Integrity and gender: a look at Italian Regions, Provinces and Municipalities¹

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1. Introduction

In the last two decades, several studies have investigated the relationship between the share of women in politics and the level of corruption, suggesting that women tend to be less involved in corrupt transactions than men. There are two major ways of explaining this relationship: one emphasizes differences between men and women in pro-social behaviour and the other, differences in risk-aversion¹.

European data highlight that countries with higher corruption such as the Mediterranean and Eastern European countries are also those where gender inequalities, especially in economic participation and political empowerment, are relevant. Heterogeneity in corruption and gender gap occur not only across countries but also within countries. Both issues are relevant in Italy, which exhibits marked differences across Regions and Provincial Capitals as regards both integrity and gender equality.

This paper aims at contributing to the empirical literature on the link between the presence of women in politics and corruption providing a dataset that combines data from different sources about both the political roles played by women at sub-central level of government and different measures of institutional quality in Italy. In particular, we select data on the female presence in all the political roles played in executive and legislative bodies – Mayor, Regional/Municipal Assessors, Regional/Municipal Councillors, on the one hand, and two widely-used multidimensional indicators – the 'European Quality of Government Index' (EQI)² for the European Regions and the 'Indicator of Institutional Quality' (IQI)³ for the Italian Regions and Provinces, on the other. The availability of the above indicators for several years allows for identifying some correlations between women and corruption in Italy without assessing any causality between these two phenomena and

provides some evidence that low corrupt and high transparent systems are associated with the recruitment of women into office. Moreover, we also take into account a specific dimension of institutional quality, the transparency of public administration, measured by the Composite Transparency Index (CTI) for the sample of the Italian Provincial Capitals in 2013⁴, to assess whether the presence of women in political roles at Provincial Capital level is correlated with the transparency of the Municipality.

Several reasons motivate the choice of considering sub-central levels of government: being closer to citizens, these levels of government are the natural candidate for any analysis on the efficiency and accountability of public institutions⁵. Moreover, as Andreoli et al⁶. outline, the closer relation between citizens and elected politicians occurring at Municipal level is likely to reduce gender prejudices and make easier for voters to become used to women as politicians.

The paper is organized as follows. Section 2 offers a short overview of the related literature. Section 3 summarizes the issue of measuring corruption and transparency at sub-central level. Section 4 presents some statistical evidence about the relation between gender and institutional quality, with a focus on corruption and transparency. Section 5 provides some concluding remarks.

2. Women in politics and corruption: some related literature

In the last two decades, several studies with different methodological approaches have investigated the relationship between the share of women in politics and the levels of corruption, overall suggesting that women tend to be less involved in corrupt transactions than men. There are two major mechanisms explaining this relationship: one emphasizes gender differences in pro-social behaviour and the other in the level of risk-aversion⁷.

Early and more recent behavioural studies (both experimental and survey-based) have found systematic differences in behaviour between male and female. Women appear more trustworthy and socially-oriented than men and therefore more effective in favouring honest and more responsive governments because of their social concerns. This behaviour is related to the crucial role played by women in providing family support and home care (childhood, the elderly) and to their more frequent use of the social services⁸. Some studies suggest that the beneficial effect of including women in elected office may be attributed to women politicians

having a different political agenda than men⁹ as women are more interested in public services (such as child care, education, social services) and in their effectiveness¹⁰.

Another strand of literature suggests that women are more risk averse than men¹¹. As female politicians are perceived more honest than men, it is likely that they are more severely punished for engaging in corruption by the electorate, and this in turn increases women risk aversion. However, Lapuente & Suzuki¹² argue that there may be reasons to expect that women in elected office and particularly in executive roles are less risk averse than women on average since the gender gap in risk aversion is substantially smaller among elites.

Following another line of research, Dollar et al.¹³ find that in a large cross-section of countries the greater the representation of women in Parliament, the lower the level of corruption and assert that increasing the presence of women in government may be valued not only for reasons of gender equality but also to reduce opportunism in government. Indeed, women who have access to political roles, acting as outsiders, may affect the pre-existing power relationships by weakening the consolidated networks of relationships that are traditionally unfavourable to women. In the perspective of the marginalization theory, some studies show that women may mobilize against corruption in order to break collusive and corrupt male dominated networks that are detrimental to their political careers¹⁴.

In this vein, some studies suggest that women political participation reduce corruption¹⁵, others provide evidence that corrupt environment negatively affects the recruitment of women into office¹⁶. Moreover, Sung¹⁷ outlines that underlying factors, such as the development of liberal democracy, may drive both more inclusive representation and lower level of corruption and Bauhr & Charron¹⁸ and Stensöta et al.¹⁹ suggest that gender differences about the inclination towards corrupt behaviour is context-dependant. This literature provides significant evidence of a relationship between gender and corruption, though its causal direction is still challenged. Jha & Sarangi²⁰, for example, show that women's political participation has a causal and negative impact on corrupton while other forms of female participation in economic activities have no effect. This negative relationship between women's presence in government and corruption is confirmed in a Regional analysis of 17 European countries. Instead, Esarey & Schwindt-Bayer²¹ provide evidence that causality runs in both directions: women's representation in elected office decreases corruption and more corrupt environment decreases women's participation.

