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Do Gender Quotas Influence Women's Representation and Policies?

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Abstract

This paper investigates the effect of applying gender quotas on policy decisions. I first examine the effect of gender quotas on the representation of female legislators, study the correlation between gender quotas and different types of government expenditures, and then use quotas as an instrument for the proportion of female legislators to investigate the effect of female legislators on policy outcomes. The results show that an increase in the share of female legislators by one percentage point increases the ratio of government expenditure on health and social welfare to GDP by 0.18 and 0.67 percentage points, respectively. The robustness check supports that the effect of quotas on female legislators is likely to be translated into the influence of female policymakers on social welfare.

JEL-codes: D78, H50, J16.

Keywords: female legislator, gender quotas, policy outcomes.

1. Introduction

An increasing number of countries are currently introducing various types of gender quotas in public elections to reach a gender balance in political institutions. Most developing countries introduced electoral gender quotas during the 1990s, mainly due to the influence of the UN Conference on Women held in Beijing.[2] On the other hand, most developed countries adopted gender quotas 10 or 15 years prior to the Conference. A dramatic change has taken place in the established rank order of countries regarding the level of women's political representation. The five Nordic countries, which for many years were almost alone at the top of the list, are now being challenged by amazingly fast development in a number of countries around the globe. For example, Rwanda superseded Sweden as number one in the world in terms of women's parliamentary representation - 48.8% women against Sweden's 45.3% in 2003, and has more than 50% of seats for female legislators since 2008.

The core idea behind the gender quota systems is to recruit women into political positions and to ensure that women are not isolated in political life. The evidence suggests that women tend to have systematically different preferences for household spending. The incorporation of women's concerns in decision-making would, thereby, improve the nature of the public sphere. In addition, women's representation can also have an indirect influence by increasing men's attention to policies concerning women

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2 In response to mandates made at the Beijing UN Fourth World Conference on Women in 1995, greater advances were made with respect to governmental institutionalization for the promotion of women's rights in developing countries.

and children.[3] Quota systems therefore aim at ensuring that women constitute a certain number or percentage of the members of a body, whether it is a candidate list, a parliamentary assembly, a committee, or a government.

Theoretically, if the candidates do not commit to implement specific policies once elected, the identity of the legislator matters for policy determination (Besley and Coate, 1997, and Osborne and Slivinski, 1996). This influence on policy increases as there is increasing political representation of a group. Therefore, if gender quota systems lead to a pronounced increase in women's representation in politics, we should observe that government gives higher weights to policy outcomes related to women's concerns after introducing a gender quota system.

However, existing empirical studies focus on the effect of political reservations on policy outcomes in the case of an individual country.[4] Do quotas work as well in general? Some countries take gender quotas as a symbolic policy to reflect the demand for gender equality without making related changes in institutions. The use of quotas is thereby not sufficient to ensure high levels of women in parliament.[5] On the other hand, a high level of representation might be achieved without quotas, such as that achieved in Nordic countries. I therefore first investigate the effect of quotas on the representation of women in parliament. Taking the introduction of quotas as an exogenous source of variation, I can thereby compare women's representation before and after the policy is applied.

I then examine government spending on different functions before and after the introduction of quotas to check whether political reservations have increased expenditures on groups that should benefit from the mandate. Under the assumption that gender quotas have neither a direct impact on policy outcomes nor an influence on policy outcomes through channels other than the proportion of female legislators, I use gender quotas as an instrument for female legislators and study the effect of female legislators on policy outcomes.

The remainder of the paper is organized as follows. Section 2 provides the background of women's preference and gender quota systems adopted around the world. Section 3 discusses the empirical strategy and data collection. Section 4 presents the results of the analysis. Section 5 provides robustness checks and section 6 concludes.

3 According to the "critical mass" argument (Kanter (1977)), the influence from female legislators on policy decisions is not negligible when there is a significant presence of women in the legislature.

4 See, for example, Pande (2003) and Chattopadhyay and Duflo (2004). Both of these studies investigate the effect of female legislators on policy outcomes in India, and state that the role of political reservations for women provides disadvantaged groups influence over policy-making.

5 See Dahlerup (2006).

2. Backgrounds

2.1 Women's preference

What concerns women? Edlund and Pande (2002) argue that the traditional division of labor between men and women results in different preferences between women and men. Women tend to purchase goods for children and for general household consumption because they have default rights to children conventionally. Men, on other hand, get part of the right only if they sign a contract for marriage where they promise to provide for their wife and children. However, the rise in the divorce rate, delayed marriage, non-marital fertility and cohabitation in recent decades is suggested to lead women to prefer redistribution policies since the obligation to provide for the family no longer rests solely on the husband.[6] Women may therefore favor those policies related to children and family, such as education, health, and welfare issues, more than men when they participate in the decision-making process. However, there is nothing normative about this kind of model.

2.2 What are quotas?

Quotas for women are a form of affirmative action to help them overcome the obstacles that prevent them from entering politics in the same way as their male colleagues. There are different types of quotas. According to the International Institute for Democracy and Electoral Assistance (International IDEA), the main distinction based on the mandating is between voluntary party quotas and legal gender quotas.[7]

Voluntary party quotas are adopted by political parties, and are set by the parties themselves to guarantee the nomination of a certain number or proportion of women. On the other hand, legal gender quotas are mandated either by the constitution or by the electoral law, obliging all political entities participating in elections to apply them equally.[8] Although non-compliance with legislative or constitutional quotas can result in penalties for those political entities that do not apply them, it is not at all evident that legal gender quotas are more efficient than political party quotas in increasing the number of women in parliament.[9] The effectiveness of legal quotas depends on the actual rules and the possible sanctions for non-compliance, as well as on the general crucial issue like whether there is any rule considering the rank order of women candidates on the ballot. Additionally, legal quotas may be introduced after a heated

6 See Edlund, Haider, and Pande (2005).

7 See the website of IDEA, http://www.quotaproject.org/. In each type of gender quota system, quotas may target the first stage of the selection process, i.e., the stage of finding aspirants, the second stage of the actual nomination of candidates to be placed on the ballot by the party, and the third stage of reserved seats for women. This study only considers whether a quota system is introduced in a country, and who has mandated the quota system.

