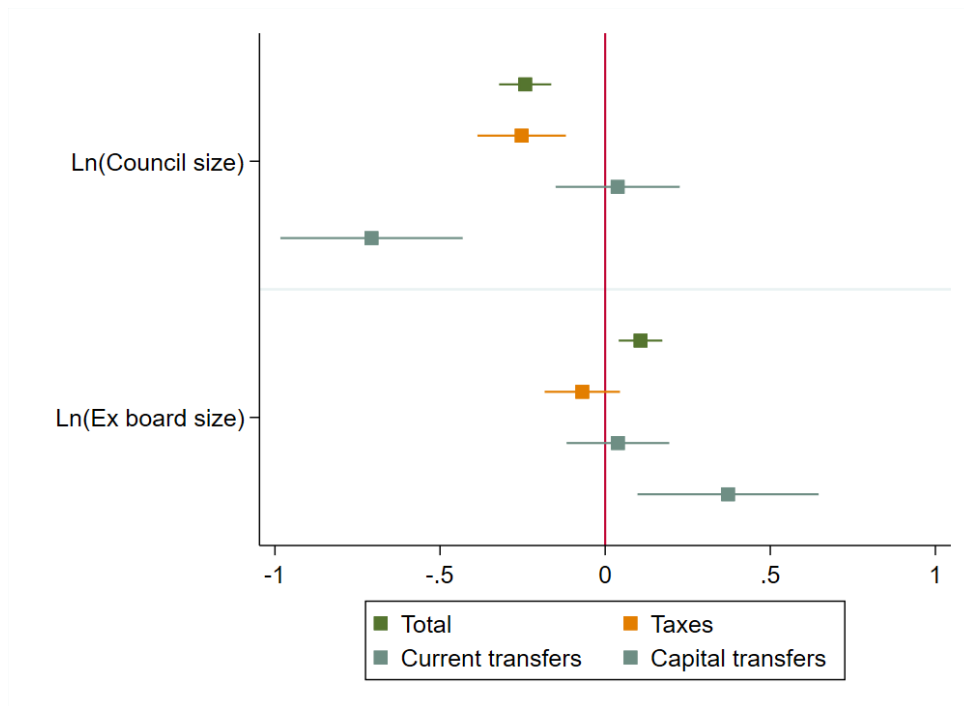
B. Executive board size - Actual and due

Notes: The two plots show a graphical representation of the first stage regression of actual council/executive board size on the sizes assigned by the law.

FIGURE 4. IV estimates - Main outcomes



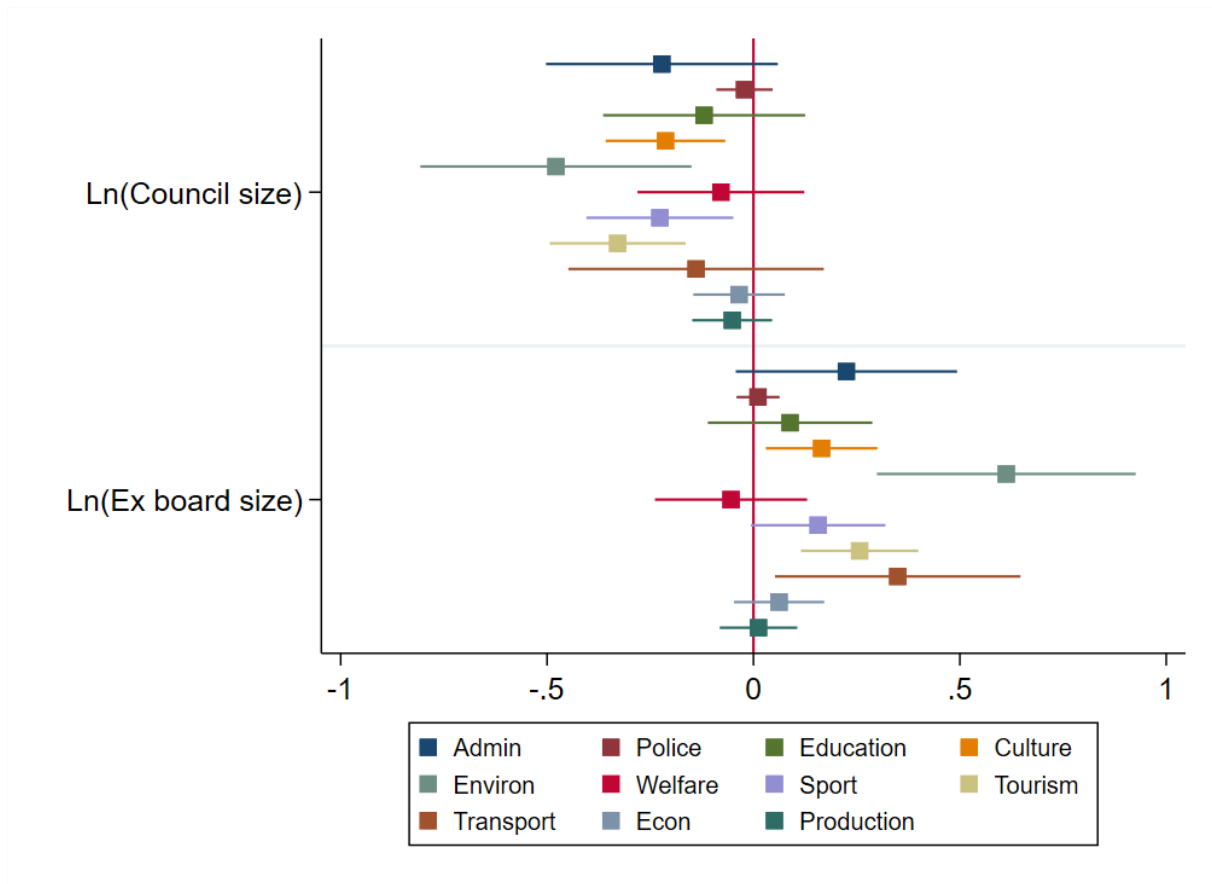
A. Expenditure



B. Revenues

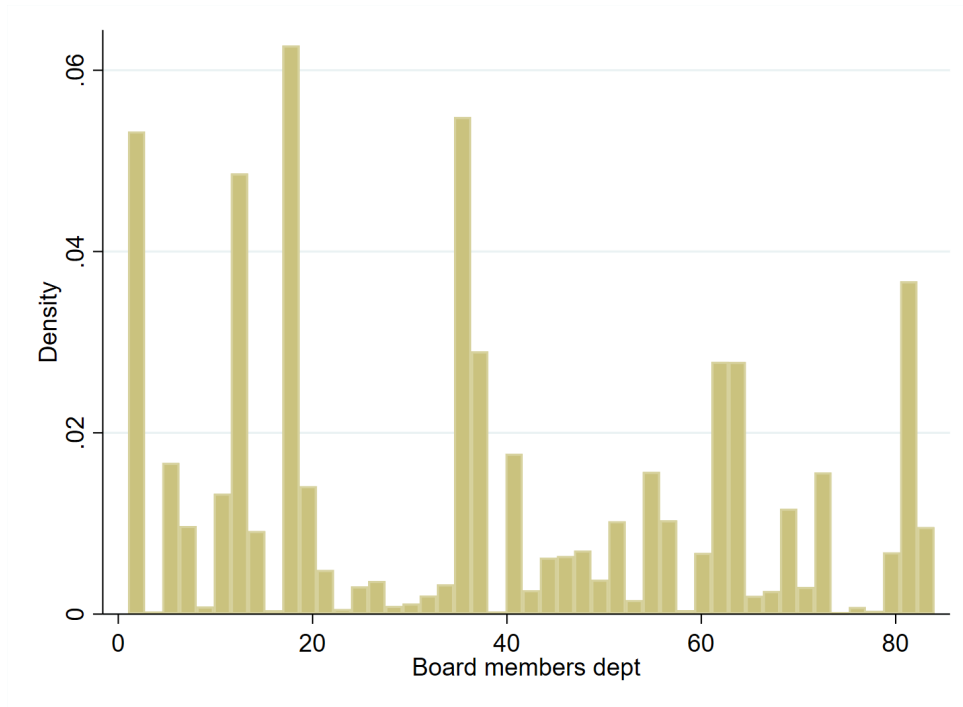
Notes: The plots show estimates and 95% confidence intervals for the expenditure (A) and revenues (B) outcomes in logs per capita and real terms. All regressions include municipal, time and election year fixed effects and a set of controls (mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality).