Finally, even if one accepts that women in elected office reduce corruption, another relevant issue is whether this effect is permanent in time. In this respect Bauhr & Charron²² suggest that, to survive in the political competition, women adjust to corrupt networks. Using data on French municipalities in the period 2005 – 2016, they find evidence that corruption is reduced when women are elected mayor for the first time while gender differences are negligible when women mayor incumbents are re-elected

3. Measurement issues

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Corruption is a latent phenomenon and therefore its measurement is very challenging, «a Sisyphean task»²³. The in-depth analysis of the measurement issues of corruption is outside the scope of this paper; it is worth noting, however, that no objective measure is available across countries and each of the different approaches proposed in the literature – perception-based measures²⁴, survey-based measures²⁵, evidence-based measures²⁶ – has conceptual or methodological problems²⁷. For instance, perception-based measures are affected by the subjectivity of perceptions with the related cognitive bias, while reporting biases characterize the experience-based measures. Evidence-based measures, in relation with the type of approach, raise different problems such as questions of generalizability, comparability as well as difficulties of interpretation. Thus, a pragmatic approach is to choose the measure which best suits the features of the specific analysis.

Strong conceptual and theoretical links exist between corruption and the functioning of economic and political institutions. On these grounds, corruption is not only measured «per se» but is also widely investigated as one important aspect of the multidimensional concept of «Institutional quality».

At the country level, the most widely used measure of «Institutional quality» is the World Bank's «Worldwide Governance Indicators» (WGI²⁸), based on five «pillars»: voice and accountability, government effectiveness, regulatory quality, rule of law, and control of corruption. Focusing on the latter, corruption concerns the extent to which public power is exercised for private gain, including both «petty» and «grand» forms of corruption.

For the purpose of this paper, sub-national measures appear more suitable. Two widely used multidimensional indicators are the «Eu-

ropean Quality of Government Index» (EQI) proposed by Charron et al.²⁹ for the European regions and the «Indicator of Institutional Quality» (IQI) proposed by Nifo & Vecchione³⁰ for the Italian Regions and Provinces³¹.

The EQI is a survey-based measure which, along the lines of WGI categories, rates three aspects of the quality of government (quality, impartiality, and level of corruption)³² in three public services: education, healthcare and law enforcement. Therefore, the EQI index measures the perception of institutional quality more than its actual level. Higher values in EQI correspond to a higher institutional quality, associated with a perception of lower intensity of corruption and higher quality of public services.

IQI follows, with some differences, the hierarchy framework of the WGI, providing a synthetic indicator of the quality of institutions based on five major dimensions, each represented by a sub-index³³. Corruption is one of the five dimensions. An advantage of the IQI indicator is that it is based on objective data and allows for investigating the multidimensional nature of institutional quality both as a whole, with the synthetic index, and as a single dimension, using the sub-indices.

Oddly, the above analyses on corruption and, more in general, on the institutional quality tend to overlook the role of transparency, which is widely recognized as an important parameter for the proper functioning of public institutions³⁴, as it favours the monitoring of administrative activities and strengthens both institutional and interpersonal trust^{35,36}. Indeed, in about thirty years of research on transparency³⁷, an extensive literature has investigated several issues such as the question of measurement³⁸; the relationship between transparency and many demographic, economic, political, and social dimensions in several countries as well as the connections between transparency and important aspects of institutional quality such as trust in public institutions, political participation, quality of government, perception of legitimacy, civic satisfaction. Overall, the findings of this literature show that these connections are mostly positive and context-dependant.

In line with the purpose of this paper, in addition to the above mentioned EQI and IQI indicators, also transparency as proxy for institutional quality is taken into account. Specifically, we use the Composite Transparency Index (CTI) constructed and computed by Galli et al.³⁹ on a completely new first-hand dataset at Municipal

level⁴⁰. The indicator's robustness is showed by its high correlation with the above-mentioned IQI and some Equitable and Sustainable Well-Being Indicators (BES)⁴¹.

4. Some statistical evidence

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In this Section we explore whether there is a correlation between the political roles plaid by women at Regional, Provincial and Municipal levels in Italy and the quality of institutions measured in different ways. As a first step we investigate such a relationship using the synthetic index and the corruption sub-index of EQI and IQI for 2010, 2013, 2017 and 2020. As second step, we enlarge the analysis including the synthetic index and the integrity index of CTI for 2013⁴².

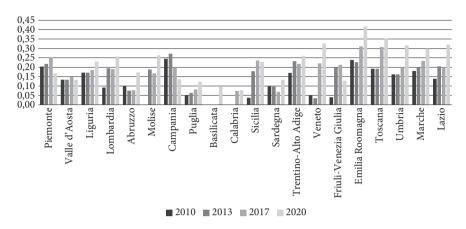
4.1 Women political participation

4.1.1. Italy shows a marked women political underrepresentation with respect to EU countries. In fact, the Global Gender Equality Index has an average value of 55.0 for EU countries, with Italy scoring 47.9 with great differences with France (80.8) and Germany (69.6)⁴³.

