

THE PERFORMANCE OF POLITICIANS.
THE EFFECT OF GENDER QUOTAS

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JEL Classification: D72, J13, J16, R23

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The performance of politicians. The effect of gender quotas

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Abstract

This paper investigates whether the gender of elected politicians affects the political municipal outcomes. Relying on Italian administrative data from 1991 to 2009, we are able to instrument the gender of elected politician using an institutional exogenous change: a gender quota in the candidacy list enforced only in a subsample of municipalities and for a short period of time. While the gender of politicians does not affect the general ‘quality of life’, proxied by the internal migration rate, it does affect significantly both the efficacy of policies targeted to women and households, proxied by the fertility rate, and the efficiency of municipal administration, proxied by the size of administrative bodies. These results are robust to several specifications and robustness checks. Affirmative actions enhancing gender equality in political representation may be then beneficial not only in terms of social justice, but also from a political outcome perspective.

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1 Introduction

The last decades have been characterized by a significant empowerment of women all over the world. The reduction over time of the gender gap both in education and in the labour market has produced positive effects and externalities in many social dimensions which have been translated in more gender equality. Nevertheless, women are still under-represented in several contexts, such as the corporate governance, academia and policy making, particularly in leadership positions. This under-representation is extremely evident in political institutions, where the share of women is significantly lower than the share of men both at central and at local level, and not only as political leaders or elected officials, but also as voters (United Nations, 2014). After the introduction of universal suffrage in all developed countries in the first half of the last century, the issue of a fair representation became central only in the last decades. The motive behind a more equal representation is not only ethics or justice, but also the idea that men and women perform differently in many context when considering, for example, public spending (Rigon and Tanzi, 2011), redistribution (Geys and Revelli, 2011), economic development (Duflo, 2011), corruption (Alatas et al., 2009). Equal participation of women in politics at all levels of government is essential not only to build and sustain democracy, but also to enhance equality in other social dimensions. According to Stevens (2007) equal participation in the political decision making is necessary to legitimate the whole democratic body since women represent half of the population. In addition, since women's and men's needs are in general different, a more equal female representation can target policy implementation and public spending towards specific areas (Funk and Gathmann, 2013; Rehavi, 2007). Furthermore, in recent years, a growing number of studies have explored behavioural gender differences in many economic contexts. There is evidence that individual attitudes and behaviours depend on both biology and social roles. If women adopt policies and practices having a positive impact on the quality of institutions and organizations, enhancing female political participation could be beneficial for the social well being. Indeed, several papers have shown that some political outcomes, mainly at local level, depend on the gender of the policy makers. Such evidence is available both for developed and developing countries. For instance, Dollar et al. (2001) and Swamy et al. (2001) document a lower level of corruption from female politicians in the United States.

The paper contributes to two main related strands of the literature: the one on the gender gap and women under-representation in apical positions and the one on performance of female politicians. The first field is well developed and consolidated, both from a theoretical and an empirical point of view. According to the economic theory, women under-representation in leadership positions and worse performance in terms of careers can be

rationalized either through their investment in education, both in term of attained level and chosen major, or through gender differences in attitudes and behaviours in highly competitive environments (Bertrand et al., 2010; Lavy, 2008). In both cases, gender specific labour market vertical segregation arises since individuals self select into occupations. Alternatively, vertical segregation can depend on discrimination which creates a glass ceiling for women. The empirical evidence suggests that women are limited from entering the highest-paying jobs and leadership positions because of the so called glass ceiling both in low and high income countries (Bertrand et al., 2014; Gayle et al., 2012; Guvenen et al., 2014; Pande and Ford, 2011). In the second field, results are mixed. On the one hand, the available evidence indicates significant gender differences in preferences for policies (Carroll, 2001). In particular, females are more likely to implement policies and to invest in public interventions linked to women’s concerns such as childcare, water provision, health, environment (Clots-Figueras, 2011; Funk and Gathmann, 2008; Rehavi, 2007). Gender differences in legislators’ behaviour emerge since women are more liberal than men and tend to support women’s issues (Swers, 1998; Thomas and Welch, 1991; Washington, 2008; Welch, 1985). On the other hand, no effect emerges on efficiency. According to Ferreira and Gyourko (2014) the gender of the mayor is uncorrelated with both local government size and composition of municipal spending. Instead, local administrations run by women tend to be less stable (Gagliarducci and Paserman, 2012). In a very recent study, Baltrunaite et al. (2014) indirectly evaluate the quality of elected politicians through their educational attainment and found that introducing gender quotas increases, on average, the quality of elected politicians.

In this paper we provide evidence on whether women in public offices affect policy outcomes. In particular, we investigate the effect of the gender of politicians on efficacy and efficiency of policies at municipal level in Italy. We focus on Italian municipalities because of an institutional exogenous reform that increased the required share of women candidates in the period between 1993 and 1995, affecting only those municipalities where elections took place in this period. This legislative change exogenously creates variability both over time and between geographical areas. This discontinuity has been already exploited by other scholars to address other issues, such as the effect of women in office on women’s representation (De Paola et al., 2010), on public spending (Rigon and Tanzi, 2011), on government stability (Gagliarducci and Paserman, 2012), on electoral turnout (De Paola et al., 2014), on quality of politicians (Baltrunaite et al., 2014). In this paper, we provide new evidence on the causal effect of the gender of politicians on social outcomes.

Voters are generally interested in the quality of elected politicians in terms of good governance and performance. It is worth saying that there is no consensus on what determines and how to measure the government

quality. According to the prevailing view, good policy-making arises when avoiding rent-seeking, enhancing electoral accountability, increasing competences and integrity of the political class in order to perform according to voters' preferences. Although it is difficult to evaluate and quantify the quality of the political activity, in this paper – differently from previous literature – we try to evaluate the performance of politicians focusing on outcomes directly related with implemented policies. In particular, we consider three alternative outcomes: the quality of life in the communities, the efficacy of the implemented policies and the efficiency of the public administrations. Since no direct measures of these outcomes are available we use three proxies, described with more details in the next sections: the local quality of life in a broad sense is proxied by the (internal) migration rate; the efficacy of policies targeted to women and families is proxied by municipal fertility rate; and the efficiency of the public administration is proxied by the size of the Municipal Executive. The results show that elected women are more effective than men in implementing policies enhancing fertility and more efficient in the municipal administration. However, there are no differences in the overall municipal desirability.

These results corroborate the idea that introducing affirmative actions, such as gender quotas, can produce positive results from a social perspective. However, it is worth pointing out that there are also theoretical arguments against such measures. Indeed, equalizing outcomes can be considered as a 'second best' with respect to equalizing opportunities: whenever women endogenously self-select outside public administration (because of different preferences, less specific competences, weaker motivations, etc.), equalizing the representation might be detrimental in terms of outcome efficiency, as long as 'more efficient' men are superseded by 'less efficient' women. Even if the empirical strategy used in the paper cannot disentangle this effect, the positive findings include also this potential detrimental effect, strengthening the advisability for such affirmative actions.