FIGURE 5. Investment expenditure categories

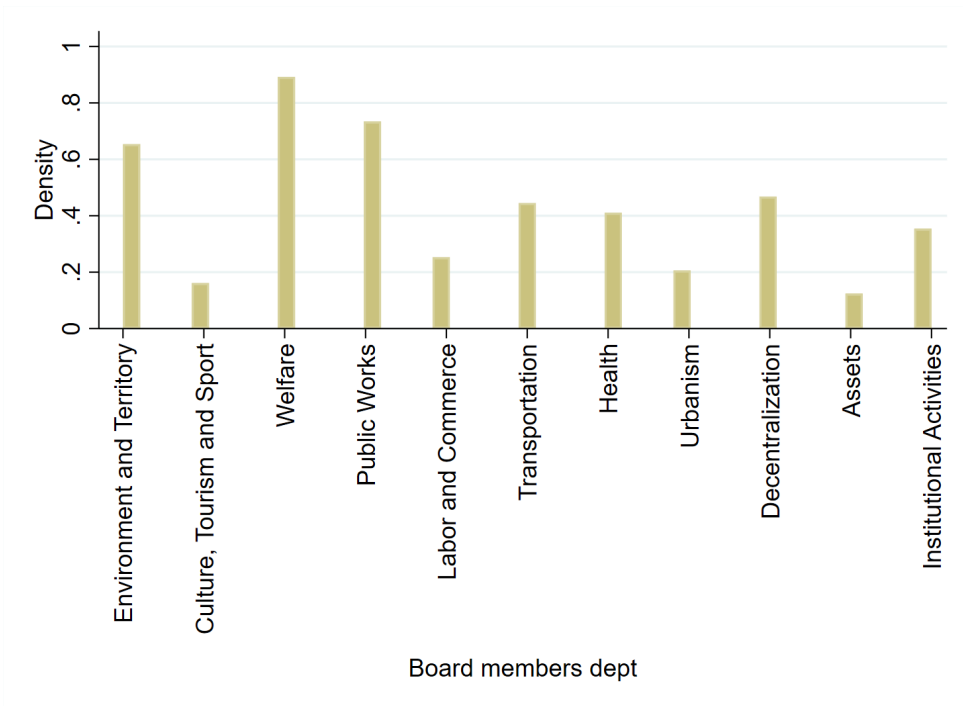


Notes: The plots show estimates and 95% confidence intervals for the investment expenditure categories in logs per capita and real terms. All regressions include municipal, time and election year fixed effects and a set of controls (mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality).

FIGURE 6. Executive board members mandates



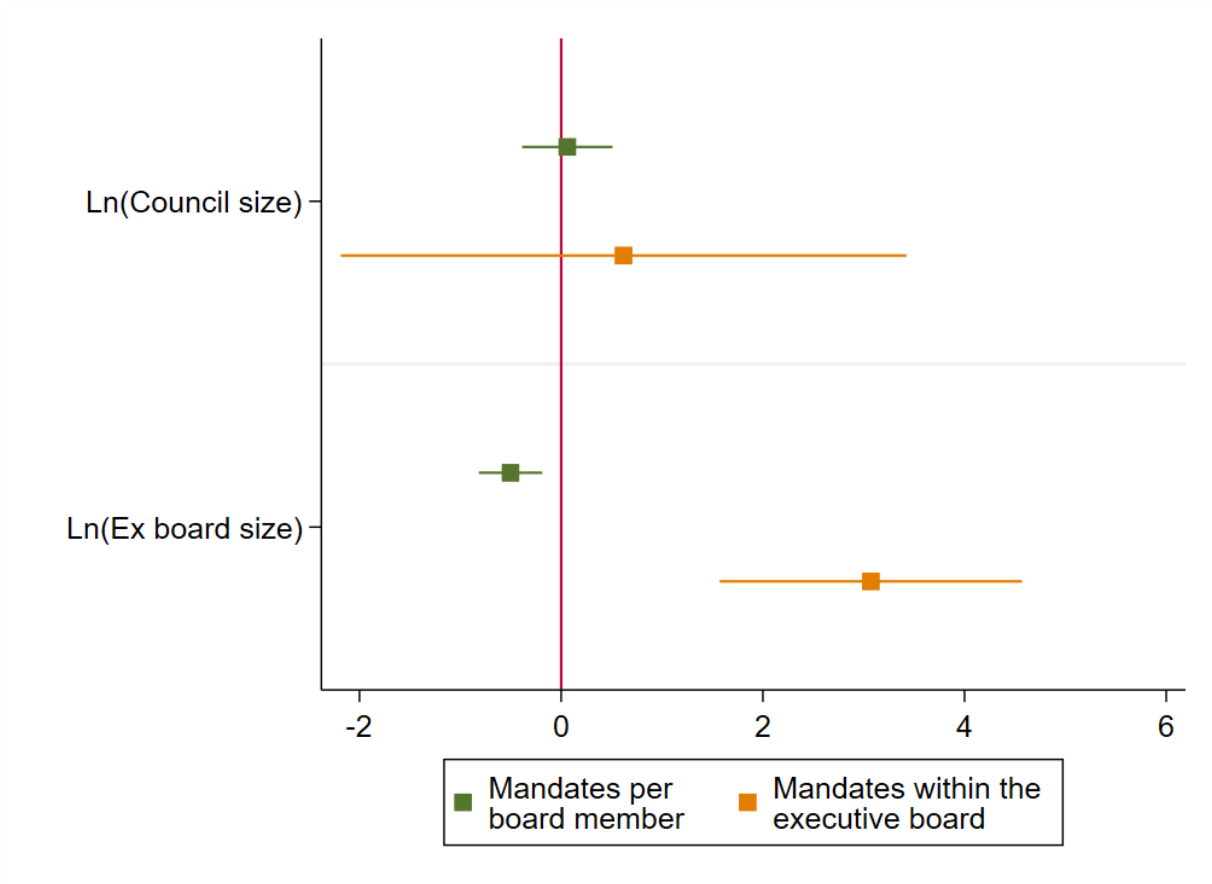
A. All categories



B. Main categories

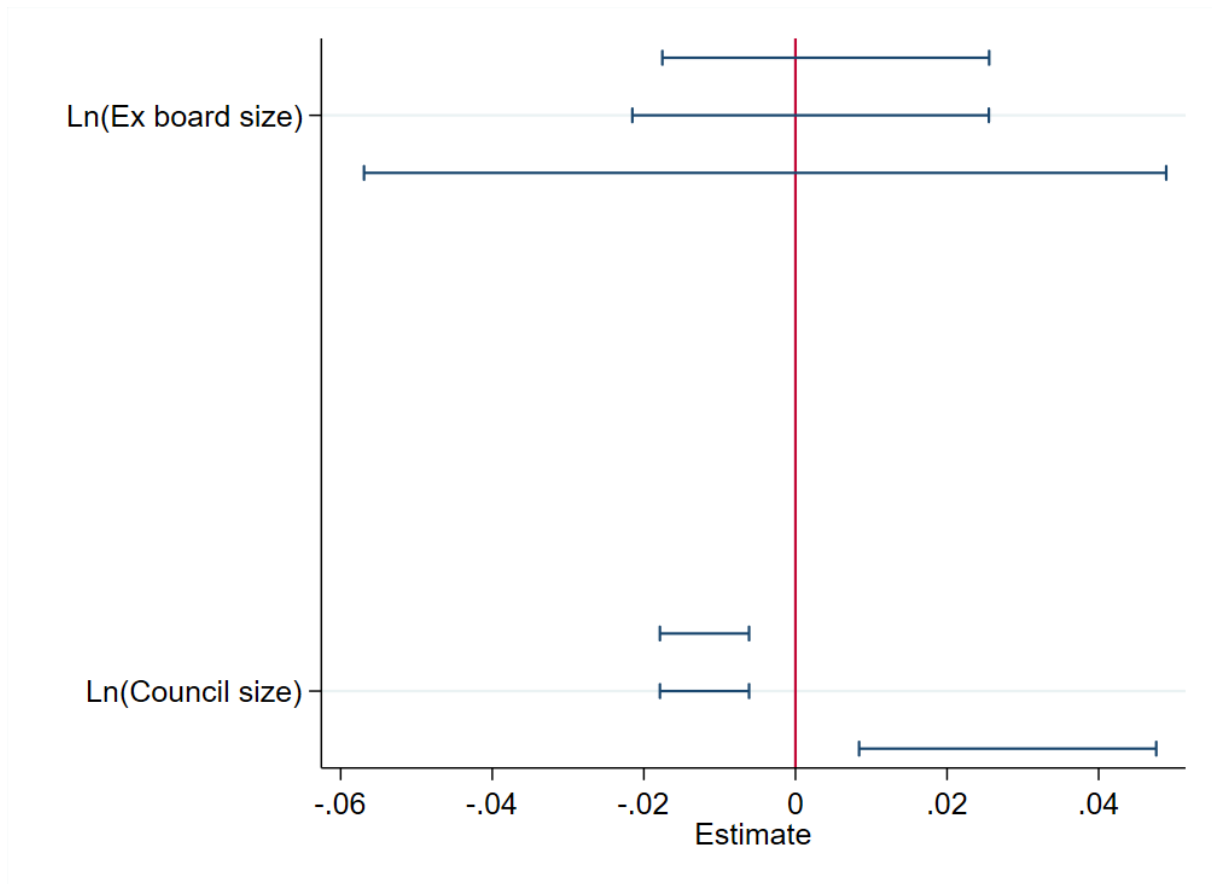
Notes: The figure shows two histograms representing the fraction of executive board members assigned to each mandate. The figure on the left shows all the mandates in the data (84), and the one on the right the 11 main categories.

