Women, Local Public Finance and Fiscal Adjustment*

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Abstract

Does the gender of the mayor affect the size and composition of public expenditures and revenues? Do male and female mayors react differently to fiscal adjustments? Using a fuzzy regression discontinuity design in close mixed gender races for the election of mayors in Italian municipalities in the period 2000-2015, we find that female mayors collect more revenues and spend more than male ones, both in the current and capital account. When constrained to fiscal adjustments by the central government, in a fuzzy difference-in-discontinuities design we find that female mayors reduce expenditures more than men.

Keywords: Gender, Municipal government, Fiscal adjustment

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1 Introduction

Gender gaps in political empowerment are wide. According to the Global Gender Gap Index (World Economic Forum, 2018), the world has closed only 23 per cent of the gender gap in politics. Academic research has focused on the causes of this gap and investigated policy measures to strengthen women's political empowerment. Besides equity reasons as rationales for reducing the gaps, the expectation that women could have different characteristics as policy makers compared to men and behave differently in policy setting choices has been prominent both in the academic and policy debate, although there is

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no conclusive evidence on whether gender matters in policy making. In this paper we contribute to this debate and investigate whether male and female politicians take different decisions on local public spending and revenues: we first assess whether they opt for a different level and composition of spending and revenues, then turn to how they leverage on spending and revenues when they are forced to undertake fiscal adjustment programs at the local level to address a reduction of transfers from the national government.

We focus on the election of mayors in Italian municipalities with more than 15,000 residents in the period 2000-2015. In these municipalities, mayors are elected according to a run-off system, whereby only two candidates from a first round continue to the second, in which the candidate getting the majority of votes becomes mayor. We exploit the existence of two voting rounds to elect a mayor in these municipalities and, focusing on close mixed gender races for elections to the mayoral position, we use the margin of victory in the first round as an instrument for the gender of the mayor, taking advantage of the fact that candidates who get a majority of votes in the first round are more likely to be elected in the second. Adopting a fuzzy regression discontinuity design, we find that public expenditures per capita by female mayors are significantly higher than those by male mayors, both in the current and capital account. Female mayors also collect higher revenues per capita. When looking at single expenditure categories, we find that women spend more in administration, roads and social services. We then analyze whether female and male mayors react differently to a fiscal adjustment process imposed by the central government on municipalities starting from 2010. Our fuzzy difference-in-discontinuities design compares the response of municipalities headed by a female mayor to that of municipalities headed by a male mayor before and after 2010. Results show that female mayors reduce expenditures to a higher extent than men. We do not find significant differences in the adjustment of revenues from taxes and fees, but we do find an effect on other revenues, such as those coming from alienations and loans.

Several recent studies have investigated the relationship between female political leadership and policy decisions. To appropriately test this relationship requires an institutional setting in which the gender balance of policy makers is exogenously determined. Exploiting random allocation of women-reserved seats, Chattopadhyay and Duflo (2004) find that female leaders in India allocate more resources to investments that are more relevant to their own gender. Using close mixed gender races, Clots-Figueras (2011) finds that the gender of politicians impacts on policy decisions, with social position mediating the effect. In particular, female legislators coming from lower castes favor women-friendly laws and redistributive policies, whereas female legislators coming from higher castes have no effect on women-friendly policies nor redistribution. Brollo and Troiano (2016) use a regression discontinuity design in close mixed gender races to show that, in Brazil, cities run by female mayors have better health indicators, receive more federal transfers and are less prone to corruption in public tenders. A recent contribution by Baskaran and

Hessami (2018) shows that in Bavarian municipalities a higher share of female council members has a causal positive impact on the availability of childcare, whereas Baskaran et al. (2018) shows that Indian constituencies that elect women have higher growth rates compared to others. Exploiting direct democracy in Switzerland, Funk and Gathmann (2015) show that in Swiss referenda women support the allocation of resources to health, environmental protection, defense and welfare. In contrast to these contributions which testify to the importance of gender in policy choices, Ferreira and Gyourko (2014) find that female mayors in US cities have no impact on municipal spending, employment and crime rates. A similar result is obtained in Carozzi and Gago (2017) for Spain, where the gender of the mayor shows no correlation with policy decisions, whereas party affiliation does. Bagues and Campa (2017) find that the gender of Spanish municipal councilors does not bring about more expenditure on issues women care about the most. Gagliarducci and Paserman (2012) find that in Italian female-headed municipalities, the probability of early termination is higher with respect to male-headed ones. They do not find significant effects, though, on budget deficits, revenues and investments.

Our paper is also related to the literature on fiscal adjustments at sub-national levels of government. Existing research has mainly concentrated on the emergence of the so-called "fly-paper effect", i.e. the evidence that a change in the amount of government grants to a recipient municipality increases the level of local public spending more than an equivalent change in the local income (see Bailey and Connolly, 1998; Hamilton, 1983; Hines and Thaler, 1995; Inman, 2008). In a recent paper, Marattin et al. (2019) focus, instead, on the mode of adjustment local governments adopt to react to cuts in transfer from the central governments. Using the reduction in transfers from central government to municipal governments occurred in Italy in the period 2010-2015, they find that local governments react by mainly increasing taxes – and real estate taxation, in particular –, rather than by reducing spending. They also analyze the influence of political variables, such as the degree of electoral competition and party fragmentation, on the type of fiscal adjustment chosen. However, they do not assess whether the individual characteristics of the mayor bear any consequence on the type of fiscal adjustment implemented. We focus on the same budgetary cuts they analyze and look at the gender of the mayor as the key variable determining the mode of adjustment that local governments adopt.

Our result that fiscal adjustments promoted by female mayors rely on larger reductions of government spending compared to those implemented by male mayors can have important macroeconomic implications. A large literature has analyzed the macroeconomic effects of fiscal policies, starting from the pioneer work by Romer and Romer (2010). This literature focuses on central government policies and analyzes the effects that different types of fiscal adjustments can have on growth and output. Recent papers (Alesina et al., 2015a,b; Guajardo et al., 2014) conclude that fiscal consolidations implemented by raising taxes imply larger output losses compared to consolidations relying on reductions in

government spending. In their analysis of over 3500 exogenous shifts in fiscal variables, Alesina et al. (2017) show that spending cuts are much less recessionary than tax hikes. Fiscal consolidations based on spending reductions are associated with small output loss, while tax-based adjustments cause deep and long lasting recession. To the extent that a similar effect arises also at the local government level, our result suggests that fiscal adjustments implemented by female mayors are less detrimental for economic growth than those implemented by male mayors.

Our paper also speaks to the literature that investigates the different preferences of men and women for the size of government. Cross-country (Aidt and Dallal, 2008) and within-country (Lott and Kenny, 1999) evidence shows that women have a preference for a higher size of government spending, specifically in social and welfare categories. Our result that women mayors tend to spend more than men can be interpreted in light of their preference for a bigger size of government. We are cautious, however, in giving a definitive answer to this question, in light of our results on fiscal adjustment, which show that – when constrained by fiscal rules – women reduce spending more than men, aligning public expenditures to those of municipalities run by male mayors.

The paper is organized as follows: section 2 describes the institutional setting and data; section 3 describes the empirical strategy; section 4 presents our causal estimates of the gender of mayors on local public finance and fiscal adjustments; section 5 discusses the results and concludes.

2 Institutional Setting and Data

2.1 Election of Mayors

There are three sub-national levels of government in Italy: regions, provinces and municipalities. As of 2015, there are 20 regions,[1] 110 provinces and 8,049 municipalities. Each municipality is governed by a mayor, assisted by a legislative body, the municipal council (*Consiglio Comunale*), and an executive body, the executive committee (*Giunta Comunale*).

Elections take place every five years. Since 1993 (Law 81/1993), the mayors of Italian municipalities are directly elected by citizens under plurality rule, with a single round for municipalities with less than 15,000 residents and a run-off system in municipalities with more than 15,000 residents. In particular, in the latter set of municipalities there are two rounds of elections. In the first round, voters cast votes for a candidate to the

[1]The 15 "ordinary" regions are: Piemonte, Lombardia, Liguria, Veneto, Emilia-Romagna, Toscana, Umbria, Marche, Lazio, Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria. The 5 "special" regions are Sicilia, Sardegna, Valle d'Aosta, Friuli-Venezia Giulia and Trentino Alto Adige. Since the municipalities in this latter group of regions are subject to different electoral rules and have a stronger degree of autonomy when it comes to the local budget, we exclude them from the analysis.

mayor position and for a party (or a coalition of parties). The vote may be disjoint, meaning that one can express a preference for a mayor and a preference for a party, that is different from the one the mayor belongs to.[2] If a candidate gets more than 50% of the votes in the first round, he or she gets elected. Otherwise, the two most voted candidates compete in a ballot that takes place two weeks after the first round. Between the two rounds, lists supporting a candidate that did not get to the second round can endorse one of the two candidates competing in the ballot, provided the selected candidate agrees. The candidate who gets more votes in the second round is elected mayor and his/her party or coalition gets a large majority premium of two-thirds of council seats.[3] The remaining one-third is distributed to losing lists according to a proportionality rule. In the remainder of the paper, we focus on municipalities with more than 15,000 residents to have a homogeneous group in terms of electoral rules to determine the mayor. In addition, we drop municipalities that were hit by an earthquake over the period 2000-2015, because they were subject to different fiscal rules.[4] In our identification strategy, we exploit the two rounds of elections and, focusing on close elections, we use the margin of victory in the first round as an instrument for the gender of mayors, exploiting the fact that candidates who get a majority of votes in the first round are more likely to be elected in the second.

Figure 1 shows that the share of municipalities run by female mayors has increased over time, even though at a slow pace. The share of female mayors has in any case doubled between 2000 and 2015, going from 5% to 10%.

2.2 Local Public Finance and Intergovernmental Transfers

The mayor is responsible for the budgetary policy, together with the executive committee, and can perform a proactive role in making decisions about expenditures and revenues. The municipal council has to authorize the mayor and executive committee to undertake the proposed budgetary policy. We thus assume that the mayor plays an important role in local public finance decisions. Municipalities have responsibility over certain types of expenditures and have to raise revenues in order to finance them. To this end, they can apply surcharges on personal income taxes and collect local property taxes and tariffs. A detailed description of expenditures and revenues is given in section 2.3. Expenditures are also financed by transfers received from the central government. Since 2010, Italy has implemented an intense program of reduction of transfers from the central government to local governments, comprising regions, provinces and municipalities. As a reaction to the Great Recession, the first program of transfer reduction was established with the

[2] As discussed in Bordignon et al. (2016), most voters cast only one vote, either for the mayor or the party (and in this case the vote automatically extends to the supported mayoral candidate).

[3] The majority premium ensures that mayors winning with different margins of victory are not constrained in policy decisions due to the strength or weakness of their mandate.

[4] Apart for this exception, municipalities with more than 15,000 residents are subject to the same set of fiscal rules (e.g. the Domestic Stability Pact) throughout the whole period 2000-2015.

Decree Law 78/2010, to be effective starting from 2011. The amount of transfers from the central government to municipalities in "ordinary" regions was permanently reduced by 1.5 billion in 2011 and 1 additional billion in 2012 (hence, 2.5 billion in total). This cut involved only municipalities with more than 5,000 residents, whereas the subsequent decrees applied to all municipalities. Figure 2 reports all the decrees and the associated spending cuts. The total amount of cumulated spending cuts to municipalities was in 2015, relative to 2010, approximately 8.3 billion Euro.

2.3 Data

We combine three datasets: on elected mayors, on mayoral candidates and on local public finance. Data on elected mayors are provided by the Ministry of Interior (*Anagrafe degli amministratori locali e regionali*). We have information on gender, age, educational attainment, political affiliation and previous job of elected mayors in all Italian municipalities between 2000 and 2015, as well as of council members and members of the executive committees (with less accuracy on personal information).

As to candidates to the mayor position, we collect publicly available information on elections between 1997 and 2015, exploiting the website of the Ministry of Interior. This dataset carries information on the name of candidates and party lists and number of votes cast in favor of each candidate and party in the first and second round of elections, but it lacks any personal information on the candidates. We therefore identify the gender of the candidates by their names.[5] We then select only mixed gender elections, that is, those where the two most voted candidates in the first round are a man and a woman. We report in Figure 3 the distribution of mixed gender and non-mixed gender elections in municipalities with more than 15,000 residents. Mixed gender elections represent on average 18% of the total number of elections in these municipalities, with an increasing trend over time: in 2014, 27% of elections were mixed gender, against 19% in 2004.[6] We compute the first round margin of victory as the difference in the vote share of the female candidate and the vote share of the male candidate. Hence, as standard practice in close election analyses, a positive margin of victory means that the female candidate receives more votes in the first round.

The last source of information is Bureau Van Dijk-AIDA PA, which reports balance sheet data of the Italian municipalities. We collect data on local public expenditures and revenues. We focus on spending commitments in total, current and capital account and on revenue accruals. Spending categories are organized in "functions", which we aggregate in seven categories: administration, management and control (which we label

[5] In order to solve the ambiguous cases, we check the available information online (e.g. social network profiles, newspaper articles).

[6] We report statistics for 2004 and 2014 because they are two "election years", that is, two years where most municipalities elected their mayor.

administration); justice and police; education and culture; roads and transports (which we label roads); environment; social services; productive services and economic development.[7] Revenues are organized in "titles", which we aggregate in four categories: taxes and fees, transfers from upper-level governments, third party services, other revenues (i.e. loans and alienations).[8]

Table 1 shows descriptive statistics for (mean per capita) expenditures and revenues.[9] Figure 4 shows the average per capita spending and revenues in municipalities headed by a female or male mayor before and after 2010 (i.e. when spending cuts were first applied). The largest share in expenditure commitments is due to spending in administration, whereas taxes and fees comprise most of municipal revenues. The figure highlights two important facts. First, before 2010 women spend on average 4% more and collect on average 6% more revenues than men. Second, after 2010 a striking difference emerges in the average spending and revenues of male-run and female-run municipalities: on the one hand, women cut spending by 34%, while men by 23%; on the other hand, men decreased revenues by approximately 6%, while women decreased them by 24%. Of course, there are several confounding factors that may influence local public finance decision besides the gender of the mayor. Therefore, to identify a causal relationship, in the next section we rely on a fuzzy regression discontinuity design exploiting closed mixed gender races to mayoral positions.

3 Empirical Strategy

3.1 Gender of Mayors and Local Public Finance

We adopt a fuzzy regression discontinuity design to estimate the causal impact of gender on local public finance. Exploiting the run-off electoral system of municipalities with more than 15,000 residents and focusing on mixed gender elections, we use the first round margin of victory as a forcing variable in the fuzzy RD design. The probability that the mayor is a woman increases as the first round margin of victory changes from negative to positive, identifying a clear discontinuity in the probability of a female candidate winning

[7] The spending functions are 12: administration, management and control; justice; local police; education; culture; sport and recreational services; tourism; roads and transports; environment; social services; productive services; economic development. We thus combine justice and local police; education, culture, sport and recreational services; productive services and economic development. We do this to avoid working with missing or very small budgetary items.

[8] The revenue titles are 6: taxes, contributions and current transfers, fees, revenues from alienations and credit collection, revenues from loans, and revenues from third party services. We thus combine taxes and fees, and alienations and loans. In the empirical analysis, we discard revenues from third party services and current transfers. On the one hand, third party services are revenues collected by the municipality but allocated to other levels of government (the central state, the region or the province). Hence, they are out of mayors' control. On the other hand, transfers are influenced by the fiscal adjustment described in section 2.2, which is out of mayors' control, as well.