The paper is organized as follows. Section 2 describes the institutional framework of reference; Section 3 is devoted to the empirical analysis presenting the data and the empirical strategy. The main results and a set of robustness checks are presented in Sections 4 and 5, respectively, while Section 6 concludes.

2 Institutional framework

The Italian Constitution establishes three levels of local government: regions, provinces and municipalities.¹ Currently, in Italy there are 20 regions,

¹*Regioni, Province and Comuni*, respectively.

110 provinces and about 8,100 municipalities.²

While regions' competences and functioning are defined by the Constitution, the organization and the competences of provinces and municipalities are regulated by ordinary national and regional laws. In particular, five 'special statute' regions – Valle d'Aosta, Trentino-Alto Adige, Friuli-Venezia Giulia, Sicilia and Sardegna – have a greater autonomy in organizing lower levels of government, while the other 15 'ordinary statute' regions share a common national legislation. The remaining of this section refers to the municipalities in the 15 'ordinary statute' regions, while the other five regions can autonomously decide different organizations of municipalities in terms of role, competences and size of the different bodies, electoral rules, fiscal autonomy and so on, and for this reason are not included in our empirical analysis.

Municipalities have the jurisdiction on several fields, most of which are typical local services, such as traffic and road maintenance, aqueducts and sewer systems, waste collection, land management, green areas and building permits, childcare and part of the educational system (in particular pre-primary schools), emergency management, population registries, local police. Moreover, municipalities provide several facilities, such as sport facilities, cultural and recreation centres, libraries, services to the person, social housing. Even if municipalities' budget autonomy increased over the last decades, it is still limited. In particular, taxes and tariffs account for less than half of current municipal income, and municipalities cannot freely choose neither the tax base nor the tax rate of local taxes (for more details, see IRES Piemonte et al., 2012). Moreover, due to the major fiscal adjustment required to contain public debt and deficit, in the last few years the central government has changed several times the regulation and the constraints on municipal budgets, increasing the uncertainty on both the fiscal capacity and the fiscal autonomy of local governments.

Municipal administration is organized as follows. There are three bodies: the Mayor, the Municipal Council and the Municipal Executive.³ The Municipal Council is the representative assembly and is elected every five years.⁴ It issues municipal laws (*regolamenti*) in the subjects within the municipal jurisdiction. The size of the Municipal Council is established by national law and was reduced in the last years for budget sustainability reasons. Table 1 shows the number of members of Municipal Council since the foundation of the Republic, while appendix A reports all the relevant laws.

The Mayor is one of the members of the Municipal Council and the head

²There are 8,092 municipalities in Italy as on November 2013, but their number is subject to slight changes over time due to mergers of municipalities or creation of new ones.

³*Sindaco, Consiglio Comunale* and *Giunta Comunale*, respectively.

⁴The term was reduced to 4 years in 1993 (L 25/3/1993, n.81, art.2) and extended again to 5 years in 2000 (DLgs 18/8/2000, n.267, art.51).

Table 1: Size of Municipal Council

Population	1946	1993	2010	2011
0-3,000	15	12	9	6
3,001-5,000	20	16	12	7
5,001-10,000	20	16	12	10
10,001-30,000	30	20	16	16
30,001-100,000	40*	30	24	24
100,001-250,000	50	40*	32*	32*
250,001-500,000	60	46	36	36
500,001-1,000,000	80	50	40	40
1,000,000 and over	80	60	48	48

* Minimum for province's capitals.

of the Municipal Executive. Since 1993 it is elected by universal suffrage together with Municipal Council, while until 1993 it was elected by the Municipal Council among its members. The Mayor is the body responsible for the municipality administration and it supervises all the functions proper to the municipality. Moreover, it is responsible for all the deeds and functions delegated by higher-level administrations, such as public order, local police, electoral and registry offices, civil defence. It can issue decrees (*decreto*) and ordinances (*ordinanza*).

Finally, the Municipal Executive is nominated by the Mayor, who – coherently with its wide jurisdiction – can appoint and withdraw mandates to its members and attribute specific powers to them. The main function of the Municipal Executive is the cooperation with the Mayor in the government of the municipality. The law assigns to the Municipal Executive all the functions that are not attributed to the Mayor or to the Municipal Council. Given its mainly ancillary role, a recent law (DL 13/8/2011, n.138, art.16) abrogated the Municipal Executive for municipalities with less than 1,000 residents (see appendix A for details), and the Mayor can only appoint a deputy-Mayor with some specific mandates. The Municipal Executive is smaller than the Municipal Council and its size is delegated to the Mayor, who ultimately decides the number and the functions of its cabinet, within a maximum limit designated by law. Table 2 summarises the maximum size of the Municipal Executive in the time span considered in the paper, while appendix A contains all the previous and more recent laws.

The electoral law for municipality changes slightly according to the municipal population size. For municipalities with less than 15,000 residents, there is a single ballot plurality system with a majority premium of 2/3 of the Council. In larger municipalities the system is the same, the only difference being a dual ballot if the first candidate does not receive more than 50% of votes. The majority premium is the 60% of the Council. The mandate lasts for 5 years unless the Mayor or at least half of the Municipal Council members resign. In this case, new elections take place before the

Table 2: Size of Municipal Executive, 1990-2009

Population	1990	1993	2000	2008	2009
0-3,000	≤ 4	≤ 2	≤ 4	≤ 4	≤ 3
3,001-10,000	≤ 6	≤ 4	≤ 5	≤ 5	≤ 4
10,001-30,000	≤ 6	≤ 6	≤ 7	≤ 7	≤ 5
30,001-100,000	≤ 8	≤ 6	≤ 10	≤ 10	≤ 8
100,001-250,000	$\leq 12^*$	$\leq 8^*$	$\leq 13^*$	$\leq 12^*$	$\leq 10^*$
250,001-500,000	≤ 12	≤ 8	≤ 15	≤ 12	≤ 12
500,001 and over	≤ 16	≤ 8	≤ 16	≤ 12	≤ 12

* Minimum for province's capitals.