The problem of the limited political representation of women in Italy appears severe at Regional level especially for the Governor office. Since 2000, 14 Regions out of 20 have had only men as Governors and overall only 8 women have been in the office, with only 2 women as Governors in 2020^{44} .

Moreover, Figures 1 and 2 show, respectively, the percentages of female Regional Councillors and Assessors⁴⁵. As for the former, it appears that on average in Italy, in the period 2010-2020, only 17 per cent of Regional Councillors were women, with differences through years and across Regions. Overall, data show an increasing trend through years for most of the Regions, with an average increase of 6 per cent. The greater values in 2017 and 2020 are likely to be related to changes introduced by the law n. 20/2016, regulating Regional Parliament elections⁴⁶. There is, however, heterogeneity across Regions. In 2020 only Emilia-Romagna was slightly above 40 per cent; throughout the entire period some Regions in the North and in the Centre – Veneto (33.3 per cent), Toscana (35 per cent), Umbria (32 per cent) and Marche (30 per cent) – were above 30 per cent while Southern Regions showed lower percentages.

Fig. 1 - Regional women councillors (percentage values), various years



Source: our elaborations on data provided by the Ministry of Home Affairs (various years)

A different picture emerges as regards the presence of women in the Regional executive boards. Figure 2 shows a decreasing trend, with an average decrease of 3 per cent. In the period 2010-2020, on average 28 per cent of Regional Assessors were women, again with marked differences through years and across Regions. It is not possible to detect a clear trend; while Regional Councillors show an increasing trend, the same does not occur for Assessors. In most Regions percentages decrease in the last year under consideration and this occurs also in Regions where the increasing trend for women Councillors was more relevant, suggesting that in absence of legislative guarantees the appointment does not favour women. Such a phenomenon can be enhanced by the fact that the number of female Governors is very low, resulting thereby in biased gender representation in Regional governments. Also in this case, however, there are disparities across geographical areas⁴⁷, with Northern and Central Italy showing higher percentages, above the national average, than the Southern area for the entire period.

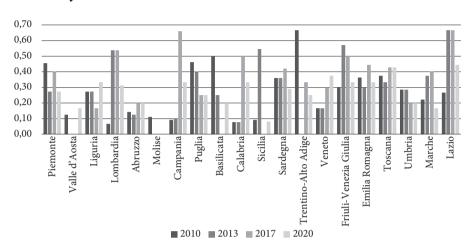


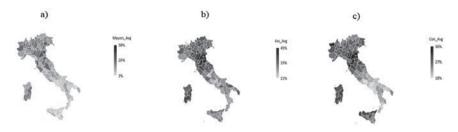
Fig. 2 - Regional women Assessors (percentage values), various years

Source: our elaborations on data provided by the Ministry of Home Affairs (various years)

4.1.2. Moving to a lower level of government, we investigate the political role of women as Mayor, Municipal Assessor and Councillor at Provincial level, aggregating the presence of women in each of these roles for all the municipalities located in each Province.

The problem of the limited political representation of women also occurs at this level of government (see Figure 3). In fact, on average for the entire period only 13 per cent of Mayors are women, with an increasing trend of 4 per cent. There are significant differences across Provinces with values ranging from 3 per cent in Southern provinces to 38 per cent in the North. On average, macro-areas show a heterogeneous picture, with 17 per cent in the North, 13 per cent in the Centre and 8 per cent in the South, confirming women underrepresentation in Southern Italy. Through years, differences seem to increase, with higher percentages in the Centre (5 per cent) and in the North (2 per cent) and negative ones in the South (-2 per cent.).

Fig. 3 - a) Women Mayors, b) Municipal Councillors and c) Municipal Assessors at Provincial level (average 2010-2020)



Source: our elaborations on data provided by the Ministry of Home Affairs (various years)

A less severe underrepresentation problem emerges in the Municipal executive boards. On average, in the period 2010-2020, 33 per cent of Municipal Assessors were women, with heterogeneity across Provinces and through years. Looking at macro-areas, a rather homogeneous picture emerges, with 35 per cent in the North, 34 per cent in the Centre and 30 per cent in the South. These percentages score an average increase of 7 per cent in the overall period, with lower percentages in the North and in the Centre (6 per cent) and higher in the South (9 per cent).

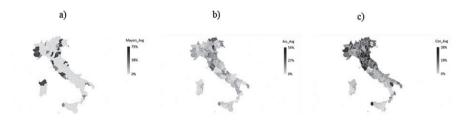
Moreover, the percentage of women Municipal Councillors is lower, with a value of 27 per cent and an average increase of 6 per cent. The constant increase since 2013, especially in 2017 and 2020, might be connected to the gender quota reform introduced by Law 251/2012, which aimed at increasing female presence on Municipal offices affecting the gender composition of candidates in Italian Municipal council elections⁴⁸.

