

The Stability Effect of Elected Women: Gender or Seniority?*

Antonio Acconcia and Carla Ronza

February 15, 2023

Abstract

By relying on a policy aimed at reducing the gender gap among members of local councils in Italy, we show that a larger share of women causes more government stability. This effect is mainly driven by first-time elected women, who have a lower probability of getting reelected when compared to councillors elected in previous races, too. It holds when controlling for council fixed effect, councillor characteristics and political fragmentation. On average, the stability effect implies two year longer duration of a government that otherwise would be unseated. These findings are more consistent with a story of economic incentives shaping voting behaviour rather than one related to the peculiar behaviour of women in elected offices.

Keywords: Government Stability, Female Councillors, Political Seniority, Reelection Probability

JEL classification: D72, H11, J16, K16

*Acconcia: University of Naples Federico II and CSEF, Via Cintia, 80126 Napoli, Italy. Email: antonio.acconcia@unina.it. Ronza: University of Naples Federico II, Via Cintia, 80126 Napoli, Italy. E-mail: carla.ronza@unina.it. We thank Luca Anderlini, Laura Baraldi, Alessandra Casarico, Marco Celentani, Marcello D'Amato, Tommaso Frattini, Anna Giunta, Tullio Jappelli, Elisa Luciano, Miquel Manjón, Lorenzo Pandolfi, Francisco Queirós, Enrico Rettore, Elia Sartori, Vincenzo Scoppa, and participants at the 2021 SIE, SIEP and AISRe annual conferences and at the 2022 Workshop on Industrial and Public Economics of ECO-SOS Research Centre, CSEF seminar, SITES, SIDE-ISLE and ASC annual conferences for useful comments and discussions. Declarations of interest: none.

1 Introduction

Power in democratic government systems is exercised by the people through multi-member decision-making bodies. The composition of these groups by gender and reelection probability is quite heterogeneous across countries and years, and especially across municipalities within the same country. Data on more than 6 million elected members of deliberative local government bodies in 133 countries show that women’s representation ranged from 18% in Western Asia and Northern Africa to 41% percent in Central and Southern Asia (Berevoescu and Ballington, 2021).¹ Data for 70 countries highlight the huge variability characterizing unconditional reelection rates worldwide; the 2000-2018 mean rate ranges from less than 20% in the case of Sierra Leone to more than 80% in Japan and the United States (Carnes et al., 2022).

As women historically are underrepresented in politics, they usually have less political seniority than men. If newcomers face higher barriers to reelection and if this affects their behaviour, then different shares of women in elected offices will imply different outcomes. To investigate this issue, we focus on the relationship between government stability (cabinet duration) and female share in local parliaments in Italian municipalities. Specifically, we ask: Do first-time elected women affect government stability differently compared to their reelected peers?

To carry out our analysis, we constructed an original long panel dataset covering almost 50,000 Italian city councils over the period 1986-2015 and including extensive information on council members. We exploit this dataset and a difference-in-discontinuities research design (Grembi et al., 2016) based on a policy introduced by Law No. 215, 2012, to foster women’s participation in local governments. This policy determined a discrete rise in the share of female councillors in the treated municipalities, i.e. those with populations above a given threshold (Baltrunaite et al., 2019; Andreoli et al., 2022), that can be used to control for plausible endogeneity regarding women in leadership positions. Women tend to be more averse to social scrutiny (Alan et al., 2020), sorted into organizations with poorer outcomes (Gagliarducci and Paserman, 2015), appointed to precarious leadership positions (Xing et al., 2020), and elected into office during difficult times (O’Brien, 2015), which could result in the likely false association between more women and worse outcomes. We thus investigate whether the probability of

¹In recent decades, in both developed and developing countries the presence of women in politics has increased markedly but is still lower than that of men. The proportion of women parliamentarians worldwide rose from 11.7% in 1997 to 24.9% in 2020; during the same period, in Europe it increased by 10 percentage points (Women, 2020; EIGE, 2021). The average presence of women in local governments is about 36% which is higher than in national parliaments but not yet close to parity with men. The appointments of Kamala Harris as the 49th Vice-President of the United States, Janet Yellen as the 78th United States Secretary of the Treasury, and Ursula von der Leyen as President of the European Commission—the first women to achieve these top positions—have contributed to the visibility of women as political leaders.

early termination of city-council legislatures, for reasons strictly related to councillor decisions, is affected by the exogenous change in the numbers of elected women.

The aforementioned law has three main characteristics which are particularly useful in the context of our study. First, in addition to establishing gender quotas in electoral lists, this law allows the electorate to vote for two candidates (instead of one) as long as they are of different gender. Thus, even among voters with a stronger preference for male politicians, exercising the right to double preference does not undermine the possibility of voting for a valuable eligible woman, that is the law does not force variation in voting behaviour since the electorate is not obliged to choose between a man or a woman. Second, the two provisions provided by this law apply only to municipalities with more than 5,000 inhabitants and to elections held after 2013. This allows us to exploit temporal and spatial variations in the data through a difference in discontinuity design (comparing municipalities above and below the inhabitant threshold whose governments were elected before and after 2013). Third, the effect of the law on the share of female council members has been sufficiently strong to deliver a subset of city councils characterized by the presence of first-time elected women.

Results show that more women among council members increases government stability. Specifically, a 10 percentage point increase in the share of women reduces the probability of a councillor-forced early termination by 3 percentage points which is a sizable effect given the roughly 10% overall probability in our sample. The estimated effect is not affected by controls for political fragmentation, municipality fixed effects, councillor age and education among others but, as expected, disappears if early termination is unrelated to councillor decisions as in the case of resignation or sacking of the mayor. Avoiding early termination of the legislature implies an approximately two year longer government duration on average.

To interpret the stability effect, we exploit the richness of our data set to examine reelection rates among incumbent councillors by gender and by political seniority—the latter condition identifies incumbents already elected in past races. We provide descriptive analysis of the data consistent with the idea that seniority is relevant to reelection: (i) first-time elected councillors, especially if they are women, have a lower probability of reelection; (ii) male and female councillors already elected in past races have similar reelection rates. Building on this evidence, we show that the stability effect is driven mainly by councils with an abundance of first-time elected women. Overall, our results suggest that reelection probabilities and thus economic incentives matter for behaviour of elected officials.

Regarding previous evidence on government stability, Gagliarducci and Paserman (2011) focus on female mayors, Mershon (1996) and Carozzi et al. (2022) look at the role of coalition formation and political fragmentation, respectively, Krauss and Kroeber (2021) study the impact of women in executive offices, while Miglino (2022) examines the tenure requirements to obtain a pension for national MPs in Italy. Our study focuses on gender and the differential incentives

of legislators to remain in power driven by the probability of being reelected. Evidence that a higher share of reelected women does not affect the probability of early termination suggests that findings emphasizing the peculiarity of gender in elected bodies might be explained at least in part by seniority differences between men and women. Moreover, evidence that councillors with a lower chance of reelection enhance government stability speaks about decisions of group members with similar incentives. These two pieces of evidence are in line with findings for the U.S., that differences in behaviours by gender are not as large as expected (Gagliarducci and Paserman, 2021).

We contribute also to work on the relationship between politicians' characteristics and government performance. Specifically, we relate to two literature streams on the effect of more women in governments, and the effect of tenure in office. Previous studies supply mixed evidence on these aspects. Research that considers the composition of local spending tends to conclude that men and women behave differently since women mainly favor expenditure on health and education (Chattopadhyay and Duflo, 2004; Clots-Figueras, 2011; Baskaran and Hessami, 2019), security services (Andreoli et al., 2022), and environmental protection (Casarico et al., 2021). However, other authors suggest that politician gender has no effect on either the size nor the composition of local spending (Ferreira and Gyourko, 2014; Geys and Sørensen, 2019; Bagues and Campa, 2021). Some studies that consider the relationship between corruption and gender show that women are less likely to engage in corruption which curbs its diffusion (Brollo and Troiano, 2016; Jha and Sarangi, 2018); instead, more recently, UNODC (2020) concludes that given the opportunity, women and men are equally prone to being corrupt.² Our findings suggest that the mixed results in previous work on the relevance of office-holder gender might reflect, at least in part, differences in the political seniority of the politicians compared.

In work on the effects of tenure in office, findings vary; some suggest that it leads to greater accountability, others to increased competence, but some authors suggest that tenure increases risk of corruption.³ More time in office allows accumulation of expertise which increases legislative effectiveness (Miquel and Snyder, 2006), fosters local economic growth (Alt et al., 2011), and reduces organizational costs (Aragón and Pique, 2020) but also encourages collusive relationships to divert public resources for private gain (Campante et al., 2009; Tsur, 2022). Indeed, Ferraz and Finan (2011) and Coviello and Gagliarducci (2017) respectively find that mayors eligible for reelection are significantly less corrupt than mayors with no reelection in-

²There is evidence showing also that more women in government increases electoral participation (De Paola et al., 2014), reduces the number of low-educated elected men (Baltrunaite et al., 2014; Besley et al., 2017), and fuels adolescent girls' ambitions (Beaman et al., 2012). The effect on female political representation of policies targeting the electoral system is investigated in Gonzalez-Eiras and Sanz (2021) and Profeta and Woodhouse (2021). In short, debate on whether gender matters in politics is ongoing (Hessami and da Fonseca, 2020).