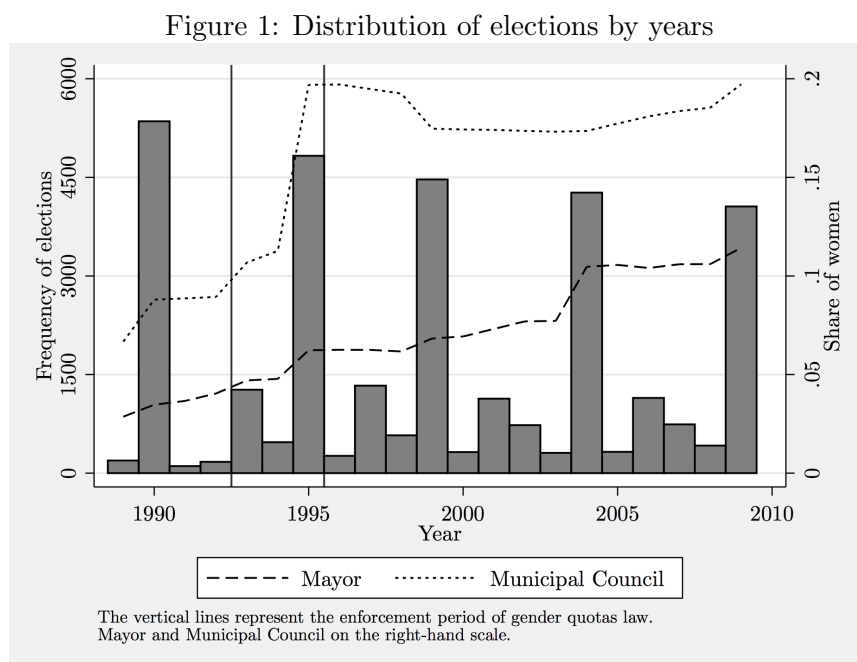
natural end of the mandate. The wide power of the Mayor and the electoral system that links very closely the mandate of the Municipal Council to the Mayor make the municipal government very similar to a presidential system.

A relevant institutional change in municipal election is represented by the gender quotas system introduced in 1993, when two national laws put a constraint on the gender representation in the list of candidates for municipal elections. In particular, the first one (L 25/3/1993, n.81, art.5) stated that ‘In the list of candidates, no gender can usually represent more than two thirds of candidates’, while the second one (L 15/10/1993, n.415, art.2) specified that ‘In the list of candidates, no gender can represent more than three fourths of the minimum number of candidates’. These laws were enforced in all the elections that took place between 1993 and 1995. In summer 1995, the Constitutional Court sentenced the illegitimacy of the gender quota law and abrogated it (G.U. 1a ss. 20/9/1995, n. 39).⁵ Figure 1 shows the distribution of elections in our sample. We can observe that in about half of the municipalities elections took place in 1990, 1995, 1999 (the term length was reduced to 4 years), 2004 and 2009.

Because of the distribution of local elections over time, even if in force only from 1993 to 1995, the effects of the gender quotas legislation persist some years after the law abrogation and it seems to be strongest in the period 1995-1999. Indeed, figure 1 shows clearly that the law caused an increase of women representation in Municipal Councils: the share of women approximately doubled between 1993 and 1995 and slightly decreased when Municipal Councils were elected without gender quotas. Interestingly, the share of women did not fall to the previous level, but stabilized on a higher level and followed an increasing path (consistently with De Paola et al., 2010). In 2009 the share of women in Municipal Council without gender

⁵See appendix A for more details. It should be noticed that the law was abrogated – by a Court of only men – on the basis of the article 51 of Italian Constitution: ‘All citizens of either sex are eligible for public offices and for elective positions on equal terms, according to the conditions established by law’. This article was modified in 2003, by adding the following sentence: ‘To this end, the Republic shall adopt specific measures to promote equal opportunities between women and men’. However, gender quotas were not reintroduced after this important innovation.

quotas legislation was the same as in 1995 with the gender quota legislation in force. Figure 1 also shows that the trend of the share of women Mayor is similar to the trend of women in Municipal Councils, net of the positive effect of the gender quotas legislation on the latter. The share of women Mayor increased by almost three times in the time span considered in this paper. It must be noticed that the discontinuity around 2004 is not due to any legislation, but to the replacement of old Mayors with new ones, elected without gender quotas, in more than half of Italian municipalities.



Source: Our computations on Ministry of Interior data.

3 Data and methods

This section is devoted to the description of the data sources and of the econometric models exploited for our investigation. Both the data and the models show some differences with the few other papers focusing on Italian municipalities and reviewed in the Introduction. In particular, none of these papers exploit yearly demographic trends, either the share of women or the age structure, as we do in the present study. Moreover, we use the enforcement of the gender quotas as an instrument to overcome endogeneity issues, adopting a two stage least square method, an approach that is different from the difference-in-difference model implemented by De Paola et al. (2010, 2014); Baltrunaite et al. (2014), and from the regression discontinuity design in Gagliarducci and Paserman (2012).

3.1 The data

To perform the empirical analysis we use two main sources of data: administrative records of politicians in charge at local level and official municipal statistics. The ‘Registry of local and regional administrators’,⁶ AALR from now on, collected by the Italian Ministry of Interior, provides information on subnational elections and administrators at any level of government. AALR is publicly available since 1946, but only data for the period 1985-2014 have been computerized and made publicly available on the website. AALR refers to administrators at the three different local levels but, for our analysis, we focus exclusively on municipalities. For each administrator in charge on December 31st of every year, AALR provides basic demographic information: name, gender, place and date of birth, education level, self-declared professional activity, the list of candidacy,⁷ date of beginning and end of the charge and the role in the administration (Mayor, member of the Municipal Council, member of the Municipal Executive). Moreover, information on municipalities are also provided, such as identification codes, name, size of the Council and of the Executive. The data were collected by the Ministry of Interior (through local government’s offices: *Prefettura*) and electoral offices until 2010, while they are directly reported by municipalities since then. Among all the information available, we are not able to exploit data on professional activity because of the high number of misreported, miscoded and missing data.

Information on dynamics of population are taken from ISTAT, ‘Istituto Nazionale di Statistica’.⁸ The demographic division of ISTAT provides total population registered in each municipality on December 31st since 1991, by gender, and the number of new registrations and deletions due to births/deaths or transfers from/to another municipality. ISTAT also provides basic information on municipalities characteristics, such as province and region they belong to, whether it is Province or Region capital, the ‘elevation classification’ (whether a municipality is next to the coast or in a mountain area).

Relying on these datasets, we create a panel of all the municipalities in the 15 ‘ordinary statute’ regions in the period 1991-2009 including information on the Mayor (gender, age, educational level) and on Municipal Council and Executive (share of women, average age and average education) from AALR as long as demographic and geographic characteristics of the municipalities. We end up with a panel of 101,023 observations, that is about 83% of total Italian municipalities (those belonging to ‘ordinary statute’ regions,

⁶‘Anagrafe Amministratori Locali e Regionali’, available at amministratori.interno.it.

⁷Usually lists of candidates coincide with political parties only in large municipalities. In medium-small municipalities – and sometimes also in larger municipalities, for instance Milan in 2011 – candidates choose not to associate to any national party.

⁸National Institute of Statistics, www.istat.it/en.