[9] Values are reported in 2010 euros and each outcome is winsorized at 1st and 99th percentile.

the election, as Figure 5 shows. We can therefore identify the impact of female mayors on local public finance at the zero cut-off point, using the first round margin of victory as an instrument for the mayor's gender.[10]

Formally, let MV_{it} be the first round female margin of victory, so that $Z_{it} = 1\{MV_{it} > 0\}$ is a treatment assignment rule equal to 1 if the most voted candidate in the first round is female. We use Z_{it} as an instrument for the gender of the (second round) winning candidate F_{it}, where F_{it} is a dummy equal to 1 if the winning candidate is female and 0 if male.

Furthermore, let Y_{1it} and Y_{0it} be the potential outcomes when $F_{it} = 1$ and $F_{it} = 0$, respectively. The observed outcome is $Y_{it} = (1 - F_{it})Y_{0it} + F_{it}Y_{1it}$. We are able to identify the local average treatment effect τ^{RDD} at the cut-off $MV_{it} = 0$, by taking the limit of the reduced form effect, rescaled by the first stage difference in the treatment probability at the threshold, i.e.

$$\tau^{RDD} = \frac{Y^+ - Y^-}{F^+ - F^-}, \tag{1}$$

where $X^+ - X^- = \lim_{\Delta \to 0} E(X_{it}|MV_{it} > \Delta) - E(X_{it}|MV_{it} < -\Delta)$ for $X = \{Y, F\}$. We can retrieve the LATE by estimating a 2SLS regression. The first stage regression equation reads:

$$F_{it} = \xi_0 + \xi_1 Z_{it} + \sum_{k=1}^{p} \left[(\rho_k + \mu_k Z_{it}) \, MV_{it}^k \right] + \eta_t + u_{it}, \tag{2}$$

whereas the second stage is:

$$Y_{it} = \beta_0 + \beta_1 F_{it} + \sum_{k=1}^{p} \left[(\gamma_k + \delta_k Z_{it}) \, MV_{it}^k \right] + \eta_t + \varepsilon_{it}. \tag{3}$$

Y_{it} is the outcome of interest. In both equations, η_t are year effects, while u_{it} in equation (2) and ε_{it} in equation (3) are composite error terms. p is the order of the polynomial control function in the margin of victory and in its interaction with the assignment rule.

The main parameter of interest is β_1, which estimates τ^{RDD}. We report reduced form and 2SLS estimates of β_1 at various orders of the polynomial control function ($p = 1, 2, 3$) for the entire sample of municipalities. Following Gelman and Imbens (2019), we also implement local linear and local polynomial regression restricting the sample to the observations within different bandwidths, providing both parametric and non-parametric estimates (Calonico et al., 2017).

[10] We use the first round margin of victory as running variable, and thus a fuzzy design, in order to consider election results coming from a single election round for all municipalities. To use a sharp design we would need to combine results of the first round for municipalities where one of the candidates gets more than 50% of the votes directly at the first round, with those of the ballot for municipalities where no candidate collects more than 50% of the votes in the first round. Therefore, within election year, we would consider different dates of election for different municipalities. Focusing on the first round eliminates this problem.

3.2 Gender of Mayors and Fiscal Adjustment

We adopt a fuzzy difference-in-discontinuities design (Grembi et al., 2016; Galindo-Silva et al., 2018) to answer the question of whether female and male mayors reacted differently to the fiscal adjustment imposed by the central government in the period 2010-2015 to cope with the sovereign debt crisis. This approach combines the quasi-experimental setting provided by the analysis of close elections in a fuzzy regression discontinuity design with a difference-in-differences strategy.

We compare the response of municipalities headed by a female mayor to that of municipalities headed by a male mayor in a close interval around the 0 first round margin of victory, before and after 2010.[11] This approach identifies the local average treatment effect τ^{FDRD} of the fiscal adjustment at the cut-off:

$$\tau^{FDRD} = \frac{\bar{Y}^{+} - \bar{Y}^{-}}{\bar{F}^{+} - \bar{F}^{-}} - \frac{\tilde{Y}^{+} - \tilde{Y}^{-}}{\tilde{F}^{+} - \tilde{F}^{-}}, \tag{4}$$

where $\bar{X}^{+} - \bar{X}^{-} = \lim_{\Delta \to 0} E(X_{it}|MV_{it} > \Delta, t \geqslant t_0) - E(X_{it}|MV_{it} < -\Delta, t \geqslant t_0)$ and $\tilde{X}^{+} - \tilde{X}^{-} = \lim_{\Delta \to 0} E(X_{it}|MV_{it} > \Delta, t < t_0) - E(X_{it}|MV_{it} < -\Delta, t < t_0)$ for $X = \{Y, F\}$, and $t_0 = 2010$. Y and F are, as before, the outcome of interest and a dummy for women, respectively. Empirically, τ^{FDRD} can be recovered in a 2SLS regression, where the first stage reads:

$$F_{it} = \psi_0 + \psi_1 Z_{it} + \psi_2 A_t + \psi_3 A_t Z_{it} + \sum_{k=1}^{p} \left[(\varsigma_k + \kappa_k Z_t) \, MV_{it}^k \right] + \eta_t + \phi_{it}, \tag{5}$$

and the second stage is

$$Y_{it} = \alpha_0 + \alpha_1 F_{it} + \alpha_2 A_t + \alpha_3 A_t F_{it} + \sum_{k=1}^{p} \left[(\zeta_k + \theta_k Z_t) \, MV_{it}^k \right] + \eta_t + \omega_{it}, \tag{6}$$

where Y_{it} is the outcome of interest, F_{it} is a dummy for female mayors, A_t is a dummy for the post-2010 period, MV_{it} is the first round margin of victory, η_t are year fixed effects, ϕ_{it} and ω_{it} are composite error terms. The parameter of interest is α_3, which estimates τ_{FDRD}. As before, we present estimates with different order of the spline polynomial p ($p = 1, 2, 3$) and local linear regressions at different bandwidths (20%, 30%, 40%). Since there is no clear way of identifying an optimal bandwidth for fuzzy difference-in-discontinuities design, we choose not to report non-parametric estimates with optimal bandwidth selectors.

[11] The first Decree Law establishing the cut in transfers from the central government was effective starting from 2011, but approved in 2010. We thus consider 2010 as the starting year of the fiscal adjustment to control for potential anticipation effects by municipalities who had the fiscal space to do so. All results are robust to the use of 2011 as starting year of the fiscal adjustment.

Note that in our setting there is no other confounding treatment that changes discontinuously at the margin of victory cut-off, apart for the gender of the mayor, as we will show in section 4.1. Therefore, equation (4) identifies the local average treatment effect provided that standard assumptions of fuzzy regression discontinuity designs, coupled with the local parallel trend assumption of the difference-in-discontinuities design, are met. We provide evidence in section 4.1 that these conditions are satisfied in our context.

4 Results

4.1 The Impact of Female Mayors on Local Public Finance

Empirical Findings We investigate graphically the relationship between local public finance and the gender of the mayor in Figure 6. The figure shows that per capita total expenditures by female mayors are significantly higher than expenditures by male mayors – the result being driven by current expenditures – and that per capita revenues from taxes and fees by female mayors are significantly higher than those by male mayors. The graphical results are confirmed in Table 2, which reports the estimates with the spline polynomial approximation and local linear regressions, controlling for year fixed effects. The reduced form results are reported in Table 2, Panel A, and suggest that women spend on average between 17 and 25 log points more than men and collect between 21 and 25 log points more revenues than man. Two stages least squares estimates, reported in Table 2, Panel B, confirm these findings. Coefficients are generally higher because the reduced form coefficient is rescaled by the first stage effect of gender on the first round margin of victory. Table A.1 reports results using monetary amounts in euros per capita as dependent variables. The main conclusions do not change and indicate that women spend between 258 and 309 euros per capita more than men and collect between 101 and 142 euros more than men in taxes and fees in the reduced form.

We then move to the composition of expenditures and revenues. Table A.2 suggests that women spend more on administration, roads and social services and collect more resources in all components except loans.

We also investigate the timing of the spending and revenue decisions by female and male mayors. To this end, we pool years relative to the year of election and estimate separate fuzzy RD models for each time period. The coefficient estimates are reported in Figure A.1. Female mayors spend and collect more revenues than male mayors in all years, but the coefficient estimates are uniformly significant starting from the year after the election. The trajectory for all outcomes is an inverse U-shape, meaning that, when the end of their mandate gets closer, female mayors tend to converge to spending and revenue levels of men.

We comment on these results in the discussion section at the end of the paper.

Validity of the RDD To test the validity of the RD design, we first verify the absence of discontinuities at the 0 margin of victory threshold in the distribution of baseline municipal characteristics and mayor's party affiliation. The data are taken from the 2001 Italian census and the Ministry of Interior. The results are reported in Table 3 and show that there are no significant discontinuities, except for few covariates in only some specifications. Overall, we can conclude that the assignment of the treatment around the cut-off is as good as random.

We then test for the presence of sorting, i.e. the tendency of municipalities to strategically manipulate the running variable to fall on one side of the cut-off. To this end, we implement a McCrary test (McCrary, 2008) and find no evidence of discontinuities in the density of the first round margin of victory around the cut-off, as shown in Figure 7.

Robustness checks Figure A.2 proves the robustness of our results to the selection of different bandwidths, using a non-parametric approach. Specifically, we plot RD estimates for all bandwidths between 5% and 40% margins of victory according to the non-parametric estimation suggested by Calonico et al. (2017). The coefficient estimates are sensitive to the bandwidth, but are uniformly positive and significant for expenditures and revenues from taxes and fees, similarly to our main parametric results.

Figure A.3 compares the true reduced-form estimates from column (2) of Table 2 with a distribution of 1000 placebos. The placebo estimates are obtained by random permutation of the margins of victory across municipalities. Each placebo is thus estimated with a fake forcing variable $\widetilde{MV}$ and the effect of gender on local public finance is computed at the cut-off $\widetilde{MV} = 0$. The probability of obtaining values higher than the true estimate is below 0.01 for total and current expenditures and revenues from taxes and fees, whereas it equals 0.021 for capital expenditures and 0.064 for other revenues. These p-values can be seen as the probability that, under the null of no effect, the sampling bias is large enough to account for the magnitude of the true effect. Low p-values are reassuring in this sense, meaning that the true estimate measures the actual impact of gender on local public finance.

We also check the sensitivity of the estimates to the inclusion of covariates. Results are reported in Table A.3, where we include in each regression two population dummies (50,000-100,000 residents and more than 100,000 residents), a dummy for cities in the north and a dummy for centre-left mayors. The coefficient estimates are similar but the significance is somewhat attenuated. Anyway, they confirm the positive impact of women on both expenditures and revenues.

We finally replicate our findings using a smaller sample of municipalities. Specifically, we exclude observations where a candidate wins the first round of election by more than

5 percentage points relative to the strongest opponent, but then loses the ballot. These cases weaken the first stage correlation between the instrument Z_{it} (i.e. a positive first round margin of victory) and the treatment F_{it} (i.e. the gender of the mayor). Results are reported in Table A.4, and are very similar to our baseline estimates.

4.2 Fiscal Adjustment

In this section, we investigate whether municipalities headed by female and male mayors reacted differently to the fiscal adjustment imposed by the central government in the period 2010-2015, to cope with the sovereign debt crisis. Marattin et al. (2019) show that, when confronted with a reduction in transfers from the central government, local politicians act on the revenue side rather than on the expenditure side and, in particular, they increase tax revenues. However, the authors remain silent on different behavior of men and women politicians in terms of how to address the reduced transfers, which is what we focus on here. We exploit the timing of the fiscal adjustment and close mixed gender elections to credibly recover causal estimates of the impact of gender on local public finance in response to fiscal adjustments.

Empirical findings We start by investigating graphically the relationship between fiscal adjustment and gender in Figure 8. The Figure shows the scatterplot for each (log per capita) outcome with a spline 2nd order polynomial, before and after 2010. The Figure shows three facts: women cut total spending more than men, both in the current and in the capital account; women do not cut taxes and fees whereas men *raise* them, contributing to a net negative effect of female gender on the revenue-side adjustment; women cut other revenues more than men. Note that, as we show in Figure A.4, municipalities headed by a female mayor were not hit more severely by the fiscal adjustment than male-run municipalities. The average levels of transfers[12] are significantly lower after 2010, but there is no discontinuity at the cut-off.

Table 4 reports the full set of estimates of the impact of women mayors on local public finance after the fiscal adjustment with both global polynomial smoothing and local linear regressions according to equation (6). Panel A shows reduced form estimates and Panel B reports 2SLS coefficients. The estimates are negative and significant in both reduced form and 2SLS specifications for total and capital expenditures, meaning that women reduced spending to a higher extent than men. They are not significantly different from zero for revenues from taxes and fees, meaning that the reaction to the fiscal adjustment in this revenue category is not statistically different between men and women mayors. There is a negative and significant difference in revenues other than taxes and fees.

[12]This measure of transfers incorporate transfers from central government, regions, international organization or institutions and other public sector entities. Hence, it is a proxy of total government transfers.

Table A.5 reports results using monetary amounts in euros per capita as dependent variables. The estimates indicate that women mayors reduced total per capita expenditures by 306 euros per capita – in the reduced form – relative to men mayors. Results on revenues are similar to those using log dependent variables, with the effects on taxes and fees being negative and not significant and the effect on other revenues being strongly negative and significant.

The finding that fiscal adjustments promoted by female mayors rely on larger reductions of government spending than those implemented by their male counterpart may have macroeconomic implications. Fiscal consolidations implemented by raising taxes imply larger output losses compared to consolidations relying on reductions in government spending (Alesina et al., 2017). To the extent that a similar effect arises also at the local government level, our result suggests that fiscal adjustments implemented by female mayors are less detrimental for economic growth than those implemented by male mayors. It must be borne in mind, however, that women mayors tend to spend more and collect more revenues than male mayors, as shown in section 4.1. Hence, they have more flexibility to react to fiscal adjustment both on the revenue side and on the expenditure side.

Finally, we report in Table A.6, the breakdown of total spending (panel A) and revenues (panel B) in each single component. The coefficients are negative and not statistically significant, with a few exceptions, probably because of the additional noise induced by breaking down the aggregates into separate categories.

Validity of the Fuzzy Diff-in-Disc The conditions for the validity of the fuzzy difference-in-discontinuities design, when no other confounding treatment changes at the cut-off point, are similar to those of a standard fuzzy RDD. We thus begin by showing in Table 5 that there are no discontinuities in municipal characteristics and party affiliation of the mayor around the cut-off before and after 2010.

Another important condition for the validity of our empirical strategy is the absence of differences in discontinuity of the density of the first round margin of victory before and after the fiscal adjustment. If changes in fiscal policy are determined by the tightness of the electoral race, then changes in the densities of the margin of victory can bias our estimates. We show in Figure 9 that there are no significant jumps in the density of the first round margin of victory before and after 2010 and there is no discontinuity in the difference of densities between the post and pre fiscal adjustment periods.