8 For example, Bangladesh, Nepal, and Uganda have adopted constitutional quotas, and many countries in Latin America have adopted legislative quotas.

9 Examples of sanctions issued by the legal authorities of a country can range from disqualifying candidates to the imposition of fines, and can include the disqualification of the entire party. See "Designing for Equality", published by IDEA in 2007.

debate, but then have no effect on increasing women's representation because there are no mechanisms to ensure their implementation.

2.3 The world of quotas

Dahlerup (2006) defines two different tracks to equal political representation for women and men, which are the incremental track and the fast track. While the incremental track, such as what is used in Scandinavia, rests on a gradual increase in women's overall resources and on gradual historical changes in the perceptions of womanhood, the fast track represents a historical leap forward in women's representation, such as those used in Latin America and Africa.

It took approximately 60 years for Denmark, Norway, and Sweden to exceed the 20% threshold, and 70 years to reach 30% female representation in parliament.[10] However, quotas were not introduced among these countries until women had already reached about 25% of the seats in 1980s, which was, at that time, also the highest proportions in the world. Quotas are not only for minimum requirements, but also for gender balance in this area. Similar tracks can be found within other developed countries in Western Europe, North America, Australia, and New Zealand.[11] In all countries, these policies originated with women in civil society and inside the political parties, who presented gender quotas as a way to win support among female voters.[12]

In contrast, the fast track method is a common situation among developing countries because women do not have the same political resources as men. Therefore, the responsibility for dealing with the under-representation of women rests with the political institutions. In line with this conception of women's under-representation, mandated quotas for the recruitment and election of female candidates are needed. In 1990 the UN Economic and Social Council endorsed a target of 30% women in decision-making positions in the world by 1995. However, in 1995, only 10% of the world's parliamentary members were women. The Beijing Platform in 1995, on the other hand, has been very influential, and women's movements all over the world have attempted to give the controversial demand for gender quotas legitimacy by referring to the Platform for Action.

Latin America is the leading continent when it comes to the introduction of gender quotas in politics after the Beijing Platform.[13] All countries adopted them between 1996 and 2000, with the exception of Argentina, which acted earlier in 1991. Since economic reforms during the end of the 1980s and the beginning of the 1990s aiming at reduced public spending had a significantly negative impact on women's living conditions, the epicenter of Latin American women's struggles was the process of re-democratization, strategically focused on enforcing their rights as women and as citizens in the political and social dimensions. Africa is another continent with countries

10 See Freidenvall, Dahlerup, and Skjeie (2006).

11 See Krook, Lovenduski, and Squires (2006).

12 A new party may adopt gender quotas when seeking to establish an initial basis of support, while an existing party may adopt it for aiming to overcome a string of electoral losses.

13 See Araújo and García (2006).

introducing gender quotas mostly after 1995.[14] There has been perhaps a greater reliance on constitutionally mandated reserved seats in Africa compared with other regions in the world. This may reflect a greater concern for guaranteed outcomes in terms of female representation and a lack of confidence in party compliance or initiative.

Other regions in the world are without a clear categorization of track. Countries in the Balkans did not allow questions regarding gender equality and political participation of women to be raised in any of the respective countries in early 1990s, during the transitional period.[15] Gender quotas were gradually accepted within the parties in these areas after the release of the Beijing Platform for Action. The Arab region is another without clear categorization.[16] Arab societies use all possible means to entrench their value-based heritage, by promoting customs and traditions that curb women's activities and confine their existence to the framework of the family. Therefore, the majority of Arab countries do not apply gender quotas.

In sum, to elect women by the fast track may lead to rapid results with regard to the representation of women in politics, but the effect on policy outcomes may not be clear if these women legislators are elected with no power base in their party, civic organizations, or constituencies. Therefore, it would be more convincing to examine whether the quota system influences policies by including as many countries as possible and also considering countries with both the fast track and the incremental track.

3. Empirical strategy and data

3.1 Empirical strategy

I apply a Difference-in-Difference approach to investigate the effect of gender quota systems. I collect two observations for each variable in each country, one before and the other one after the introduction of gender quotas. These two time-points are distant from each other for the purpose of looking at the long term impact of quotas on female legislators and on policy outcomes. If the time-points are too close to each other, say, a 5-year difference, there may be negligible change in the government budget and no change of the representation of women in politics due to the same election period.[17] Moreover, gender quotas may not have an immediate political impact.[18] Using this approach I study whether gender quotas influence women's representation in politics,

14 See Tripp, Konaté, and Lowe-Morna (2006).

15 See Antić and Lokar (2006).

16 See Abou-Zeid (2006).

17 Wooldridge (2002) points out that while independent variables frequently have substantial variation in the cross section for each time point, their first difference may not have much variation, which can lead to a large standard error for the estimates when estimating by OLS. This problem can be solved by using a large cross section, or by using longer differences over time. In this paper, I use the long-difference regression and include as many countries as possible, depending on the availability of data. Acemoglu and Johnson (2007) adopt the same approach.

18 The effect of gender quotas on the level of female legislators in the fast track may be the only exception.

and also examine whether there is correlation between the variation of government expenditures in different policy outcomes and gender quotas.