Therefore, also at Municipal level, the presence of women is rather low. Unlike the Regional level, higher percentages occur for the roles of Assessors which imply executive power. This might be related to the reform occurred with the law n. 81/1993, that enhances the accountability of the Mayor who is directly elected and, as a consequence, of his/her Assessors who are appointed by him/her. Based on the positive and significant correlation between female Mayors and Assessors (with values of 0.57 in 2010, 0.26 in 2013, 0.28 in 2017), one might tentatively argue that a «network effect» seems to occur in the sense that female Mayors might select women for the Municipal executive board. In this respect, the effects of the law n. 56/2014⁴⁹, aimed at increasing female presence in executive boards, should not be disregarded.

A different picture characterizes the presence of women in the most important city in each Province, i.e., the Provincial Capital (see Figure 4). In fact, while the percentage of women Mayor amounts only to 5 per cent, Assessors score 34 per cent, higher than Councillors, amounting to 22 per cent. Also, in this case there are differences across geographical areas and through years. Looking at macro-areas some differences emerge: female Mayors score 7 per cent in the North, 6 per cent in the Centre and 3 per cent in the South; female Councillors range from 25 per cent in the North, to 23 per cent in the Centre and 17 per cent in the South while Assessors in the North are 38 per cent, in the Centre 36 per cent and 28 per cent in the South.

On average, women Mayors increase by 7 per cent, driven by the North (7 per cent), as the Centre and the South do not show any increase over the period; women councillors increase of 10 per cent, with higher percentages in the Centre (11 per cent) and in the South (10 per cent) and slightly lower in the North (9 per cent); women Assessors show the same increasing trend (10 per cent) but a different pattern across macro-areas, with the North scoring 7 per cent, the Centre 6 per cent and the South 9 per cent.

Fig. 4 - a) Women Mayors, b) Municipal Councillors and c) Municipal Assessors at Municipal level (average 2010-2020)



Source: our elaborations on data provided by the Ministry of Home Affairs (various years)

4.2 Quality of institutions - EQI, IQI and CTI

Italy shows a remarkable cross-Regional/Provincial variation in institutional quality, that holds whatever indicator is used: overall the highest institutional quality characterizes the Northern and very often the Central areas while the lowest pertains to the Southern ones.

Starting with the Regional level, figures 5 and 6 show, respectively, the territorial distribution of EQI and EQI/corruption and compare four waves – 2010, 2013, 2017 and 2021. The lowest EQI values (for both the

synthetic and the sub-index), on average, are scored by most Southern Regions – Basilicata, Calabria, Campania, Puglia, Sardegna and Sicilia – with values always below the Italian average; the Centre is more variegated, with Lazio showing lower values. Throughout the period there are no significant changes in the national average (the indicator improves by 1 per cent) while in the territorial distribution a slight reduction of differences appears to emerge for some Regions (Basilicata, Calabria and Campania).

1,0 0,5 0,0 -0,5 -1.0-1,5 -2,0 -2,5Molise Puglia Lazio Piemonte Valle d'Aosta Liguria Abruzzo Campania Calabria Sicilia Veneto Emilia Romagna Toscana Umbria Marche Lombardia **3asilicata** Sardegna Trentino-Alto Adige Friuli-Venezia Giulia **■** 2010 **■** 2013 **■** 2017 **■** 2020

Fig. 5 - EQI, several years

Source: our elaboration on data provided by Charron et al. 50

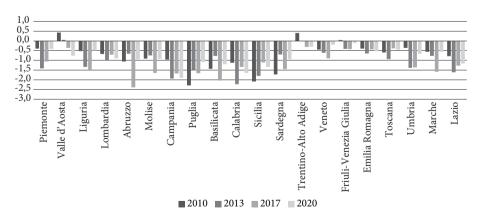


Fig. 6 - EQI/corruption, various years

Source: our elaboration on data provided by Charron et al.⁵¹

Similar territorial distribution emerges for the sub-index Corruption. Also in this case, throughout the period the national average slightly improves (by 1 per cent). Among the macro-areas, only the North is aligned with this percentage while the Centre and the South do not display any change.

Similar patterns occur for IQI, both at Regional and Provincial level, as is showed by Figures 7 and 8, which display four waves – 2010, 2013, 2017 and 2019 – respectively, for the IQI_Regional and the IQI_Regional/corruption and the data of the same waves for IQI_Provincial and IQI_Provincial/corruption.