Table 3: Female representation in municipal government bodies

	Council		Executive	
	Mean	Median	Mean	Median
Male	11.1%	0	10.3%	10.0%
Female	15.2%	16.6%	15.2%	14.3%

Only municipalities with more than 10,000 residents.

6,700 municipalities over 8,100) observed over 19 years. The panel is not perfectly balanced, but there are very small variations over time, due either to missing values in the Ministry dataset or to mergers and creations of new municipalities.

In order to link the gender of politicians to the municipality performance, we focus only on the composition of Municipal Council for several reasons. First, from a political perspective, the Municipal Council is the only legislative body, that ultimately addresses the municipal policies. Moreover, it is also the only elected body, and we expect its members to be more accountable with respect to the voters, who actively monitor their performance and care about its composition and characteristics. Being an elective body, the Municipal Council is the only body affected by the gender quota law of 1993. Indeed, there are no gender restrictions on the candidates for the office of Mayor, and the Municipal Executive is appointed directly by the Mayor. Unsurprisingly, Table 3 shows a high correlation between the share of women in the Executive and the gender of the Mayor, that we include in the vector of controls M in some specifications. Finally, the size of Municipal Executive is very small, and there is a low variability of the share of women in that office.

To evaluate the quality of the local political activity we exploit three indicators which proxy the overall quality of life in the administrated community, the efficacy of the implemented policies, and the efficiency of the public administration. Namely, the considered outcomes are the net migration rate, the fertility rate and the size of Municipal Executive. First, the net internal migration rate in a given geographical area can be viewed as a broad concept of the local ‘quality of life’. From a theoretical point of view, people optimally decide to move or not across different geographical areas based on a cost-benefit analysis considering demographic and economic aspects. Assuming that municipalities are not equally attractive and that there is freedom to choose the place to live in, people are more likely to establish in more attractive areas. Therefore, net migration rate can be correlated with the overall quality of life in a given area. Starting from the municipal demographic registers we compute the net migration as the ratio of the overall municipal net migration inflow in a given year (defined as the difference between the new registrations for transfers from another municipality and the deletions for transfers to another municipality) over

the total population in the previous year. We exclude foreign migrants for two reasons: first, international flows of migrants changed dramatically over the last two decades in Italy, in terms of both the number of migrants and their origin; second, migrants decide their destinations according to different criteria, such as social networks, regulations, presence of consulates and embassies and so on.

The second social outcome considered is the municipal fertility rate, which proxies the ‘efficacy’ of the policies targeted to women and households. There is evidence that policies in favour of families, ranging from subsidised childcare services to allowances system, are crucial to balance work and family life. Therefore, the fertility rate would be higher where such measures are well and truly efficient. In Italy, municipalities have large discretion in implementing policies targeted to women or family support and childcare, both in terms of the quantity and quality of services provided and in terms of monetary subsidies and fiscal deductions. Although fertility decision involves a very large and diverse set of factors, we expect that, *ceteris paribus*, effective policies in support of women, childcare and households increase the municipal fertility rate.

In the Italian context, fertility rate is not only a good proxy for the household’s target policies, but also an issue *per se* since long ago.⁹ Delgado Perez and Livi-Bacci (1992); Del Boca (2002); Mills et al. (2008); Cooke (2009), among others, investigate the reasons for such a low fertility rate, and the main argument emerges to be the lack of public support to mothers and households in terms of labour market flexibility and childcare provision.

Since both the migration and the fertility decisions take time and exogenous factors can represent constraints to the actual implementation, in the empirical analysis we correlate these variables with the share of women appointed in the Council two years before. The basic assumption is that the gender of administrators in charge in a given point in time affects current policies and citizens’ decisions, but the real effect in terms of migration or fertility occurs some years later. Since the choice of the lag is arbitrary, in the Section devoted to robustness checks we present results using alternative cut-off’s.

The last outcome considered is an indicator of ‘efficiency’ in the public administration, measured through the share of seats of the Municipal Executive actually not assigned, although allowed by the law. We choose this indicator for the peculiarity of Italian political framework where the Mayor discretionary decides the size of its cabinet given the statutory upper bound. In principle, a smaller Municipal Executive does not necessarily mean that

⁹According to World Bank data, <http://data.worldbank.org/indicator/SP.DYN.TFRT.IN>, the Italian fertility rate is one of the lowest in the world, with about 1.4 children born/woman in the last years. These figures are increasing only due to the presence of migrants, starting from lower levels during the 80s (1.3 in 1989), the 90s (1.2 between 1994 and 1999) and the 2000s.

an administration is more efficient. A larger Municipal Executive may include a broader set of competences from diverse individuals and increase the efficacy of the Mayor. However, the only available variable in the dataset that can proxy individual competences, that is education, does not confirm the previous hypothesis. On average, in the considered sample members of Municipal Executives are 1.5 years less educated than the Mayors. Moreover, political offices in Italy are often seen as a type of rent-seeking. Mayor and Municipal Council have incentives to discretionary appoint the highest possible number of members in the Municipal Executive in order to increase their returns through two channels: one is the stability of local government (parties have more incentive to support a Mayor and an Executive if there are more members of their own side), the other – prevalent in smaller municipalities – is based on personal relationship (Mayor and Council can decide to expand the size of the Executive and appoint the highest possible number of people to obtain some kind of return). The idea that politics in Italy is seen (also) as a rent-seeking activity is supported by the fact that public expenditures related to political and administrative activity is much larger than in all other countries at similar level of development (see among many others the press articles and data presented by Perotti, 2013), by the level of corruption much higher than in many other developed countries (Transparency International, 2013, ranks Italy 69th over 117 countries) and by the strong opposition of political parties to the proposals reduction of local administrative levels and expenditure made both by public opinion and by ‘non-political’ governments.¹⁰ It is also interesting to notice that the sizes of Municipal Councils and Municipal Executives in autonomous regions are always higher, and in some case more than double, than in ordinary regions. Moreover, during the public debt crisis, the national Parliament issued about ten different laws in order to regulate and decrease the monetary benefits associated to municipal offices. Local administrators strongly opposed these laws and appealed to Courts against them. A short summary of this argument is reported in ANCI ricerche (2014, pp.69-84).¹¹ Finally, as long as the law allowed for supplementary members of the Municipal Executive, in addition to the maximum, they were virtually always appointed (in about 98% of observations). All these facts support the widespread opinion that local administrations are sometimes redundant and an instrument for politicians and parties to enforce opportunistic behaviours.

¹⁰Given the wide competences of regions and municipalities, provinces are commonly perceived to be ‘useless’, or at least over-sized. During the last decade, in particular during the economic crisis and the public budget cuts, several proposals of abolition were presented to the national Parliament. However, they were always explicitly or implicitly rejected by the Assembly.