I consider the following empirical specifications:

$$FEM_{i,t} = \alpha_{1,i} + \beta_{1,t} + \gamma_1 Quotas_{i,t} + \delta_1 \mathrm{X}_{i,t} + \varepsilon_{1,i,t} \quad (1)$$

$$EXP_{i,t} = \alpha_{2,i} + \beta_{2,t} + \gamma_2 Quotas_{i,t} + \delta_2 \mathrm{X}_{i,t} + \varepsilon_{2,i,t} \quad (2)$$

where i denotes country indices and t denotes time indices. $Quotas$ is a binary indicator, denoting whether the country applies gender quotas. $Quotas = 1$ corresponds to the introduction of quota system, and $Quotas = 0$, otherwise. FEM denotes the proportion of women in the lower chamber and EXP denotes policy outcomes. α_i denotes the country fixed effect, which controls for unobserved permanent differences in the dependent variables. Similarly, β_t captures the post-effect of gender quotas on the dependent variables. $\mathrm{X}_{i,t}$ is a set of control variables, such as real GDP per capita and year. Real GDP per capita is included because it is suggested that countries with better economic conditions may be more likely to adopt gender quotas and/or have more women in politics. I control for year, which captures the influence of duration between two observations in individual country after the first difference, since sampling occurred in different years for different countries.[19] In addition, I am concerned about the non-linear trend of the proportion of female legislators, i.e., female representation may increase enormously after the introduction of gender quotas. Thereafter, I control for the quadratic term of duration after the first difference.[20]

Under the assumption that gender quotas have neither direct impact on policy outcomes nor influence on policy outcomes through channels other than the fraction of female legislators, gender quotas are a valid instrument for the proportion of female legislators and can be used to study the effect of female legislators on policy outcomes. The empirical specification is as following:

$$EXP_{i,t} = a_i + b_t + rFEM_{i,t} + d\mathrm{X}_{i,t} + \varsigma_{i,t} \quad (3)$$

19 For example, the beginning and ending year for Argentina are 1976 and 2004, respectively. I include these controls in equation (1) and equation (2). The duration for Argentina is therefore 24 years.

20 Equation (1)-(3) represent the equations before the first difference. Country dummies are removed from equation (1)-(3) after the first difference, and will not sacrifice the degree of freedom in the difference-in-difference approach. In addition, the year variable refers to the number of year, instead of year dummies, and will capture the influence of duration after the first difference.

where a_i reflects country dummies and b_t reflects the post-effect of gender quotas. According to Two Stage Least Squares (TSLS), the estimate of the average effect is the ratio between the reduced form effect to the effect at the first stage, i.e., $\hat{r} = \frac{\hat{\gamma}_2}{\hat{\gamma}_1}$.

3.2 Data description

The dataset used here includes 103 countries between 1970 and 2006, which contains 22 countries with legal gender quotas, 47 countries with voluntary party quotas and 43 countries without any type of gender quotas. Most developed countries introduced gender quotas in the 1980s, while most developing countries adopted gender quotas in the 1990s. The data for the existence of gender quotas are collected from International IDEA, and are reported in Table 1.[21] For the countries that introduced any type of gender quotas, the variable *Quotas* takes a value of 1 in the year when it was firstly introduced. For voluntary party quotas, the variable *Quotas* takes a value of 1 in the year when the first political party applied gender quotas.[22] I then collect comparable data on other variables based on *Quotas*.

The measure of female involvement in politics mainly comes from the Inter-Parliamentary Union's survey, *Women in Parliaments: 1945-1995*.[23] This publication lists the proportion of parliamentary seats held by women in each country. I only consider women's representation in the lower chamber.[24] Furthermore, policy outcomes refer to consolidated central government expenditures on general public service, defense, health, education, housing, economic affairs, and social services and welfare.[25] They are reported in *Government Finance Statistics (GFS) Yearbook* issued by the IMF. I divide these values by the GDP and multiply the result by 100.

Table 2 provides the details of these expenses provided by the *Government Finance Statistics Manual 2001*. Based on the survey by political scientists, female legislators tend to focus on legislation dealing with issues related to traditional concerns of women.[26] Therefore, I would expect to see a positive effect of female legislators on education, health, and social welfare since they are categories related to children and the family.

21 The website of International IDEA provides information about the type of gender quota system adopted, political party adopting quotas, and the year of adoption for each country.

22 I categorize countries that have applied any type of quotas, but later abolished them, in the QG by assuming a continuous effect of gender quotas. For example, Denmark applied party quotas between 1977 and 1996, and legal quotas between 1988 and 1990. Other such cases are: Egypt, which applied legal quotas between 1979 and 1986; Italy, which applied legal quotas between 1993 and 1997; and Venezuela, which applied legal quotas between 1997 and 2000.

23 The series after 1995 are collected from the website of IPU.

24 I employ the data of women's representation in the lower chamber because the election results do not appear in the upper chamber for some countries with a bicameral system, such as in Canada.

25 I consider only those categories that exist continuously during the sample periods, including total government spending. Other items, such as public order and safety, environment protection, recreation, and culture and religion, are not considered because they are either not defined in the early period or not reported for most of the countries.

26 For example, see Thomas (1994), Davis (1997), Wängenrud (2000), and Schwindt-Bayer (2007).

Moreover, women are less likely to support government expenditures on defense, and may exert a negative influence on such expenditures given the need for budget balance.[27] However, the directions of the signs of women's influence on general public service, housing, and economic affairs are not clear.

4. Results

4.1 Quotas v.s. female legislators

Table 3 provides mean percentage points of women's representation in politics and expenditures on policy outcomes to GDP before and after applying gender quotas. There are only small differences in the mean proportion of female legislators among countries before the introduction of quotas. The female proportion prior to quota system is 6.24% for the quota group (*QG*, henceforth) and 6.23% for the non-quota group (*NQG*, henceforth) including OECD countries, while it is 5.82% for the QG and 5.98% for the NQG without OECD countries.[28] Even though the number of women in politics grows over time, there exist differences between groups after the treatment. The average level of female legislators for the QG is about 1.52 times as large as that for the NQG including OECD countries, and it is about 1.31 times larger in the QG than in the NQG when OECD countries are excluded. Therefore, gender quotas are very likely to explain the growing participation of women in politics.

Nevertheless, there is concern about the endogeneity problem of introducing gender quotas, which would result in selection bias. It is suggested that countries adopting gender quotas may be also countries with higher GDP per capita and/or with more social concerns. Although the figure with the change in the proportion of female legislators on x-axis and the change in real GDP per capita on y-axis shows a positive correlation, it does not seem to be driven by certain groups of countries.[29] (I will deal with this issue more by econometrics in Section 5.) Moreover, does a country's choice of quota type relate to economic growth since most of the traditional OECD countries introduced voluntary party quotas and most of the developing countries introduced legal gender quotas? It suggests that a country's choice of a quota system is not biased according to economic growth.[30]

27 Davis (1997) points out that women never held positions in the sector of defense in government between 1968 and 1992 in Western European countries.