FIGURE 7. Ex board mechanism



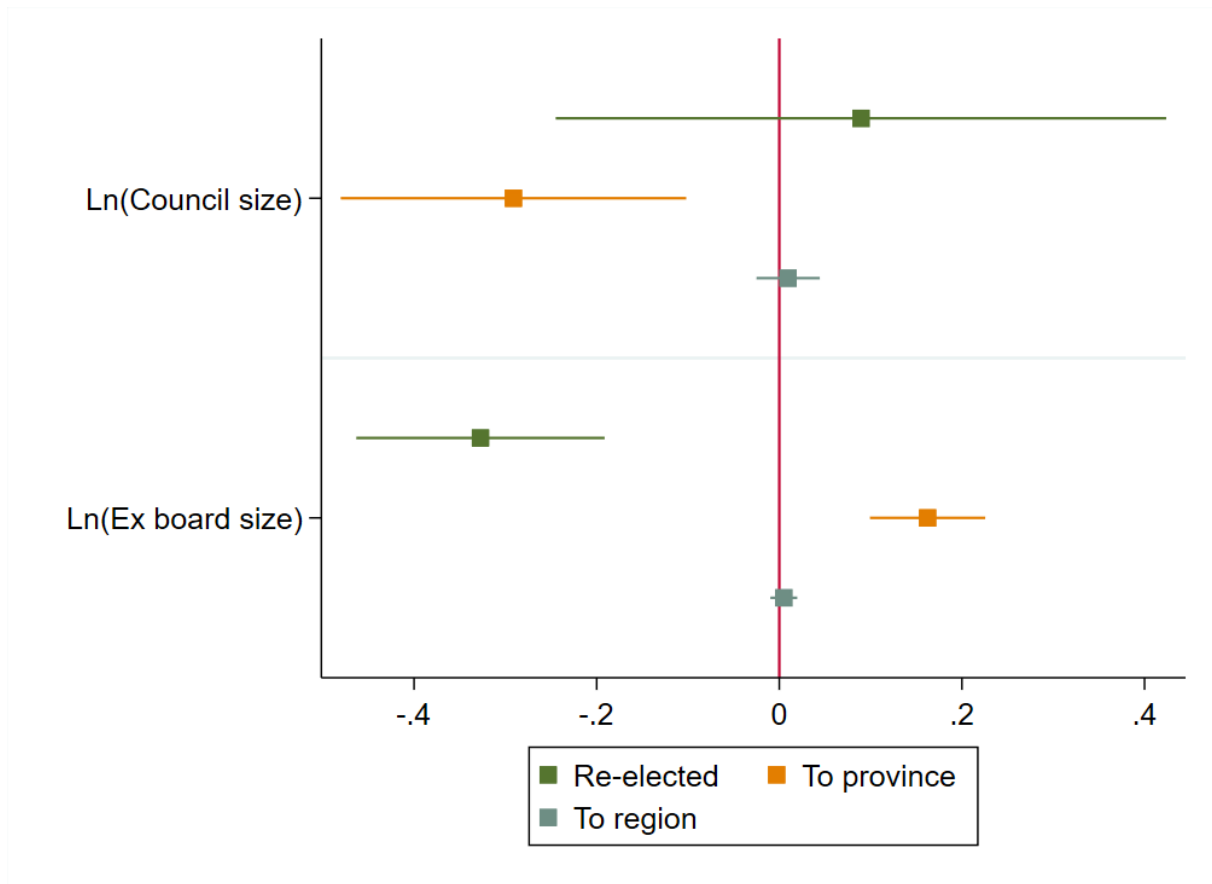
Notes: The plots show estimates and 95% confidence intervals for the the executive board mechanism. The outcomes are the number of mandate per executive board member and the total number of mandates within the executive board. All regressions include municipal, time and election year fixed effects and a set of controls (mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality).

FIGURE 8. Political fragmentation



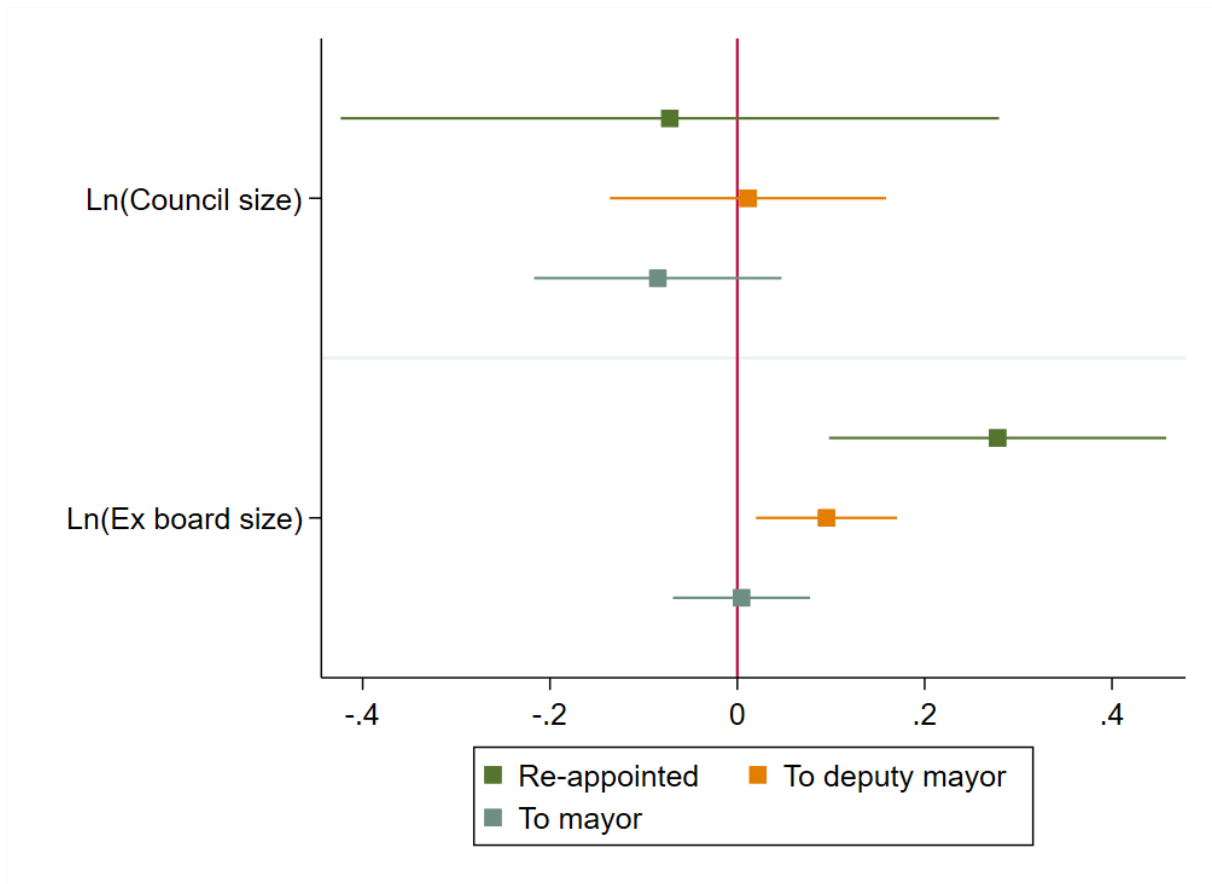
Notes: The plots show estimates and 95% confidence intervals for the the council mechanism. The outcomes are the number of opposition parties with at least one seat in the council, the share of seats occupied by the mayor's party or coalition, and a seat concentration index. All regressions include municipal, time and election year fixed effects and a set of controls (mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality).

FIGURE 9. Mayor's career



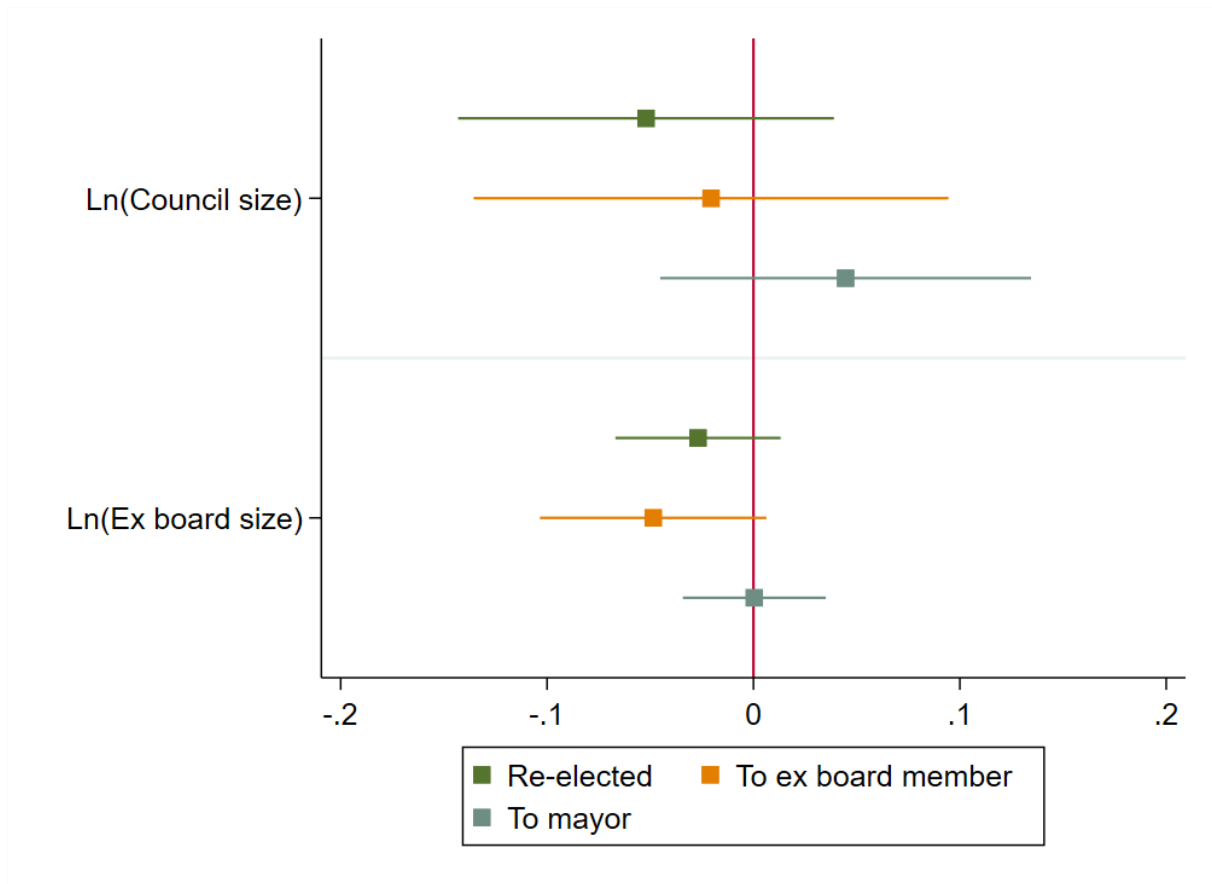
Notes: The plots show estimates and 95% confidence intervals for the the council mechanism. The outcomes are indicators for the mayor being reelected, being elected to a provincial or regional office. All regressions include municipal, time and election year fixed effects and a set of controls (mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality).