¹¹According to the prevalent jurisprudence, the yearly wage is between about 15,000 and 84,000 Euros for Mayors, and between 1,500 and 55,000 Euros for Executive members, depending on the municipal population; Council members receive a daily wage based on the meetings of the Council.

Table 4: Summary statistics

Variable	Obs	Mean	Std. Dev.
<i>Outcome variables</i>			
Migration rate (in %)	101023	.22	1.9
Fertility rate (in %)	101023	.86	.34
Municipal Executive size (actual members)	101023	5.0	1.76
Municipal Executive size (max. members)	101023	5.2	1.92
Municipal Executive size (share of max.)	101023	.84	.07
<i>Women's participation</i>			
Share of women in Municipal Council	101023	.17	.11
Share of women in Municipal Executive	100087	.15	.2
Mayor female	101023	.07	.26
<i>Municipal characteristics</i>			
Age of Council members	101023	43.56	4.25
Education of Council members (years)	101023	11.79	1.66
Gender quota law in force	101023	.24	.43
Province capital	101023	.01	.11
Elevation (meters above sea level)	101023	340.22	278.6
Coastal municipality	101023	.06	.24
Mountain municipality	101023	.49	.5
Municipality size (km ²)	101023	33.71	46.24
Total population	101023	7072	43376
Fertile women (% of total)	101023	39.78	5.63

Summary statistics for the variables used in the empirical analysis are presented in Table 4. The inspection of descriptive statistics underlines, on average, a clear gender bias in all the government bodies: in our sample 7% of Mayors, 17% of Council members and 15% of Executive members are females. However, as pointed out in the previous section, the gender gap is somehow declining over time. Characteristics of municipalities may be different from official aggregate statistics since we are including only 6,700 municipalities, averaged by almost 20 years. In our sample, about half of the municipalities are classified as ‘mountain’, with an average population of about 7000 residents. More interestingly, members of Municipal Councils attained about 12 years of education and are middle-aged. Councils elected under the gender quotas law are one fourth of the total. Finally, Municipal Councils appointed about 85% of the maximum seats in Municipal Executives.

3.2 Econometric model

Thanks to the panel structure of our dataset, we are able to estimate the effect of the gender of politicians on social outcomes through the following model:

$$y_{i,r,t} = \beta_0 + \beta_1 W_{i,r,t} + \beta_2 M_{i,r,t} + \delta_i + \delta_t + T + T\delta_r + \varepsilon_{i,r,t} \quad (1)$$

where $y_{i,r,t}$ is the outcome of interest of municipality i , in region r at time t , $W_{i,r,t}$ is our variable of interest that is the share of women in the Council of municipality i , in region r at time t . $M_{i,r,t}$ is a set of controls for municipal administration characteristics including the average educational attainment and average age of Council's members as well as their interaction, δ_i are municipality fixed effects, δ_t are years fixed effects, T is a linear time trend, $T\delta_r$ is a regional specific time trend while $\varepsilon_{i,r,t}$ is the idiosyncratic error term.

Estimating equation (1) through OLS can produce biased results if there is unobservable heterogeneity. Endogeneity concerns can arise if some time-varying unobservable characteristics at municipal level are correlated with the gender of the appointed members of the Council and our outcomes of interest. If it is the case, ordinary least squares estimation can be upwards or downwards biased equally, without having any clue about the direction of the bias. Indeed, the bias would be positive if women are more likely to be appointed in municipalities having, on average, better social outcomes, since voters might believe women are more effective at implementing policies. Instead, the bias would be negative if women are less likely to be elected in municipalities with worse political outcomes, maybe because voters have prejudice on women performance once elected. In addition, distortions in estimates can depend on the reverse causality issue, since political outcomes might influence the voters' preferences on the gender of politicians. Also in this case, the net bias could be both positive or negative. The potential endogeneity is dealt with instrumental variables technique. In particular, we instrument the share of women in the Municipal Council with the implementation of gender quotas law. As discussed in the previous Section, the gender quotas in Italy were introduced in 1993 and the law was in force only until 1995. The introduction of the gender quotas law creates an exogenous source of variation in the gender composition of the Municipal Council, since each party was required to reserve a fixed percentage of places in its list of candidates to women. This legislative change represents an exogenous source of variation both between municipalities and over time, potentially correlated with the gender of the elected politicians, but not correlated with our political outcomes of interest. Therefore, we instrument the share of women in the Council with an indicator taking value one if municipal elections took place during the period in which the quotas were in force and zero otherwise (i.e. the variable $GQ_{i,r,t}$). Namely, we estimate the following two equations system:

$$\begin{aligned} y_{i,r,t} &= \beta_0 + \beta_1 \widehat{W}_{i,r,t} + \beta_2 M_{i,r,t} + \delta_i + \delta_t + T + T\gamma_r + \varepsilon_{i,r,t} \\ W_{i,r,t} &= \gamma_0 + \gamma_1 GQ_{i,r,t} + \gamma_2 M_{i,r,t} + \delta_i + \delta_t + T + T\gamma_r + u_{i,r,t} \end{aligned} \quad (2)$$

where $GQ_{i,r,t}$ stands for the presence of gender quotas in municipality i , in region r at time t . We use a two stage procedure: first, the endogenous variable, $W_{i,r,t}$, is estimated using the instrumental variable, $GQ_{i,r,t}$, and

the complete set of regressors affecting the outcome; second, the outcome variable ($y_{i,r,t}$) is regressed on the estimated interest variable, $\widehat{W}_{i,r,t}$, and the same set of regressors.

Depending on the specification, the controls include three types of variables: municipal time varying socio-economic characteristics; municipal time invariant characteristics (mainly geographical, such as elevation, coastal or mountain position, territorial size, and administrative, such as region and province they belong to, province capitals); political variables and composition of government bodies, such as age and education of politicians and the size of Municipal Council, the enforcement of gender quota laws (that is, municipalities and years where the Municipal Council in charge was elected when the gender quota laws were in force).

4 Results

In this section we present the main results from the econometric model described above. For ease of reading and exposition, we organize the results according to the different specifications rather than by outcome: every table includes the estimates for the three outcomes and reports only the interest variable(s) as regressor(s). More details can be found in the tables' notes.

Table 5 shows the first stage estimations, where the share of women in the Council is regressed on the gender quotas law. In line with previous researches, municipalities whose Council was elected when the gender quotas law was in force have a significantly higher share of women in charge. According to the F-test, the power of the instrument is extremely high. In all regressions standard errors are clustered at municipal level and robust to heteroskedasticity. Among the controls, we include all the regressors of the second stage. Moreover, we add the share of population in the fertile age bracket for the fertility rate. Irrespective of the specification, the share of women elected in Council is 5 percentage points higher in municipality treated by the legislative change than in other municipalities. The F-test on the Angrist-Pischke test of excluded instrument does not show any sign of a weak instrument problem and the instrument is strong in all specifications.