28 OECD refers to Northern and Western European countries, Australia, Canada, New Zealand, and the United States. I only consider these countries as OECD countries for the purpose of controlling their similar historical socio-economic background, which may have effect on women's representation in politics and on policy outcomes. Moreover, it is also for the purpose of matching countries with the incremental track as defined by Dahlerup (2006).

29 The figure is available on request. Moreover, the correlation line may become a bit flatter by dropping those countries with an increasing proportion of female legislators of more than 25%, such as Austria, Belgium, Iceland, Netherlands, New Zealand, and Spain. Or, it may be a bit steeper if Hungary and Zimbabwe are excluded. No matter the case, the correlation line would not be influenced very much.

30 The figures show that on average most countries have an economic growth rate around 0-1% and an increasing proportion of female legislators of around 0-30% during the sample period, no matter which type of gender quota system is introduced. The figures are available on request.

The effect of gender quotas on the proportion of female legislators, which is estimated by equation (1), is reported in Table 4. Here I include all countries. There is a significant positive effect of gender quotas on the share of female legislators. In general, the proportion of female legislators in the QG after adopting gender quotas is 5.03 percentage points higher than that in the NQG. I then investigate the effect of gender quotas considering the types of systems and present the results in column (2). Voluntary party quotas, relative to legal gender quotas, seem to be more relevant to the representation of women in politics. Since political parties adopt voluntary party quotas voluntarily, it is less likely that quotas will be a symbolic policy. In addition, electoral campaigns may strengthen the effect of voluntary party quotas on women's representation in politics since political parties without quotas may feel forced to nominate more women. On average, the proportion of female legislators in countries with voluntary party quotas is 4.18 percentage points higher than that in countries without party quotas.

4.2 Quotas v.s. policy outcomes

Do gender quotas influence policy outcomes? In Table 3, the mean percentage of GDP for expenditures on health, education, and social welfare, which are categories suggested to be women's concerns, are mostly increasing over time whether or not OECD countries are included. Even though expenditures on health are lower for the QG before gender quotas are applied, it is 1.35 times larger than the expenditures for the NQG after the treatment. The same pattern emerges in spending on education; spending for the NQG is higher than that for the QG before the treatment, but it increases at a faster rate for the QG after the treatment. For the expenditures on social welfare, there is a more pronounced rise of its share of GDP within the QG.[31] There is also an increase in expenditures for general public service, and decreased spending on defense and economic affairs. The average share of expenditures on housing increases for non-OECD countries, but the pattern is not clear when OECD countries are taken into account. In addition, there is no consistent trend for total government spending.

An estimation of equation (2) including all countries is reported in Table 4. The results given in column (1) show that gender quotas are only relevant to social service and welfare among policy outcomes. On average, countries, after introducing gender quotas, tend to spend 3.38 percentage points more on social welfare than those countries without gender quotas. Even though the coefficients are not significant, gender quotas are also positively correlated with other policy outcomes that concern women, such as health and education. Column (2) provides the results considering the types of gender quota systems. Voluntary party quotas are relevant to social welfare that the share of government expenditures on social welfare is 3.55 percentage points higher in countries adopting voluntary party quotas than that in countries without party quotas. Since voluntary party quotas are usually 1) adopted first; 2) mostly by left-wing parties, which have been suggested to prefer policies about social welfare more than right-wing parties; and 3) are more relevant to the representation of female legislators, who are

31 Even though the average proportion of expenditures on social welfare for countries with legal quotas is less than that for the NQG after the treatment, the growth rate is 74% for the QG and only 20% for the NQG.

more likely to give priority to legislation reflecting women's preferences, it may explain the effectiveness of party quotas on government expenditures on social welfare.[32]

4.3 Female legislators v.s. policy outcomes

Although there is a reduced form effect of gender quotas on government expenditures on social welfare, it would not necessarily extend to the effect of gender quotas on policy outcomes through its influence on women's participation in politics. Countries with gender quotas may be more liberal in general, and therefore would devote a higher share of government expenditures to social welfare. It may also be the case that male politicians in countries with gender quotas come under pressure to support policies related to women's concerns in order to decrease the chance of electoral loss. Nevertheless, it would be interesting to investigate the question of whether the increase of women's representation in politics, which results from adopting gender quotas, leads to more spending on policies related to women's traditional role in the family. Under the assumption that gender quotas have neither direct impact on policy outcomes nor influence on policy outcomes through channels other than increasing the proportion of female legislators, gender quotas are a valid instrument for female legislators and can be used to study the effect of female legislators on policy outcomes.

Table 5 provides the estimation of equation (3). Column (1) presents the results using gender quotas as an instrument for female legislators, while column (2) contains the results considering the types of quota systems and taking both as the instruments. I also report that the conditional p-value for the estimate, given by the STATA command *condivreg*, indicates robust results.[33] In the case with gender quotas as the instrument, there is an effect of female legislators on health and social welfare based on the conditional p-value. An increase in the share of female legislators by one percentage point increases the ratio of government expenditures on health and social welfare to GDP by 0.18 and 0.67 percentage points, respectively. Although women dislike expenditures on housing, it is not economically significant since the fraction of spending in housing on GDP is relatively small, compared with other expenditures. When taking both types of gender quota systems into account, female legislators are relevant to the expenditures on general public services and social welfare. It increases 0.53 and 0.39 percentage points in government expenditures on general public services and social welfare relative to GDP, respectively, with an increase in the share of female legislators by one percentage point. On average, female legislators exert positive influences on health, education, and social welfare, and yield negative influences on defense, which is

32 Welfare State Expansion is one of the criteria to map the left positioning of a political party. For example, Budge, Ian, Klingemann, Hans-Dieter, Volkens, Andrea, L. Bara, Judith and Eric Tanenbaum (2001), "Mapping Policy Preferences: Estimates for Parties, Electors, and Governments 1945-1998", Oxford University Press.