FIGURE 10. Executive board members' career



Notes: The plots show estimates and 95% confidence intervals for the the council mechanism. The outcomes are indicators for an executive board member being re-appointed, being appointed as deputy mayor and being elected as mayor. All regressions include municipal, time and election year fixed effects and a set of controls (mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality).

FIGURE 11. Councilors' career



Notes: The plots show estimates and 95% confidence intervals for the the council mechanism. The outcomes are indicators for a councilor being reelected, being appointed as an executive board member and being elected as mayor. All regressions include municipal, time and election year fixed effects and a set of controls (mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality).

TABLE 1. City council size

		Election year			
		≤ 2010	2011	2012-13	≥ 2014
In sample	Population	City council size			
	≤ 1000	12	9	6	10
	1001-3000	12	9	6	10
	3001-5000	16	12	7	12
	5001-10,000	16	12	10	12
	10,001-30,000	20	16	16	16
	30,001-100,000	30	24	24	24
	100,001-250,000	40	32	32	32
	250,001-500,000	46	36	36	36
	500,001-1,000,000	50	40	40	40
	$\geq 1,000,000$	60	48	48	48

Notes: This table reports the size of the city council for all municipalities by population size and year of election of the mayor and the council.

TABLE 2. Executive board size

			Election year					
			1990-2000	2001-07	2008-09	2010	2011	2012-13 ≥ 2014
In sample	Population	Maximum executive board size						
	≤ 1000	4	4	4	4	3	0	2
	1001-3000	4	4	4	4	3	2	2
	3001-5000	6	6	6	5	4	3	4
	5001-10000	6	6	6	5	4	4	4
	10001-30000	6	7	7	6	5	5	5
	30001-100000	8	10	10	8	7	7	7
	100001-250000	12	14	12	11	9	9	9
	250001-500000	12	16	12	12	10	10	10
	500001-1000000	16	16	12	12	11	11	11
	≥ 1000000	16	16	12	12	12	12	12

Notes: This table reports the size of the executive board for all municipalities by population size and year of election of the mayor and the council.

TABLE 3. Summary statistics

	Mean	Std. Dev.	N		Mean	Std. Dev.	N
Panel A: Public Finance Outcomes							
Total expenditure	849.484	458.835	61775	Councillor's education	12.544	3.951	59509
Current expenditure	579.672	250.382	61775	Professional councillor	0.134	0.34	61522
Investment expenditure	74.953	133.583	61775	Executive's age	48.99	10.05	61516
Total revenues	901.005	509.049	61775	Female executive	0.211	0.408	61517
Tax revenues	204.444	126.378	61775	Executive's education	12.934	3.948	60033
Current transfers	168.976	145.121	61775	Professional executive	0.155	0.362	61517
Capital transfers	105.634	149.812	61775				
Panel B: Gov't body sizes				Panel D: Municipal controls			
Council size	13.458	3.795	61775	Population	5742.18	32847.918	61775
Ex board size	4.059	1.444	61775	Domestic Stability Pact	0.411	0.492	61775
Council size due	13.561	4.009	61775	Fraction 0-14	0.128	0.028	63918
Ex board size due	4.571	1.511	61775	Fraction 65+	0.225	0.065	63918
Panel C: Local politicians							
Mayor's age	48.976	10.055	61774	Share of foreign people	0.057	0.041	63918
Female mayor	0.116	0.32	61775	Taxable income	14423.525	4434.691	63900
Mayor's education	14.279	3.549	60473	IMC	0.401	0.49	63918
Professional mayor	0.258	0.437	61775				
Councillor's age	48.979	10.051	61521				
Female councillor	0.215	0.411	61522				

Notes: The amounts in Panel A are in per capita terms, expressed in 2015 euros. They are also winsorized at the 1% to remove outliers. Politicians' education in Panel C is measured in completed years of education. *Professional politician* is the fraction of local politicians of each category that come from a professional job (lawyer, architect, doctor, etc.). In Panel D, *Domestic Stability Pact* is an indicator for fiscal constraints being in place, while *IMC* is an indicator for membership to an inter-municipal community.

TABLE 4. Difference-in-difference

	Expenditure			Revenues			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Total	Current	Investment	Total	Taxes	Current transfers	Capital transfers
Treat \times Post	-0.0207** (0.00834)	-0.00943* (0.00549)	-0.250*** (0.0496)	-0.167*** (0.0616)	-0.0942 (0.295)	0.00105 (0.154)	-0.455** (0.221)
Mean	996.964	646.251	105.485	1094.9	178.657	209.577	158.471
Observations	27,320	27,320	25,951	27,320	27,320	25,951	25,951
R-squared	0.771	0.879	0.378	0.771	0.879	0.378	0.378

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. All dependent variables are in per capita terms and transformed using natural logarithms, but their mean is reported as non-transformed. All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

TABLE 5. TWFE - Expenditures

	Total		Current		Investment	
	(1)	(2)	(3)	(4)	(5)	(6)
	RF	IV	RF	IV	RF	IV
Ln(Council size due)	-0.204*** (0.0370)		-0.0402 (0.0254)		-0.306* (0.157)	
Ln(Ex board size due)	0.153*** (0.0280)		0.0242 (0.0176)		0.441*** (0.132)	
Ln(Council size)		-0.233*** (0.039)		-0.045* (0.026)		-0.409** (0.162)
Ln(Ex board size)		0.188*** (0.033)		0.030 (0.021)		0.545*** (0.156)
Sanderson-Windmejer F council		3893		3893		3893
Sanderson-Windmejer F board		2727		2727		2727
Mean	848.83	848.83	579.32	579.32	75.69	75.69
Observations	57,268	57,268	57,268	57,268	57,268	57,268
R-squared	0.789	0.401	0.881	0.600	0.367	0.103

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. All dependent variables are in per capita terms and transformed using natural logarithms, but their mean is reported as non-transformed. The council and executive board size is also in logs. All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

TABLE 6. TWFE - Categories of investment expenditure

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Admin	Police	Educ	Culture	Environ	Welfare	Sport	Tourism	Transport	Econ	Prod
Ln(Council size)	-0.222 (0.143)	-0.022 (0.035)	-0.120 (0.125)	-0.213*** (0.074)	-0.479*** (0.168)	-0.079 (0.103)	-0.227** (0.091)	-0.329*** (0.084)	-0.139 (0.158)	-0.035 (0.057)	-0.051 (0.049)
Ln(Ex board size)	0.225* (0.137)	0.011 (0.027)	0.089 (0.102)	0.165** (0.069)	0.612*** (0.160)	-0.054 (0.094)	0.157* (0.083)	0.257*** (0.073)	0.350** (0.152)	0.062 (0.056)	0.012 (0.048)
Sanderson-Windmejer F council	3893	3893	3893	3893	3893	3893	3893	3893	3893	3893	3893
Sanderson-Windmejer F board	2727	2727	2727	2727	2727	2727	2727	2727	2727	2727	2727
Mean	14.37	0.17	4.98	1.04	18.22	2.78	2.30	0.80	16.59	0.67	0.48
Observations	57,267	57,267	57,267	57,267	57,267	57,267	57,267	57,267	57,267	57,267	57,267
R-squared	0.039	0.006	0.033	0.010	0.040	0.018	0.013	0.004	0.042	0.006	0.003

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. All dependent variables are in per capita terms and transformed using natural logarithms, but their mean is reported as non-transformed. The council and executive board size is also in logs. All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality. The *Justice* category is not reported because it is equal to zero for more than 99% of the sample.