³The trade-off related to duration in office is a long-standing question; for more recent contributions see Dal Bó and Rossi (2011); Smart and Sturm (2013); Aghion and Jackson (2016); Duggan and Martinelli (2017), among others.

centive, and that persistence in power tends to worsen procurement outcomes, whereas Akhtari et al. (2022) show that political party turnover reduces the quality of public education through the reshaping of local government bureaucracy. Our findings support the view that the chances of reelection matter for politician behaviour, and thus ultimately for government outcomes.

To identify a causal relation, several contributions concerning the behaviour of elected officials exploit close races, comparing elections where the incumbent mayor either barely won or barely lost another term.⁴ Marshall (forthcoming) raises the potential concern that by conditioning on politicians who win close elections, the regression discontinuity estimators identify not only the effect of the specific characteristic of interest but also all compensating differentials. Also, Alesina et al. (2019) note that strategic policies to ensure reelection are more likely in the case of close run elections, and therefore even a small effect on voting behaviour could be critical. Our evidence is based on a quasi-experiment to identify the causal effect and does not suffer from this potential concern.

The rest of the paper is organized as follows. In Section 2 we discuss some institutional details and the data and in Section 3 we describe the empirical model. Section 4 presents all results. Section 5 concludes.

2 Institutional Details and Data

In Italy, the city council is a multi-member decision-making body, whose members are in charge of local legislation and funding decisions. Its size is statutory and based on the population of the municipality.⁵ From 1986 to 2015, some 48,000 municipal councils were elected in Italy. Since 1993, councillors are elected according to an open list system; before the introduction of the 2012 gender quota, voters could vote for just one candidate.

Statutory duration of of city-council legislatures is five years. However, an election can be called for certain well-defined reasons, after the compulsory early termination of the legislature. During our sample period, more than one-third of all Italian municipalities experienced at least one episode of city-council early termination. Councils experiencing early termination are characterized by lower presence of women. Table 1 shows that the average percentage of women decreases from about 20%, in the case of municipalities that have never experienced legislature early termination, to roughly 17.5%, in the case of municipalities with just one early termina-

⁴See for instance Brollo and Troiano (2016); Coviello and Gagliarducci (2017); Alesina et al. (2019); Akhtari et al. (2022).

⁵The two other government bodies are the executive committee and the mayor. The latter is responsible for local administration governance, public order, civil defence, and electoral and registry offices. The former is appointed by, and cooperates with the mayor. In municipalities with less than 15,000 inhabitants, the executive committee consists of members of the council; in municipalities with 15,000 or more inhabitants, it can include non-council members.

tion episode, and to 13.4% in municipalities that experienced more than one episode of early termination. Both differences are statistically significant at the 1% level. Figure 1 makes the point even more clearly: As the number of women increases, the frequency of early termination episodes decreases monotonically from 20% to 6.6%. Moreover, we also notice that differences in the share of councillors by gender are not explained by differences among municipalities in terms of labour force participation of women and average education of their citizens (see Table 2).⁶

Table 3 reports results of regressing the percentage of women councillors on a number of covariates mainly related to the characteristics of the councils. Columns 1 and 2 refer to municipalities whose local governments always reached the statutory termination date, while Columns 3 and 4 refer to the rest of the sample. We do not find distinctive features of either group of municipalities. Interesting enough is the result related to the dummy Mayor. When the municipality effect is excluded the coefficient of this dummy is positive, otherwise it is negative. On average, municipalities led by a female mayor are also characterized by more women councillors (see Columns 1 and 3); however, when municipality fixed effects are allowed a female mayor is associated with a smaller number of women councillors (see Columns 2 and 4). This relationship likely reflects the intent of political parties to balance a female mayoral candidate with predominantly male council candidates.

As regards other regressors, the Herfindahl index suggests a positive correlation with the share of female councillors, that is, more women are elected if the council includes a smaller number of different political parties. Since the election of councillors depend on both the number of votes received and the position in the party list, this evidence is consistent with women being placed at the bottom positions of party lists.⁷ Finally, on average higher level of education and lower age of the councillors are associated with more women among councillors.

The Italian legislation identifies several circumstances causing the early termination of the legislature at the local level and, thus, a new electoral round. In this paper, we focus on those plainly revealing the willingness of the councillors to overthrow the government and cease the legislature, namely their resignation and no-confidence vote.⁸ These circumstances, strictly related to councillor decisions, determined 2,700 early termination episodes, which is more than half of all episodes that happened in our sample period (see Table 4).

⁶Differences emerge in terms of size (population) and unemployment, both being higher among municipalities with greater government instability.

⁷Even when gender quotas are in place, the rules refer only to the number of women included in the list, which leaves parties free to place them at the bottom of the list. Thus, the more people elected who belong to the same party, the more likely that women will be elected.

⁸According to Law 267/2000, if more than 50% of the councillors resign simultaneously or approve a no-confidence motion, the legislature is terminated. Formally, the President of the Italian Republic issues a decree, based on the recommendation of the Ministry of Interior, and a commissioner rules the municipality until the next election, which occurs in the first electoral round prescribed by the national schedule (usually spring).

The remaining episodes of early termination are either related to the mayor (death, resignation, incompatibility, and removal) or enforced by the central government (mafia infiltration in the city council or the executive committee), or due to manifest financial issues resulting in the financial statement rejection.⁹ Early termination due to mafia infiltration is unrelated to the councillor decisions because it takes place when “evidence emerges regarding direct or indirect links between members of the local government and criminal organisations [...] jeopardising the free will of the electoral body and the sound functioning of the municipal administration” (D.L. 31/05/1991 No. 164).¹⁰ Regarding the financial statement rejection, we acknowledge that the councillors might strategically use it to end the legislature prematurely. Therefore, in what follows, we check the robustness of our results by including also these episodes in our group of interest. Since they are very few, our results will be virtually the same irrespective of how they are considered.

In our sample, the overall probability of early termination is about 10%; this figure decreases to roughly 6% by restricting to our group of interest.

2.1 Gender Quotas for Local Elections

Figure 2 depicts the yearly average of female councillors across municipalities as a percentage of total councillors. In the period 1986-2015, the percentage of women increased sixfold, reaching more than 26% at the end of the sample, a value quite similar to female representation in municipal political bodies of Europe. In particular, women councillors increased sharply as a consequence of the 1993 and 2012 laws issued to promote gender equality in local governments.

Since the introduction of Law No. 215/2012, in municipalities with at least 5,000 inhabitants, the electorate can vote for two candidates from a given party list as long as they are different by gender. This same law also prescribes that no more than two-thirds of the electoral list can be of the same sex. By mitigating voters’ potential gender discrimination, this provision has been particularly effective in increasing the number of women elected. As the law applies only to a subset of municipalities, we can employ an instrumental variable difference-in-difference strategy, to investigate the effect of an increase in female councillors on local government stability.

Law No. 81/1993 established that in municipalities with more than 15,000 inhabitants, no more than two-thirds of the council candidates on a given party list could be of the same sex; in smaller municipalities the threshold was three-quarters. While this law was designed to address women’s presence on electoral lists, its likely consequence has been to increase the number

⁹For details see Table A1.

¹⁰The relationship between female political representation and mafia infiltration in the municipal bodies is investigated by Baraldi and Ronza (forthcoming).

of women elected (De Paola et al., 2010). However, since it applied to all municipalities and overlapped with relevant changes to the electoral system (from a party to an individual ballot to elect the mayor), it is poorly suited to ascertaining the causal effect of more women on government stability.¹¹ In September 1995, the Constitutional Court declared the gender quota unconstitutional since it was prejudicial to equal access to elective offices (Art. 3 and 51 of the Italian Constitution) and repealed it. This very peculiar occurrence allows us to exploit the potential variation in the number of women elected soon after abolition of the gender quota. In fact, although many municipalities voted during the period of quota validity in 1995, a relevant number of councils were elected in the last part of the year. We report in the appendix the evaluation of the effects of the 1993 law repeal.

3 Econometric Framework

To uncover the effect of the gender composition of municipal government on early termination, we start by considering all city councils elected during the period 1986-2015 and the following empirical specification:

$$EARLY_{i,t} = \sigma_i + \delta_t + \beta FEMALE_{i,t} + \gamma X_{i,t} + \varepsilon_{i,t} \quad (1)$$

where $EARLY_{i,t}$ is a dummy variable whose value is 100 if the legislature of municipality i started in year t terminated before the natural end because of councillor resignation or no-confidence vote, and 0 if its duration was the statutory one; $FEMALE_{i,t}$ is the percentage of women among councillors; σ_i is a municipality fixed effect; δ_t is a time fixed effect; $\varepsilon_{i,t}$ is an idiosyncratic error term.

The term $X_{i,t}$ captures time-varying control variables (thus γ is a vector of coefficients) helpful for assessing whether the composition of local government by gender matters. In particular, our empirical model considers three main variables. First, the degree of government stability is reputedly related to the distribution of councillors among parties and the size of the majority party in the council (Laver, 2003; Carozzi et al., 2022). Moreover, Le Barbanchon and Sauvagnat (2022) show that the proportion of women candidates is relatively lower in electoral districts where the vote is close compared to those where a majority is more easily obtained.¹² Under the maintained assumption that stability increases with the size of the majority party, if this party is characterized by a relatively large share of women, then greater stability could be

¹¹Also, at the time of the 1993 gender quota, the set of judicial enquiries, described in the media as ‘Mani Pulite’, revealed the massive diffusion of corruption within the Italian political and entrepreneurial system and led to the collapse of the leading parties.