33 The p-value and confidence interval for the parameter on the endogenous regressor could be incorrect if the instruments are weak. Condivreg reports the conditional likelihood ratio confidence region and p-value, both of which are robust to potentially weak instruments. The estimate by the limited information maximum likelihood (LIML) is exactly the same as the estimate by the two-stage least squares method in this case.

expected. In addition, female legislators do not play any role in total government spending.

To further examine of the casual effect of the share of women in politics, rather than gender quotas, on policy outcomes, I first compare the ratio of estimate value of γ_2 to γ_1 with r. In addition, the estimate of the reduced form, i.e., equation (2), would be as significant as the estimate by applying TSLS if gender quotas are a good instrument. Both of the conditions are satisfied with government expenditures on social welfare. In other words, gender quotas may influence government expenditures on social welfare through their effect on the proportion of female legislators.

5. Robustness check

In this section I exam the question about whether sample selection bias influences my results by 1) controlling for civil war, which is parallel to exclude African and Latin American countries, and 2) ruling out traditional OECD countries. In addition, I investigate whether the results are robust to the specification containing trend.

5.1 Does civil war matter?

Countries belonging to the fast track of gender equality in politics mostly came out of civil war or wars of liberation during the 1980s and early 1990s, which may result in enhanced eagerness for achieving political rights and guaranteeing constitutional civil rights. Additionally, the influence of civil conflict has perhaps served as an impetus to introduce legal quotas because it is easier to put questions of gender representation on the table. This raises a doubt about whether the presence of civil war is an omitted variable in this study. To simplify the analysis, I consider only "gender quotas" in this section and control for civil war. *War* refers to intra-state war with an ending year between 1970 and the year introducing a gender quota system, which is collected from the Correlates of War (COW) and is included as a binary indicator here.

Estimation of equation (1) and (2) is given in Table 6 (The full results are reported in Appendix Table A1.). I control for *War* and present the results in column (1). The conclusions remain the same, i.e., gender quotas have an important impact on the increasing proportion of female legislators and there is a relevant reduced form effect of gender quotas on government expenditures on social welfare. Under the assumption that gender quotas influence policy choices only through higher levels of women in politics, I represent the proportion of female legislators with gender quotas and investigate the effect of female legislators on policy outcomes. The results are reported in column (1) of Table 7 (The full results are reported in Appendix Table A2.). There is an effect of female legislators on health and social welfare based on the conditional p-value. An increase in the share of female legislators by one percentage point increases the ratio of government expenditures on health and social welfare to GDP by 0.18 and 0.70 percentage points, respectively.

Similarly, socioeconomic background may influence a country's choice of adopting gender quotas, which may bias the results. In most of the African countries, civil conflicts came to an end and women became active in politics in the early 1990s. In Latin American countries, women struggled for their rights as women and citizens in the political and social dimensions when economic reforms by the end of the 1980s and the

beginning of the 1990s aimed at reduced public spending had a significantly negative impact on women's living conditions. Since a dramatic change of the rank order at the level of women's representation in politics happened after countries in these two regions introduced gender quotas, it raises doubt about whether the results are driven by African countries and Latin American countries.[34] In column (2) of Table 6 I drop African countries and in column (3) of Table 6 I also drop Latin American countries. Excluding both African and Latin American countries, there is still a positive and significant effect of gender quotas on the share of female legislators, and a relevant reduced form effect of gender quotas on government expenditures on social welfare. Furthermore, the greater the share of female legislators, the higher the ratio of social welfare expenditures to GDP (This result is shown in column (3) of Table 7.). Overall, an omitted variable attributed to civil war does not drive the conclusions.

5.2 Do OECD countries drive the results?

There are 21 traditional OECD countries included in this study.[35] Most of them adopted party quotas, and only New Zealand and the United States are without any firm type of gender quotas.[36] These traditional OECD countries were, for long, at the top of the list of an established rank order of countries according to the level of women's political representation, and their better economic development may reflect different preferences on policies relative to non-OECD countries. This raises doubt about whether OECD countries are driving the effect of gender quotas. I therefore re-examine the effect of gender quotas excluding these traditional OECD countries.

An estimation of equation (1) excluding OECD countries is reported in Table 8 (The full results are reported in Appendix Table A3.). Compared with the results in Table 4, the influence of gender quotas on the level of female legislators is smaller, but still significant.[37] With regard to the types of quotas, column (2) shows that legal quotas have a relatively higher and significant effect on the level of female legislators. This may capture the phenomenon that developing countries usually improve women's representation in politics through the fast track. Most developing countries did not adopt gender quotas until the UN Conference on Women held in Beijing in 1995, and therefore experienced a significant jump in the share of female legislators after implementing legal gender quotas, such as in Latin American and African countries.

34 There are 6 African countries and 3 Latin American countries in the top 20 countries ranked by women in the parliament in 2008. Other countries on this list are traditional OECD countries.

35 They are Australia, Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, and the United States.

36 Krook, Lovenduski, and Squires (2006) define the quota system in these two countries as "soft quotas". The aim of soft quotas is to increase women's representation more directly through informal targets and recommendations. It facilitates access, but does not necessarily mandate outcomes. For example, in the U.S., the presence of soft quotas has not translated into any great gains in legislative representation.

37 The results of the other specification with quotas, OECD, and their interaction as independent variables show that gender quotas pass the joint F-test and have a strongly significant effect on the level of female politicians.

Estimation of equation (2), excluding OECD countries, is reported in Table 8. There is significant correlation between gender quotas and social welfare, but the scale is smaller than the case including all countries. Column (2) reports the results considering the types of gender quota systems. Voluntary party quotas are relevant to social welfare in that the share of government expenditures on social welfare is 2.32 percentage points higher in those countries adopting voluntary party quotas, as compared to those countries without party quotas.