The baseline analysis is presented in Table 6. Ordinary least squares and instrumental variable estimates are reported in Columns (1) and (2), respectively; in Column (3) controls at municipal level and region fixed effects are included instead of municipality fixed effects. The gender of politicians does not affect significantly the overall internal migration rate, also after dealing with potential endogeneity: the effect of the share of women in the Municipal Councils is not significantly different from zero, both in the ordinary least squares and in the instrumental variable estimation. According to this result, if we believe that net internal migration rate is a proxy for the general 'quality of life' of a municipality, we can conclude that no gender is better

Table 5: First stage regressions

	(1)	(2)	(3)
	b/se	b/se	b/se
	OLS	OLS	OLS
First stage for:	Migration rate	Fertility rate	Seats of Executive
<i>Share of women</i>			
Gender quota in force	.051***	.051***	.051***
	.002	.002	.002
F-test	269.24***	262.45***	269.23***
Angrist-Pischke F-test	972.53***	973.92***	972.40***
Municipality FE	yes	yes	yes
Municipality controls	no	no	no
Year FE	yes	yes	yes
Time trend	yes	yes	yes
Region specific time trends	yes	yes	yes
Observations	101,023	101,023	101,023
Municipalities	6688	6688	6688

Robust standard error clustered at municipal level. *** $p < 0.1$, ** $p < 0.05$, * $p < 0.01$. All regressions include the following controls: Average education and age of Council members in t (also interacted), share of fertile women in $t + 2$ (only for fertility rate, column 2), total population in $t + 2$ for migration rate (1) and fertility rate (2), in t for seats of executive (3).

than the other in the municipal administration in terms of implemented policies affecting the attractiveness of the local area as a place to live in. Instead, differently from the previous outcome, there is strong evidence that the fertility rate is higher in municipalities run by a larger share of women. In particular, according to results shown in the second panel of Table 6, one standard deviation increase in the share of women in the Council enhances the fertility rate two years later by 0.04 percentage points. This result corroborates the evidence of the studies highlighting that women are more likely to implement policies and to invest in public interventions linked to women's and households' concerns. Finally, when considering government efficiency, empirical results suggest that, on average, the municipalities with a higher number of women in the Council are those where the Mayor appoints a lower number of members in its Executive, compared with the limit allowed by the law. A 1% increase in the share of women in the Council translates in saving of about 1.4 percentage points in the share of appointed officials in the Executive. Since the Council has to approve the composition of the Municipal Executive, these results indicate that having more women allows to save public resources for public officials. For all the considered outcomes, no differences emerge both in the magnitude and significance of the estimated coefficients after including controls at municipal level (Column 3). In particular, we replace the municipality fixed effect term, δ_i , with a set of municipal time invariant characteristics (X_i), such as elevation, geographical

Table 6: Baseline models

	(1)	(2)	(3)
	b/se	b/se	b/se
	OLS	IV/2SLS	IV/2SLS
<i>Migration rate (in $t + 2$)</i>			
Share of women	-.095	-.098	-.174
	.086	.430	.425
<i>Fertility rate (in $t + 2$)</i>			
Share of women	-.029**	.200***	.175**
	.014	.067	.076
<i>Seats of executive</i>			
Share of women	.002	.189***	.171***
	.005	.019	.015
Municipality FE	yes	yes	no
Municipality controls	no	no	yes
Year FE	yes	yes	yes
Time trend	yes	yes	yes
Region specific time trends	yes	yes	yes
Observations	101,023	101,023	101,023
Municipalities	6688	6688	6688

Robust standard error clustered at municipal level. *** $p < 0.1$, ** $p < 0.05$, * $p < 0.01$. All regressions include the following controls: Average education and age of Council members in t (also interacted), share of fertile women in $t + 2$ (only for fertility rate), total population in $t + 2$ for fertility rate and migration rate, in t for seats of executive. Municipal controls include also: elevation, whether province capital, mountain or seaside, size.

Standard tests for under- and weak-identification reject the null at 1% significance level.

classification (whether coastal, mountain, or both), extension, administrative importance (whether or not it is a province capital) and we introduce a macro-area fixed effect, that identifies whether a municipality is located in North-West, North-East, Center, South, Islands.¹² The results of this analysis corroborate the idea that introducing affirmative action measures, such as gender quotas, can produce positive results from a social perspective.

We go more in depth in our analysis by considering the effect of different thresholds of women in public municipal offices, in order to understand whether women behave differently *per se*, or only when they are in a sufficient number. In particular, in Table 7 we focus on three alternative samples of municipalities, depending on the share of women in the Council. We first exclude from our analysis those municipalities having no appointed women at all in the Council (Column 1). As in the whole sample, no effect emerges on the net migration rate. Instead, we observe that the magnitude of the estimated effects both on fertility and efficiency is higher in municipalities with at least one women in the Council. Then we split the sample in munic-

¹²This is the standard ISTAT classification of Italian homogeneous geographical areas. In our case, since we exclude both Sicilia and Sardegna, the last macro-area is empty.

Table 7: Robustness checks - Splitted models

	(1)	(2)	(3)
	b/se	b/se	b/se
	IV/2SLS	IV/2SLS	IV/2SLS
	At least one woman	Below median	Above median
<i>Migration rate (in t + 2)</i>			
Share of women	-.088	-.020	-.088
	.560	.465	.951
<i>Fertility rate (in t + 2)</i>			
Share of women	.296***	.099	.267**
	.085	.081	.126
<i>Seats of executive</i>			
Share of women	.237***	.174***	.213***
	.025	.024	.033
Municipality FE	yes	yes	yes
Municipality controls	no	no	no
Year FE	yes	yes	yes
Time trend	yes	yes	yes
Region specific time trends	yes	yes	yes
Observations	89,885	50,509	50,514
Municipalities	6646	3380	3308

Robust standard error clustered at municipal level. *** $p < 0.1$, ** $p < 0.05$, * $p < 0.01$. All regressions include the following controls: Average education and age of Council members in t (also interacted), share of fertile women in $t + 2$ (only for fertility rate), total population (in $t + 2$ for fertility rate and migration rate and in t for seats of executive).

Column (1) includes only those municipalities/years with a share of women lower than the median; column (2) only those municipalities/years with a share of women higher than the median; column (3) only municipalities/years with at least one woman in the Council.

Standard tests for under- and weak-identification reject the null at 1% significance level.

ipalities having in the considered period an average share of women in the Council below or above the median. As expected, the estimated coefficients are significantly higher in municipalities characterized by a proportion of women in the Council above the median. Interestingly, if the proportion of women is below the median no effect emerges on fertility rate, while the effect on efficiency is still in place, although smaller. These results suggest that, on average, women in public offices are more effective in their actions when operating in a less heterogeneous context. In particular, women seem to be able to promote and implement policies favouring reproductive choices of their peers only when they are in a sufficient number.