¹²A related point is investigated by Folke and Rickne (2016).

attributed to the presence of women. To control for this confounding effect, the empirical specification contains the Herfindahl index of party concentration within the council. Second, Table 3 signals that in Italy female councillors are on average more highly educated than their male colleagues. Since the quality and stability of governments seem to be affected by the education of their elected officials (Glaeser et al., 2004; Fortunato and Panizza, 2015), a higher number of women among councillors might increase government stability due to their higher level of education. To check the relevance of this potential effect in our sample, we add the councillor education level among the regressors. Third, as previously suggested, right-wing women’s policy positions tend to be closer to those of the median voter, which results in sponsoring proposals that attract more bipartisan support (Gagliarducci and Paserman, 2021). We control for this by including the local government’s political stance.

We control, also, for the age and occupation of councillors, whether they are elected in their birth-province, the sex of the mayor, and municipality-level control variables such as the women’s rate of participation in the labour-force, the unemployment rate, the percentage of educated citizens, and the population size. The panel structure of the data allows us to account for systematic differences in government stability across municipalities as well as for time-specific shocks affecting election outcomes in a given year.

To address the endogeneity of our key regressor, we rely on the sharp increase in female councillors due to Law No. 215/2012. In particular, we take our treatment group as local governments elected after 2012 in municipalities with more than 5,000 inhabitants, and consider those elected until 2012 and those in municipalities with less than 5,000 inhabitants as the control group.

Specifically, we recover the difference-in-differences variation in female councillors due to the law, by estimating the following first stage regression:

$$FEMALE_{i,t} = \sigma_i + \delta_t + \theta LAW2012_{i,t} + \gamma X_{i,t} + \varepsilon_{i,t} \quad (2)$$

where $LAW2012_{i,t}$ is a dummy variable equal to 1 for treated observations and 0 otherwise.

The Two Stage Least Square (2SLS) estimate of β in equation 1 provides our measure of the effect of women on government stability.¹³

4 Results

Table 5 presents our basic evidence. As expected, first stage results reported in Column 1 and 2 confirm that the 2012 law was particularly effective in favouring female representation

¹³Chesher and Rosen (2013) show that with dummy outcome variable the 2SLS estimator is still consistent for the local average treatment response under the standard restrictions of Imbens and Angrist (1994).

within local parliament: in either specification considered, estimate of the coefficient attached to *LAW2012* implies an increase of women among councillors by about 10 percentage points. The t-statistic is extremely high, reassuring about the weak instrument concern. Estimates of coefficients related to control variables signal that female elected officials are better educated and that their presence in councils tends to increase with party concentration and reduce in the case of a female mayor.

In the second stage regression (Columns 3 and 4), our key coefficient is estimated negative and statistically significant at the 1% level. Its magnitude implies that the increase in the number of women councillors due to the 2012 law determined a reduction in the probability of early termination of about 3 percentage points. Controls only slightly affect the point estimate of the coefficient; hence, even allowing for a number of city-council features, we found a distinctive effect on early termination imputable to the share of women. Given the number of early terminations in the sample, we can conclude that the change in the composition of councils by gender, driven by the law, caused a 30% reduction in the probability of early termination. Since the duration of an early terminated legislature (before 2012) was roughly 60% of the statutory duration, avoiding the anticipated conclusion implies that the legislature tends to be longer by about 2 years.

The included controls suggest that councillor level of education is positively correlated with the probability of early termination perhaps because more highly educated councillors have better outside options and, thus, are less nervous about losing their public administrator position. We found that age is correlated negatively with early termination, that is, *ceteris paribus* more stable governments have a larger proportion of older councillors. Our evidence for the mayor dummy is consistent with conclusions by Gagliarducci and Paserman (2011), who examined Italian city councils during 1993-2003 and found a higher probability of early termination if the mayor is a woman. According to our estimates, the impact on governance stability induced by the 2012 law seems to be stronger than the instability associated with a female mayor.¹⁴

4.1 Further Evidence

In this section, we further investigate the properties of our empirical model. Specifically, we analyse the influence of special status regions and the implications of restricting the pool of municipalities and the sample period. Moreover, to corroborate our findings, we perform the analysis also for early termination episodes unrelated to councillor decisions. Finally, we look at the abolition of the 1993 gender quota law.

¹⁴The results are robust, also, to the following change in the sample: (i) dropping municipalities that belonged to a different province during the sample period; (ii) extending the group of early terminations due to councillor decisions to include episodes of financial statement rejection.

Five Italian regions, Valle d’Aosta, Trentino-Alto Adige, Friuli-Venezia Giulia, Sicilia, and Sardegna, are recognized by the Constitutional Chart as regions with special status, which, among other things, allows them greater independence in the governance of local institutions. In particular, circumstances leading to early termination of local government are regulated by regional laws. For instance, the official local government dissolution decree is issued by the President of the Region rather than the President of the Republic. Table 6, Column 1, presents the 2SLS results for early termination related to councillors, excluding regions with special status. The results are virtually unchanged.

A potential concern regarding the robustness of previous results could relate to the different electoral rules in municipalities above and below the 15,000 population threshold—runoff and single-round system, respectively. The runoff electoral system seems to reduce extremist groups’ influence and increase policy moderation (Bordignon et al., 2016). Also, municipalities with less than 3,000 people are subject to a different appointment of executive committee members rule.¹⁵ Therefore, in Column 2, the sample is restricted to municipalities with populations of between 3,000 and 15,000. Notice that the restricted sample consists of municipalities closer in size to the threshold determining the 2012 gender law for local elections, which is in the spirit of a regression discontinuity analysis. Even in this case, the key coefficient is negative and statistically significant; its size is only slightly affected. Finally, the last column of the table shows that our main findings still hold if we restrict the time span before the introduction of the law to five years, that is the statutory duration of a legislature. The main difference is related to the coefficient of Mayor which becomes insignificantly different from zero.

As a matter of comparison with our main evidence, we report in Table 7 the results of the empirical specification (1) when the outcome variable refers to early termination episodes unrelated to councillor decisions. In this case, the key coefficient of the second stage regression is positive and not significant. Moreover, results from the abolition of the 1993 gender quota law show a clear increment of early termination episodes together with a substantial drop in the percentage of female councillors (see Appendix, Section C). These two further findings are consistent with the conclusion that more women in the council result in lower instability.

¹⁵Municipalities with less than 15,000 inhabitants follow a single-ballot rule, i.e., the mayoral candidate with the relative majority is elected; also, no coalition of electoral lists is allowed. Municipalities with more than 15,000 inhabitants follow a dual-ballot rule: candidates can be supported by a plurality of lists and the candidate who achieves an absolute majority is appointed mayor. If no candidate receives more than 50% of the votes, then the two candidates with the highest number of votes enter a second voting round. In the case of the executive committee, in municipalities with more than 3,000 inhabitants, no more than 60% of the committee members can be of the same sex (Law No. 56/2014).

4.2 Why Do Women Foster Stability?

Previous evidence implies that the stability effect related to female councillors is not due to systematic differences in education, age, and political affiliation between male and female councillors, or to systematic differences among electoral districts. Arguably, this stability effect might be explained by different reelection probability by gender. If women have a lower probability of being reelected than do men, as in the case of Brazil for instance (Brollo and Troiano, 2016), they might be more prone to display behaviour aimed ultimately at reducing the chance of early termination of government. To investigate this potential channel, we exploit information on the names of almost all councillors elected during the first two election rounds following the 2012 law in order to assess how many male and female councillors elected in the first round were reelected in the second round. We interpret these reelection rates as proxies for the probability of being reelected by gender.

Table 8 Panel A reports the reelection rates for all municipalities and for the subsample affected by the 2012 law. In both cases, we find lower reelection rates for women; when all municipalities are considered the difference is 5 percentage points. Therefore, if the share of females in city councils increases an early termination outcome might be less likely. In the case of political seniority and again comparing the first and second rounds of elections following the 2012 law, it is noticeable that reelection rates associated to first-time elected incumbents are lower than those associated to incumbents already elected in the past (see Table 8, Panel B). Political seniority implies reelection rates roughly 8 percentage points higher; the difference in reelection rates between incumbents with and without seniority is statistically significant at the 1% level.

If we merge information on councillor seniority and gender, it follows that the lower reelection rates attached to the pool of women are explained largely by their lower level of seniority. In municipalities affected by the law, reelection rates are similar between men and women already elected in past races (see Table 9). Instead, the rate is significantly different for first-time elected women. Taken together, our findings suggest that compared to men, women have a lower reelection probability and especially if they were first-time elected councillors.