Table 9 reports the estimation of equation (3) (The full results are reported in Appendix Table A4.). Column (1) provides the results using gender quotas as an instrument for female legislators, while column (2) presents the results taking both types of quota systems as instruments. When OECD countries are excluded, there is only an effect of female legislators on social welfare expenditure based on the conditional p-value. This implies that social welfare concerns women generally, even among non-OECD countries. However, female legislators are irrelevant to any policy outcome in the case considering different types of gender quota systems.

Overall, gender quotas have an important effect on the share of female legislators, and the result not driven by the OECD countries. Legal quotas, relative to voluntary party quotas, are more important when interpreting the representation of women in politics among developing countries. Moreover, the effect of quotas on female legislators is very likely to be translated into the influence of female policymakers on social welfare.

5.3 A smaller panel dataset: do trends matter?

To reduce the risk of biased estimates resulting from different time period backgrounds, in this section I consider a finer dataset containing only countries with a beginning sampling year before 1980 and an ending sampling year after 2000. Moreover, I collect two more observations around the year 1985 and the year 1995 for each country to capture the trend of policy outcomes and women's representation in politics.[38] The panel dataset in this section therefore covers 49 countries between 1970 and 2006, where there are 12 countries with legal gender quotas, 29 countries with voluntary party quotas, and 15 countries without any type of gender quotas.[39] Figure 1 provides a simple graphic illustration of the relationship between gender quotas and the average proportion of female legislators. The line with points indicates the QG, and the line with triangles indicates the NQG. Most traditional OECD countries introduced gender quotas during mid-1980s, and most developing countries introduced gender quotas during 1990s. While some caution is needed in interpreting this graph since no other factors are being controlled, the figure shows that the average proportion of female legislators grows faster in the QG than in the NQG. The differences in the share

38 The mean value of the beginning year is 1973.4, and the mean value of the ending year is 2003.6.

39 These countries are Argentina, Australia, Austria, Bolivia, Canada, Chile, Costa Rica, Denmark, Dominican Re, El Salvador, Ethiopia, Germany, Iceland, India, Indonesia, Israel, Jordan, Korea Republic of, Lesotho, Luxembourg, Malta, Mexico, Morocco, Nepal, the Netherlands, Norway, Panama, Philippines, Romania, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Tunisia, Uruguay, Venezuela, Bahamas, Bahrain, the Islamic Republic of Iran, Kuwait, Madagascar, Maldives, Mauritius, New Zealand, Oman, Singapore, Turkey, and the United States.

of female legislators between two groups are 3.6 percentage points in 1970s, 6.7 percentage points in 1980s, 9.4 percentage points in 1990s, and 11.3 percentage points in 2000s. Gender quotas seem to be the factor resulting in this growing difference.

The following empirical specifications provide a more systematic investigation of the effect of gender quotas, which are similar to equation (1), (2) and (3), but including this trend.

$$FEM_{i,t} = \alpha_{1,i} + \beta_{1,t} + \gamma_1 Quotas_{i,t} + trend + \delta_1 Duration_{i,t} + \theta_1 GDP_{i,t} + \varepsilon_{1,i,t} \quad (4)$$

$$EXP_{i,t} = \alpha_{2,i} + \beta_{2,t} + \gamma_2 Quotas_{i,t} + trend + \delta_2 Duration_{i,t} + \theta_2 GDP_{i,t} + \varepsilon_{2,i,t} \quad (5)$$

$$EXP_{i,t} = a_i + b_t + rFEM_{i,t} + +trend + dDuration_{i,t} + cGDP_{i,t} + \varsigma_{i,t} \quad (6)$$

where *Duration* denotes the duration between each two adjacent observations for an individual country.

Estimation of equation (4) is reported in Table 10 (The full results are reported in Appendix Table A5.). Gender quotas are relevant to the level of female legislators (including the OECD countries) in that the proportion of female legislators in the QG after the introduction of gender quotas is 4.46 percentage points higher than that in NQG. Column (2) is the results considering different types of gender quota systems. Voluntary party quotas are more relevant to female legislators in the sample that includes OECD countries. The proportion of female legislators in the QG after adopting voluntary party quotas is 5.59 percentage points higher than that in the NQG.[40]

An estimation of equation (5) is also reported in Table 10. There is a positive and significant reduced form effect of gender quotas on social service and welfare. Government expenditures on social welfare in the QG after the introduction of gender quotas is 1.25 percentage points higher than that in the NQG. Gender quotas also yield influence on general public services, which include public debt transactions and transfers between different levels of government. This might be the case since it has been suggested that women are more liberal on average.[41] Therefore, female legislators may tend to raise the public debt and transfer money to local governments in order to

40 On the other hand, legal quotas are more relevant in the sample excluding OECD countries. The level of female legislators in countries after adopting legal quotas is 6.20 percentage points higher than that in countries without quotas. These results are not reported in the table.

41 Lott and Kenny (1999) suggest that the influence of female voters may have been reflected in the large increase in state transfers to local governments. They also suggest that after the 1970s, women prefer big governments. Edlund and Pande (2002) claim that women are more likely to support the Democratic Party as the divorce rate increases.

provide better policies for children, the family, and women. The effect is also significant with the controls for different types of gender quotas.

Estimation of equation (6) is reported in Table 11 (The full results are reported in Appendix Table A6.). In the cases with gender quotas as the instrument, there is an effect of female legislators on general public services, economic affairs, and social welfare. Nevertheless, there are only reduced form effects of gender quotas on government expenditures on general public services and social welfare. An increase in the share of female legislators by one percentage point increases the ratio of government expenditures on general public services and social welfare to GDP by 0.53 and 0.28 percentage points, respectively. In cases considering different types of gender quota systems, female legislators are relevant to both the expenditures on general public services and social welfare.

Generally, gender quotas have an important effect on the representation of women in politics, and consequently yield a significant influence of female legislators on government expenditures on social welfare.

6. Conclusion

The purpose of this paper is to investigate whether political reservations have increased expenditures on groups that benefit from the mandate. While most economic research studying the effect of political reservation for women on policy outcomes uses within-country data, the contribution of this study is to investigate the reservation effect of women on a cross-country basis.