1,0 0,8 0,6 0.2 Sardegna Puglia Sicilia Veneto Liguria Molise Frentino-Alto Adige Marche Valle d'Aosta ombardia Abruzzo Campania Sasilicata Calabria Friuli-Venezia Giulia Emilia Romagna Foscana Um bria Lazio Piemonte **■** 2010 **■** 2013 **■** 2017 **■** 2019

Fig. 7 - IQI_ Regional, several years

Source: our elaboration on data provided by Nifo & Vecchione⁵²

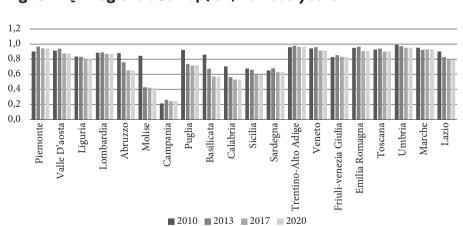


Fig. 8 - IQI Regional/Corruption, various years

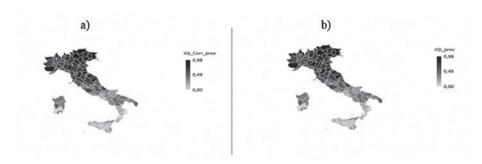
Source: our elaboration on data provided by Nifo ♂ Vecchione⁵³

Considering the Regional level, Figure 7 shows that the national average of the synthetic index for all period is rather low (0.57), with the highest values in the North -Trentino Alto-Adige (0.88), Friuli -Venezia Giulia (0.86) and Veneto (0.85) – and the lowest in the South – Calabria (0.14), Sicilia (0.17) and Campania (0.22). These Regions, however, show an improvement across the years (respectively, 6 per cent, 2 per cent and 7 per cent) while no changes overall occur in the national average.

As Figure 8 shows, the sub-index IQI_Regional/corruption exhibits a rather different pattern. While the national average for all period is higher (0.78), with a small decrease through years (-1 per cent), territorial differences are less wide. In fact, only Campania scores very low values (0.24) while the other two Regions at the bottom – Calabria and Sicilia – have average values (respectively, 0.58 and 0.63) not very distant from the national average but with a worsening through years (respectively, -3 per cent and -1 per cent). Caution is needed in interpreting these data: the «pillar» corruption, in fact, is measured including items, like the crimes against public administration, that may be influenced by exogenous factors, such as the efficiency and effectiveness of the judicial system⁵⁴.

At Provincial level, both IQI indicators follow similar patterns as at the Regional level. The IQI synthetic indicator has average national low values (0.58) with a small improvement in the period (1 per cent) while the corruption sub-index national average for all period is higher (0.82), with a small decrease through years (1 per cent).

Fig. 9 - a) IQI Provincial and b) IQI Provincial /Corruption, various years



Source: our elaborations on data provided by Nifo & Vecchione⁵⁵

The geographical picture provided by both IQI_Provincial is similar (see Figure 9). The average values in the Northern (0.76) and in the Central (0.64) areas are above the average Italian value (0.58) while the South

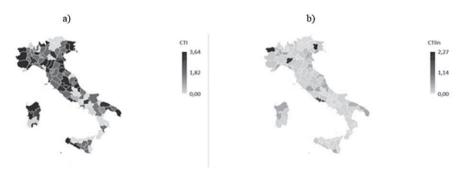
scores 0.30. Throughout the period, these macro-areas show a converging trend driven by the Centre and the South (1 per cent in both cases) while the North remains stable.

The IQI_Provincial/Corruption exhibits similar territorial differences (see Figure 9). The average values in the North and in the Centre are identical (0.91) and above the average Italian value (0.82) while the South scores 0.64. Throughout the period the macro-areas values do not show changes.

Finally, moving at Municipal level, CTI offers a picture of the degree of transparency of the most important city in each Province, i.e. the Provincial Capital. Unlike EQI and IQI, this indicator is available only for one year, 2013, that is when the transparency legislation has been introduced.

As EQI and IQI, also CTI shows marked territorial differences (see Figure 10): the national average value is 2.19, with the North and the Centre scoring higher values (respectively, 2.48 and 2.29) and the South having lower ones (1.78). Territorial differences are less wide for the sub-index CTI_integrity with a national average of 1.65, and values which range from 1.59 for the South, to 1.64 for the North and 1.79 for the Centre.

Fig. 10 - a) CTI and b) CTI/Integrity (2013)



Source: our elaboration

4.3 Women political participation and quality of institution

The above data offer some hints to evaluate the relationship between political roles of women at sub-central level and the quality of institutions. Table 1 shows the correlation between EQI and IQI and women political participation as Regional Councillors and Assessors while Governors are not included because of their very low percentages. The only positive and significant correlation occurs between EQI and IQI and the women in

the office of Regional Councillors in 2017 and 2020 suggesting that only for legislative power a «gender effect» occurs while no gender difference emerges for the executive power. When we focus on the corruption dimension of the institutional quality the above result is confirmed. The positive correlation also suggests that there are sound motivations for regulation aimed at fostering the women presence in legislative bodies.