We now exploit information on reelection rates, to reexamine our findings regarding government stability. For each council elected in the first round of elections after the 2012 law, we compute the seniority index of women as the ratio of female councillors elected in the past to the total number of female councillors. Then we split the sample of municipalities subject to the law according to whether the female seniority index is above or below the overall median value (0.22), and identify the two groups as respectively *High* and *Low*. The *Low* group includes councils where the boost in female representation driven by the law mostly resulted in a larger number of first-time elected women; the *High* group mainly includes councils with

multiple reelected women. The average seniority index of women across councils in the *Low* group is 0.09 compared to 0.39 for councils in the *High* group (see Table 10). Note also that despite this difference, the average seniority index of male councillors is virtually the same and is much higher than the seniority index of female councillors, suggesting the presence of an abundance of reelected male councillors in both groups. Finally, for comparison, we calculate the average seniority index for the last round of elections before the law was passed. We find that both groups show similar values for men and women.

Based on our seniority index, we estimated our empirical model to check whether political seniority of women matters for government stability. Table 11 reports the main results obtained comparing each group of treated municipalities with those below the 5,000 population threshold. Estimate of our key coefficient is significantly different from zero only for the low seniority group; its magnitude more than doubles compared to the estimate for the other group. Moreover, the findings are similar if we restrict the sample to years 2008 to 2015. Hence, the stability effect determined by a larger pool of women seems to be driven mainly by councillors with a lower reelection probability rather than by gender itself.

As women have a lower chance of reelection and especially if they are newcomers, the question remains why they are less favored in electoral competitions. The most plausible explanation would seem to be the traditional anti-female bias in politics, combined with the fact that exposure to female political leaders reduces this prejudice and works to breakdown negative stereotypes (Beaman et al., 2009; De Paola et al., 2010; Lee and Zanella, 2021; Baskaran and Hessami, 2022).¹⁶ Similarity among reelection rates of legislative veterans by gender is consistent with this explanation. Results reported in Table 12 go the same way. We show OLS estimates of the following empirical model

$$EARLY_{i,t} = \alpha + \beta Council_{i,t} + \gamma Mayor_{i,t} + \delta(Council \times Mayor)_{i,t} + \psi Z_{i,t} + \varepsilon_{i,t} \quad (3)$$

where *Council* is a dummy identifying councils with at least one woman councillor and $Z_{i,t}$ includes the full set of control variables used above, together with municipality-specific and time-specific fixed effects. In particular, Column 1 refers to the period since 1993 and Column 2 refers to the period 2004 to 2015.

In the full sample, the coefficient of Mayor is positive whereas the coefficients of Council and the interaction term are negative. Hence, the negative effect of a female mayor on government stability is more pronounced if the mayor heads an entirely male coalition, in line with

¹⁶Using data from India, Bhalotra et al. (2018) show that female incumbents are more likely than male incumbents to re-contest whereas evidence for developed countries implies that incumbent women are less likely than incumbent men to run for office again (Baskaran and Hessami, 2022). Recent evidence from a natural field setting is consistent with the idea that individuals who self-select into counter-stereotypical fields are less affected by the composition of the environment and stereotypes (Zanella, 2021).

evidence provided by Gagliarducci and Paserman (2011) for the period 1993-2003 arguably because of discrimination by male councillors who resisted being led by a woman. If the sample is restricted to more recent years, the coefficient of Council remains different from zero while the coefficient of Mayor and the interaction term lose their statistical significance, which supports the idea of a softening of the anti-female bias.

5 Conclusion

Taking for granted that policy commitment to equality between men and women is an extremely relevant end in itself (Duflo, 2012), there is widespread interest in the effects of more women in decision-making bodies. Election of local governments in Italy provides a useful framework to contribute to this literature.

The 2012 Italian law aimed at reducing the underrepresentation of women in city councils, introduced gender quotas in municipalities with a population of more than 5,000. The direct effect of the law was a sharp increase in the share of women elected to be councillors which, in turn, caused a strong reduction (of roughly 30%) in the probability of early termination of the legislature. The estimated effect, relying on spatial and time discontinuities in the election rules, was obtained by controlling for municipality fixed effects, the characteristics of elected officials, political fragmentation, and political affinity of the government majority. The focus on a single country excludes the possibility of confounding effects potentially undermining the cross-country analysis.

The stability effect is driven largely by city councils with multiple first-time elected women. In view of their lower reelection probability compared to councillors already elected in past races, our evidence suggests that political seniority matters for government stability. More generally, our study findings cast doubt on the alleged peculiar behaviour of female elected officials compared to male elected officials.

The most plausible interpretation of our results is that they are due to opportunistic behaviour. It is likely that self-interested elected councillors with a low reelection probability will behave so as to avoid occurrence of early termination of the legislature. If such councillors are in the majority, stability is easily achieved regardless of the welfare of the community. However, we cannot completely overlook results signaling systematic differences by gender (e.g., Andreoni and Vesterlund, 2001; Niederle and Vesterlund, 2007; Kuhn and Villeval, 2015) and exclude the possibility that collaboration increases with the presence of newcomers in politics. In this case, greater stability would be intentionally achieved due to its beneficial effects on economic growth (Alesina et al., 1996).

While our natural experiment is based on a policy that targets female councillors, we do not

see the driver highlighted in the analysis as specific to women as well as to local parliaments.
Thus, a clear avenue for future research emerges.

References

- Aghion, Philippe and Matthew O Jackson**, “Inducing Leaders to Take Risky Decisions: Dismissal, Tenure, and Term Limits,” *American Economic Journal: Microeconomics*, 2016, 8 (3), 1–38.
- Akhtari, Mitra, Diana Moreira, and Laura Trucco**, “Political Turnover, Bureaucratic Turnover, and the Quality of Public Services,” *American Economic Review*, February 2022, 112 (2), 442–93.
- Alan, Sule, Seda Ertac, Elif Kubilay, and Gyongyi Loranth**, “Understanding Gender Differences in Leadership,” *The Economic Journal*, 2020, 130 (626), 263–289.
- Alesina, Alberto, Sule Özler, Nouriel Roubini, and Phillip Swagel**, “Political Instability and Economic Growth,” *Journal of Economic Growth*, 1996, 1 (2), 189–211.
- , **Traviss Cassidy, and Ugo Troiano**, “Old and Young Politicians,” *Economica*, 2019, 86 (344), 689–727.
- Alt, James, Ethan Bueno de Mesquita, and Shanna Rose**, “Disentangling Accountability and Competence in Elections: Evidence from US Term Limits,” *The Journal of Politics*, 2011, 73 (1), 171–186.
- Andreoli, Francesco, Elena Manzoni, and Margherita Margotti**, “Women at Work: Gender Quotas, Municipal Elections and Local Spending,” *European Journal of Political Economy*, 2022, 75, 102175.
- Andreoni, James and Lise Vesterlund**, “Which is the Fair sex? Gender Differences in Altruism,” *The Quarterly Journal of Economics*, 2001, 116 (1), 293–312.
- Aragón, Fernando and Ricardo Pique**, “Better the Devil you Know? Reelected Politicians and Policy Outcomes Under No Term Limits,” *Public Choice*, 2020, 182 (1), 1–16.
- Bagues, Manuel and Pamela Campa**, “Can Gender Quotas in Candidate Lists Empower Women? Evidence from a Regression Discontinuity Design,” *Journal of Public Economics*, 2021, 194.
- Baltrunaite, Audinga, Alessandra Casarico, Paola Profeta, and Giulia Savio**, “Let the Voters Choose Women,” *Journal of Public Economics*, 2019, 180.
- , **Piera Bello, Alessandra Casarico, and Paola Profeta**, “Gender Quotas and the Quality of Politicians,” *Journal of Public Economics*, 2014, 118, 62–74.

- Baraldi, Anna Laura and Carla Ronza**, “Does Corruption Hinder Female Political Participation? Evidence from a Measure Against Organized Crime,” *The Journal of Law, Economics, and Organization*, forthcoming.
- Baskaran, Thushyanthan and Zohal Hessami**, “Competitively Elected Women as Policy Makers,” Working Paper 8005, CESifo 2019.
- **and —**, “The Gender Recontest Gap in Elections,” *European Economic Review*, 2022, 145.
- Beaman, Lori, Esther Duflo, Rohini Pande, and Petia Topalova**, “Female Leadership Raises Aspirations and Educational Attainment for Girls: A Policy Experiment in India,” *Science*, 2012, 335 (6068), 582–586.
- **, Raghavendra Chattopadhyay, Esther Duflo, Rohini Pande, and Petia Topalova**, “Powerful Women: Does Exposure Reduce Bias?,” *The Quarterly Journal of Economics*, 2009, 124 (4), 1497–1540.
- Berevoescu, Ionica and Julie Ballington**, “Women’s Representation in Local Government: A Global Analysis,” *Working Paper*, 2021.
- Besley, Timothy, Olle Folke, Torsten Persson, and Johanna Rickne**, “Gender Quotas and the Crisis of the Mediocre Man: Theory and Evidence from Sweden,” *American Economic Review*, 2017, 107 (8), 2204–42.
- Bhalotra, Sonia, Irma Clots-Figueras, and Lakshmi Iyer**, “Pathbreakers? Women’s Electoral Success and Future Political Participation,” *The Economic Journal*, 2018, 128 (613), 1844–1878.
- Bordignon, Massimo, Tommaso Nannicini, and Guido Tabellini**, “Moderating Political Extremism: Single Round versus Runoff Elections under Plurality Rule,” *American Economic Review*, August 2016, 106 (8), 2349–70.
- Brollo, Fernanda and Ugo Troiano**, “What Happens When a Woman Wins an election? Evidence from Close Races in Brazil,” *Journal of Development Economics*, 2016, 122, 28–45.
- Bó, Ernesto Dal and Martín A. Rossi**, “Term Length and the Effort of Politicians,” *The Review of Economic Studies*, 2011, 78 (4), 1237–1263.
- Campante, Filipe R, Davin Chor, and Quoc-Anh Do**, “Instability and the Incentives for Corruption,” *Economics & Politics*, 2009, 21 (1), 42–92.
- Carnes, Nicholas, Joshua Ferrer, Miriam A. Golden, Esme Lillywhite, Noam Lupu, and Eugenia Nazrullaeva**, “The Global Legislators Database,” 2022.