TABLE 7. TWFE - Revenues

	Total		Taxes		Curr. transfers		Cap. transfers	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	RF	IV	RF	IV	RF	IV	RF	IV
Ln(Council size due)	-0.238*** (0.0409)		-0.215*** (0.0685)		0.0448 (0.0960)		-0.689*** (0.140)	
Ln(Ex board size due)	0.133*** (0.0303)		-0.0454 (0.0512)		0.0281 (0.0706)		0.366*** (0.124)	
Ln(Council size)		-0.252*** (0.042)		-0.210*** (0.070)		0.042 (0.098)		-0.726*** (0.145)
Ln(Ex board size)		0.161*** (0.036)		-0.056 (0.060)		0.034 (0.082)		0.442*** (0.147)
Sanderson-Windmejer F council		3893		3893		3893		3893
Sanderson-Windmejer F board		2727		2727		2727		2727
Mean	900.04	900.04	201.73	201.73	171.07	171.07	107.32	107.32
Observations	57,268	57,268	57,268	57,268	57,268	57,268	57,268	57,268
R-squared	0.745	0.335	0.720	0.183	0.778	0.683	0.401	0.129

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. All dependent variables are in per capita terms and transformed using natural logarithms, but their mean is reported as non-transformed. The council and executive board size is also in logs. All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

TABLE 8. Executive board delegations

	# of mandates per member			# of mandates within the board		
	(1)	(2)	(3)	(4)	(5)	(6)
	No controls	w/ controls	IV	No controls	w/ controls	IV
Ex board size due	-0.470*** (0.148)	-0.474*** (0.154)		3.952*** (0.632)	3.835*** (0.658)	
Council size due	0.118 (0.224)	0.106 (0.234)		-0.114 (1.193)	-0.183 (1.245)	
Ex board size			-0.502*** (0.161)			4.035*** (0.711)
Council size			0.061 (0.228)			0.441 (1.266)
Mean	1.74	1.74	1.74	6.37	6.37	6.37
Observations	14,633	14,330	14,327	3,740	3,630	3,670
R-squared	0.417	0.420	0.420	0.718	0.720	0.714

Note: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. The dependent variables are the number of mandates each executive board member is assigned by the mayor when appointed (columns (1)-(3)) and the number of different mandates covered by the executive board members (columns (4)-(7)). All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

TABLE 9. TWFE - Political fragmentation

	(1)	(2)	(3)	(4)	(5)	(6)
	Number of parties (no mayor)		Mayor's party share of seats		Seat concentration	
	RF	IV	RF	IV	RF	IV
Council size due	0.0286*** (0.0109)		-0.0125*** (0.00371)		-0.0120*** (0.00336)	
Ex board size due	-0.00315 (0.0224)		0.00154 (0.0102)		0.00304 (0.00923)	
Council size		0.028*** (0.010)		-0.012*** (0.003)		-0.012*** (0.003)
Ex board size		-0.004 (0.027)		0.002 (0.012)		0.004 (0.011)
Sanderson-Windmejer F council		20950		20950		20950
Sanderson-Windmejer F board		650.2		650.2		650.2
Mean	1.112	1.112	0.724	0.724	0.793	0.793
Observations	10,662	10,662	10,662	10,662	10,662	10,662
R-squared	0.484	0.004	0.626	0.005	0.567	0.005

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. The dependent variables are the number of parties with at least a seat in the council that do not belong to the mayor's party or coalition (1)-(2), a measure of seat concentration based on the HHI index (3)-(4), and the mayor's party share of council seats (5)-(6). All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

TABLE 10. TWFE - Mayor career

	(1)	(2)	(3)	(4)	(5)	(6)
	Re-elected		To province		To region	
	RF	IV	RF	IV	RF	IV
Council size due	0.0118		-0.102		-0.00324	
	(0.149)		(0.0938)		(0.0259)	
Ex board size due	-0.0428		0.130***		0.0269*	
	(0.0756)		(0.0365)		(0.0162)	
Council size		0.086		-0.082		0.001
		(0.116)		(0.077)		(0.022)
Ex board size		-0.097*		0.124***		0.027**
		(0.059)		(0.030)		(0.013)
Sanderson-Windmejer F council		852210		852210		852210
Sanderson-Windmejer F board		3436		3436		3436
Mean	0.46	0.46	0.06	0.06	0.01	0.01
Observations	11,792	11,402	11,792	11,402	11,792	11,402
R-squared	0.182	0.073	0.399	0.002	0.332	-0.001

Note: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. The dependent variables are indicator variables equal to one if the mayor gets re-elected (1)-(2), if the mayor moves to a provincial (3)-(4) or regional office (5)-(6). All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

TABLE 11. TWFE - Board career

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Re-appointed		To deputy mayor		To mayor		To province		To region	
	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV
Council size due	-0.0374		-0.00373		-0.0819		0.00508		-0.00266	
	(0.205)		(0.0895)		(0.0734)		(0.0228)		(0.00311)	
Ex board size due	0.394***		0.121**		0.0143		0.0108		0.00181	
	(0.111)		(0.0517)		(0.0466)		(0.0196)		(0.00205)	
Council size		0.042		0.021		-0.081		0.009		-0.002
		(0.183)		(0.081)		(0.067)		(0.020)		(0.003)
Ex board size		0.318***		0.101**		0.007		0.010		0.002
		(0.087)		(0.041)		(0.036)		(0.016)		(0.002)
Sanderson-Windmejer F council		30157		30157		30157		30157		30157
Sanderson-Windmejer F board		357.9		357.9		357.9		357.9		357.9
Mean	0.17	0.17	0.05	0.05	0.05	0.05	0.01	0.01	0.001	0.001
Observations	13,167	12,965	13,167	12,965	13,167	12,965	13,167	12,965	13,167	12,965
R-squared	0.258	0.001	0.203	-0.000	0.193	0.001	0.214	0.000	0.273	0.000

Note: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. The dependent variables are indicator variables equal to one if an executive board member gets re-appointed (1)-(2), or gets appointed as deputy mayor (3)-(4) or gets a provincial (5)-(6) or regional office (7)-(8). All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

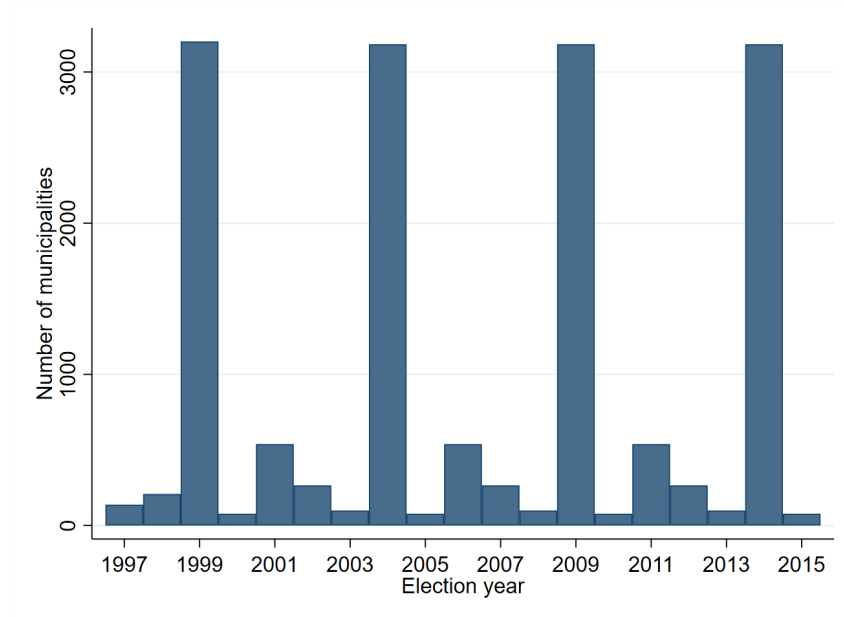
TABLE 12. TWFE - Council career

	(1)	(2)	(3)	(4)	(5)	(6)
	Re-elected		To ex board		To mayor	
	RF	IV	RF	IV	RF	IV
Council size due	0.0247		-0.00958		-0.0457	
	(0.0372)		(0.0213)		(0.0295)	
Ex board size due	-0.0473***		-0.0173*		0.00227	
	(0.0166)		(0.00963)		(0.0127)	
Council size		0.019		-0.012		-0.046
		(0.037)		(0.021)		(0.029)
Ex board size		-0.046***		-0.017*		0.002
		(0.016)		(0.009)		(0.012)
Sanderson-Windmejer F council		216273		216273		216273
Sanderson-Windmejer F board		4058		4058		4058
Mean	0.25	0.25	0.08	0.08	0.02	0.02
Observations	107,603	107,603	107,603	107,603	107,603	107,603
R-squared	0.062	0.001	0.039	0.000	0.352	0.002