Tab. 1 - Spearman correlation between EQI, IQI, EQI/ corruption and IQI/corruption and women political role at Regional level, several years

a. Overall quality of institutions								
	2010		2013		2017		2020	
	EQI	IQI	EQI	IQI	EQI	IQI	EQI	IQI
Regional Councillor	0.43	0.30	0.21	0.32	0.49*	0.55*	0.50*	0.46*
Regional Assessore	0.24	0.20	-0.02	0.14	0.08	0.17	0.26	0.23
b. Level of corruption								
	2010		2013		2017		2020	
	EQICorr	IQICorr	EQICorr	IQICorr	EQICorr	IQICorr	EQICorr	IQICorr
Regional Councillor	0.47	0.37	0.0	0.30	0.55*	0.50*	0.43*	0.53*
Regional Assessore	0.19	0.05	-0.27	0.02	0.23	0.04	0.21	0.08

Source: our elaborations on data provided by Charron et al.⁵⁶, Nifo & Vecchione⁵⁷ and the Ministry of Home Affairs (various years)

Notes: Values of EQI refer to 2021 and for IQI refer to 2019; *Statistical significance at 5 per cent

Moving at the Provincial level, aggregating all the municipalities located in each Province, Table 2 shows a significant positive correlation for almost all the political roles. The strongest correlation almost always occurs for Mayors that is the most important role, which has been defined as an example of «personalization» of the vote in Italian Municipal elections⁵⁸. Significant positive correlation occurs also for both Councillors (legislative) and Assessors (executive) suggesting that the «gender effect» holds at local level. This result is in line with two different strands of literature, one claiming that women are more interested in social services (e.g., childcare, elderly home assistance) which, by the way, are provided at Municipal level and the other suggesting that high degrees of corruption are inversely associated with education and health spending⁵⁹.

Tab. 2 - Spearman correlation between, IQI and IQI/corruption and women political roles at Provincial level, various years

	2010		2013		2017		2020	
	IQI	IQICorr	IQI	IQICorr	IQI	IQICorr	IQI	IQICorr
Mayor	0.65*	0.41*	0.62*	0.61*	0.59*	0.49	0.55*	0.41*
Municipal Councillor	0.67*	0.51*	0.43*	0.56*	0.24*	0.21*	0.43*	0.53*
Municipal Assessor	0.65*	0.50*	0.28*	0.32*	0.46*	0.14	0.42*	0.16

Source: our elaborations on data provided by Charron et al. 60, Nifo & Vecchione and the Ministry of Home Affairs (various years)

Notes: Values of EQI refer to 2021 and for IQI refer to 2019; *Statistical significance at 5 per cent

Table 3 shows a similar picture also at Municipal level, i.e. considering only the Provincial Capitals. Significant positive correlation occurs for Mayors, Councillors and Assessors suggesting that the «gender effect» also holds at Municipal level, in relation with the Provincial institutional environment.

Tab. 3 - Spearman correlation between IQI/Provincial and IQI/Provincial Corruption and women political roles at Municipal level, various years

	2010		2013		2017		2020	
	IQI	IQICorr	IQI	IQICorr	IQI	IQICorr	IQI	IQICorr
Mayors of Provincial capitals	0.48*	0.38*	0.48*	0.46*	0.47*	0.44*	0.47*	0.50*
Municipal Councillor of Provincial capitals	0.62*	0.41*	0.61*	0.55*	0.43*	0.34*	0.40*	0.38*
Municipal Assessor of Provincial capitals	0.39*	0.26	0.44*	0.37*	0.55*	0.48*	0.52*	0.52*

Source: our elaborations on data provided by Charron et al.⁶², Nifo & Vecchione⁶³ and the Ministry of Home Affairs (various years)

Notes: Values for IQI refer to 2019; *Statistical significance at 5 per cent

Shifting attention to CTI, both as synthetic indicator and sub-index/integrity, a different picture emerges. In fact, Table 3 shows a positive and significant correlation only as regards Mayor. It is worth noting that, unlike IQI which mainly captures the quality of institutional environment, CTI focuses on public administration activity. The specific features of this indicator, which is based on the degree of fulfilment of transparency

obligations, would suggest that its connection with legislative bodies, such as the Municipal Council, is rather loose, being the decision to comply and its implementation an executive function. The responsible for transparency⁶⁴ is indeed appointed by the Mayor.

Tab. 4 - Spearman correlation between CTI and women political roles at Provincial Capital level, 2013

	2013		
	CTI	CTI/ Integrity	
Mayors of Provincial capitals	0.49*	0.53*	
Municipal Councillor of Provincial capitals	0.32	0.32	
Municipal Assessor of Provincial capitals	0.26	0.26	

Source: our elaborations on data provided by Galli et al.⁶⁵ and the Ministry of Home Affairs (various years)

Notes: *Statistical significance at 5 per cent.

5. Concluding remarks

This paper offers a descriptive analysis of the relationship between women political participation and institutional quality, differently measured, at Regional, Provincial and Municipal levels. To this end, we build a new data set merging data from different sources which allows for analysing and comparing this relationship across different political roles played by women at sub-national levels of government, without any causality concern.

A first tentative result stemming out of our analysis is that the «network effect» seems to follow different patterns at Regional and Provincial level, leading to women marginalization in Regional executive boards while favouring their presence at Municipal level. Differences occur also in the correlation analysis: no gender «effect» emerges for the executive power at Regional level suggesting that when women are appointed as members of the executive and are not marginalized, the claimed gender difference seems to disappear.