- Carozzi, Felipe, Davide Cipullo, and Luca Repetto**, “Political Fragmentation and Government Stability: Evidence from Local Governments in Spain,” *American Economic Journal: Applied Economics*, 2022, 14 (2), 23–50.
- Casarico, Alessandra, Salvatore Lattanzio, and Paola Profeta**, “Women and Local Public Finance,” *European Journal of Political Economy*, 2021.
- Chattopadhyay, Raghendra and Esther Duflo**, “Women as Policy Makers: Evidence from a Randomized Policy Experiment in India,” *Econometrica*, 2004, 72 (5), 1409–1443.
- Chesher, Andrew and Adam M. Rosen**, “What Do Instrumental Variable Models Deliver with Discrete Dependent Variables?,” *American Economic Review: Papers and Proceedings*, May 2013, 103 (3), 557–62.
- Clots-Figueras, Irma**, “Women in Politics: Evidence from the Indian States,” *Journal of Public Economics*, 2011, 95 (7-8), 664–690.
- Coviello, Decio and Stefano Gagliarducci**, “Tenure in Office and Public Procurement,” *American Economic Journal: Economic Policy*, August 2017, 9 (3), 59–105.
- De Paola, Maria, Vincenzo Scoppa, and Marco A. De Benedetto**, “The Impact of Gender Quotas on Electoral Participation: Evidence from Italian Municipalities,” *European Journal of Political Economy*, 2014, 35, 141 – 157.
- , —, and **Rosetta Lombardo**, “Can Gender Quotas Break Down Negative Stereotypes? Evidence from Changes in Electoral Rules,” *Journal of Public Economics*, 2010, 94 (5), 344 – 353.
- Duflo, Esther**, “Women Empowerment and Economic Development,” *Journal of Economic Literature*, 2012, 50 (4), 1051–79.
- Duggan, John and César Martinelli**, “The Political Economy of Dynamic Elections: Accountability, Commitment, and Responsiveness,” *Journal of Economic Literature*, September 2017, 55 (3), 916–84.
- EIGE**, “Quality Considerations for EIGE’s Gender Statistics Database,” *European Institute for Gender Equality*, 2021.
- Ferraz, Claudio and Frederico Finan**, “Electoral Accountability and Corruption: Evidence from the Audits of Local Governments,” *American Economic Review*, June 2011, 101 (4), 1274–1311.

- Ferreira, Fernando and Joseph Gyourko**, “Does Gender Matter for Political Leadership? The Case of US Mayors,” *Journal of Public Economics*, 2014, 112, 24–39.
- Folke, Olle and Johanna Rickne**, “Electoral Competition and Gender Differences in Political Careers,” *Quarterly Journal of Political Science*, 2016, 11 (1), 59–102.
- Fortunato, Piergiuseppe and Ugo Panizza**, “Democracy, Education and the Quality of Government,” *Journal of Economic Growth*, 2015, 20 (4), 333–363.
- Gagliarducci, Stefano and Daniele M. Paserman**, “Gender Interactions within Hierarchies: Evidence from the Political Arena,” *The Review of Economic Studies*, 2011, 79 (3), 1021–1052.
- and —, “The Effect of Female Leadership on Establishment and Employee Outcomes: Evidence from Linked Employer-Employee Data,” *Research in Labor Economics*, 2015, 41, 343–375.
- and —, “Gender Differences in Cooperative Environments? Evidence from The U.S. Congress,” *The Economic Journal*, 2021, 132 (641), 218–257.
- Geys, Benny and Rune J. Sørensen**, “The Impact of Women Above the Political Glass Ceiling: Evidence from a Norwegian Executive Gender Quota Reform,” *Electoral Studies*, 2019, 60.
- Glaeser, Edward L., Rafael La Porta, Florencio Lopez de Silanes, and Andrei Shleifer**, “Do Institutions Cause Growth?,” *Journal of Economic Growth*, 2004, 9 (3), 271–303.
- Gonzalez-Eiras, Martín and Carlos Sanz**, “Women’s representation in politics: The effect of electoral systems,” *Journal of Public Economics*, 2021, 198.
- Grembi, Veronica, Tommaso Nannicini, and Ugo Troiano**, “Do Fiscal Rules Matter?,” *American Economic Journal: Applied Economics*, July 2016, 8 (3), 1–30.
- Hessami, Zohal and Mariana Lopes da Fonseca**, “Female Political Representation and Substantive Effects on Policies: A Literature Review,” *European Journal of Political Economy*, 2020.
- Imbens, Guido W. and Joshua D. Angrist**, “Identification and Estimation of Local Average Treatment Effects,” *Econometrica*, 1994, pp. 467–475.
- Jha, Chandan K. and Sudipta Sarangi**, “Women and Corruption: What Positions Must They Hold to Make a Difference?,” *Journal of Economic Behavior & Organization*, 2018, 151, 219–233.

- Krauss, Svenja and Corinna Kroeber**, “How Women in the Executive Influence Government Stability,” *Journal of European Public Policy*, 2021, 28 (9), 1372–1390.
- Kuhn, Peter and Marie C. Villeval**, “Are Women More Attracted to Co-operation than Men?,” *The Economic Journal*, 2015, 125 (582), 115–140.
- Laver, Michael**, “Government Termination,” *Annual Review of Political Science*, 2003, 6 (1), 23–40.
- Le Barbanchon, Thomas and Julien Sauvagnat**, “Electoral Competition, Voter Bias, and Women in Politics,” *Journal of the European Economic Association*, 2022, 20 (1), 352–394.
- Lee, Jay Euijung and Martina Zanella**, “How do Political Parties Respond to Gender Quotas? Evidence from South Korea,” *Draft Manuscript*, 2021.
- Marshall, John**, “Can Close Election Regression Discontinuity Designs Identify Effects of Winning Politician Characteristics?,” *American Journal of Political Science*, forthcoming, n/a (n/a).
- Mershon, Carol**, “The Costs of Coalition: Coalition Theories and Italian Governments,” *American Political Science Review*, 1996, 90 (3), 534–554.
- Miglino, Enrico**, “Parliamentary Pensions and Government Stability. Can Economic Incentives ‘Transform’ MPs’ Votes?,” *Job-Market Paper*, 2022.
- Miquel, Gerard Padro I and James M Jr Snyder**, “Legislative Effectiveness and Legislative Careers,” *Legislative Studies Quarterly*, 2006, 31 (3), 347–381.
- Niederle, Muriel and Lise Vesterlund**, “Do Women Shy Away from Competition? Do Men Compete Too Much?,” *The Quarterly Journal of Economics*, 2007, 122 (3), 1067–1101.
- O’Brien, Diana Z.**, “Rising to the Top: Gender, Political Performance, and Party Leadership in Parliamentary Democracies,” *American Journal of Political Science*, 2015, 59 (4), 1022–1039.
- Profeta, Paola and Eleanor F. Woodhouse**, “Electoral Rules, Women’s Representation and the Qualification of Politicians,” *Comparative Political Studies*, 2021.
- Smart, Michael and Daniel M Sturm**, “Term Limits and Electoral Accountability,” *Journal of Public Economics*, 2013, 107, 93–102.
- Tsur, Yacov**, “Political Tenure, Term Limits and Corruption,” *European Journal of Political Economy*, 2022, 74, 102166.

UNODC, “The Time is Now,” *Journal of Public Economics*, 2020.

Women, UN, “Review and Appraisal of the Implementation of the Beijing Declaration and Platform for Action and the Outcomes of the twenty-third Special Session of the General Assembly,” *United Nations Women*, 2020.

Xing, Lu, Angelica Gonzalez, and Vathunyoo Sila, “Does Cooperation Among Women Enhance or Impede Firm Performance?,” *The British Accounting Review*, 2020.

Zanella, Martina, “Stereotypical Selection,” *Job-Market Paper*, 2021.

APPENDIX

A *List of Variables*

In the following, we define the variables and the sources used.

Early: Dummy variable indicating whether local government terminated before the statutory end of the term. It takes value 100 if the local government terminated early and 0 otherwise. Source: Ministry of Interior.

Female: Percentage of women councillors, computed as $100 * (\text{Number female councillors}) / (\text{Total number of seats in the municipal council})$. Source: Ministry of Interior.

Law2012: Dummy variable capturing elections when the electorate could vote for two candidates conditional on gender and electoral lists were subject to gender quotas, that is, the two main novelties introduced by law no. 215/2012. It takes the value 1 for local governments elected after December 2012 in municipalities with at least 5,000 inhabitants and 0 otherwise.

Law1995: Dummy variable capturing local governments elected after the gender quota provision of law no. 81/1993 was repealed. It takes the value 1 for local governments elected after September 1995 and 0 for local governments elected before September 1995.