The effect on the fertility rate seems to be very significant from a social perspective: indeed, an increase of the share of women in the Council by 1 standard deviation – that is about 11% of the Council members, from 17% to 28% – leads to an increase of the fertility rate by 0.04, that is the 18%

of the actual fertility rate (0.22). Even if the magnitude is small (only 4 birth every 10000 women), it is a significant improvement in a low fertility context as the Italian case.

Regarding the public budget, it is not easy to compute precisely the potential savings due to the lower size of Municipal Executive. Back of the envelope calculations, however, may give a reasonable idea. Members of Municipal Executive receive an allowance ranging from 1,500 to 55,000 Euros, according to the municipal size and we can assume an average value of about 15,000 Euros (corresponding to a municipality of 5,000-10,000 inhabitants). To this figure, we should add pension contributions, non-monetary benefits and reimbursement, and all the other related expenditures not included in the gross wage. Moreover, municipalities can discretionary increase this allowance by up to 20%. A realistic estimation is that the total cost for the public administration is roughly twice as large as the nominal one. On average, an increase of 10 p.p. in the share of women in Municipal Council (slightly less than one standard deviation) should decrease the size of the Municipal Executive by about 0.1 units, that is 2% of the average Executive size. If we multiply this effect by 8100 municipalities, we can roughly estimate a lower-bound public saving of about 12 millions Euros per year, while this is likely to be around 20-25 millions Euros per year. Therefore, equalizing the representation of either genders in the Municipal Council would raise the share of women by 30 p.p., leading to a (very roughly) estimated saving of 60-75 millions Euros per year.

5 Robustness Checks

This section includes a set of robustness checks aimed at corroborating the validity of the estimates presented in the previous sections under different assumptions. First, as a falsification test, we randomize the share of appointed women in the Council in three different ways: i) we randomly assign the observations on the share of women across the whole sample; ii) we randomize the proportion of appointed women in the Council within every single municipality across years; iii) we assign the entire time-series of the elected proportion of women from 1992 to 2007 randomly across municipalities. According to the results presented in Table 8 no effect emerges, irrespective of the considered outcome and the chosen specification. As expected, in the first stage, the instrument is no longer significant suggesting that we identified the right source of variability to explain changes in women representation in public offices. These results exclude the concerns about possible spurious correlation in our previous estimates.

Other possible concerns can be related to the choice of the two-years time lags to estimate the effect of women in public offices on the overall quality of life and efficacy. The underlying assumption of our baseline analysis is that

Table 8: Robustness checks - Randomized interest variables

	(1)	(2)	(3)
	b/se	b/se	b/se
	IV/2SLS	IV/2SLS	IV/2SLS
	Random 1	Random 2	Random 3
<i>Migration rate (in t + 2)</i>			
Share of women	4.928	-10.404	-7.022
	15.076	34.166	37.859
<i>Fertility rate (in t + 2)</i>			
Share of women	-6.456	12.699	-15.760
	6.525	20.711	40.793
<i>Seats of executive</i>			
Share of women	-6.685	12.862	-14.398
	6.386	20.645	37.493
Municipality FE	yes	yes	yes
Municipality controls	no	no	no
Year FE	yes	yes	yes
Time trend	yes	yes	yes
Region specific time trends	yes	yes	yes
Observations	96,544	97,493	92,950
Municipalities	6677	6686	6345

Robust standard error clustered at municipal level. *** $p < 0.1$, ** $p < 0.05$, * $p < 0.01$.

All regressions include the following controls: Average education and age of Council members in t (also interacted), share of fertile women in $t + 2$ (only for fertility rate), total population (in $t + 2$ for fertility rate and migration rate and in t for seats of executive).

Column (1) assigns the observations on the share of women randomly across the full sample; column (2) assigns the observations on the share of women randomly within every municipality; column (3) assigns the time-series on the share of women randomly across municipalities.

Standard tests for under- and weak-identification *do not* reject the null at any usual significance level.

any decisions take time to be implemented: on the one hand, politicians need some time to implement the intended policies; on the other hand, individuals take some time to react to implemented policies on fertility and housing. To test whether results are dependent on the chosen lags, in Table 9 we correlate current social outcomes with the gender of politicians in office one year before (Column 1) or in the same period (Column 2). The results are perfectly in line with our baseline estimation. No effect is found for migration, while a positive effect is found for fertility rate without significant difference in the magnitude of the estimated coefficient. A second concern, related to the timing, could be that the gender composition of municipal offices does not change within a specific electoral term while the considered social outcomes vary by year and municipality. Therefore, in Column (3) we replicate the analysis by electoral terms: both the dependent variable and the matrix of controls are averaged by term and municipality, so that the number of observations drops by the average length of a term. Also in this case all the previous results are confirmed. Finally, potential outliers driving the results are considered in Column (4), where the baseline model is estimated trimming the dependent variables at top and bottom .5%. Also in this restricted sample previous results still hold and the magnitude of the estimated coefficients is larger than in the baseline model.

Finally, since the mayor plays a crucial role in defining policies at municipal level, we also investigate whether the gender of the mayor can play an additional role, or even substitute for, the share of women in the Municipal Council.¹³ First, we add to the basic specification a control for the gender of the Mayor (Table 10, Column 1). As expected, consistently with the argument of the paper, both fertility and efficiency are on average higher in Municipalities run by a women. However, the inclusion of the gender of the mayor has no effect both on the magnitude and the significance level of our main coefficient of interest – the share of women in the Council – as estimated in Table 6. This result suggests that the role of Municipal Council is more important than the Mayor in designing and implementing policies targeted to women and in reducing the size of the Municipal Executive. Second, in Column (2), we focus on the share of women elected in the same list as of the Mayor, in order to test whether the effectiveness of women depends on being part of the majority. Once potential endogeneity is accounted for, the magnitude of the estimated coefficient increases significantly. Women in municipal offices seem to be more effective in their actions when they belong to the same coalition of the Mayor, suggesting either that women supports more effectively their preferred policies when they are part of the ruling coalition, or that they oppose these policies if they belong to minority parties.

¹³It is worthy to stress that gender quotas do not apply to mayor candidates.