A novel result derives from the analysis of women political participation in connection with transparency. A positive and significant correlation emerges as far as the presence of female Mayor in Provincial capital cities is concerned. This result can be explained by the specific content

of the CTI which measures the degree of fulfilment of transparency obligations and, therefore, is closely related to administrative activities. Moreover, it is worth noting that the above-mentioned correlation refers to cities of average and large dimension. In a previous paper on transparency, using a large sample of municipalities of different sizes, Galli et al. 66 have shown that small municipalities are more transparent. Therefore, a further step might be to investigate whether and to what extent the relation between women presence in political offices and transparency is affected by the size of the Municipality.

Overall, significant and positive correlations emerge between the different women political roles at Provincial and Municipal level and the quality of institutions suggesting that a «gender effect» is generalized at local level. Potential improvements in decreasing corruption and enhancing transparency may derive from strengthening the women political presence. At the same time, the different geographical impact of the laws promoting women political participation, as the legislative changes occurred in the Regional and Municipal voting rules during the time interval considered in our analysis, may suggest that the degree of women political representation is the effect of the institutional environment.

Note

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²¹ J. ESAREY, L. SCHWINDT-BAYER, op.cit.

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²⁴ The most widely used indices of this type are the Corruption Perception Index (CPI) provided by Transparency International, the Control of Corruption Index (CCI) published by the World Bank and the International Country Risk Guide corruption index (ICRG).

²⁵ These indexes derive from self-reported experiences with corruption, the World Bank Enterprise Surveys (WBES) and the Business Enterprise Economic Surveys (BEES) being the most widely known.

This approach includes different types of measures such as those deriving from gaps in the data of different sources (M.A. GOLDEN, L. PICCI, *Proposal for a New Measure of Corruption Illustrated with Italian Data*, «Economics and Politics», vol. 17, n. 1, 2005, pp. 37-75); those based on market and statistical inference (R. DI TELLA, F. SHARGRODSKY, *The role of wages and auditing during a crackdown on corruption in the city of Buenos Aires* in «The Journal of Law and Economics», vol. 46, n. 1, 2003, pp. 269-292); on direct observation of bribe payments (B. A. OLKEN, *Corruption and the costs of redistribution: Micro evidence from Indonesia* in «Journal of Public Economics», vol. 90, n. 4-5, 2006, pp. 853-870; R. REINIKKA, J. SVENSSON, *Using micro-surveys to measure and explain corruption* in «World Development», vol.34, n. 2, 2006, pp. 359-370; B. A. OLKEN, P. BARON, *The simple economics of extortion: evidence from trucking in Aceh*, in «Journal of Political Economy», vol. 117, n. 3, 2009, pp. 417-452) or other objective estimates, such as crimes against public administration or

prosecution rates (ANAC, Corruzione sommersa e corruzione emersa in Italia: modalità di misurazione e alcune evidenze empiriche, Roma, 2013).

²⁷ For an overview of these problems, see S. SEQUEIRA, *Advances in measuring corruption in the field* in D. SERRA, L. WANTCHEKON (eds), *New Advances in experimental research on corruption, Research in experimental economics*, Emerald Group Publishing Limited, Bingley 2012.

²⁸ D. KAUFMANN, A. KRAAY, M. MASTRUZZI, *The worldwide governance indicators: a summary of methodology, data and analytical issues*, in «World Bank Policy Research Working Paper», n. 5430, 2010.

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³⁰ A. NIFO, G. VECCHIONE, *Do institutions play a role in skilled migration? The case of Italy,* in «Regional Studies», vol. 48, 2014, pp.1628–1649.

³¹ For an extensive analysis of both indicators, see M. CAVALIERI, C. GUCCIO, D. LISI, I. RIZZO, *Does Institutional Quality Matter for Infrastructure Provision? A Non-Parametric Analysis for Italian Municipalities*, «Italian Economic Journal», vol. 6, 2020, pp. 521 -562.

³² Impartiality (government supports fair treatment of all citizens regardless of their personal qualities or networks), corruption (there is no exploitation of public goods for private benefit), and quality (public services are considered as being of high quality).

³³ IQI is based on 24 elementary indices aggregated into five groups: Voice and Accountability -VA (citizens'participation in public elections, the phenomenon of associations, the number of social cooperatives, and cultural liveliness); Government Effectiveness - GE (endowment of social and economic structures and administrative capacity of local governments in policy areas such as health, waste management, and environment protection); Regulatory Quality - RQ (economy openness, local government employees, business density, business start-ups/mortality, and business environment); Rule of Law - RL (crime levels, shadow economy, magistrate productivity, and trial times); and control of corruption - CC (crimes against public administration, the number of local administrations overruled by the central government, and the Corruption Index proposed by Golden and Picci in 2005). The index is normalized to assume values ranging from 0 (the lowest institutional quality) to 1 (the highest institutional quality).

³⁴ OECD, Government at a Glance, OECD Publishing, Paris 2015.

³⁵ S. KUMLIN, B. ROTHSTEIN, *Making and breaking social capital: The impact of the welfare state institutions* in «Comparative Political Studies», vol. 38, n. 4, 2005, pp. 339–365.