The results using two observations for each country suggest that there is an effect of female legislators on government expenditures of social welfare, where the increasing representation of female legislators resulted from a gender equality policy. In other words, gender quotas are very likely to influence policy outcomes through its effect on the proportion of female legislators. This conclusion is made under the assumption that gender quotas have neither a direct impact on policy outcomes nor do they influence policy outcomes through channels other than increasing the proportion of female legislators. The results are robust to civil war and stage of development.

The second part of the analysis covers countries with a beginning sampling year before 1980 and an ending sampling year after 2000, and collects two more observations per country to capture the trend of policy outcomes and the level of female legislators. The increasing representation of women in politics affects government spending decisions, especially for those issues related to women's traditional role in the family. Social welfare is again confirmed as the issue that is most concerning for women. An increase in the share of female legislators by one percentage point increases the ratio of expenditure on social welfare to GDP by 0.28 percentage points. This conclusion is not driven by a time trend.

The results also suggest that the fast track to gender equality by mandated legal gender quotas among developing countries has a sound effect on the representation of women in politics, but the increasing level of female legislators in developing countries may not yet yield an impact on policy outcomes. Therefore, continuous tracking of the data would facilitate investigation of the effect of women in politics on policy outcomes.

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Appendix

Figure 1: Effect of gender quotas on average proportion of female legislators

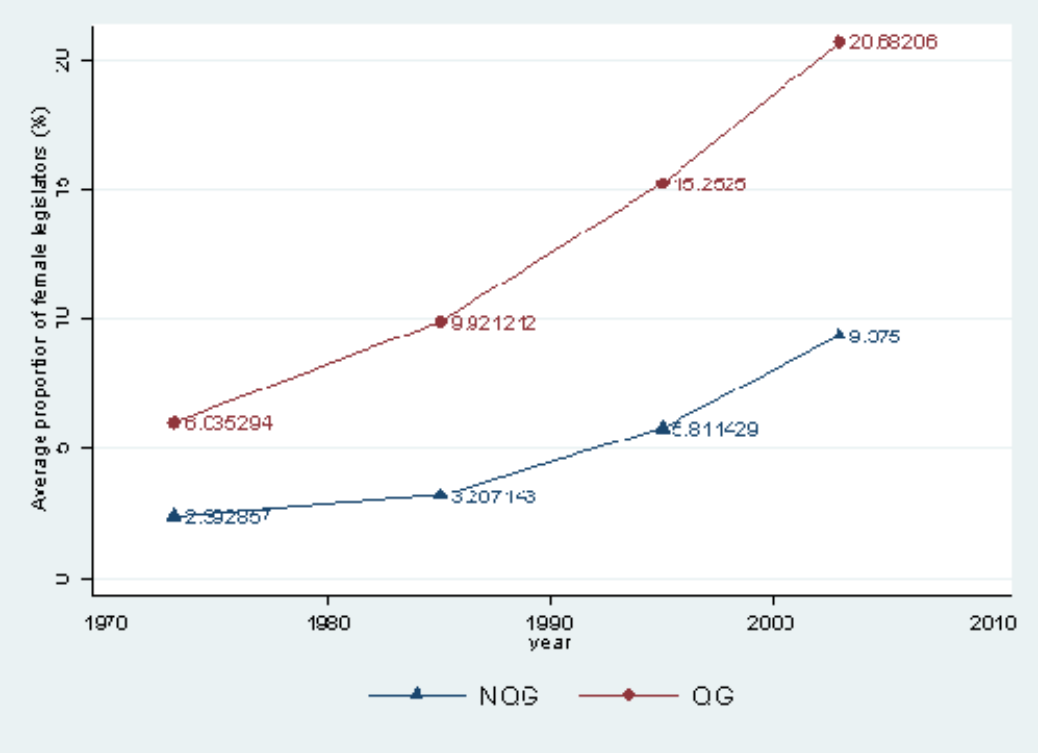

Table 1: Gender quotas policies by country, quota type and year of adoption

	Party Quotas		Legal Quotas			Party Quotas		Legal Quotas	
Albania	-		N		Jordan	N		Y	2003
Argentina	Y	2000	Y	1991	Kenya	Y	1990s	Y	1997
Australia	Y	1994	N		Korea , Republic of	N		Y	2004
Austria	Y	1985	N		Lithuania	Y	1995	N	
Bangladesh	N		Y	1972	Luxembourg	Y	1990s	N	
Belgium	Y	1985	Y	1994	Malta	Y	2000s	N	
Bolivia	N		Y	1997	Mexico	Y	2002	Y	1996
Botswana	Y	1999	N		Moldova , Republic of	Y	2004	N	
Brazil	Y	1986	Y	1997	Morocco	Y	1989	N	
Burkina Faso	Y	2002	N		Nepal	-		Y	1990
Burundi	-		Y	2004	The Netherlands	Y	1987	N	
Cameroon	Y	1996	N		Norway	Y	1975	N	
Canada	Y	1985	N		Pakistan	-		Y	2000
Chile	Y	1988	N		Panama	N		Y	1997
Costa Rica	Y	1995	Y	1997	Peru	N		Y	1997
Croatia	Y	1996	N		Philippines	Y	1984	Y	1995
Cyprus	Y	1990s	N		Poland	Y	2001	N	
Czech Republic	Y	1990s	N		Portugal	Y	2004	N	
Denmark	Y	1977	Y	1988	Romania	Y	2001	N	
Dominican Re	Y	1994	Y	1997	Slovakia	Y	1990s	N	
Egypt	N		Y	1979	Slovenia	Y	1992	N	
El Salvador	Y	1992	N		Spain	Y	1988	N	
Ethiopia	Y	2004	N		Sudan	N		Y	2000
Germany	Y	1986	N		Sweden	Y	1987	N	
Greece	Y	1994	N		Switzerland	Y	1986	N	
Hungary	Y	1993	N		Thailand	Y	2000s	N	
Iceland	Y	1999	N		Tunisia	Y	2004	N	
India	Y	1990s	N		Uganda	N		Y	1995
Indonesia	N		Y	2003	The United Kingdom	Y	1981	N	
Ireland	Y	1991	N		Uruguay	Y	1980	N	
Israel	Y	1997	N		Venezuela	N		Y	1997
Italy	Y	1987	Y	1993					

Source: International IDEA and Krook (2006).