Grembi et al. (2016) highlight that outcomes must be on a local parallel trend before the fiscal adjustment, i.e. differences in spending and revenue outcomes between men and women mayors should not exhibit pre-trends at the cut-off point prior to the fiscal adjustment. To verify such condition, we estimate RD regression with a spline 2nd order polynomial fitted on both sides of the threshold for all years between 2000 and 2015 and

report the reduced-form coefficients in Figure A.6. The Figure shows that, for total and current expenditures and other revenues, there is a change in the slope of the coefficients after 2010. The pattern is more noisy for taxes and fees and, especially, for capital expenditures, but the year of the fiscal adjustment identifies in all cases a clear breakpoint.

Finally, the results reported in Table 4 show that the first stage is always highly significant, meaning that a positive first round margin of victory displays a high correlation with the female gender of mayors. We also visually inspect the relationship between the gender of the elected mayor and the first round margin of victory in Figure A.5. The figure displays a highly significant jump in the probability of election for women when the first round margin of victory turns positive (i.e. when the woman is the most voted candidate in the first round of elections) both before and after 2010. Moreover, the jump is similar in the two periods: in fact, the difference-in-discontinuities estimate is not significant, implying that $\bar{F}^{+} - \bar{F}^{-} \approxeq \tilde{F}^{+} - \tilde{F}^{-}$.

Robustness checks Figure A.7 proves the robustness of our results to the selection of different bandwidths. Specifically, we plot fuzzy diff-in-disc estimates for all bandwidths between 5% and 40% margins of victory, fitting a first or second order polynomial on both sides of the threshold. Estimates close to the cut-off are less precise, given the smaller sample size but the coefficients are uniformly negative and stable for all bandwidths.

We check the robustness of our results by replicating the placebo analysis performed in section 4.1 with the difference-in-discontinuities estimates. We obtain a set of reduced-form placebo estimates by random permutation of the margins of victory across municipalities and compare the distribution of placebos with the true estimates, using a spline second order polynomial on both sides of the threshold. The results are presented in Figure A.8, confirming our findings. Only 0.4% and 4.4% of the placebo estimates are smaller than the actual coefficient for total and current expenditures. None of the placebos are smaller than the estimate for capital expenditure and only 0.1% for other revenues. The only case where we do not detect significant differences by gender is in taxes and fees, where the fraction of placebos lower than the true estimates is 12.6%.

We further test the robustness of our results, by using years different from 2010 as reference years in the difference-in-discontinuities estimates. If we are capturing trends that started before the implementation of fiscal adjustment then we should be able to estimate a significant coefficient for female mayors also before 2010. To this end, we restrict the sample to the years 2000-2009 and use as reference for the difference-in-discontinuities the years 2004, 2005 and 2006. Figure A.9 reports the coefficient estimates for each outcome and each placebo years. None of the estimates is significant, confirming our results in the context of the actual fiscal adjustment.

We again check the sensitivity of our results to the inclusion of covariates. Table A.7 reports estimates obtained controlling for the same variables used in section 4.1, i.e.

two population dummies (50,000-100,000 residents and more than 100,000 residents), a dummy for cities in the north and a dummy for centre-left mayors. (population dummies, dummy for North, dummy for left party). The coefficients are similar but the significance is attenuated in the reduced form. The 2SLS results confirm the negative and significant effect on capital expenditures and other revenues.

Finally, as previously done in section 4.1, we exclude observations that weaken the first stage, by dropping cases where a candidate wins the first round of election by more than 5 percentage points relative to the strongest opponent but loses the ballot. We replicate our estimates with this smaller sample and Table A.8 reports the results, which are very similar to the baseline estimates.[13]

5 Discussion and conclusion

This paper provides evidence on the impact of women mayors on local public finance, thus contributing to the debate on the salience of gender for policy making. First, we show that municipalities headed by female mayors display higher levels of per capita expenditures and revenues when compared with municipalities headed by male mayors in a close election regression discontinuity setting. This evidence complements the existing literature, which shows that women prefer a larger size of governments as voters, by documenting that this outcome holds also when women have power over the policy agenda. This result suggests that, if women have a preference for a larger size of governments, female politicians are capable of representing this interest, at least at the local level. We are cautious, however, in taking a side in the debate on whether female politicians have different preferences than men, in light of the second result of our analysis. When we analyze how female-run and male-run municipalities react to fiscal adjustment, we find that, despite the fact that municipalities headed by a female or a male mayor are all subject to the same size of fiscal adjustment, women mayors cut expenditures relative to men. They do not react differently than men in terms of tax revenues, but cut other revenue categories (alienations and loans) more.

The result on public expenditures may run counter the intuition that women should cut expenditure by less rather than by more, if they prefer a bigger government size. The choice of adjusting by resorting to larger expenditure cuts may, however, be good news in light of the literature on the macroeconomic effects of fiscal adjustments, which suggests that they are less detrimental for growth when realized via the expenditure side of the budget.

[13] We have further checked the robustness of the estimates to the exclusion of incumbents. In fact, incumbents could have different preferences for spending and revenues because at the end of their mandate they cannot be elected for a third time (not consecutively, at least) and thus have lower electoral accountability. Excluding them from the analysis leaves the coefficients unaltered. Results are available upon request.

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TABLE 1: Mean per capita expenditures and revenues

Panel A: Per capita expenditures		
Total	1091.59	(422.84)
Administration	292.94	(140.08)
Justice	49.83	(24.51)
Culture & Education	183.62	(91.72)
Roads	121.92	(87.45)
Environment	214.77	(108.52)
Social services	141.95	(64.54)
Productive services	37.58	(70.65)
Panel B: Per capita revenues		
Total	1221.85	(558.77)
Taxes and fees	706.53	(251.61)
Transfers	165.18	(123.45)
Other revenues	350.14	(408.45)

Notes. The table reports per capita expenditure and revenue levels, averaged across years between 2000 and 2015, for municipalities with more than 15,000 residents. Both totals and categories are reported. Standard deviations are reported in parentheses. All values are in 2010 euros.

TABLE 2: Impact of gender of mayor on local public finance, RDD estimates

	(1) Spline 1*st* order	(2) Spline 2*nd* order	(3) Spline 3*rd* order	(4) LLR $h = 0.2$	(5) LLR $h = 0.3$	(6) LLR $h = 0.4$
			Panel A: Reduced form			
			Per capita expenditures			
Total	0.183***	0.208***	0.248***	0.217***	0.197***	0.177***
	(0.045)	(0.057)	(0.068)	(0.062)	(0.054)	(0.049)
Current account	0.155***	0.197***	0.239***	0.197***	0.186***	0.160***
	(0.043)	(0.055)	(0.065)	(0.058)	(0.051)	(0.048)
Capital account	0.239***	0.243**	0.310**	0.271**	0.236**	0.217**
	(0.082)	(0.109)	(0.139)	(0.121)	(0.106)	(0.092)
			Per capita revenues			
Taxes and fees	0.173***	0.224***	0.267***	0.224***	0.204***	0.184***
	(0.051)	(0.072)	(0.090)	(0.077)	(0.066)	(0.057)
Other revenues	0.266**	0.245*	0.257	0.242	0.279**	0.248**
	(0.108)	(0.146)	(0.182)	(0.164)	(0.140)	(0.123)
Observations	1482	1482	1482	804	1096	1316
			Panel B: 2SLS			
			Per capita expenditures			
Total	0.371***	0.620**	0.843**	0.668**	0.536***	0.408***
	(0.106)	(0.248)	(0.426)	(0.299)	(0.196)	(0.136)
Current account	0.315***	0.589***	0.813**	0.607**	0.504***	0.369***
	(0.097)	(0.223)	(0.386)	(0.261)	(0.175)	(0.124)
Capital account	0.485***	0.724*	1.055	0.833*	0.642*	0.502**
	(0.186)	(0.410)	(0.698)	(0.495)	(0.342)	(0.238)
			Per capita revenues			
Taxes and fees	0.352***	0.668**	0.908*	0.691**	0.555***	0.424***
	(0.113)	(0.276)	(0.475)	(0.321)	(0.214)	(0.148)
Other revenues	0.539**	0.731	0.874	0.745	0.758*	0.572*
	(0.239)	(0.503)	(0.747)	(0.586)	(0.433)	(0.311)
First-stage F	371.52	94.79	44.32	41.95	100.57	212.63
Observations	1482	1482	1482	804	1096	1316

Notes. The table shows RDD estimation results. Panel A reports reduced form coefficients. Panel B reports 2SLS estimates. Columns (1), (2) and (3) fit a 1st, 2nd and 3rd order polynomial in the first round margin of victory on both sides of the threshold. Columns (4), (5) and (6) show results from local linear regressions with different bandwidths h. The sample includes all municipalities with more than 15,000 residents that had mixed gender elections between 2000 and 2015. Each regression includes a constant and year fixed effects. Significance levels: *p<0.10, **p<0.05, ***p<0.01. Robust standard errors, clustered at the municipal level, in parentheses.

TABLE 3: Balance test of covariates around the cut-off, reduced form RDD estimates

	(1) Spline $1st$ order	(2) Spline $2nd$ order	(3) Spline $3rd$ order	(4) LLR $h = 0.2$	(5) LLR $h = 0.3$	(6) LLR $h = 0.4$
Population density	18.437	3.859	-25.733	-24.721	4.575	22.201
	(33.587)	(41.339)	(48.061)	(41.682)	(40.668)	(36.922)
Sea city	0.053	0.058	0.150	0.110	0.037	0.021
	(0.080)	(0.099)	(0.125)	(0.106)	(0.094)	(0.089)
Share HS diploma	0.005	0.002	-0.012	-0.006	0.002	0.007
	(0.006)	(0.009)	(0.011)	(0.010)	(0.008)	(0.007)
Share HS diploma, female	0.010	0.006	-0.008	-0.002	0.007	0.013
	(0.007)	(0.010)	(0.013)	(0.011)	(0.010)	(0.008)
Share illiterate	-0.003	-0.004	-0.004	-0.003	-0.003	-0.003*
	(0.002)	(0.002)	(0.003)	(0.003)	(0.002)	(0.002)
Share illiterate, female	-0.004	-0.005	-0.005	-0.005	-0.005	-0.005*
	(0.002)	(0.003)	(0.004)	(0.004)	(0.003)	(0.003)
Share children/elderly	0.003	0.011**	0.019***	0.013**	0.009*	0.004
	(0.004)	(0.005)	(0.007)	(0.006)	(0.005)	(0.004)
Share active population	0.001	0.002	-0.006	-0.002	0.002	0.005
	(0.007)	(0.010)	(0.013)	(0.011)	(0.009)	(0.008)
Share active population, female	0.003	0.011	0.005	0.006	0.009	0.010
	(0.009)	(0.012)	(0.016)	(0.013)	(0.011)	(0.010)
Employment rate	0.016	0.023	0.020	0.024	0.022	0.023
	(0.016)	(0.022)	(0.028)	(0.023)	(0.021)	(0.017)
Employment rate, female	0.022	0.039	0.037	0.040	0.034	0.035
	(0.021)	(0.029)	(0.038)	(0.031)	(0.027)	(0.023)
Unemploymente rate	-0.007	-0.011	-0.009	-0.010	-0.010	-0.011
	(0.008)	(0.011)	(0.014)	(0.012)	(0.010)	(0.009)
Unemployment rate, female	-0.010	-0.019	-0.019	-0.020	-0.017	-0.017
	(0.010)	(0.015)	(0.019)	(0.016)	(0.014)	(0.012)
North	0.102	0.206*	0.098	0.195*	0.125	0.180**
	(0.079)	(0.106)	(0.133)	(0.117)	(0.098)	(0.086)
Centre	-0.033	-0.075	-0.040	-0.103	-0.030	-0.060
	(0.049)	(0.059)	(0.076)	(0.074)	(0.053)	(0.050)
South	-0.070	-0.132	-0.058	-0.092	-0.095	-0.121
	(0.070)	(0.095)	(0.118)	(0.099)	(0.089)	(0.076)
Center-Left	0.120	0.142	0.099	0.139	0.094	0.112
	(0.089)	(0.117)	(0.148)	(0.129)	(0.109)	(0.098)
Center-Right	-0.116	-0.145	-0.134	-0.121	-0.129	-0.111
	(0.083)	(0.111)	(0.132)	(0.117)	(0.105)	(0.094)
Civic List	0.014	0.005	0.015	-0.009	0.034	0.007
	(0.066)	(0.093)	(0.124)	(0.103)	(0.088)	(0.073)
Observations	1482	1482	1482	804	1096	1316

Notes. The table shows reduced form RDD estimates of pre-treatment municipal and election characteristics. Columns (1), (2) and (3) fit a 1st, 2nd and 3rd order polynomial in the first round margin of victory on both sides of the threshold. Columns (4), (5) and (6) show results from local linear regressions with different bandwidths h. The sample includes all municipalities with more than 15,000 residents that had mixed gender elections between 2000 and 2015. Significance levels: *p<0.10, **p<0.05, ***p<0.01. Robust standard errors, clustered at the municipal level, in parentheses. Source: 2001 census, Ministry of Interior.

TABLE 4: Impact of gender of mayor on local public finance, difference-in-discontinuities estimates

	(1) Spline $1st$ order	(2) Spline $2nd$ order	(3) Spline $3rd$ order	(4) LLR $h = 0.2$	(5) LLR $h = 0.3$	(6) LLR $h = 0.4$
			Panel A: Reduced form			
			Per capita expenditures			
Total	-0.134**	-0.136**	-0.137**	-0.175**	-0.169**	-0.161***
	(0.054)	(0.054)	(0.055)	(0.083)	(0.067)	(0.059)
Current account	-0.086*	-0.086*	-0.088*	-0.135*	-0.101*	-0.106**
	(0.049)	(0.049)	(0.049)	(0.072)	(0.060)	(0.054)
Capital account	-0.345***	-0.354***	-0.355***	-0.291*	-0.412***	-0.380***
	(0.102)	(0.103)	(0.104)	(0.152)	(0.120)	(0.110)
			Per capita revenues			
Taxes and fees	-0.072	-0.073	-0.074	-0.137*	-0.104	-0.095
	(0.055)	(0.054)	(0.054)	(0.077)	(0.066)	(0.059)
Other revenues	-0.490***	-0.492***	-0.497***	-0.509***	-0.495***	-0.517***
	(0.134)	(0.136)	(0.139)	(0.193)	(0.149)	(0.142)
Observations	1482	1482	1482	804	1096	1316
			Panel B: 2SLS			
			Per capita expenditures			
Total	-0.171**	-0.173**	-0.168*	-0.283	-0.230**	-0.214**
	(0.077)	(0.086)	(0.097)	(0.178)	(0.112)	(0.088)
Current account	-0.108	-0.106	-0.104	-0.218	-0.132	-0.139*
	(0.069)	(0.078)	(0.089)	(0.152)	(0.100)	(0.078)
Capital account	-0.450***	-0.462***	-0.454***	-0.476	-0.582***	-0.513***
	(0.142)	(0.150)	(0.163)	(0.300)	(0.189)	(0.159)
			Per capita revenues			
Taxes and fees	-0.089	-0.087	-0.083	-0.220	-0.134	-0.123
	(0.077)	(0.089)	(0.100)	(0.171)	(0.112)	(0.088)
Other revenues	-0.643***	-0.645***	-0.647***	-0.846**	-0.700***	-0.700***
	(0.183)	(0.191)	(0.199)	(0.357)	(0.236)	(0.203)
First-stage F	185.58	47.36	22.14	20.97	50.02	106.21
Observations	1482	1482	1482	804	1096	1316

Notes. The table shows difference-in-discontinuities estimation results. Panel A reports reduced form coefficients. Panel B reports 2SLS estimates. Columns (1), (2) and (3) fit a 1st, 2nd and 3rd order polynomial in the first round margin of victory on both sides of the threshold. Columns (4), (5) and (6) show results from local linear regressions with different bandwidths h. The sample includes all municipalities with more than 15,000 residents that had mixed gender elections between 2000 and 2015. Each regression includes a constant and year fixed effects. Significance levels: *p<0.10, **p<0.05, ***p<0.01. Robust standard errors, clustered at the municipal level, in parentheses.