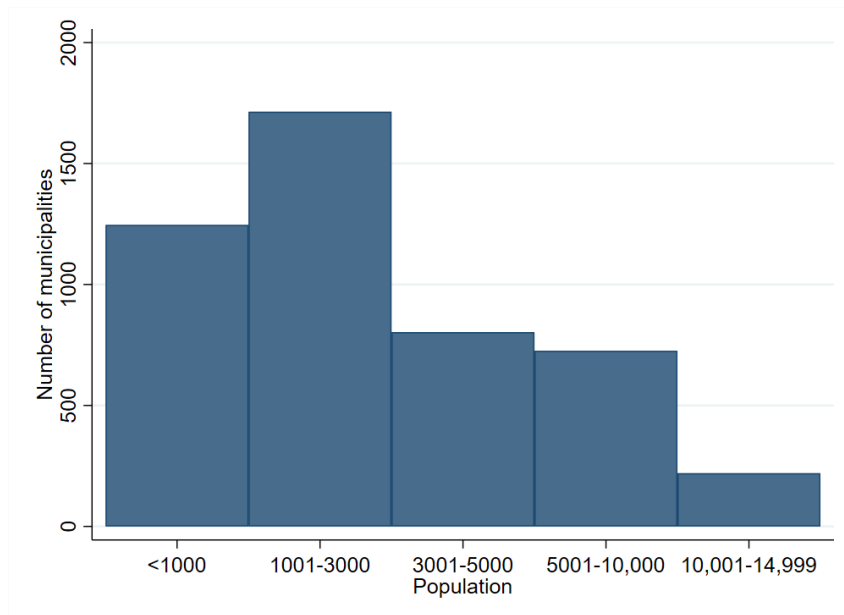
Note: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. The dependent variables are indicator variables equal to one if the mayor gets re-elected (1)-(2), if the mayor moves to a provincial (3)-(4) or regional office (5)-(6). All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

Appendix A. Additional Tables and Figures

FIGURE A1. The determinants of local body sizes



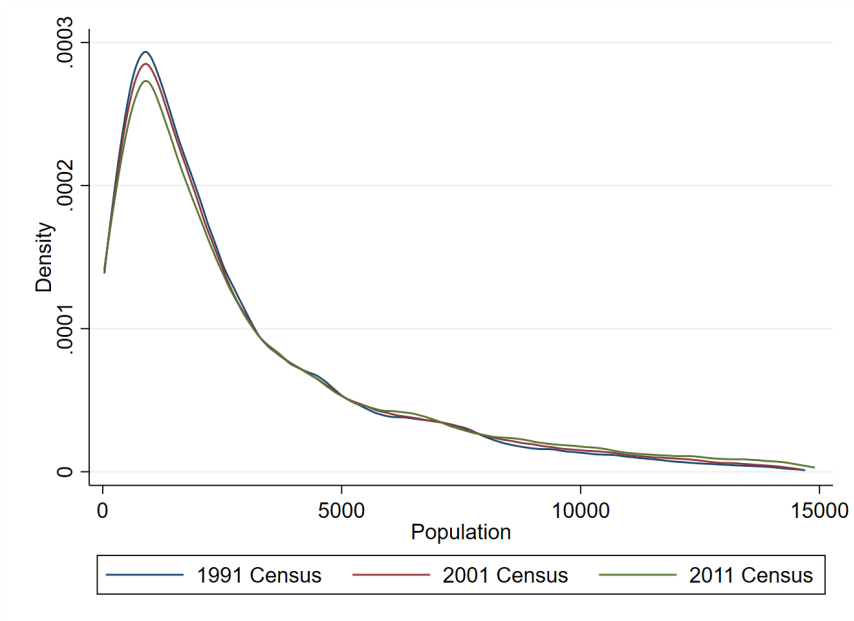
A. Number of municipalities by election year



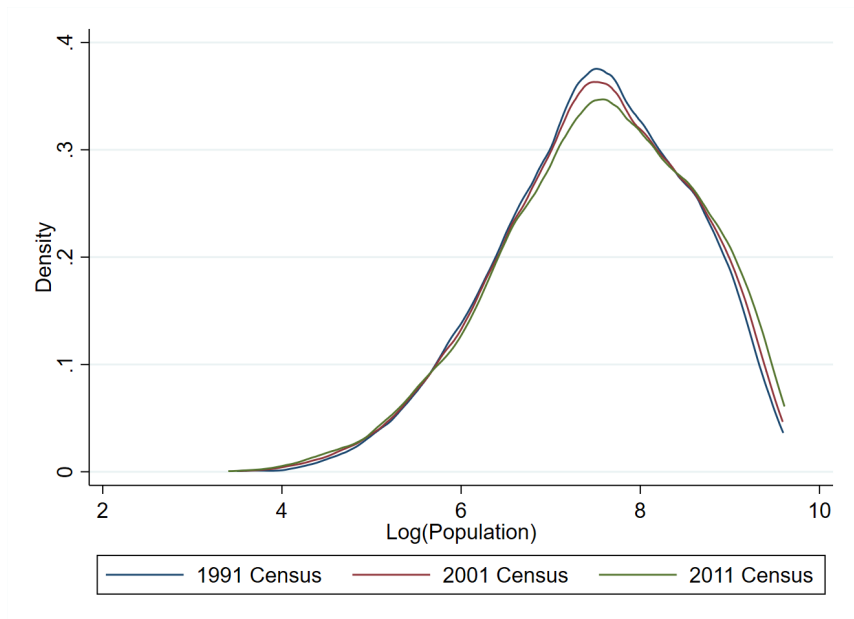
B. Number of municipalities by population bin

Notes: The figure on the left shows the number of municipalities having elections in any year between 1997 and 2015, the figure on the right shows the number of municipalities by population size bin.

FIGURE A2. Population over time



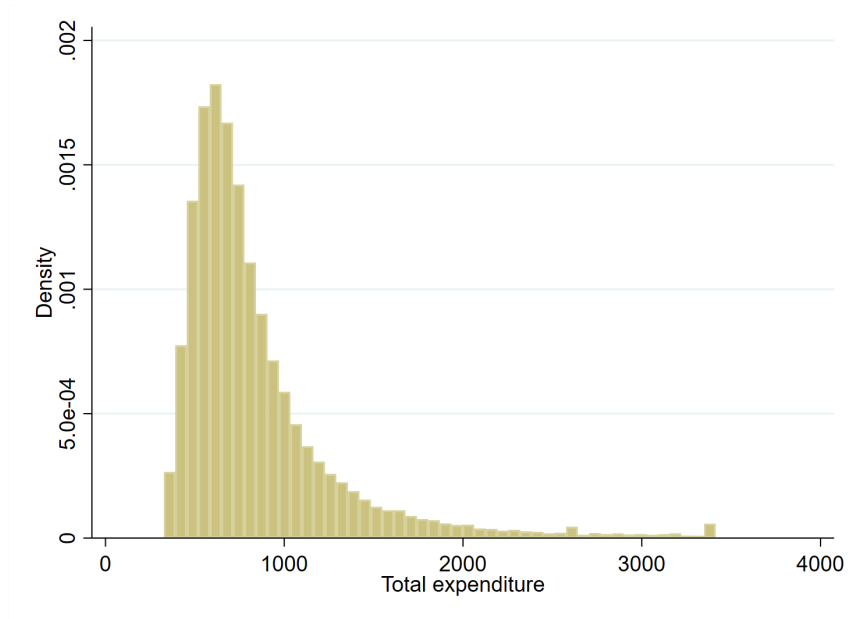
A. Population



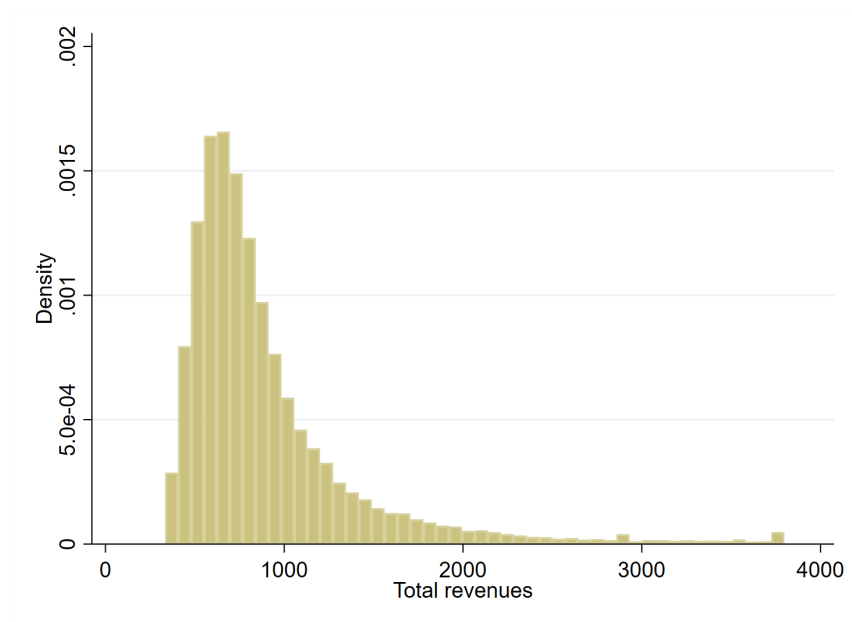
B. Log Population

Notes: The figure shows population and log population for the 1991, 2001 and 2011 Census for all the municipalities in the sample.