³⁶ On this latter issue, see E. GALLI, I. RIZZO, C. SCAGLIONI, *Transparency and socio-political environment in Italian municipalities*, in A. BIANCO, P. CONIGLIARO, M. GNALDI, (eds), *Italian studies on quality of life*, Springer international publishing, Cham 2019.

³⁸ Two major approaches address the measurement issue: a 'bottom up' approach, which develops measures of transparency based on the stakeholders'opinions through surveys and a 'top down' approach which constructs legal/formal indicators moving from the existing transparency regulation (for a review, see E. GALLI, I. RIZZO, C. SCAGLIONI, *Transp Transparency, Quality of Institutions and Performance in the Italian Municipalities, op. cit.*

³⁹ E. GALLI, I. RIZZO, C. SCAGLIONI, Transparency, Quality of Institutions and Performance in the Italian Municipalities, op. cit.

⁴⁰ CTI is a 'top-down'indicator which aggregates 'official' information on several aspects concerning the integrity and management of Municipality activity, which are published on the Municipality website. CTI is based on the transparency obligations requested to public administrations by the legislative decree n. 33/2013.

⁴¹ E. GALLI, I. RIZZO, C. SCAGLIONI, *Transparency and socio-political environment in Italian municipalities*, op. cit.

⁴² CTI is available only for 2013, E. GALLI, I. RIZZO, C. SCAGLIONI, *Transparency, Quality of Institutions and Performance in the Italian Municipalities, op. cit.*

⁴³ Overall, the gender gap appears less marked with respect to the total Global Gender Equality Index, which has an average value of 68 with Italy showing 63.8 (https://eige.europa.eu/gender-equality-index/about).

⁴⁴ However, a special case is Umbria Region where the last 5 Governors have been women.

⁴⁵ It is worth noting that, unlike Regional Councilors, Regional Assessors, being member of the executive board, are not elected but appointed by the Regional Governor.

⁴⁶ Law n. 20/2016 on equal access for men and women to candidacies for the elections to Regional councils provides that, on each party Provincial list of candidates, the candidates of the same sex may not exceed 60 per cent. The new legislation also states that Regional laws allowing for the expression of preferences must allow for the expression of interest in at least two candidates, one of each sex.

⁴⁷ The Northern macro-area includes: Piemonte, Valle D'Aosta, Liguria, Lombardia, Emilia Romagna, Friuli Venezia Giulia, Trentino Alto Adige, Veneto; the Central macro-area includes: Toscana, Marche, Umbria, Lazio; the Southern macro-area includes: Abruzzo, Basilicata, Calabria, Campania, Molise, Puglia, Sardegna, Sicilia.

⁴⁸ The law introduces two measures that apply only to municipalities with more than 5,000 residents: i) neither gender can be represented by more than 2/3 of the total number of candidates on party lists; ii) each voter can vote for two candidates, if they are of different genders (double preference voting).

⁴⁹ According to law n. 56/2014, in the executive boards of the Municipalities above 3,000 inhabitants, the representation of each sex should be at least 40 per cent.

- 50 N. CHARRON, V. LAPUENTE, M. BAUHR, Sub-national Quality of Government in EU Member States: Presenting the 2021 European Quality of Government Index and its relationship with Covid-19 indicators, op. cit.
 - ⁵¹ Ibidem.
 - ⁵² A. NIFO, G. VECCHIONE, *op. cit*.
 - ⁵³ Ibidem.
 - ⁵⁴ ANAC, op. cit.
 - ⁵⁵ A. NIFO, G. VECCHIONE, op. cit
 - ⁵⁶ N. CHARRON, V. LAPUENTE, M. BAUHR, op. cit.
 - ⁵⁷ A. NIFO, G. VECCHIONE, op. cit.
- ⁵⁸ A.C. FRESCHI, V. METE, *The electoral personalization of Italian mayors. A study of 25 years of direct election* in «Italian Political Science Review/Rivista Italiana di Scienza Politica», vol. 50, n. 2, 2020, pp. 271-290.
- ⁵⁹ IMF, Corruption: Costs and Mitigating Strategies, IMF Staff Discussion note, 2016.
 - ⁶⁰ N. CHARRON, V. LAPUENTE, M. BAUHR, op. cit.
 - 61 A. NIFO, G. VECCHIONE, op. cit
 - 62 N. CHARRON, V. LAPUENTE, M. BAUHR, op. cit
 - 63 A. NIFO, G. VECCHIONE, op. cit
- ⁶⁴ The person responsible for the fulfilment of transparency obligations is usually in charge also of the implementation of anti-corruption measures.
- ⁶⁵ E. GALLI, I. RIZZO, C. SCAGLIONI, Transparency, Quality of Institutions and Performance in the Italian Municipalities, cit.
- ⁶⁶ E. GALLI, I. RIZZO, C. SCAGLIONI, *Is transparency spatially determined? An empirical test for Italian municipalities in* «Applied Economics», vol. 52, n. 58, 2020, pp. 6372-6385.