TABLE 5: Balance test of covariates around the cut-off, difference-in-discontinuities estimates

	(1) Spline $1st$ order	(2) Spline $2nd$ order	(3) Spline $3rd$ order	(4) LLR $h = 0.2$	(5) LLR $h = 0.3$	(6) LLR $h = 0.4$
Population density	-58.931	-94.090	-108.892	-83.210	-109.281	-67.277
	(57.345)	(80.258)	(97.436)	(82.832)	(77.232)	(64.898)
Sea city	-0.199	-0.078	-0.079	-0.168	-0.037	-0.165
	(0.148)	(0.186)	(0.240)	(0.196)	(0.180)	(0.163)
Share HS diploma	0.013	0.018	0.020	0.021	0.015	0.012
	(0.011)	(0.016)	(0.021)	(0.017)	(0.015)	(0.013)
Share HS diploma, female	0.010	0.013	0.010	0.013	0.010	0.009
	(0.013)	(0.018)	(0.024)	(0.020)	(0.017)	(0.015)
Share illiterate	0.001	0.001	0.003	0.002	0.001	0.001
	(0.003)	(0.004)	(0.005)	(0.004)	(0.004)	(0.003)
Share illiterate, female	0.001	0.002	0.005	0.003	0.002	0.001
	(0.004)	(0.006)	(0.007)	(0.006)	(0.005)	(0.005)
Share children/elderly	-0.001	-0.005	-0.004	-0.004	-0.003	-0.002
	(0.007)	(0.009)	(0.011)	(0.010)	(0.008)	(0.008)
Share active population	0.001	0.009	0.018	0.013	0.010	0.004
	(0.013)	(0.018)	(0.023)	(0.019)	(0.017)	(0.015)
Share active population, female	0.000	0.007	0.017	0.017	0.006	0.005
	(0.017)	(0.022)	(0.028)	(0.023)	(0.021)	(0.018)
Employment rate	-0.002	0.005	0.004	-0.002	0.015	0.002
	(0.026)	(0.037)	(0.048)	(0.039)	(0.035)	(0.030)
Employment rate, female	0.000	0.003	0.003	-0.000	0.016	0.005
	(0.036)	(0.050)	(0.065)	(0.054)	(0.048)	(0.041)
Unemploymente rate	0.003	0.002	0.000	0.003	-0.003	0.002
	(0.013)	(0.019)	(0.024)	(0.021)	(0.018)	(0.015)
Unemployment rate, female	0.003	0.004	-0.002	0.002	-0.003	0.001
	(0.018)	(0.026)	(0.033)	(0.028)	(0.024)	(0.021)
North	0.011	0.098	0.133	0.081	0.140	0.019
	(0.142)	(0.191)	(0.250)	(0.209)	(0.182)	(0.158)
Centre	-0.005	-0.067	-0.158	-0.090	-0.105	0.022
	(0.090)	(0.120)	(0.167)	(0.144)	(0.114)	(0.097)
South	-0.006	-0.032	0.025	0.009	-0.035	-0.041
	(0.125)	(0.170)	(0.214)	(0.177)	(0.161)	(0.141)
Center-Left	-0.175	0.042	0.161	0.044	0.028	-0.098
	(0.158)	(0.221)	(0.285)	(0.238)	(0.205)	(0.180)
Center-Right	0.226	0.102	-0.200	-0.089	0.118	0.213
	(0.140)	(0.193)	(0.247)	(0.211)	(0.180)	(0.162)
Civic List	0.018	-0.046	0.113	0.146	-0.053	-0.052
	(0.124)	(0.189)	(0.253)	(0.212)	(0.173)	(0.140)
Observations	1482	1482	1482	804	1096	1316

Notes. The table shows reduced form difference-in-discontinuities estimates of pre-treatment municipal and election characteristics. Columns (1), (2) and (3) fit a 1st, 2nd and 3rd order polynomial in the first round margin of victory on both sides of the threshold. Columns (4), (5) and (6) show results from local linear regressions with different bandwidths h. The sample includes all municipalities with more than 15,000 residents that had mixed gender elections between 2000 and 2015. Significance levels: *p<0.10, **p<0.05, ***p<0.01. Robust standard errors, clustered at the municipal level, in parentheses. Source: 2001 census, Ministry of Interior.

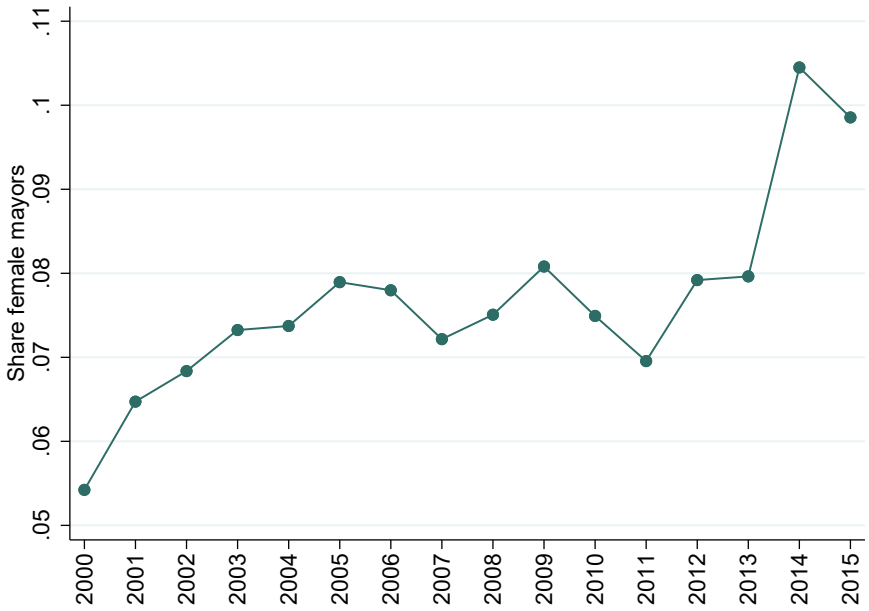

FIGURE 1: Share of female mayors in municipalities with more than 15,000 residents

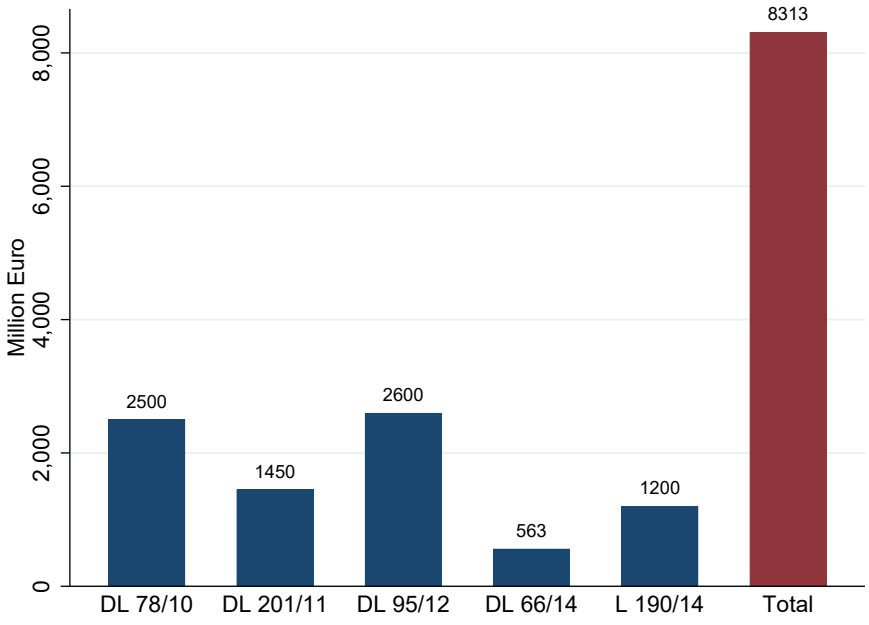

FIGURE 2: Intergovernmental transfer reductions

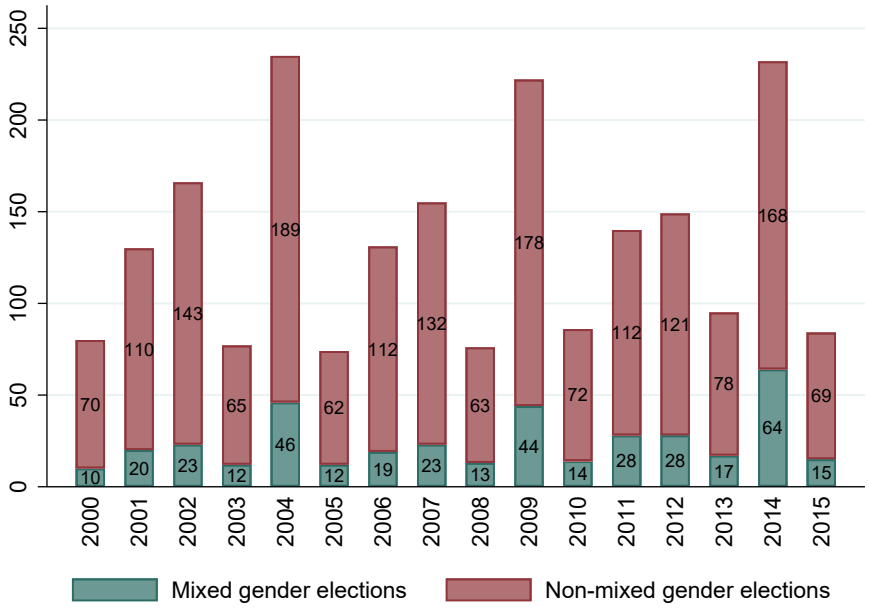

FIGURE 3: Distribution of mixed gender and non-mixed gender elections by election year

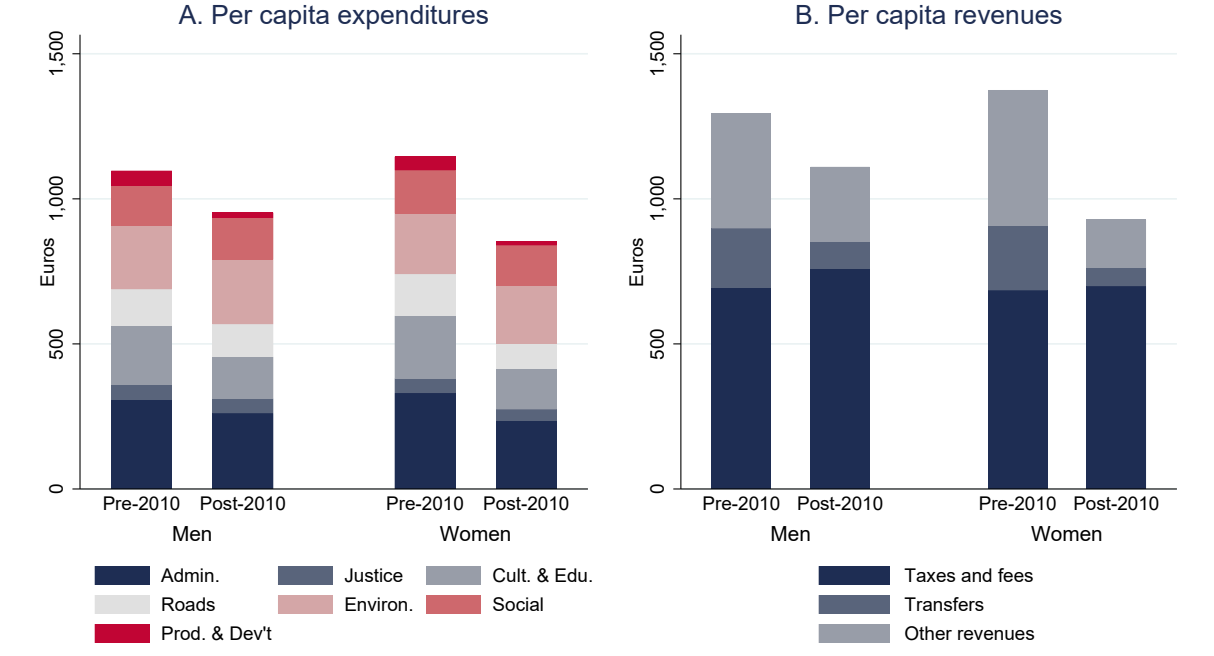

FIGURE 4: Composition of expenditures and revenues by mayors' gender, before and after 2010

Notes. The figure shows average values of the categories of per capita expenditures and per capita revenues, by mayors' gender, before and after 2010. Values are expressed in 2010 euros.

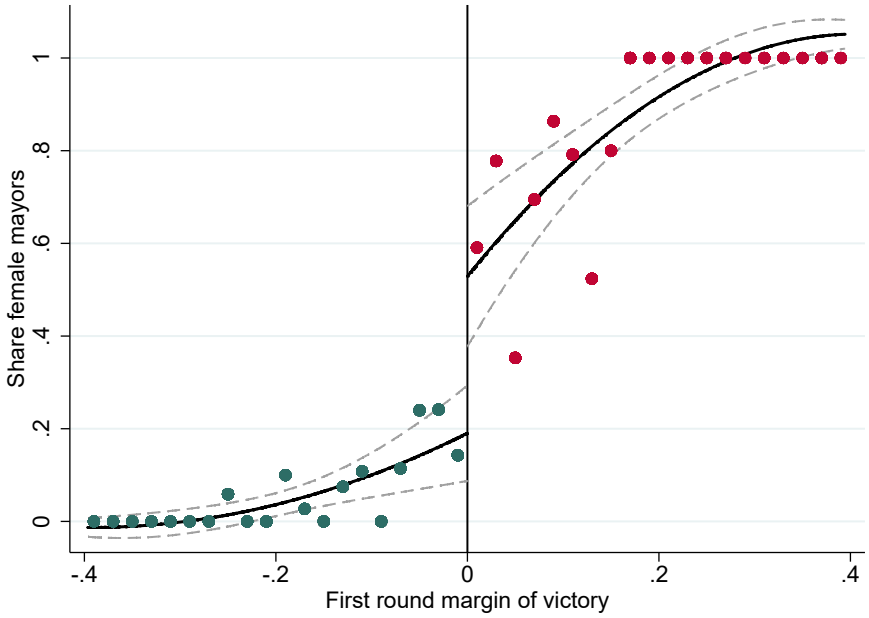

FIGURE 5: Gender of mayors and first round margin of victory.

Notes. The picture shows the proportion of female mayors averaged across 2% bins of the first round margin of victory. The solid lines are predicted values from regressions that fit a second order polynomial on both sides of the threshold, along with 95% confidence intervals.