Education: Average education level of municipal council members. For each member of the local government, years of education are computed considering the minimum number of years required to obtain her/his reported qualification: 0 for 'no qualification', 3 for '3 years of primary school', 5 for '5 years of primary school', 8 for 'secondary school, first level', 13 for 'secondary school, second level', 16 for 'bachelor's degree', 18 for 'master's degree', 21 for 'PhD degree'. Source: Ministry of Interior.

Age: Average age of municipal council members. Source: Ministry of Interior.

Herfindahl: Herfindahl index of political party concentration within the council, computed by summing the squares of each party's share in the council. It takes values from 0 to 1 where 1 is maximum concentration, that is, all the councillors belong to the same party. Source: Ministry of Interior.

Unemployment: Dummy variable which takes the value 1 if at least one councillor was unemployed at the time of the election. Source: Ministry of Interior.

Right-wing: Dummy variable which takes the value 1 if the local government is headed by a right-wing political party, that is, a right/centre-right political party or civic list. Source: Ministry of Interior.

Left-wing: Dummy variable which takes the value 1 if the local government is headed by a left-wing political party, that is a left/centre-left political party or civic list. Source: Ministry of Interior.

Council: Dummy variable which takes the value 1 if the council has at least one female member. Source: Ministry of Interior.

Birth-province: Percentage of councillors elected in their birth-province. Source: Ministry of Interior.

Municipal labour-force participation rate of women: Percentage rate of municipal labour force participation for women; that is, percentage of active female population (employed or actively seeking employment) with respect to the whole female working-age population (15-64 years). Source: Census data, National Institute of Statistics (ISTAT).

Municipal unemployment rate: Percentage rate of municipal unemployment. Source: Census data, National Institute of Statistics (ISTAT).

Percentage of educated citizens: The percentage of the citizens of the municipality with a qualification, over the total municipality population. Source: Census data, National Institute of Statistics (ISTAT).

Pop_5k: Dummy variable which takes the value 1 for local government elected in a municipality with a population greater than or equal to 5,000 inhabitants and 0 otherwise. Source: National Institute of Statistics (ISTAT).

Population: Number of citizens in the municipality, in thousands. Source: National Institute of Statistics (ISTAT).

B *Early Termination Episodes*

The Italian legislation identifies several circumstances causing the early termination of the legislature at the local level and, thus, a new electoral round. (Table A1). In this paper, we focus on those plainly revealing the willingness of the councillors to overthrow the government and cease the legislature, namely their resignation and no-confidence vote, due either to more than 50% of the councillors resigning or voting explicitly to remove the mayor. These circumstances, strictly related to councillor decisions, determined 2,700 early termination episodes, that is almost 60% of all episodes that happened in our sample period.

The remaining episodes of early termination are either related to the mayor (death, resignation, incompatibility, and removal) or enforced by the central government (mafia infiltration in the city council or in the executive committee), or due to manifest financial issues resulting in the financial statement rejection. Early terminations related to the mayor account for 1,445 cases and result from the mayor's death or a mayoral decision to step down, take up another job or commit a serious infringement.¹⁷ Early termination due to mafia infiltration occurs when "evidence emerges regarding direct or indirect links between members of the local government and

¹⁷E.g. the mayor is removed if she/he is charged with a crime.

criminal organisations [...] jeopardising the free will of the electoral body and the sound functioning of the municipal administration” (D.L. 31/05/1991 No. 164). Lastly, financial statement rejection is based on technical assessments regarding the municipal budgetary situation.

C *The Case of the 1993 Law*

During 1993-94, all local governments in Italy were elected according to Law No. 81, 1993, which introduced a gender quota favouring women. However, in September 1995, the gender quota was abolished and elections held during October, November and December 1995, were unaffected by any gender quota. We exploit this fact to further investigate the impact of female participation in politics. In particular, we estimate equation (1) restricting the sample to 1995 and exploiting the following first stage regression:

$$FEMALE_i = \alpha + \theta LAW1995_i + \gamma X_i + \varepsilon_i \quad (4)$$

where $LAW1995_i$ is a dummy variable accounting for municipalities that voted after abolition of the gender quota.

Figure A1 depicts the main evidence. As expected, revocation of gender quota had a relevant impact on women being elected: municipalities that voted not subject to a gender quota show markedly lower female representation in local councils compared to municipalities that voted before the quota was abolished, that is, 15.1% vs 21.5%. The corresponding proportions for the probability of early termination are roughly 20% and 7%.

Finer analysis of the municipalities that voted in 1995 after the quota was abolished, reveals that 64% held elections not because the former government had reached its statutory termination, but because it was dismissed. This might raise concerns about potential self-selection of municipalities with inherently more unstable local governments, in the group that voted after September 1995. However, this is not supported by the data. In fact, comparing local governments elected in 1995 because the previous legislature had reached its natural end with those elected because the former administration was dismissed, we find that the difference in the probability of early termination between the two groups is not statistically significant. Therefore, the high probability of early termination of local governments elected after the abolition of the gender quota—as shown in figure A1—seems not to be related to the sizeable presence in this group of municipalities where the previous government terminated early.

Table A2 presents the first stage results; Column 1 excludes the dummy Mayor and council-specific regressors. Table A3 reports the second stage estimations; Columns 1 and 2 refer to councillor-related early terminations; Columns 3 and 4, refer to all the remaining early termination episodes. Columns 1 and 3 present the results without the the dummy Mayor and council-

specific regressors. In all the regressions, the standard errors are robust to heteroskedasticity. The first stage estimations show that local governments elected after the law was repealed have significantly lower female representation among councillors: about 5 percentage points fewer women. The second stage results show a negative and statistically significant coefficient only for councillor-related early terminations, suggesting that reducing female representation has a negative effect on the stability of the government. In particular, a reduction of 5 percentage points in the number of women increases the probability of early termination by 5.5 percentage points. All the other results are in line with the previous analysis. In particular, the coefficient of mayor's sex is positive and significant for councillor-related early terminations, average education level of councillors is correlated positively with the probability of early termination, while party concentration within the council has no effect on probability of early termination of government.

Table 1: Mean Difference Tests

	Early Terminations per Municipality		
	0	1	> 1
Female	19.89%	17.47%	13.40%
Difference		2.42***	4.06***

Notes: Municipalities are pooled based on the number of early termination episodes: 0, 1, more than 1. The first row reports the percentage of female councillors in each group; the second row reports the difference in the percentage of women between groups. Significance is denoted: * significant at the 10% level; ** significant at the 5% level; *** significant at the 1% level.

Table 2: Descriptive Statistics

Variable	Mean	Std. Dev.	Median
Panel A			
Municipalities without early termination episodes: 4615			
<i>Citizens with qualification (%)</i>	89.2	6.0	91.3
<i>Unemployment rate (%)</i>	9.5	7.8	6.7
<i>Labour force female participation (%)</i>	37.7	8.7	38.3
<i>Population (Total)</i>	4,181.7	14,666.8	1,860
Panel B			
Municipalities with at least one early termination episode: 3105			
<i>Citizens with qualification (%)</i>	87.4	6.4	89.2
<i>Unemployment rate (%)</i>	13.5	9.5	10.5
<i>Labour force female participation (%)</i>	35.9	8.0	35.6
<i>Population (Total)</i>	12,236.0	65,194.3	3,976

Notes: Panel A refers to municipalities whose local governments have never been subject to early termination; Panel B refers to municipalities where at least 1 local government terminated early. *Citizens with qualification* is the percentage of citizens with a qualification with respect to the total municipal population. *Unemployment rate* is the municipal percentage rate of unemployment. *Labour force female participation* is the municipal percentage rate of women's labour force participation. *Population* is the number of the municipality's citizens.

Table 3: Women in Local Governments

	(1)	(2)	(3)	(4)
	Municipalities with Early Termination			
	No	No	Yes	Yes
Mayor	0.82*** (3.22)	-1.87*** (-6.98)	1.69*** (5.09)	-0.66** (-2.10)
Education	0.54*** (9.47)	1.02*** (14.45)	0.09 (1.38)	0.96*** (11.28)
Herfindahl	1.66*** (4.74)	1.84*** (5.41)	3.60*** (9.49)	2.40*** (6.25)
Age	-0.40*** (-19.27)	-0.43*** (-19.24)	-0.45*** (-17.15)	-0.47*** (-16.54)
Unemployment	1.03*** (4.72)	0.76*** (3.54)	1.34*** (5.63)	1.04*** (4.63)
Right-wing	-0.91*** (-4.18)	-0.66*** (-2.99)	-1.25*** (-5.66)	-0.74*** (-3.42)
Left-wing	1.46*** (7.01)	0.24 (1.18)	0.52** (2.34)	0.27 (1.25)
Municipality Effect	No	Yes	No	Yes
Observations	26,773	26,773	18,663	18,663

Notes: The table presents results for regressing the percentage of women councillors on a number of covariates related to the council and the municipality. Mayor is a dummy equal to 1 for a female mayor; Education is the average number of years of education of councillors; Herfindahl is the Herfindahl index of political party concentration in the council; Age is the average age of councillors; Unemployment is a dummy variable taking the value 1 if at least one councillor did not have an occupation (at election); Right-wing (left-wing) is a dummy equal to 1 if the local government is headed by a right-wing (left-wing) political party. Other regressors are: a dummy identifying councillors elected in their birth-province, a dummy identifying municipalities with at least 5,000 inhabitants, municipal population, municipal labour-force participation rate of women, municipal unemployment rate and percentage of educated citizens in the municipality. All empirical specifications control for year fixed effects. Significance is denoted: * significant at the 10% level; ** significant at the 5% level; *** significant at the 1% level.