Table 9: Robustness checks - Different lags and outliers

	(1)	(2)	(3)	(4)
	b/se	b/se	b/se	b/se
	IV/2SLS	IV/2SLS	IV/2SLS	IV/2SLS
	One lag	No lag	Terms	Outliers
<i>Migration rate</i>	<i>(in t + 1)</i>	<i>(in t)</i>	<i>(in t)</i>	<i>(in t + 2)</i>
Share of women	.181	.192	.426	.229
	.461	.399	.319	.294
Observations	101,023	101,023	21,337	99,421
Municipalities	6688	6688	6623	6686
<i>Fertility rate</i>	<i>(in t + 1)</i>	<i>(in t)</i>	<i>(in t)</i>	<i>(in t + 2)</i>
Share of women	.163**	.180**	1.844***	.229***
	.068	.070	.069	.062
Observations	101,023	101,023	21,337	96,499
Municipalities	6688	6688	6623	6653
<i>Seats of executive</i>				
Share of women	–	–	.324***	.194***
	–	–	.015	.019
Observations	–	–	21,337	100,019
Municipalities	–	–	6623	6687
Municipality FE	yes	yes	yes	yes
Municipality controls	no	no	no	no
Year FE	yes	yes	no	yes
Time trend	yes	yes	yes	yes
Region specific time trends	yes	yes	yes	yes

Robust standard error clustered at municipal level. *** $p < 0.1$, ** $p < 0.05$, * $p < 0.01$. All regressions include the following controls: Average education and age of Council members in t (also interacted), share of fertile women in $t + 2$ (only for fertility rate), total population (in $t + 2$ for fertility rate and migration rate and in t for seats of executive).

Columns (1) and (2) show the same model as in the baseline model, with only one period/no lag; in column (3) observations are aggregated by electoral terms; column (4) reports the baseline model trimming the dependent variables at top and bottom .5%. Standard tests for under- and weak-identification reject the null at 1% significance level.

Table 10: Robustness checks - Gender of mayor and women in the same list

	(1)	(2)
	b/se	b/se
	IV/2SLS	IV/2SLS
	Mayor	Majority women
<i>Migration rate (in t + 2)</i>		
Share of women	-.098	
	.429	
Mayor woman	.004	
	.030	
Share of women in mayor's list		-.135
		.594
<i>Fertility rate (in t + 2)</i>		
Share of women	.199***	
	.067	
Mayor woman	.010*	
	.005	
Share of women in mayor's list		.277***
		.093
<i>Seats of executive</i>		
Share of women	.188***	
	.019	
Mayor woman	.007***	
	.002	
Share of women in mayor's list		.262***
		.028
Municipality FE	yes	yes
Municipality controls	no	no
Year FE	yes	yes
Time trend	yes	yes
Region specific time trends	yes	yes
Observations	101,023	101,023
Municipalities	6688	6688

Robust standard error clustered at municipal level. *** $p < 0.1$, ** $p < 0.05$, * $p < 0.01$. All regressions include the following controls: Average education and age of Council members in t (also interacted), share of fertile women in $t + 2$ (only for fertility rate), total population (in $t + 2$ for fertility rate and migration rate and in t for seats of executive).

Column (1) includes a dummy to identify whether the mayor is a woman; in column (2) the interest variable is not the share of women in Municipal Council, but the share of women elected in the same list as the mayor.

Standard tests for under- and weak-identification reject the null at 1% significance level.

6 Conclusion

This paper provides new evidence on the effect of the gender of politicians on policy outcomes and efficiency at municipal level. Using Italian administrative data, we focus on three different political outcomes. First, as a broad concept of ‘quality of life’, we consider the internal migration rate. Second, as proxies for women- and family-targeted policies, we choose fertility rate. Finally, as an indicator of efficiency in the public administration, we use the size of Municipal Executive. The potential endogeneity is solved by instrumenting the gender of the politicians in charge at municipal level with the introduction of the gender quotas law.

The analysis shows that the gender of politicians does not affect significantly the overall internal migration rate, but there is strong evidence that the fertility rate is higher in municipalities run by women, independently of the specification considered. Finally, there is evidence that women enhance the government efficiency, since on average women need a smaller Municipal Executive to run their office. All the results are consistent to several specifications and robustness checks.

This paper adds to the literature finding positive and sizeable effects of women participation to politics. From a policy perspective, active policies aiming at increasing gender equality in public offices are driven not only by ethical concerns on equality, but also by political and economic issues. In the Italian context, characterised by a very low fertility rate and a very high cost of politics, positive actions to fill the gender gap among elected officers is doubly beneficial, both in terms of principle of social justice and in terms of concrete households’ support and public savings. According to our analysis, introducing affirmative action measures, such as gender quotas, can be somehow beneficial from a social perspective (in line with Baltrunaite et al., 2014) although it could also imply costs and distortions. Indeed, several arguments have been set forth against the gender quotas – in terms of equality of opportunity, fairness of democratic process, gender equality, officers’ qualifications and so on – and affirmative actions may not consider them; however, these possible drawbacks should be weighted against clear and measurable benefits that range among several fields, as pointed out by the literature and by the results of the present paper.

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A Relevant legislation

The electoral systems and the organization of Municipal administrative bodies have changed several times in Italy. The most important reform dates back to 1993, when the direct election of the Mayor was introduced. Before that date, citizens elected only the members of the Municipal Council and both the Mayor and the Municipal Executive were elected by the Municipal Council among its members. Since 1993, citizens directly elect the Mayor and the Municipal Council.

Also the size of Municipal Council and Municipal Executive changed over time. In the following, we list the legislative references since the foundation of the Republic. The literal texts can be easily find on the web (see for instance www.normattiva.it), unfortunately only in Italian.

- DLL 7/1/1946, n.1, art.2, published in G.U. n.8, 10/1/1946
- L 24/2/1951, n.84, art.15, published in G.U. n.51, 2/3/1951
- DPR 5/4/1951, n.203, art.2, published in G.U. n.79, 6/4/1951
- L 23/3/1956, n.136, art.1, published in G.U. n.73, 27/3/1956

- DPR 16/5/1960, n.570, art.2, published in G.U. n.152, 23/6/1960
- L 8/6/1990, n.142, art.33, published in G.U. n.135, 12/6/1990
- L 25/3/1993, n.81, art.1, published in G.U. n.72, 27/3/1993
- L 15/10/1993, n.415, art.2, published in G.U. n.245, 18/10/1993
- Corte Cost. Sent. 6-12/9/1995, n.422, published in G.U. 1^a serie speciale - Corte Costituzionale n.39, 20/9/1995
- DLgs 18/8/2000, n.267, art.47, published in G.U. n.227, 28/9/2000
- L 24/12/2007, n.244, art.2, published in G.U. n.300, 28/12/2007
- L 23/12/2009, n.191, art.2, published in G.U. n.302, 30/12/2009
- DL 25/1/2010, n.2, art.4, published in G.U. n.20, 26/1/2010; and modified and converted by L 26/3/2010, n.42, published in G.U. n.72, 27/3/2010
- DL 13/8/2011, n.138, art.16, published in G.U. n.188, 13/8/2011; and converted by L 14/9/2011, n.148, published in G.U. n.216, 16/9/2011