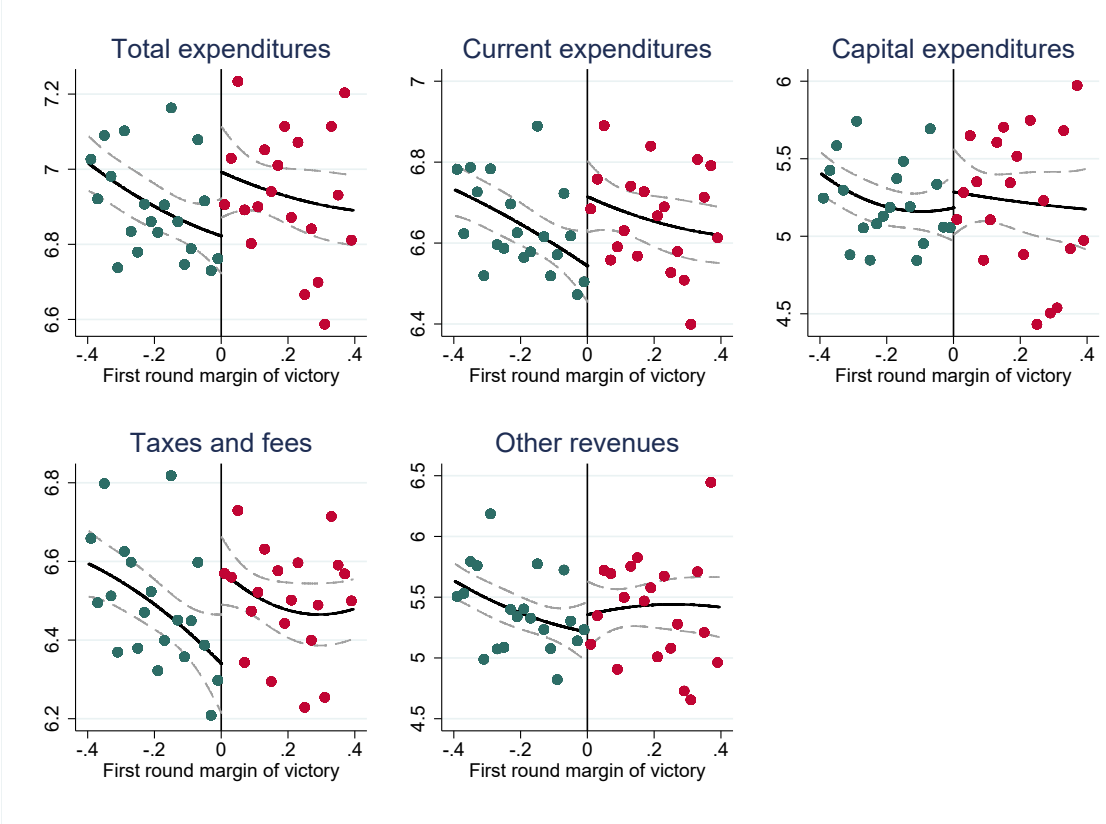

FIGURE 6: Log per capita expenditures (total, current and capital) and revenues (taxes and fees, other revenues).

Notes. The solid lines are predicted values from regressions that fit a second order polynomial on both sides of the threshold, along with 95% confidence intervals. The dots represent the observed values averaged across 2% bins of the first round margin of victory.

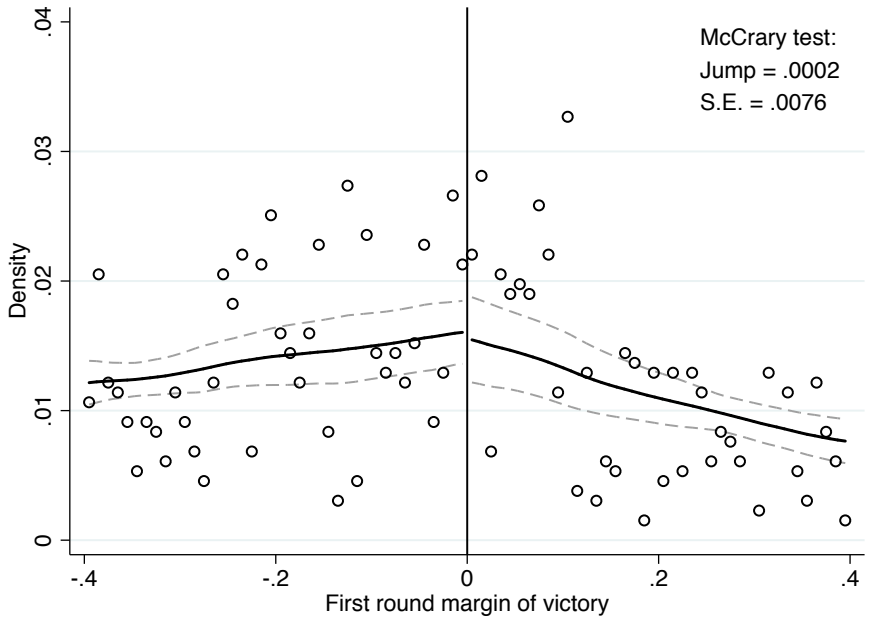

FIGURE 7: Density around the cut-off

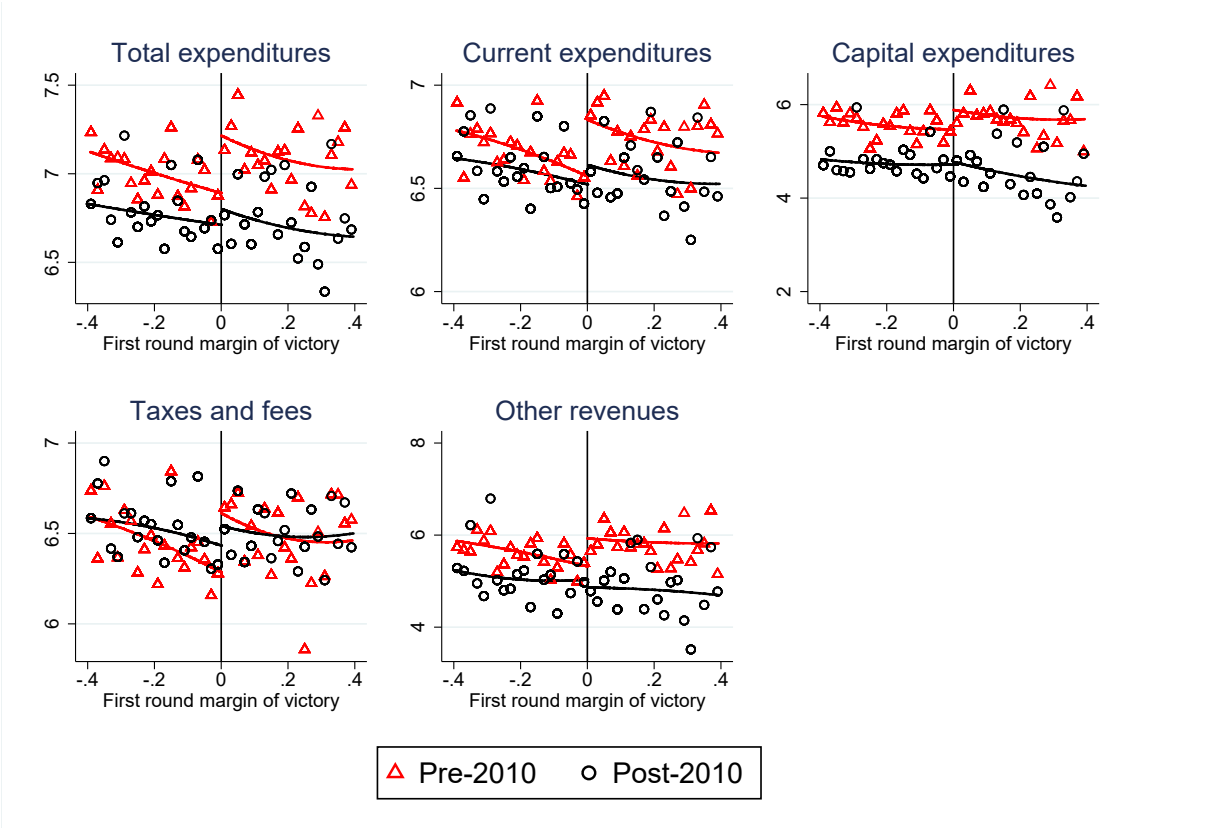

FIGURE 8: Fiscal adjustment: difference-in-discontinuities

Notes. The solid lines are predicted values from regressions that fit a second order polynomial on both sides of the threshold. The dots represent the observed values averaged across 2% bins of the first round margin of victory. Values for the pre (post) fiscal adjustment period in red (black).

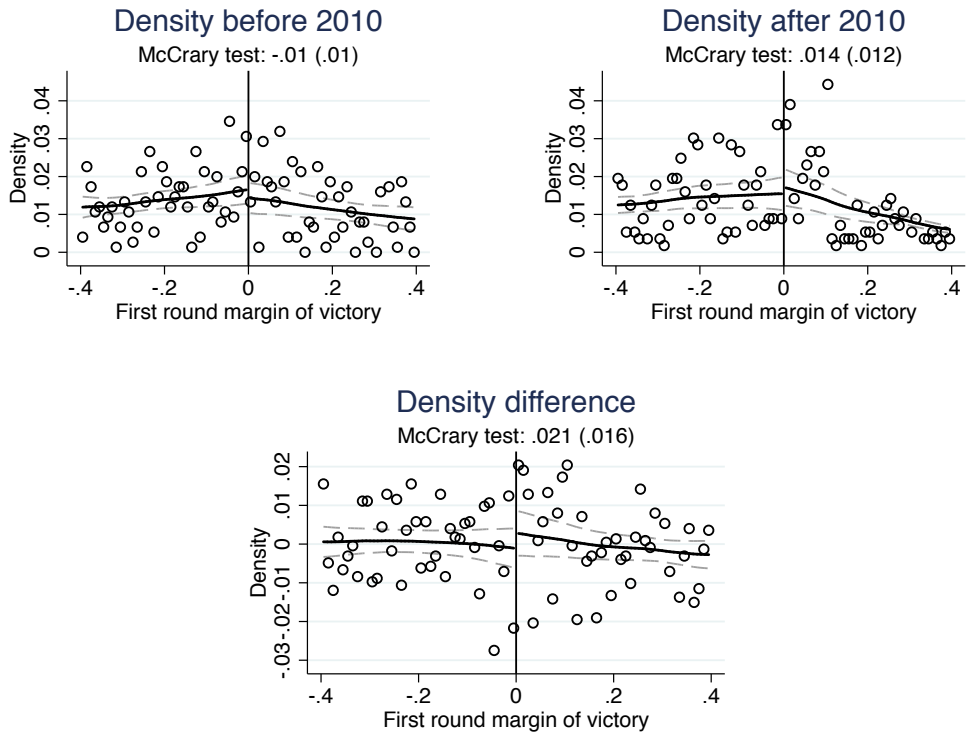

FIGURE 9: Density plot, before and after 2010, and density differences

Appendix

TABLE A.1: Impact of gender of mayor on local public finance, RDD estimates, monetary amounts

	(1) Spline $1st$ order	(2) Spline $2nd$ order	(3) Spline $3rd$ order	(4) LLR $h = 0.2$	(5) LLR $h = 0.3$	(6) LLR $h = 0.4$
			Panel A: Reduced form			
			Per capita expenditures			
Total	258.7***	275.3***	327.8***	309.1***	260.4***	233.8***
	(63.5)	(77.3)	(91.4)	(85.5)	(71.4)	(68.2)
Current account	128.1***	146.3***	180.6***	146.9***	138.7***	122.2***
	(37.6)	(46.7)	(53.2)	(48.6)	(44.3)	(41.3)
Capital account	130.7**	128.9*	147.2*	162.2**	121.7*	111.6*
	(51.9)	(67.2)	(77.7)	(79.7)	(63.3)	(58.1)
			Per capita revenues			
Taxes and fees	107.6***	114.1**	142.0**	122.1**	104.6**	101.2**
	(36.7)	(48.8)	(59.2)	(52.0)	(45.6)	(41.4)
Other revenues	160.4***	130.9	142.1	149.4	159.1**	134.9**
	(61.7)	(79.6)	(92.5)	(93.0)	(74.9)	(67.9)
Observations	1482	1482	1482	804	1096	1316
			Panel B: 2SLS			
			Per capita expenditures			
Total	524.7***	821.0**	1114.1**	951.8**	706.8***	539.5***
	(144.2)	(319.6)	(556.9)	(404.5)	(246.7)	(177.7)
Current account	259.7***	436.4**	613.9**	452.4**	376.4***	282.0***
	(83.0)	(179.2)	(297.9)	(206.2)	(143.8)	(104.9)
Capital account	265.0**	384.6*	500.2	499.4*	330.4*	257.5*
	(109.4)	(226.7)	(345.0)	(293.4)	(185.6)	(138.7)
			Per capita revenues			
Taxes and fees	218.2***	340.3**	482.7*	375.9*	283.9**	233.5**
	(80.3)	(172.7)	(279.1)	(202.1)	(139.6)	(103.6)
Other revenues	325.3**	390.4	482.8	459.9	432.0*	311.4*
	(131.1)	(259.9)	(378.7)	(323.5)	(222.5)	(163.5)
First-stage F	371.52	94.79	44.32	41.95	100.57	212.63
Observations	1482	1482	1482	804	1096	1316

Notes. The table shows RDD estimation results with monetary amounts. Panel A reports reduced form coefficients. Panel B reports 2SLS estimates. Columns (1), (2) and (3) fit a 1st, 2nd and 3rd order polynomial in the first round margin of victory on both sides of the threshold. Columns (4), (5) and (6) show results from local linear regressions with different bandwidths h. The sample includes all municipalities with more than 15,000 residents that had mixed gender elections between 2000 and 2015. Significance levels: *p<0.10, **p<0.05, ***p<0.01. Robust standard errors, clustered at the municipal level, in parentheses.

TABLE A.2: Impact of gender of mayor on expenditure and revenues components, RDD estimates, 2SLS

	(1) Spline $1st$ order	(2) Spline $2nd$ order	(3) Spline $3rd$ order	(4) LLR $h = 0.2$	(5) LLR $h = 0.3$	(6) LLR $h = 0.4$
			Panel A: Per capita expenditures			
Administration	0.439***	1.002***	1.357**	1.122**	0.796***	0.561***
	(0.139)	(0.365)	(0.669)	(0.458)	(0.271)	(0.181)
Justice & Police	0.179	0.612*	0.830	0.651*	0.396*	0.263
	(0.138)	(0.318)	(0.516)	(0.377)	(0.235)	(0.173)
Culture & Education	0.201	0.456	0.514	0.534	0.339	0.295
	(0.159)	(0.317)	(0.433)	(0.350)	(0.265)	(0.202)
Roads	0.614***	0.878**	1.140*	1.128**	0.651*	0.630**
	(0.208)	(0.409)	(0.621)	(0.522)	(0.341)	(0.261)
Environment	0.301*	0.123	0.255	-0.050	0.210	0.232
	(0.168)	(0.320)	(0.486)	(0.355)	(0.268)	(0.211)
Social services	0.450***	0.690*	0.991	0.786*	0.646**	0.507**
	(0.169)	(0.382)	(0.630)	(0.467)	(0.322)	(0.222)
Production & Dev't	0.766*	1.085	2.402	1.282	1.343*	0.542
	(0.429)	(0.950)	(1.849)	(1.204)	(0.804)	(0.530)
			Panel B: Per capita revenues			
Taxes	0.270***	0.529**	0.833*	0.594**	0.470**	0.331**
	(0.101)	(0.245)	(0.432)	(0.299)	(0.200)	(0.135)
Fees	0.572**	1.191**	1.278	1.133*	0.912**	0.722**
	(0.237)	(0.566)	(0.840)	(0.633)	(0.429)	(0.303)
Alienations	0.706***	1.240**	1.802*	1.407**	1.084**	0.833***
	(0.222)	(0.545)	(0.989)	(0.669)	(0.439)	(0.297)
Loans	0.902*	0.263	-0.221	0.096	0.805	0.743
	(0.472)	(0.910)	(1.213)	(1.012)	(0.863)	(0.602)

Notes. The table shows fuzzy RDD estimation results for expenditure (panel A) and revenue (panel B) components. Columns (1), (2) and (3) fit a 1st, 2nd and 3rd order polynomial in the first round margin of victory on both sides of the threshold. Columns (4), (5) and (6) show results from local linear regressions with different bandwidths h. The sample includes all municipalities with more than 15,000 residents that had mixed gender elections between 2000 and 2015. Each regression includes a constant and year fixed effects. Significance levels: *p<0.10, **p<0.05, ***p<0.01. Robust standard errors, clustered at the municipal level, in parentheses.