Table 4: Episodes of Early Termination

	Councillors	Other	All
Number	2,700	1,927	4,627
Percentage	5.91	4.22	10.13

Notes: The table reports the distribution of early termination episodes between the two groups of circumstances: (i) councillor resignation and no-confidence vote (Councillors); (ii) financial statement rejection, mafia infiltration in the local government, death, resignation, removal and incompatibility of the mayor (Other). Percentage values are relative to the total number of local governments in the data set. Information on the circumstances determining early termination are officially provided by the Ministry of Interior pursuant to DLGS No. 267/2000.

Table 5: Government Instability and Women in Council

	(1)	(2)	(3)	(4)
	First stage		Second stage	
Female			-0.29*** (-3.74)	-0.33*** (-3.91)
Law2012	10.38*** (26.37)	9.85*** (25.37)		
Mayor		-1.46*** (-7.09)		1.80*** (3.56)
Education		1.03*** (18.86)		0.39*** (2.69)
Herfindahl		1.75*** (6.68)		-0.49 (-0.71)
Age		-0.43*** (-24.26)		-0.19*** (-3.62)
Unemployment		0.88*** (5.55)		0.59 (1.42)
Right-wing		-0.69*** (-4.30)		1.49*** (3.12)
Left-wing		0.15 (1.00)		-0.55 (-1.33)
Observations	43,661	43,636	43,661	43,636

Notes: The table presents the first stage (Columns 1 and 2) and the second stage (Columns 3 and 4) estimation results. Columns 1 and 3 report the results without the dummy Mayor and council-specific regressors. The dependent variable is a dummy that equals 100 if the council terminated before the natural end of the legislature; Female is the percentage of female councillors; Law2012 is a dummy identifying local governments elected according to the gender quota regulation; Mayor is a dummy that equals 1 for a female mayor; Education refers to the average years of education of councillors; Herfindahl is the Herfindahl index of political party concentration in the council; Age is the average age of councillors; Unemployment is a dummy variable that takes the value 1 if at least one councillor did not have an occupation (at election); Right-wing (left-wing) is a dummy equal to 1 if the local government is headed by a right-wing (left-wing) political party. Other regressors include a dummy for councillors elected in their birth-province, a dummy for municipalities with at least 5,000 inhabitants, municipal population, municipal labour-force participation rate of women, municipal unemployment rate and percentage of educated citizens in the municipality. All empirical specifications control for municipality and year fixed effects. Clustered t-statistics accounting for within-municipality correlation are in parentheses. Significance is denoted: * significant at the 10% level; ** significant at the 5% level; ***significant at the 1% level.

Table 6: Further Results on Government Instability

	(1) Ordinary	(2) Population	(3) 2008-15
Female	-0.30*** (-3.64)	-0.27*** (-2.60)	-0.25** (-2.35)
Mayor	1.87*** (3.51)	1.57* (1.83)	1.12 (1.07)
Education	0.41*** (2.71)	0.58** (2.38)	-0.41 (-1.43)
Herfindahl	-0.76 (-1.00)	0.22 (0.17)	2.81* (1.76)
Age	-0.14*** (-2.60)	-0.17* (-1.72)	-0.26** (-2.49)
Unemployment	0.40 (0.85)	0.92 (1.24)	2.59** (2.08)
Right-wing	1.67*** (3.21)	1.95** (2.45)	5.93*** (3.45)
Left-wing	-0.68 (-1.57)	-0.49 (-0.70)	-2.19 (-1.21)
Observations	38582	15274	9450

Notes: The table presents the second stage estimations for early terminations related to councillor decisions. Column 1 Ordinary, reports the results for regions with special status; Column 2 Population is the results for the sample of municipalities with population in the range 3,000-15,000 people; Column 3 2008-15 refers to the sample for the period 2008-2015. The dependent variable is a dummy that equals 100 if the council terminated before the natural end of the legislature; Female is the percentage of women councillors; Mayor is a dummy that equals 1 for a female mayor; Education refers to the average years of education of councillors; Herfindahl is the Herfindahl index of political party concentration in the council; Age is the average age of councillors; Unemployment is a dummy variable taking the value 1 if at least one councillor did not have an occupation (at election); Right-wing (left-wing) is a dummy equal to 1 if the local government is headed by a right-wing (left-wing) political party. Further regressors are a dummy for councillors elected in their birth-province, a dummy for municipalities with at least 5,000 inhabitants, municipal population, municipal labour-force participation rate of women, municipal unemployment rate, percentage of educated citizens in the municipality. All empirical specifications control for municipality and year fixed effects. Clustered t-statistics accounting for within-municipality correlation are in parentheses. First stage estimates of the coefficient attached to Law2012—for regressions reported in columns 1, 2, and 3—is 10.78, 11.19, and 10.77, respectively. Significance is denoted: * significant at the 10% level; ** significant at the 5% level; ***significant at the 1% level.

Table 7: Other Episodes of Government Instability

	(1)	(2)	(3)	(4)
	First stage		Second stage	
Female			0.07 (0.91)	0.11 (1.30)
Law2012	10.55*** (26.91)	9.94*** (25.72)		
Mayor		-1.49*** (-7.05)		-0.56 (-1.42)
Education		1.05*** (18.93)		-0.11 (-0.79)
Herfindahl		1.92*** (7.21)		-0.08 (-0.14)
Age		-0.42*** (-23.38)		0.10** (1.96)
Unemployment		0.82*** (5.09)		-0.33 (-0.93)
Right-wing		-0.65*** (-3.90)		0.65* (1.65)
Left-wing		0.22 (1.39)		-0.79** (-2.30)
Observations	42,921	42,845	42921	42845

Notes: The table presents the first stage (Columns 1 and 2) and the second stage (Columns 3 and 4) estimation results for early termination episodes unrelated to councillor decisions. The dependent variable is a dummy that equals 100 if the council terminated before the natural end of the legislature; Female is the percentage of female councillors; Law2012 is a dummy identifying local governments elected according to the gender quota regulation; Mayor is a dummy that equals 1 for a female mayor; Education refers to the average years of education of councillors; Herfindahl is the Herfindahl index of political party concentration in the council; Age is the average age of councillors; Unemployment is a dummy variable that takes the value 1 if at least one councillor did not have an occupation (at election); Right-wing (left-wing) is a dummy equal to 1 if the local government is headed by a right-wing (left-wing) political party. Other regressors include a dummy for councillors elected in their birth-province, a dummy for municipalities with at least 5,000 inhabitants, municipal population, municipal labour-force participation rate of women, municipal unemployment rate and percentage of educated citizens in the municipality. All empirical specifications control for municipality and year fixed effects. Clustered t-statistics accounting for within-municipality correlation are in parentheses. Significance is denoted: * significant at the 10% level; ** significant at the 5% level; ***significant at the 1% level.

Table 8: Reelection Rates after the 2012 Law

Panel A: Gender	Men	Women	Difference
All Municipalities	0.41	0.36	– 0.05***
Population \geq 5,000	0.39	0.36	– 0.03***
Panel B: Seniority	Old	New	Difference
All Municipalities	0.43	0.35	– 0.08***
Population \geq 5,000	0.42	0.35	– 0.07***

Notes: The table presents reelection rates comparing the first two rounds of elections following the 2012 law. *Old* refers to councillors already elected in past races; *New* refers to first-time elected councillors. Statistical significance is denoted as follows: * significant at the 10% level; ** significant at the 5% level; ***significant at the 1% level.

Table 9: Reelection Rates by Political Seniority and Gender

	Men	Women	Difference
<i>All Municipalities</i>			
Old	0.44	0.41	-0.03***
New	0.37	0.33	-0.04***
<i>Population \geq 5,000</i>			
Old	0.42	0.42	0.00
New	0.36	0.33	-0.03***

Notes: The table presents reelection rates comparing the first two rounds of elections following the 2012 law. *Old* refers to councillors already elected in past races; *New* refers to first-time elected councillors. Statistical significance is denoted as follows: * significant at the 10% level; ** significant at the 5% level; ***significant at the 1% level.

Table 10: Political Seniority Index

	Low	High	Difference
<i>After the 2012 law</i>			
Women	0.09	0.39	0.307***
Men	0.54	0.55	0.010
<i>Before the 2012 law</i>			
Women	0.30	0.31	0.009
Men	0.50	0.48	-0.017**

Notes: The table reports averages of the political seniority index across treated city councils. For a given council, the seniority index of men (women) measures the share of male (female) councillors already elected in the past. *Low (High)* report averages for the group of councils with a female seniority index lower (higher) than the median. *Low* and *High* are defined based on the first election round after the 2012 law. Statistical significance is denoted as follows: * significant at the 10% level; ** significant at the 5% level; ***significant at the 1% level.