FIGURE A3. Outcome distributions



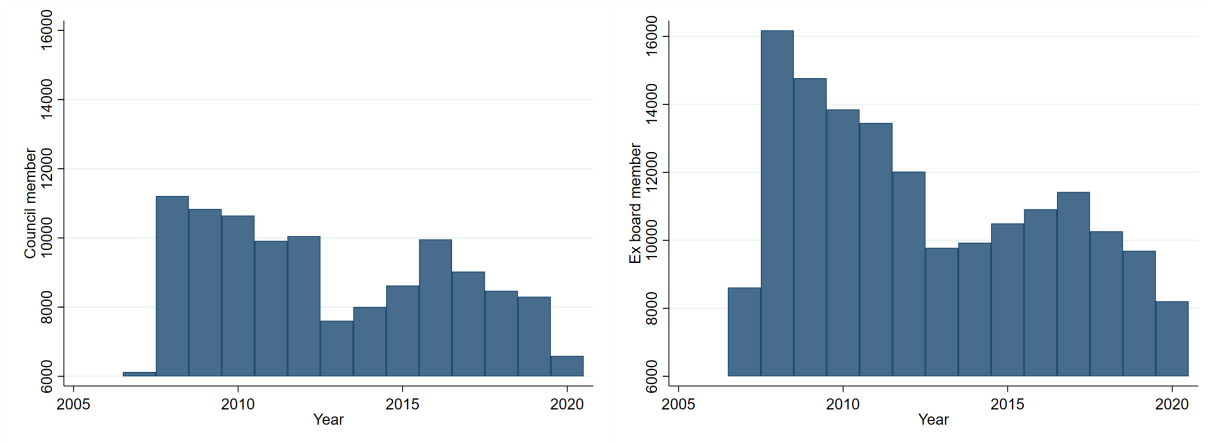
A. Total expenditure



B. Total revenue

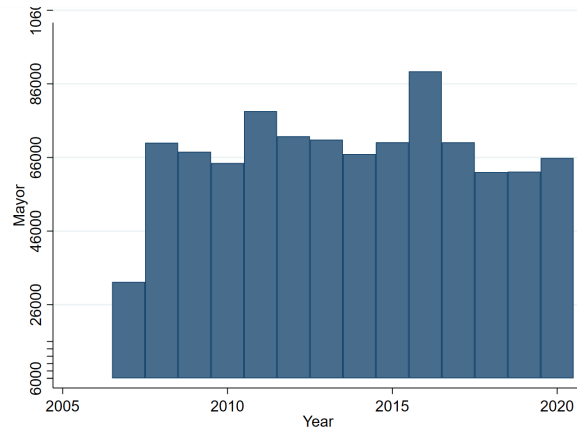
Notes: The left (right) plot shows a histogram of log total expenditure (revenue) (per capita, in 2015 euros).

FIGURE A4. Number of news articles



A. Articles on council members

B. Articles on executive board members



C. Articles on mayors

Notes: The two plots show a bar graph of the number of news articles that contain the keywords “council member(s)”, “executive board member(s)”, and “mayor(s)”.

TABLE A1. Municipal population distribution

Population	Number	Perc
< 1000	1952	24.13%
1001-3000	2589	32.03%
3001-5000	1145	14.16%
5000-15,000	1675	20.71%
$\geq 15,000$	726	9%

Note: This table reports the number and share of Italian municipalities by population. The population comes from the 2011 Census.

TABLE A2. Investment expenditure categories - Reduced form estimates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Admin	Police	Educ	Culture	Environ	Welfare	Sport	Tourism	Transport	Econ	Prod
Ln(Council size due)	-0.203 (0.140)	-0.0207 (0.0342)	-0.112 (0.122)	-0.199*** (0.0716)	-0.426*** (0.163)	-0.0837 (0.100)	-0.213** (0.0879)	-0.307*** (0.0814)	-0.109 (0.153)	-0.0296 (0.0549)	-0.0504 (0.0481)
Ln(Ex board size due)	0.186 (0.117)	0.00920 (0.0228)	0.0735 (0.0872)	0.137** (0.0592)	0.506*** (0.136)	-0.0445 (0.0807)	0.130* (0.0710)	0.213*** (0.0618)	0.288** (0.130)	0.0513 (0.0478)	0.0102 (0.0410)
Mean	14.37	0.17	4.98	1.04	18.22	2.78	2.30	0.80	16.59	0.67	0.48
Observations	57,267	57,267	57,267	57,267	57,267	57,267	57,267	57,267	57,267	57,267	57,267
R-squared	0.365	0.193	0.252	0.222	0.338	0.206	0.224	0.331	0.303	0.266	0.303

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. All dependent variables are in per capita terms and transformed using natural logarithms, but their mean is reported as non-transformed. All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

TABLE A3. Deficit

	(1)	(2)
	RF	IV
Council size due	-14.21 (20.74)	
Ex board size due	-24.08 (19.61)	
Council size		-11.042 (22.878)
Ex board size		-29.541 (23.591)
Sanderson-Windmejer F council		2568
Sanderson-Windmejer F board		2183
Mean	51.21	51.21
Observations	57,558	57,558
R-squared	0.255	0.019

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. The dependent variables are the number of parties with at least a seat in the council that do not belong to the mayor's party or coalition (1), a measure of seat concentration based on the HHI index (2), and the mayor's party share of council seats (4). All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

TABLE A4. Expenditure - no controls

	Expenditures						Revenues							
	Total		Current		Investment		Total		Taxes		Curr. transfers		Cap. transfers	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV
Ln(Council size due)	-0.211***		-0.0405		-0.394**		-0.241***		-0.243***		0.0651		-0.725***	
	(0.0366)		(0.0249)		(0.156)		(0.0400)		(0.0680)		(0.0948)		(0.138)	
Ln(Ex board size due)	0.157***		0.0311*		0.531***		0.150***		0.00297		0.0315		0.432***	
	(0.0265)		(0.0169)		(0.125)		(0.0286)		(0.0507)		(0.0679)		(0.118)	
Ln(Council size)		-0.230***		-0.044*		-0.460***		-0.260***		-0.243***		0.061		-0.779***
		(0.038)		(0.026)		(0.162)		(0.042)		(0.071)		(0.098)		(0.146)
Ln(Ex board size)		0.198***		0.039*		0.669***		0.188***		0.003		0.040		0.543***
		(0.033)		(0.021)		(0.153)		(0.035)		(0.062)		(0.083)		(0.146)
Sanderson-Windmejer F council		4053		4053		4053		4053		4053		4053		4053
Sanderson-Windmejer F board		2813		2813		2813		2813		2813		2813		2813
Mean	848.83	848.83	579.32	579.32	75.69	75.69	900.04	900.04	201.73	201.73	171.07	171.07	107.32	107.32
Observations	58,538	58,538	58,538	58,538	58,538	58,538	58,538	58,538	58,538	58,538	58,538	58,538	58,538	58,538
R-squared	0.788	0.397	0.881	0.597	0.365	0.101	0.745	0.331	0.720	0.183	0.777	0.682	0.399	0.126

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. All dependent variables are in per capita terms and transformed using natural logarithms, but their mean is reported as non-transformed. All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

TABLE A5. Expenditure - More controls

	Expenditures						Revenues							
	Total		Current		Investment		Total		Taxes		Curr. transfers		Cap. transfers	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV
Council size due	-0.145***		0.000382		-0.228		-0.164***		-0.230***		0.0732		-0.523***	
	(0.0345)		(0.0238)		(0.152)		(0.0377)		(0.0638)		(0.0929)		(0.131)	
Ex board size due	0.136***		0.0137		0.437***		0.120***		-0.0188		0.00869		0.368***	
	(0.0270)		(0.0165)		(0.133)		(0.0287)		(0.0494)		(0.0690)		(0.120)	
Council size		-0.163***		-0.001		-0.285*		-0.179***		-0.228***		0.072		-0.571***
		(0.036)		(0.025)		(0.159)		(0.039)		(0.067)		(0.096)		(0.139)
Ex board size		0.167***		0.017		0.537***		0.147***		-0.023		0.011		0.453***
		(0.032)		(0.020)		(0.158)		(0.034)		(0.059)		(0.082)		(0.144)
Sanderson-Windmejer F council		2572		2572		2572		2572		2572		2572		2572
Sanderson-Windmejer F board		2172		2172		2172		2172		2172		2172		2172
Mean	848.83	848.83	579.32	579.32	75.69	75.69	900.04	900.04	201.73	201.73	171.07	171.07	107.32	107.32
Observations	57,525	57,525	57,525	57,525	57,525	57,525	57,525	57,525	57,525	57,525	57,525	57,525	57,525	57,525
R-squared	0.792	0.405	0.884	0.601	0.364	0.103	0.749	0.340	0.717	0.185	0.781	0.683	0.404	0.137

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. All dependent variables are in per capita terms and transformed using natural logarithms, but their mean is reported as non-transformed. All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

TABLE A6. TWFE - Linear model

	Expenditures						Revenues							
	Total		Current		Investment		Total		Taxes		Curr. transfers		Cap. transfers	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV
Council size due	-19.94*** (4.892)		0.307 (2.037)		-5.232*** (1.622)		-22.79*** (5.560)		-2.770** (1.080)		5.021*** (1.284)		-9.162*** (1.946)	
Ex board size due	51.72*** (12.02)		0.373 (4.418)		15.30*** (4.402)		44.92*** (13.66)		-0.760 (2.656)		-2.665 (3.095)		15.56*** (5.391)	
Council size		-25.771*** (5.777)		0.289 (2.289)		-7.104*** (1.935)		-26.681*** (6.431)		-2.704** (1.234)		5.252*** (1.453)		-10.510*** (2.292)
Ex board size		72.863*** (16.732)		0.524 (6.001)		21.557*** (6.086)		63.298*** (18.784)		-1.060 (3.611)		-3.768 (4.210)		21.930*** (7.403)
Sanderson-Windmejer F council		892.5		892.5		892.5		892.5		892.5		892.5		892.5
Sanderson-Windmejer F board		897.2		897.2		897.2		897.2		897.2		897.2		897.2
Mean	848.83	848.83	579.32	579.32	75.69	75.69	900.04	900.04	201.73	201.73	171.07	171.07	107.32	107.32
Observations	57,543	57,543	57,543	57,543	57,543	57,543	57,543	57,543	57,543	57,543	57,543	57,543	57,543	57,543
R-squared	0.739	0.276	0.870	0.486	0.375	0.071	0.697	0.220	0.767	0.203	0.827	0.685	0.367	0.042

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. All dependent variables are in per capita terms and transformed using natural logarithms, but their mean is reported as non-transformed. All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality, and the average of the same variables for the executive board and the city council, a dummy for the fiscal constraint being in place, the dependency ratio (population 0-14 over 65+), and the share of foreign population.