TABLE A.3: Impact of gender of mayor on local public finance, RDD estimates, with covariates

	(1) Spline 1*st* order	(2) Spline 2*nd* order	(3) Spline 3*rd* order	(4) LLR $h = 0.2$	(5) LLR $h = 0.3$	(6) LLR $h = 0.4$
			Panel A: Reduced form			
			Per capita expenditures			
Total	0.131***	0.135**	0.164**	0.126*	0.126**	0.115**
	(0.045)	(0.057)	(0.068)	(0.066)	(0.054)	(0.050)
Current account	0.106**	0.122**	0.157**	0.099*	0.116**	0.100**
	(0.041)	(0.052)	(0.061)	(0.056)	(0.048)	(0.046)
Capital account	0.174**	0.165	0.213	0.175	0.150	0.142
	(0.084)	(0.112)	(0.144)	(0.134)	(0.109)	(0.095)
			Per capita revenues			
Taxes and fees	0.120**	0.139**	0.198**	0.119	0.137**	0.113**
	(0.047)	(0.064)	(0.081)	(0.073)	(0.059)	(0.053)
Other revenues	0.216**	0.188	0.142	0.185	0.215	0.208*
	(0.107)	(0.143)	(0.181)	(0.162)	(0.137)	(0.121)
Observations	1482	1482	1482	804	1096	1316
			Panel B: 2SLS			
			Per capita expenditures			
Total	0.274***	0.441*	0.599	0.458	0.362*	0.280**
	(0.106)	(0.248)	(0.389)	(0.323)	(0.190)	(0.137)
Current account	0.221**	0.397*	0.571*	0.360	0.333**	0.242**
	(0.094)	(0.214)	(0.344)	(0.260)	(0.164)	(0.121)
Capital account	0.363*	0.539	0.777	0.634	0.431	0.345
	(0.190)	(0.432)	(0.682)	(0.587)	(0.347)	(0.250)
			Per capita revenues			
Taxes and fees	0.250**	0.455*	0.722	0.432	0.393*	0.274*
	(0.109)	(0.261)	(0.453)	(0.330)	(0.201)	(0.142)
Other revenues	0.452*	0.614	0.518	0.671	0.616	0.505
	(0.239)	(0.527)	(0.722)	(0.676)	(0.435)	(0.318)
First-stage F	351.26	79.09	38.77	30.10	90.73	191.68
Observations	1482	1482	1482	804	1096	1316

Notes. The table shows RDD estimation results, with the following additional covariates included: 2 population bin dummies (50k-100k, +100k), a dummy for cities in the north, and a dummy for mayors belonging to the centre-left. Panel A reports reduced form coefficients. Panel B reports 2SLS estimates. Columns (1), (2) and (3) fit a 1st, 2nd and 3rd order polynomial in the first round margin of victory on both sides of the threshold. Columns (4), (5) and (6) show results from local linear regressions with different bandwidths h. The sample includes all municipalities with more than 15,000 residents that had mixed gender elections between 2000 and 2015. Each regression includes a constant and year fixed effects. Significance levels: *p<0.10, **p<0.05, ***p<0.01. Robust standard errors, clustered at the municipal level, in parentheses.

TABLE A.4: Impact of gender of mayor on local public finance, RDD estimates, restricted sample

	(1) Spline 1*st* order	(2) Spline 2*nd* order	(3) Spline 3*rd* order	(4) LLR $h = 0.2$	(5) LLR $h = 0.3$	(6) LLR $h = 0.4$
			Panel A: Reduced form			
			Per capita expenditures			
Total	0.179***	0.202***	0.235***	0.214***	0.195***	0.174***
	(0.047)	(0.059)	(0.068)	(0.062)	(0.055)	(0.051)
Current account	0.155***	0.197***	0.233***	0.203***	0.188***	0.161***
	(0.046)	(0.056)	(0.064)	(0.058)	(0.052)	(0.050)
Capital account	0.232***	0.231**	0.287**	0.253**	0.229**	0.211**
	(0.085)	(0.111)	(0.140)	(0.124)	(0.108)	(0.094)
			Per capita revenues			
Taxes and fees	0.173***	0.224***	0.264***	0.233***	0.207***	0.184***
	(0.052)	(0.072)	(0.090)	(0.077)	(0.066)	(0.058)
Other revenues	0.208*	0.181	0.203	0.179	0.223	0.188
	(0.110)	(0.148)	(0.182)	(0.165)	(0.142)	(0.126)
Observations	1398	1398	1398	723	1012	1232
			Panel B: 2SLS			
			Per capita expenditures			
Total	0.261***	0.391***	0.646**	0.471***	0.349***	0.273***
	(0.073)	(0.133)	(0.278)	(0.171)	(0.111)	(0.086)
Current account	0.226***	0.381***	0.640**	0.447***	0.336***	0.253***
	(0.069)	(0.122)	(0.253)	(0.152)	(0.101)	(0.081)
Capital account	0.339***	0.446*	0.788	0.559*	0.410**	0.331**
	(0.129)	(0.236)	(0.491)	(0.309)	(0.206)	(0.155)
			Per capita revenues			
Taxes and fees	0.251***	0.434***	0.725**	0.513***	0.370***	0.289***
	(0.079)	(0.154)	(0.329)	(0.197)	(0.126)	(0.095)
Other revenues	0.303*	0.351	0.556	0.395	0.398	0.296
	(0.162)	(0.293)	(0.536)	(0.373)	(0.259)	(0.200)
First-stage F	1163.42	390.24	127.13	135.09	381.83	739.05
Observations	1398	1398	1398	723	1012	1232

Notes. The table shows RDD estimation results. Panel A reports reduced form coefficients. Panel B reports 2SLS estimates. Columns (1), (2) and (3) fit a 1st, 2nd and 3rd order polynomial in the first round margin of victory on both sides of the threshold. Columns (4), (5) and (6) show results from local linear regressions with different bandwidths h. The sample includes all municipalities with more than 15,000 residents that had mixed gender elections between 2000 and 2015. Municipalities were a candidate wins the first election round with a margin of victory higher than 5% in absolute terms but loses the ballot are excluded. Each regression includes a constant and year fixed effects. Significance levels: *p<0.10, **p<0.05, ***p<0.01. Robust standard errors, clustered at the municipal level, in parentheses.

TABLE A.5: Impact of gender of mayor on local public finance, difference-in-discontinuities estimates, monetary amounts

	(1) Spline 1*st* order	(2) Spline 2*nd* order	(3) Spline 3*rd* order	(4) LLR $h = 0.2$	(5) LLR $h = 0.3$	(6) LLR $h = 0.4$
			Panel A: Reduced form			
			Per capita expenditures			
Total	-189.4**	-195.6**	-198.6**	-306.9*	-276.9**	-251.7**
	(93.2)	(95.5)	(96.3)	(159.6)	(120.4)	(103.0)
Current account	-87.8*	-89.2**	-90.5**	-151.5**	-117.4**	-114.7**
	(44.7)	(44.9)	(44.6)	(70.4)	(56.3)	(49.3)
Capital account	-101.6	-106.4*	-108.1*	-155.4	-159.5**	-136.9**
	(61.8)	(63.6)	(64.5)	(104.4)	(78.4)	(67.0)
			Per capita revenues			
Taxes and fees	-62.8	-65.2	-65.6	-116.0*	-97.8*	-85.9*
	(42.7)	(42.8)	(42.2)	(67.3)	(53.9)	(47.1)
Other revenues	-200.1***	-203.3***	-204.7***	-264.5**	-228.7***	-228.1***
	(73.3)	(74.7)	(75.8)	(113.9)	(87.5)	(77.7)
Observations	1482	1482	1482	804	1096	1316
			Panel B: 2SLS			
			Per capita expenditures			
Total	-241.8*	-248.4*	-245.1	-501.2	-382.3**	-336.3**
	(127.9)	(139.3)	(150.9)	(305.8)	(184.8)	(145.4)
Current account	-111.7*	-112.3*	-109.9	-247.7*	-159.6*	-152.7**
	(61.5)	(67.0)	(73.9)	(134.4)	(88.7)	(69.9)
Capital account	-130.1	-136.1	-135.3	-253.5	-222.7*	-183.6**
	(82.9)	(87.6)	(91.2)	(192.4)	(114.6)	(92.4)
			Per capita revenues			
Taxes and fees	-79.2	-81.7	-79.0	-189.1	-133.9	-113.9*
	(59.3)	(62.8)	(67.2)	(127.3)	(84.1)	(67.5)
Other revenues	-260.4***	-265.3***	-264.3**	-438.1**	-320.6**	-307.9***
	(98.5)	(101.8)	(104.7)	(205.4)	(131.2)	(107.5)
First-stage F	185.58	47.36	22.14	20.97	50.02	106.21
Observations	1482	1482	1482	804	1096	1316

Notes. The table shows difference-in-discontinuities estimation results with monetary amounts. Panel A reports reduced form coefficients. Panel B reports 2SLS estimates. Columns (1), (2) and (3) fit a 1st, 2nd and 3rd order polynomial in the first round margin of victory on both sides of the threshold. Columns (4), (5) and (6) show results from local linear regressions with different bandwidths h. The sample includes all municipalities with more than 15,000 residents that had mixed gender elections between 2000 and 2015. Significance levels: *p<0.10, **p<0.05, ***p<0.01. Robust standard errors, clustered at the municipal level, in parentheses.

TABLE A.6: Impact of gender of mayor on expenditure and revenues components, difference-in-discontinuities estimates, 2SLS

	(1) Spline $1st$ order	(2) Spline $2nd$ order	(3) Spline $3rd$ order	(4) LLR $h = 0.2$	(5) LLR $h = 0.3$	(6) LLR $h = 0.4$
			Panel A: Per capita expenditures			
Administration	-0.208**	-0.204	-0.201	-0.342	-0.269*	-0.273**
	(0.105)	(0.127)	(0.145)	(0.262)	(0.154)	(0.120)
Justice & Police	-0.177	-0.169	-0.150	-0.144	-0.089	-0.201
	(0.115)	(0.128)	(0.136)	(0.214)	(0.144)	(0.129)
Culture & Education	0.010	0.013	0.004	0.014	-0.033	-0.020
	(0.107)	(0.108)	(0.110)	(0.205)	(0.138)	(0.117)
Roads	-0.173	-0.185	-0.198	-0.304	-0.304	-0.264
	(0.154)	(0.161)	(0.170)	(0.336)	(0.206)	(0.172)
Environment	-0.231*	-0.243*	-0.231*	-0.345*	-0.275*	-0.249*
	(0.128)	(0.127)	(0.129)	(0.200)	(0.155)	(0.140)
Social services	-0.030	-0.026	-0.018	-0.173	-0.079	-0.064
	(0.114)	(0.121)	(0.134)	(0.242)	(0.161)	(0.129)
Production & Dev't	-0.277	-0.309	-0.258	-0.773	-0.436	-0.408
	(0.337)	(0.345)	(0.394)	(0.620)	(0.455)	(0.364)
			Panel B: Per capita revenues			
Taxes	-0.085	-0.078	-0.070	-0.189	-0.104	-0.102
	(0.071)	(0.079)	(0.093)	(0.155)	(0.104)	(0.082)
Fees	-0.041	-0.045	-0.054	-0.279	-0.139	-0.112
	(0.162)	(0.180)	(0.180)	(0.332)	(0.222)	(0.181)
Alienations	-0.396**	-0.402**	-0.388*	-0.491	-0.545**	-0.503***
	(0.170)	(0.190)	(0.221)	(0.399)	(0.235)	(0.190)
Loans	-0.841**	-0.836**	-0.843**	-0.999	-0.835	-0.681
	(0.424)	(0.416)	(0.418)	(0.672)	(0.533)	(0.459)

Notes. The table shows fuzzy difference-in-discontinuities estimation results for expenditure (panel A) and revenue (panel B) components. Columns (1), (2) and (3) fit a 1st, 2nd and 3rd order polynomial in the first round margin of victory on both sides of the threshold. Columns (4), (5) and (6) show results from local linear regressions with different bandwidths h. The sample includes all municipalities with more than 15,000 residents that had mixed gender elections between 2000 and 2015. Each regression includes a constant and year fixed effects. Significance levels: *p<0.10, **p<0.05, ***p<0.01. Robust standard errors, clustered at the municipal level, in parentheses.

TABLE A.7: Impact of gender of mayor on local public finance, difference-in-discontinuities estimates, with covariates

	(1) Spline $1st$ order	(2) Spline $2nd$ order	(3) Spline $3rd$ order	(4) LLR $h = 0.2$	(5) LLR $h = 0.3$	(6) LLR $h = 0.4$
			Panel A: Reduced form			
			Per capita expenditures			
Total	-0.138	-0.094	-0.133	-0.086	-0.120	-0.088
	(0.085)	(0.116)	(0.139)	(0.119)	(0.107)	(0.095)
Current account	-0.088	-0.067	-0.148	-0.048	-0.108	-0.045
	(0.074)	(0.097)	(0.117)	(0.102)	(0.088)	(0.082)
Capital account	-0.239	-0.105	0.090	-0.103	-0.063	-0.171
	(0.170)	(0.237)	(0.288)	(0.250)	(0.220)	(0.191)
			Per capita revenues			
Taxes and fees	-0.134	-0.151	-0.212	-0.117	-0.180	-0.109
	(0.086)	(0.121)	(0.148)	(0.129)	(0.111)	(0.097)
Other revenues	-0.425*	-0.451	-0.591	-0.518	-0.486*	-0.374
	(0.218)	(0.310)	(0.402)	(0.342)	(0.283)	(0.254)
Observations	1482	1482	1482	804	1096	1316
			Panel B: 2SLS			
			Per capita expenditures			
Total	-0.097	-0.100	-0.101	-0.204	-0.145	-0.140*
	(0.065)	(0.070)	(0.077)	(0.143)	(0.089)	(0.072)
Current account	-0.042	-0.042	-0.044	-0.135	-0.053	-0.075
	(0.060)	(0.065)	(0.071)	(0.120)	(0.082)	(0.066)
Capital account	-0.361***	-0.372***	-0.374***	-0.382	-0.477***	-0.417***
	(0.131)	(0.135)	(0.144)	(0.261)	(0.168)	(0.145)
			Per capita revenues			
Taxes and fees	-0.088	-0.089	-0.085	-0.196	-0.107	-0.121
	(0.070)	(0.076)	(0.087)	(0.143)	(0.096)	(0.077)
Other revenues	-0.461***	-0.464***	-0.478***	-0.710**	-0.563***	-0.524***
	(0.167)	(0.172)	(0.173)	(0.337)	(0.215)	(0.185)
First-stage F	175.65	39.58	19.42	14.91	45.32	95.82
Observations	1482	1482	1482	804	1096	1316

Notes. The table shows difference-in-discontinuities estimation results, with the following additional covariates included: 2 population bin dummies (50k-100k, +100k), a dummy for cities in the north, and a dummy for mayors belonging to the centre-left. Panel A reports reduced form coefficients. Panel B reports 2SLS estimates. Columns (1), (2) and (3) fit a 1st, 2nd and 3rd order polynomial in the first round margin of victory on both sides of the threshold. Columns (4), (5) and (6) show results from local linear regressions with different bandwidths h. The sample includes all municipalities with more than 15,000 residents that had mixed gender elections between 2000 and 2015. Each regression includes a constant and year fixed effects. Significance levels: *p<0.10, **p<0.05, ***p<0.01. Robust standard errors, clustered at the municipal level, in parentheses.