Table 11: Government Instability and Political Seniority

	(1)	(2)	(3)	(4)
	1986-2015		2008-2015	
	Low	High	Low	High
<i>First Stage</i>				
Law2012	11.49*** (21.84)	8.26*** (17.01)	13.54*** (20.54)	7.69*** (12.28)
<i>Second Stage</i>				
Female	-0.42*** (-4.07)	-0.18 (-1.36)	-0.38*** (-3.25)	-0.03 (-0.19)
Observations	35048	34969	8011	8165

Notes: The table presents the results of the 2SLS estimations for early termination related to councillor decisions. Under *Low (High)*, treated councils are those with female seniority index in the first election after the 2012 law lower (higher) than the median. The full set of regressors is considered. Clustered t-statistics accounting for within-municipality correlation are in parentheses. Significance is denoted as follows: * significant at the 10% level; ** significant at the 5% level; ***significant at the 1% level.

Table 12: Evidence on Anti-female Bias

	1993-2015	2004-2015
Mayor \times Council	-7.43** (-2.38)	-4.21 (-1.05)
Council	-2.09*** (-2.70)	-3.21** (-2.30)
Mayor	9.35*** (3.01)	6.27 (1.57)
Observations	35755	18501

Notes: The dependent variable is a dummy equal to 100 if the council terminated before the natural end of the legislature; Council is a dummy for councils with at least one woman; Mayor is a dummy that equals 1 for a female mayor. The full set of regressors is considered. Clustered t-statistics accounting for within-municipality correlation are in parentheses. Significance is denoted: * significant at the 10% level; ** significant at the 5% level; ***significant at the 1% level.

Table A1: Circumstances of Early Termination

	Freq.	Percent	Description
Councillors			
<i>Councillor Resignation</i>	2,541	54.92	More than 50 percent of the councillors resign.
<i>No-Confidence Vote</i>	159	3.44	The councillors vote to force the mayor out from his office.
Other			
<i>Mayor's Resignation</i>	740	15.99	The mayor steps down from her/his office.
<i>Mayor's Removal</i>	30	0.65	The mayor is removed after committing serious infringements.
<i>Incompatibility</i>	267	5.77	The mayor undertakes some activities not compatible with her/his office.
<i>Mayor's Death</i>	408	8.82	The mayor dies.
<i>Financial Statement Rejection</i>	190	4.11	The councillors do not approve the final municipal budget.
<i>Mafia Infiltration</i>	292	6.31	The administration is dismissed for suspected mafia infiltration.
Total	4627	100.00	

Notes: The percentages are relative to the total number of early terminated local governments.

Table A2: Government Instability and Women in 1995

	(1)	(2)
	First Stage	
Law1995	-5.50*** (-6.09)	-4.89*** (-5.57)
Mayor		-0.20 (-0.38)
Education		0.03 0.32
Age		-0.45*** (-11.60)
Herfindahl		2.58*** (4.35)
Unemployment		1.55*** (4.10)
Observations	5,302	5,291

Notes: The table presents the results for the first stage estimations. Column 1 reports the results excluding the dummy Mayor and council-specific regressors. The dependent variable is percentage of women councillors; Law1995 is a dummy that equals 1 for local governments elected during the last three months of 1995; Mayor is a dummy that equals 1 for a female mayor; Education refers to the average years of education of councillors; Age is the average age of councillors; Herfindahl is the Herfindahl index of political party concentration in the council; Unemployment is a dummy variable that takes the value 1 if at least one councillor did not have an occupation (at election). Other controls include: a dummy for councillors elected in their birth-province, municipal population, municipal labour-force participation rate of women, municipal unemployment rate, percentage of educated citizens in the municipality. Robust t-statistics are in parentheses. Significance is denoted: * significant at the 10% level; ** significant at the 5% level; *** significant at the 1% level.

Table A3: Government Instability and Women in 1995

	(1)	(2)	(3)	(4)
	Second Stage			
	Councillors		Other	
Female	-1.02*	-1.09*	-0.64	-0.76
	(-1.85)	(-1.75)	(-1.33)	(-1.37)
Mayor		2.85*		0.47
		(1.87)		(0.40)
Education		0.43**		0.41**
		(2.13)		(2.31)
Age		-0.41		-0.27
		(-1.37)		(-1.05)
Herfindahl		0.05		2.97
		(0.02)		(1.63)
Unemployment		-1.42		0.09
		(-1.07)		(0.09)
Observations	5,137	5,137	5,095	5,084

Notes: The table presents the results of the second stage estimations. Columns 1 and 2 refer to councillor-related early terminations, Columns 3 and 4 refer to all the remaining early termination episodes. Columns 1 and 3 report the results without the dummy Mayor and council-specific regressors. The dependent variable is a dummy that equals 100 if the council terminated before the natural end of the legislature; Female is the percentage of women councillors; Mayor is a dummy that equals 1 for a female mayor; Education refers to the average years of education of councillors; Age is the average age of councillors; Herfindahl is the Herfindahl index of political party concentration in the council; Unemployment is a dummy variable that takes the value 1 if at least one councillor did not have an occupation (at election). Other controls include a dummy for councillors elected in their birth-province, municipal population, municipal labour-force participation rate of women, municipal unemployment rate and percentage of educated citizens in the municipality. Robust t-statistics are in parentheses. Significance is denoted: * significant at the 10% level; ** significant at the 5% level; *** significant at the 1% level.

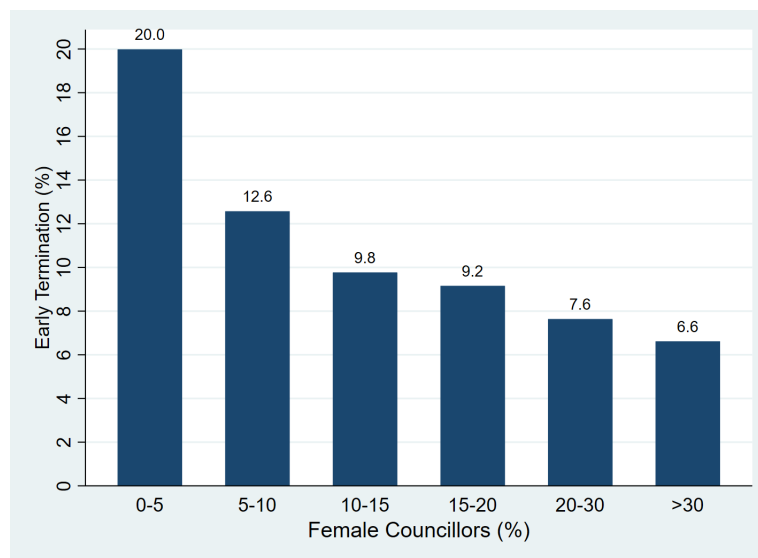


Figure 1: Early Termination and Women in Local Governments. Notes: Percentage of early terminations in municipal administrations based on the percentage of women councillors.

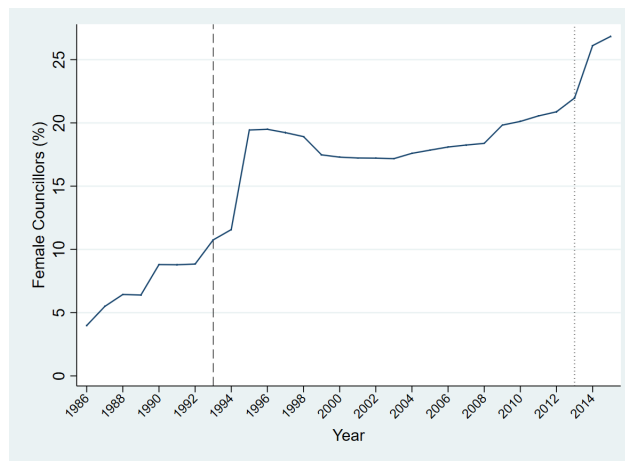


Figure 2: Women in Local Governments. Notes: The average percentage of women each year is computed across the local councils of all Italian municipalities. The dashed and dotted lines represent the year in which law No. 81/1993 and law No. 215/2012, respectively, came into effect.

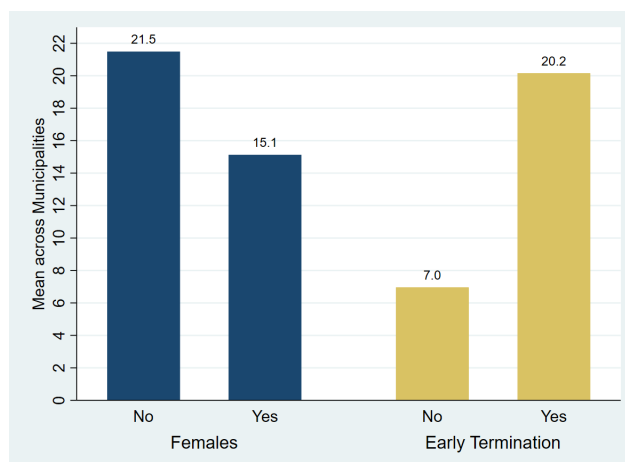


Figure A1: Early Termination and Women in 1995. Notes: Local governments elected in 1995 are split into two groups: the first (Treated= No) includes local governments elected before abolition of the gender quota; the second (Treated= Yes) includes local governments appointed after law no. 81/1993 was abolished. The figure depicts the percentage of early termination cases and the percentage of female councillors in local governments.