TABLE A7. TWFE - Log-linear model

	Expenditures						Revenues							
	Total		Current		Investment		Total		Taxes		Curr. transfers		Cap. transfers	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV
Council size due	-0.0124***		0.00169		-0.0216		-0.0161***		-0.0210***		0.00998		-0.0587***	
	(0.00374)		(0.00250)		(0.0163)		(0.00412)		(0.00660)		(0.0101)		(0.0142)	
Ex board size due	0.0382***		0.00171		0.127***		0.0335***		-0.00798		0.00945		0.113***	
	(0.00885)		(0.00540)		(0.0412)		(0.00936)		(0.0152)		(0.0230)		(0.0366)	
Council size		-0.018***		0.001		-0.041**		-0.020***		-0.020**		0.009		-0.072***
		(0.005)		(0.003)		(0.020)		(0.005)		(0.008)		(0.012)		(0.018)
Ex board size		0.060***		0.003		0.198***		0.052***		-0.012		0.015		0.175***
		(0.014)		(0.008)		(0.062)		(0.014)		(0.023)		(0.034)		(0.056)
Sanderson-Windmejer F council		829		829		829		829		829		829		829
Sanderson-Windmejer F board		788.6		788.6		788.6		788.6		788.6		788.6		788.6
Mean	848.82	848.82	579.32	579.32	75.69	75.69	900.04	900.04	201.73	201.73	171.07	171.07	107.32	107.32
R-squared	0.792	0.398	0.884	0.601	0.364	0.100	0.748	0.333	0.716	0.183	0.780	0.682	0.400	0.127
Observations	57,562	57,562	57,562	57,562	57,562	57,562	57,562	57,562	57,562	57,562	57,562	57,562	57,562	57,562

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. All dependent variables are in per capita terms and transformed using natural logarithms, but their mean is reported as non-transformed. All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

TABLE A8. Expenditure - Exclude below 1000

	Expenditures						Revenues							
	Total		Current		Investment		Total		Taxes		Curr. transfers		Cap. transfers	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV
Council size due	-0.176*** (0.0400)		-0.0305 (0.0251)		-0.311* (0.168)		-0.217*** (0.0439)		-0.300*** (0.0700)		0.0489 (0.0974)		-0.444*** (0.143)	
Ex board size due	0.211*** (0.0361)		0.0619*** (0.0188)		0.616*** (0.154)		0.193*** (0.0370)		0.0493 (0.0603)		0.209*** (0.0770)		0.435*** (0.131)	
Council size		-0.224*** (0.044)		-0.041 (0.026)		-0.466** (0.181)		-0.245*** (0.047)		-0.308*** (0.075)		0.018 (0.102)		-0.508*** (0.155)
Ex board size		0.274*** (0.046)		0.080*** (0.023)		0.799*** (0.195)		0.251*** (0.047)		0.064 (0.075)		0.271*** (0.096)		0.563*** (0.165)
Sanderson-Windmejer F council		1523		1523		1523		1523		1523		1523		1523
Sanderson-Windmejer F board		1396		1396		1396		1396		1396		1396		1396
Observations	41,396	41,396	41,396	41,396	41,396	41,396	41,396	41,396	41,396	41,396	41,396	41,396	41,396	41,396
R-squared	0.751	0.388	0.869	0.622	0.371	0.117	0.704	0.333	0.725	0.178	0.765	0.688	0.397	0.111

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. All dependent variables are in per capita terms and transformed using natural logarithms, but their mean is reported as non-transformed. The council and executive board size is also in logs. All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

TABLE A9. TWFE - Forecasted expenditures

	Expenditures						Revenues							
	Total		Current		Investment		Total		Taxes		Curr. transfers		Cap. transfers	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV	RF	IV
Council size due	-0.267***		-0.0574**		-0.531***		-0.257***		-0.116**		-0.147		-0.656***	
	(0.0449)		(0.0255)		(0.124)		(0.0437)		(0.0486)		(0.0893)		(0.144)	
Ex board size due	0.140***		0.0100		0.308***		0.125***		-0.0569		0.0712		0.317***	
	(0.0357)		(0.0178)		(0.0993)		(0.0346)		(0.0373)		(0.0638)		(0.119)	
Council size		-0.281***		-0.058**		-0.563***		-0.270***		-0.110**		-0.154*		-0.689***
		(0.046)		(0.026)		(0.128)		(0.045)		(0.050)		(0.091)		(0.149)
Ex board size		0.169***		0.012		0.371***		0.151***		-0.069		0.086		0.382***
		(0.042)		(0.021)		(0.116)		(0.041)		(0.044)		(0.075)		(0.139)
Sanderson-Windmejer F council		3893		3893		3893		3893		3892		3893		3893
Sanderson-Windmejer F board		2727		2727		2727		2727		2726		2727		2727
Mean	1440.23	1440.23	751.50	751.50	464.21	464.21	1431.37	1431.37	272.02	272.02	202.07	202.07	325.42	325.42
Observations	57,268	57,268	57,268	57,268	57,268	57,268	57,268	57,268	57,266	57,266	57,268	57,268	57,268	57,268
R-squared	0.703	0.191	0.894	0.652	0.459	0.173	0.708	0.197	0.803	0.366	0.789	0.671	0.437	0.099

Notes: * significant at 10%; ** significant at 5%; *** significant at 1%. Standard errors clustered at the municipality level are reported in parentheses. All dependent variables are in per capita terms and transformed using natural logarithms, but their mean is reported as non-transformed. All regressions include municipality, event time fixed effects, election year fixed effects, population bins-times-year fixed effects and the following controls: mayor initial age (in log), gender, years of education, profession and an indicator if they were born in the municipality.

TABLE A10. Executive board - Delegations

1. Environment and Territory	3. Housing, Family and Welfare	5.6 Production	10.5 Public Firms
1.1 Environment	3.1 Housing Policies	5.7 Work Safety	11. Institutional Activities
1.2 Public Green	3.2 Youth Policies	6. Mobility, Viability and Transport	11.1 Institutional Communication
1.3 Civil Protection	3.3 Education	6.1 Mobility	11.2 Institutional Activity
1.4 Urban Design	3.4 Integration Policies	6.2 Viability	11.3 International Cooperation
1.5 Development and Recovery of Suburbs	3.5 Family	6.3 Transport	Comunitarian Policies
1.6 Agricultural Resources	3.6 Resident Services	7. Health	
1.7 Land Protection	3.7 Children Policies	7.1 Health	
1.8 Coast Protection	3.8 School	8. Urbanism and Private Building	
1.9 Sea Protection	3.9 Ethnic and Language Minorities	8.1 Urbanism	
1.10 Water Bodies Protection	3.10 Equal Opportunities	8.2 Private Building	
1.11 Waste Management	3.11 Civic Services	9. Decentralization, Organization, Innovation and Human Resources	
1.12 Forests	3.12 Welfare	9.1 Local Police	
1.13 Hunting	3.13 School Buildings	9.2 Personnel	
1.14 Fishing	3.14 Consumers Protection	9.3 Organization	
1.15 Mountain Protection	3.15 Children Rights	9.4 Decentralization	
1.16 Floriculture	3.16 Fight against Usury	9.5 Metropolitan Area	
1.17 Animal Rights	3.17 Volunteering and Association	9.6 City Areas and Neighborhood Councils	
1.18 Parks and Natural Reserves	4. Public Works	9.7 Research	
2. Culture, Tourism, Sport and Leisure	4.1 Infrastructure	9.8 Innovation	
2.1 Culture	4.2 Public Works	9.9 Informational Systems	
2.2 Sport and Leisure	5. Labor, Craft, Commerce and Production	9.10 Relationship with Municipalities	
2.3 Tourism	5.1 Craft	10. Strategic Resources and Assets	
2.4 Big Events	5.2 Labor Policies	10.1 Budget	
2.5 Archeological, Historical and Monumental Goods	5.3 Fairs and Markets	10.2 Tributes	
2.6 Historical Downtowns	5.4 Work training	10.3 Asset	
2.7 Museums, Libraries, Art Galleries	5.5 Commerce	10.4 Public Properties	

Notes: This table lists the delegations allowed for executive board members. The source is the Ministry of the Interior.