TABLE A.8: Impact of gender of mayor on local public finance, difference-in-discontinuities estimates, restricted sample

	(1) Spline 1*st* order	(2) Spline 2*nd* order	(3) Spline 3*rd* order	(4) LLR $h = 0.2$	(5) LLR $h = 0.3$	(6) LLR $h = 0.4$
			Panel A: Reduced form			
			Per capita expenditures			
Total	-0.214**	-0.200*	-0.200	-0.260	-0.199	-0.179
	(0.106)	(0.106)	(0.135)	(0.157)	(0.134)	(0.121)
Current account	-0.167*	-0.164*	-0.171	-0.220*	-0.202*	-0.143
	(0.090)	(0.090)	(0.110)	(0.129)	(0.108)	(0.101)
Capital account	-0.306	-0.251	-0.233	-0.293	-0.089	-0.236
	(0.197)	(0.199)	(0.254)	(0.302)	(0.260)	(0.226)
			Per capita revenues			
Taxes and fees	-0.180*	-0.160	-0.184	-0.224	-0.201	-0.158
	(0.103)	(0.099)	(0.127)	(0.157)	(0.129)	(0.114)
Other revenues	-0.603**	-0.571**	-0.645**	-0.838**	-0.688**	-0.568**
	(0.246)	(0.243)	(0.312)	(0.376)	(0.308)	(0.284)
Observations	1398	1398	1398	723	1012	1232
			Panel B: 2SLS			
			Per capita expenditures			
Total	-0.149**	-0.155**	-0.164**	-0.234*	-0.198**	-0.184***
	(0.065)	(0.067)	(0.072)	(0.120)	(0.084)	(0.072)
Current account	-0.101*	-0.105*	-0.115*	-0.198**	-0.126*	-0.128**
	(0.058)	(0.059)	(0.064)	(0.100)	(0.075)	(0.063)
Capital account	-0.370***	-0.384***	-0.397***	-0.327	-0.459***	-0.416***
	(0.123)	(0.125)	(0.132)	(0.220)	(0.153)	(0.135)
			Per capita revenues			
Taxes and fees	-0.068	-0.073	-0.084	-0.179	-0.107	-0.097
	(0.063)	(0.066)	(0.071)	(0.111)	(0.081)	(0.070)
Other revenues	-0.580***	-0.582***	-0.597***	-0.670**	-0.606***	-0.621***
	(0.160)	(0.162)	(0.167)	(0.266)	(0.189)	(0.173)
First-stage F	578.10	194.21	63.24	66.15	190.35	367.05
Observations	1398	1398	1398	723	1012	1232

Notes. The table shows difference-in-discontinuities estimation results. Panel A reports reduced form coefficients. Panel B reports 2SLS estimates. Columns (1), (2) and (3) fit a 1st, 2nd and 3rd order polynomial in the first round margin of victory on both sides of the threshold. Columns (4), (5) and (6) show results from local linear regressions with different bandwidths h. The sample includes all municipalities with more than 15,000 residents that had mixed gender elections between 2000 and 2015. Municipalities were a candidate wins the first election round with a margin of victory higher than 5% in absolute terms but loses the ballot are excluded. Each regression includes a constant and year fixed effects. Significance levels: *p<0.10, **p<0.05, ***p<0.01. Robust standard errors, clustered at the municipal level, in parentheses.

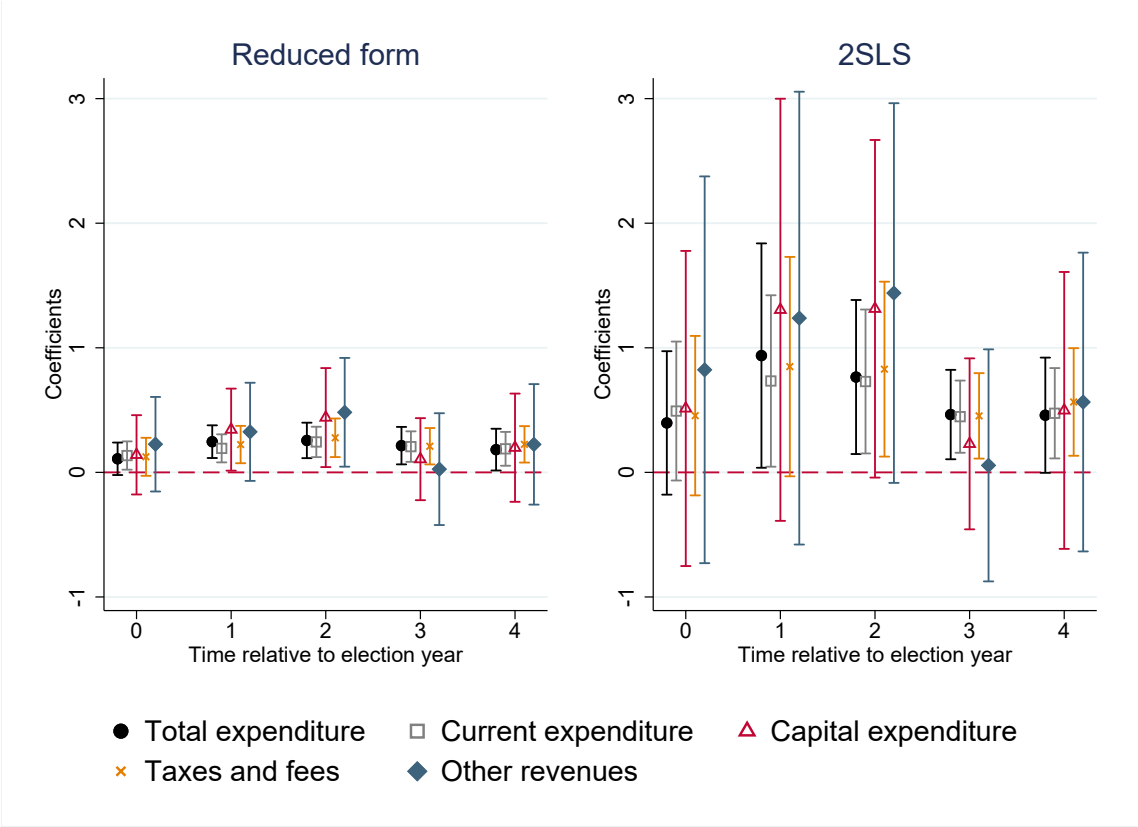

FIGURE A.1: Reduced form and 2SLS RD estimates by time relative to year of election

Notes. The Figure shows the coefficients of RD estimates (with a 2nd order spline polynomial fitted on both sides of the threshold) by time relative to the election year. The left panel shows reduced form estimates. The right panel shows 2SLS estimates. Vertical lines are 95% confidence intervals.

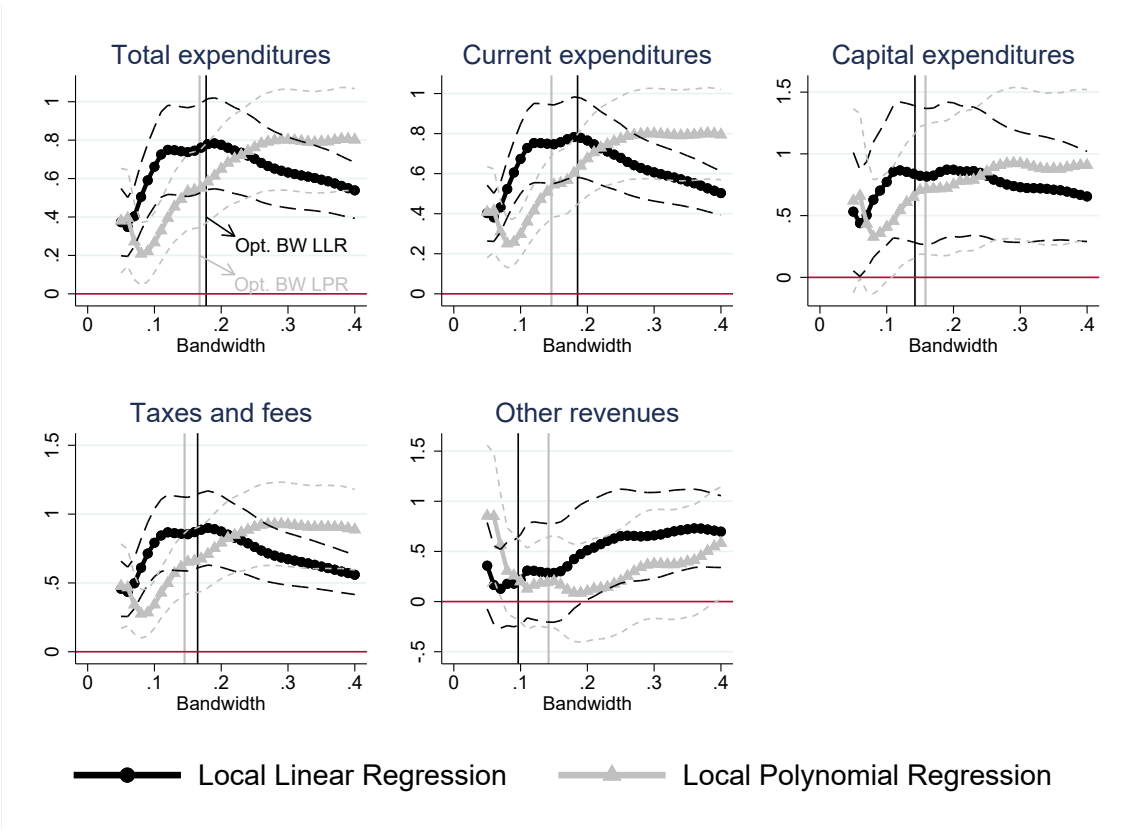

FIGURE A.2: Non-parametric fuzzy RD estimates

Notes. The Figure plots non-parametric fuzzy estimates from local linear and local polynomial (2nd order) regressions, along with 95% confidence intervals, at different bandwidth values between 5% and 40% margins of victory. Vertical lines are the optimal bandwidths according to Calonico et al. (2017).

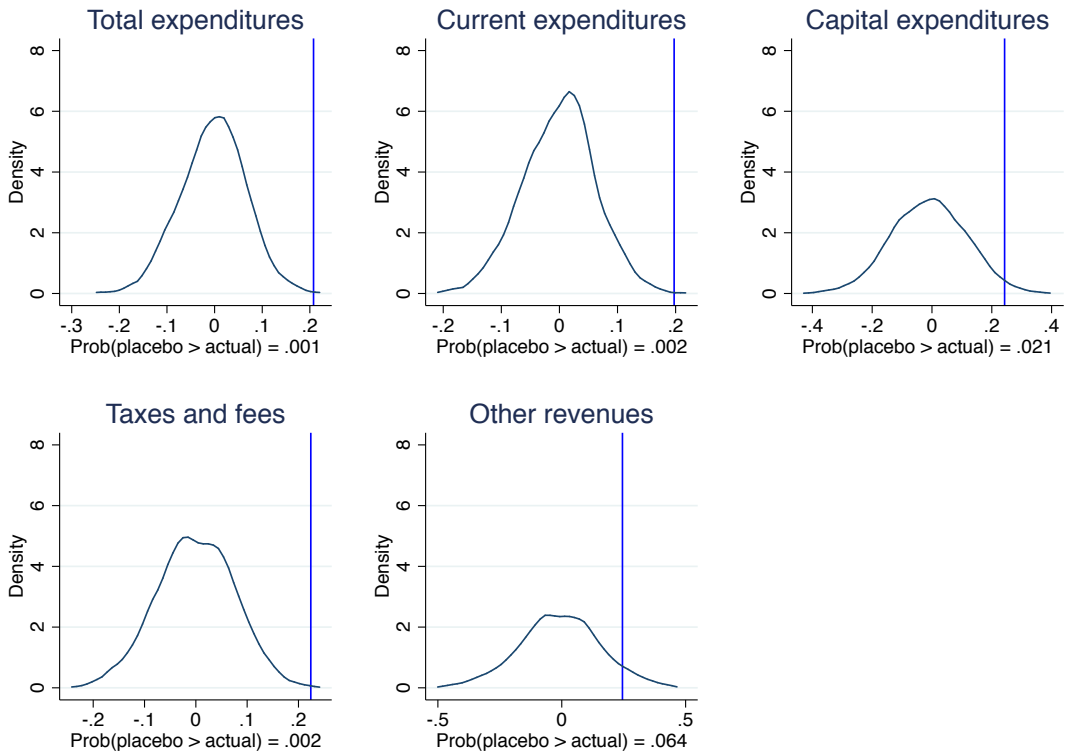

FIGURE A.3: Reduced form effect of gender of mayor on local public finance, placebo estimates

Notes. The Figure shows the distribution of the reduced-form parametric estimates from 1,000 random permutations of the first round margins of victory in a specification that includes a second order spline polynomial. The vertical lines are the estimates obtained at the true margins of victory. The fraction of placebo estimates greater than the actual estimate is reported at the bottom of each graph.

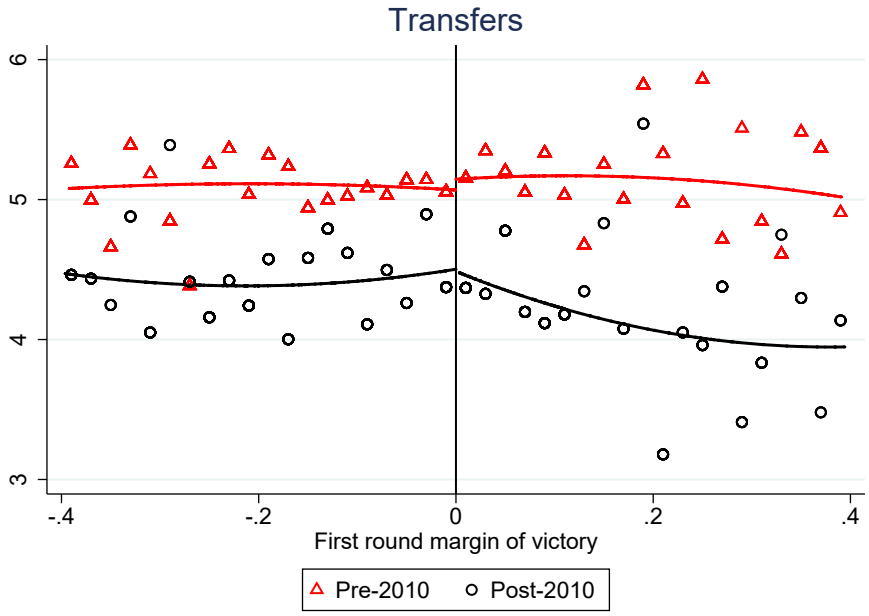

FIGURE A.4: difference-in-discontinuities in revenues from transfers and contributions

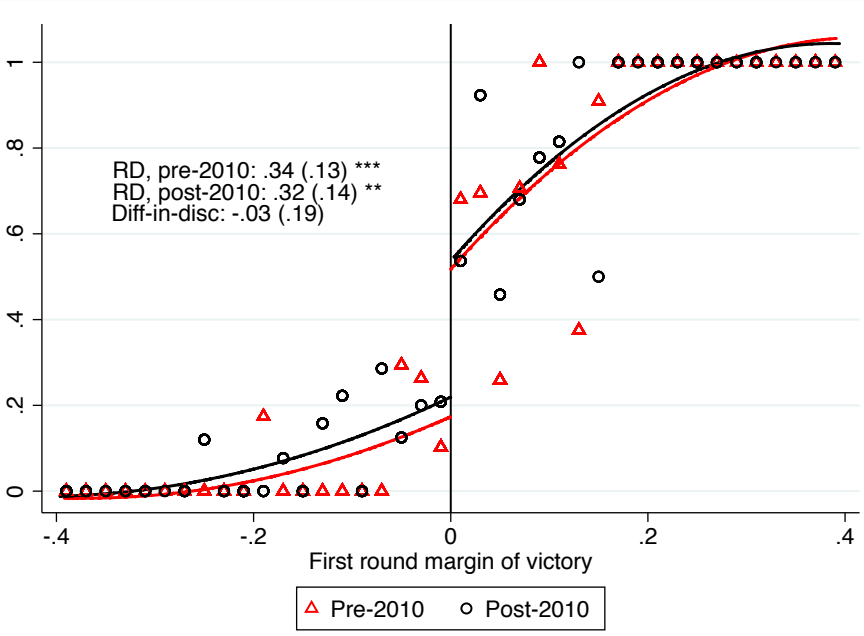

FIGURE A.5: First stage, before and after 2010

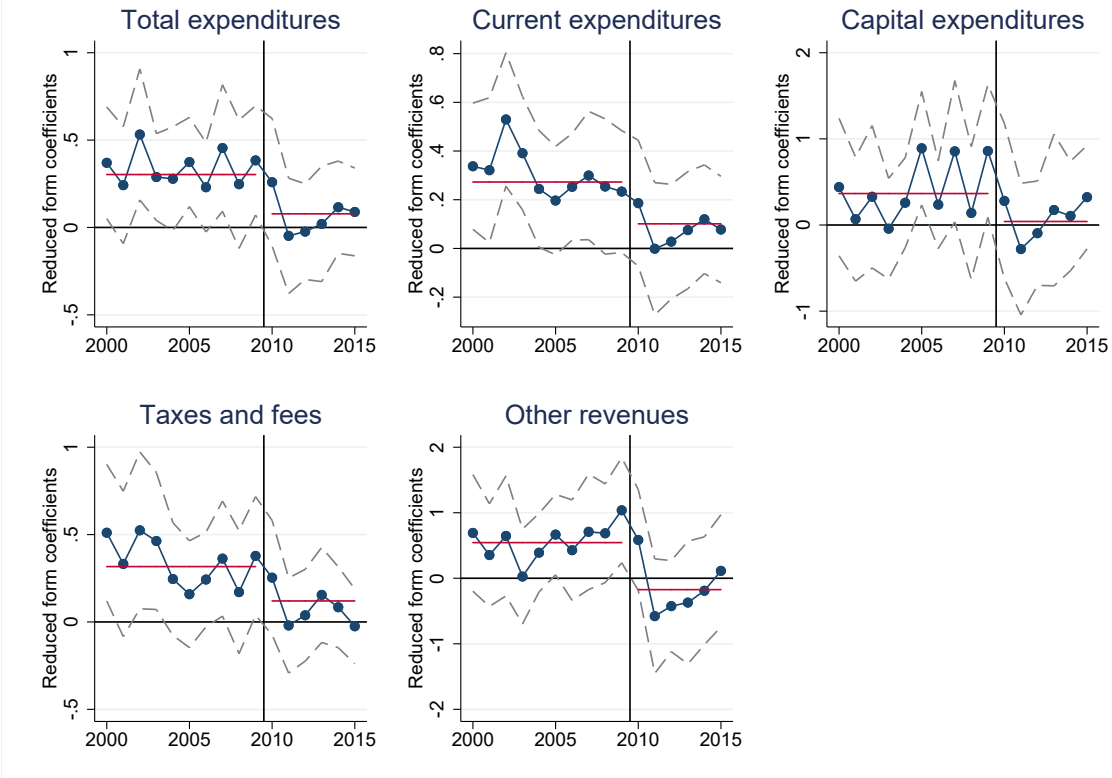

FIGURE A.6: Reduced form RD estimates by year

Notes. The Figure shows the coefficients of reduced form RD estimates (with a 2nd order spline polynomial fitted on both sides of the threshold), by year. The horizontal solid lines are RD coefficients pooling years before and after the fiscal adjustment (vertical line). Dashed lines are 95% confidence intervals.

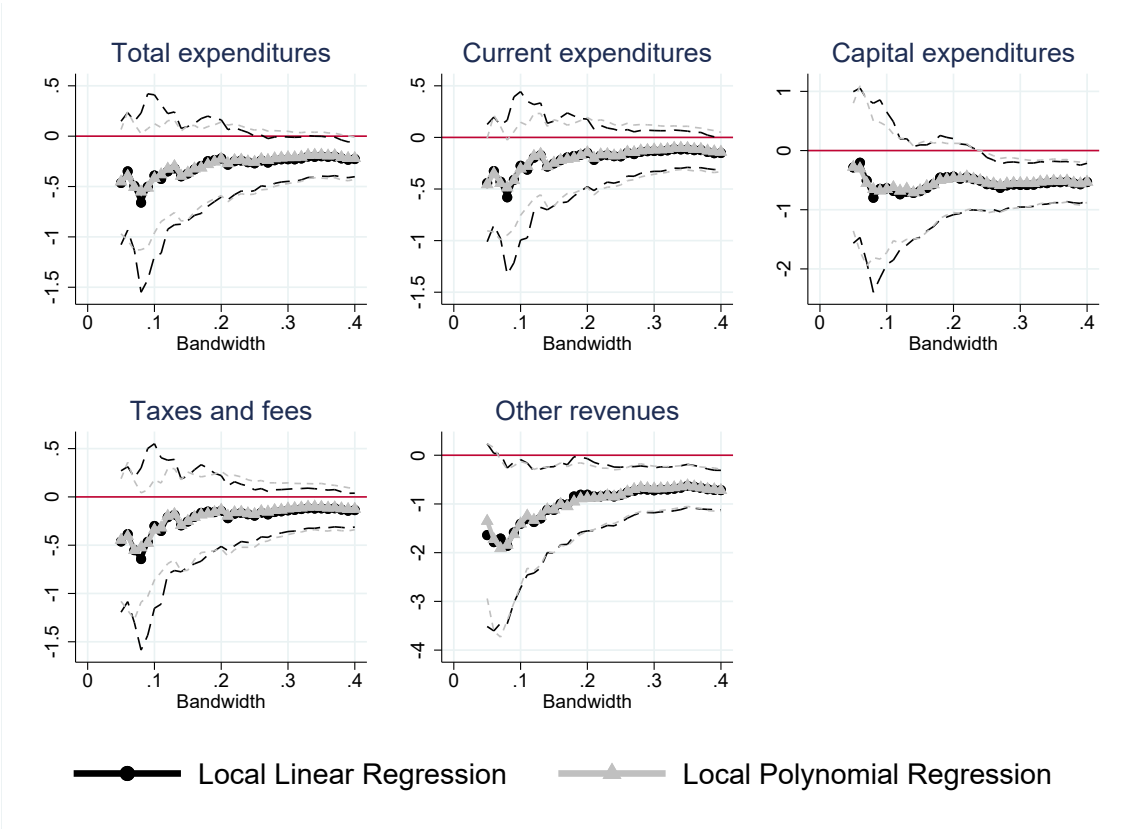

FIGURE A.7: Fuzzy difference-in-discontinuities estimates at different bandwidths

Notes. The Figure shows the coefficients of fuzzy difference-in-discontinuities estimates at different bandwidth values between 5% and 40% margins of victory, fitting a first (local linear regression) and a second (local polynomial regression) order polynomial on both sides of the threshold. Dashed lines are 95% confidence intervals.

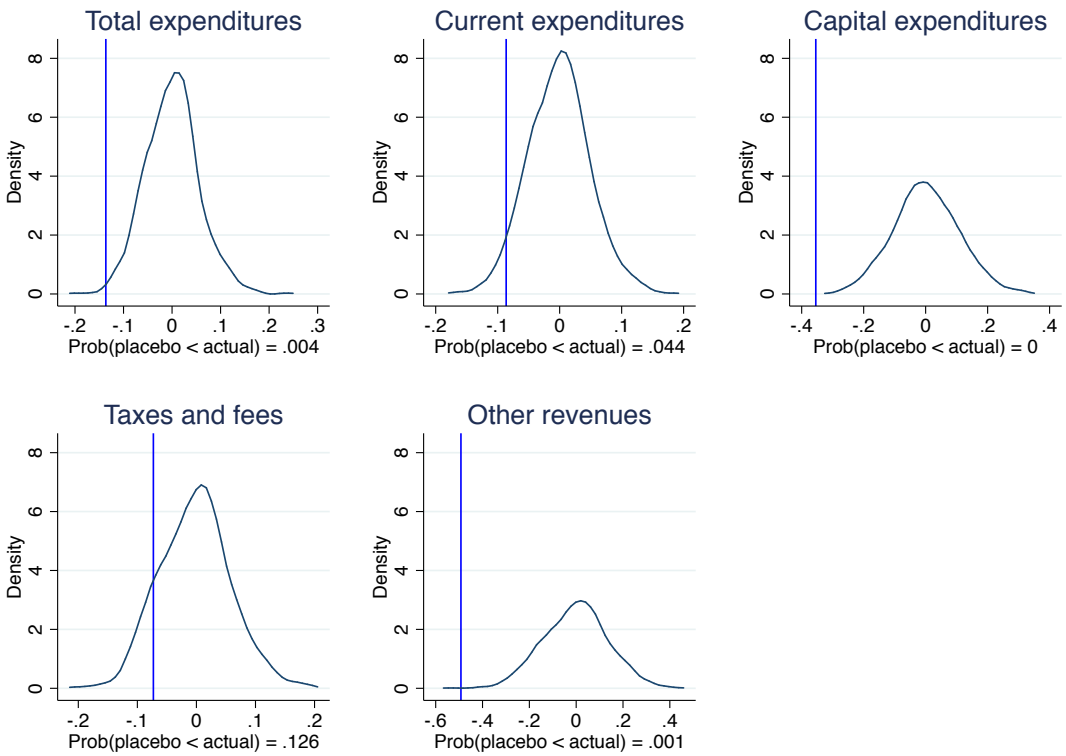

FIGURE A.8: Reduced form effect of gender of mayor on fiscal adjustment, difference-in-discontinuities placebo estimates

Notes. The Figure shows the distribution of the reduced-form parametric estimates from 1,000 random permutations of the first round margins of victory in a specification that includes a second order spline polynomial. The vertical lines are the estimates obtained at the true margins of victory. The fraction of placebo estimates smaller than the actual estimate is reported at the bottom of each graph.

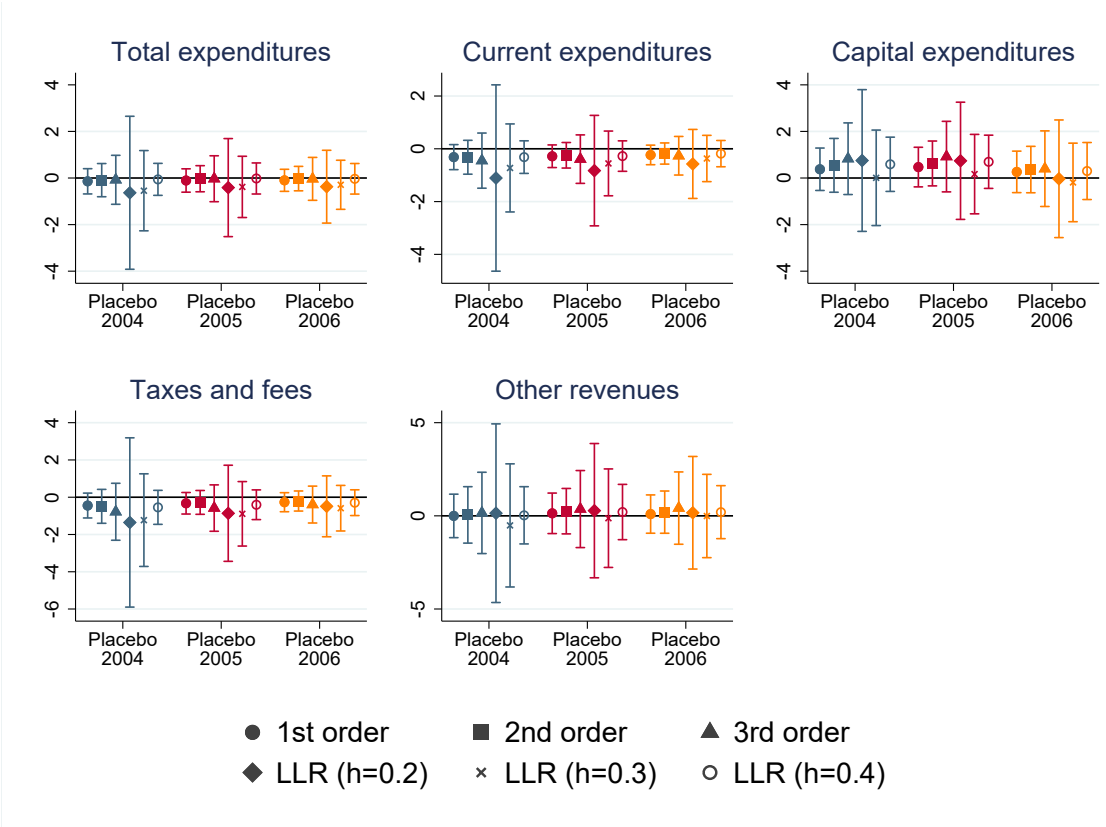

FIGURE A.9: 2SLS effect of gender of mayor on fiscal adjustment, difference-in-discontinuities estimates, with placebo reference years

Notes. The Figure plots coefficient estimates from equation (6) using as reference years 2004, 2005 and 2006. Sample restricted to the years 2000-2009.