Note: 1. '-' means data not available. 2. Year with 's' in the end refers to the decade of adoption provided in Krook (2006) since no further information could be obtained. 3. Countries without any type of gender quotas between 1970 and 2005 are Azerbaijan, Bahamas, Bahrain, Belarus, Bhutan, Bulgaria, Colombia, Democratic Republic of Congo, Estonia, Fiji, Finland, Georgia, Grenada, Islamic Republic of Iran, Jamaica, Kazakhstan, Kuwait, Latvia, Lebanon, Lesotho, Madagascar, Malaysia, Maldives, Mauritius, Mongolia, New Zealand, Oman, Russian Federation, Saint Vincent and the Grenadines, Seychelles, Singapore, Sri Lanka, Swaziland, Syrian Arab Republic, Trinidad & Tobago, Turkey, Ukraine, the United Arab Emirates, the United States, Viet Nam, Zambia, and Zimbabwe.

Table 2: Classification of Expense by Function of Government

7	**Total outlays**
701	**General public services**
7011	Executive and legislative organs, financial and fiscal affairs, external affairs
7012	Foreign economic aid
7013	General services
7014	Basic research
7015	R&D Gerneral public services
7016	General public services n.e.c.
7017	Public debt transactions
7018	Transfers of a general character between different levels of government
702	**Defense**
7021	Military defense
7022	Civil defense
7023	Foreign military aid
7024	R&D Defense
7025	Defense n.e.c
703	**Public order and safety**
7031	Police services
7032	Fire protection services
7033	Law courts
7034	Prisons
7035	R&D Public order and safety
7036	Public order and safety n.e.c

(continued)

(continued)

704	**Economic affairs**
7041	General economic, commercial, and labor affairs
7042	Agriculture, forestry, fishing, and hunting
7043	Fuel and energy
7044	Mining manufacturing, and construction
7045	Transport
7046	Communication
7047	Other industries
7048	R&D Economic affairs
7049	Economic affairs n.e.c.
705	**Environmental protection**
7051	Waste management
7052	Waste water management
7053	Pollution abatement
7054	Protection of biodiversity and landscape
7055	R&D Environmental protection
7056	Environmental protection n.e.c.
706	**Housing and community amenities**
7061	Housing development
7062	Community development
7063	Water supply
7064	Street lighting
7065	R&D Housing and community amenities
7066	Housing and community amenities n.e.c.
707	**Health**
7071	Medical products, appliances, and equipment
7072	Outpatient services
7073	Hospital services
7074	Public health services
7075	R&D Health
7076	Health n.e.c

(continued)

(continued)

708	**Recreation, culture, and religion**
7081	Recreational and sporting services
7082	Cultural services
7083	Broadcasting and publishing services
7084	Religious and other community services
7085	R&D Recreation, culture, and religion
7086	Recreation, culture, and religion n.e.c.
709	**Education**
7091	Pre-primary and primary education
7092	Secondary education
7093	Postsecondary nontertiary education
7094	Tertiary education
7095	Education not definable by level
7096	Subsidiary services to education
7097	R&D Education
7098	Education n.e.c.
710	**Social protection**
7101	Sickness and disability
7102	Old age
7103	Survivors
7104	Family and children
7105	Unemployment
7106	Housing
7107	Social exclusion n.e.c.
7108	R&D Social protection
7109	Social protection n.e.c.

R&D = Research and development.

n.e.c. = not elsewhere classified.

Source: Table 6.2 in Government Finance Statistics Manual 2001 (GFSM 2001), issued by IMF.

Table 3: Mean percentage points of the level of female legislators and expenditures on policy outcomes to GDP

	with OECD countries			without OECD countries		
	Before	**After**	**Obs.**	**Before**	**After**	**Obs.**
Female Legislators						
Quotas	6.24	18.41	56	5.82	14.45	38
	(0.76)	(1.36)		(0.94)	(1.15)	
Party quotas	6.86	19.46	47	6.71	14.93	29
	(0.87)	(1.52)		(1.16)	(1.34)	
Legal quotas	4.21	16.45	22	3.62	14.67	19
	(0.79)	(2.19)		(0.56)	(1.94)	
No quotas	6.23	12.12	43	5.98	11.01	40
	(1.06)	(1.37)		(1.07)	(1.26)	
Total Government Spending						
Quotas	27.38	29.59	56	29.44	29.19	38
	(2.00)	(1.43)		(2.54)	(1.68)	
Party quotas	26.14	29.69	47	27.63	29.22	29
	(1.87)	(1.46)		(1.83)	(1.69)	
Legal quotas	27.90	26.63	22	30.84	26.80	19
	(5.16)	(2.51)		(6.41)	(2.59)	
No quotas	24.04	27.19	43	23.75	26.52	40
	(2.05)	(1.39)		(2.11)	(1.38)	
General Public Services						
Quotas	2.72	6.47	56	2.76	6.10	38
	(0.25)	(0.41)		(0.32)	(0.49)	
Party quotas	2.53	6.52	47	2.46	6.06	29
	(0.23)	(0.41)		(0.31)	(0.47)	
Legal quotas	2.68	6.71	22	2.62	5.81	19
	(0.42)	(0.86)		(0.49)	(0.78)	
No quotas	4.20	7.00	43	4.16	7.36	40
	(0.78)	(0.77)		(0.81)	(0.80)	

(continued)

(continued)

	with OECD countries countries			without OECD countries		
	Before	**After**	**Obs.**	**Before**	**After**	**Obs.**
Defense						
Quotas	2.70	1.61	56	2.90	1.59	38
	(0.56)	(0.20)		(0.81)	(0.23)	
Party quotas	2.59	1.63	47	2.77	1.61	29
	(0.64)	(0.24)		(1.02)	(0.29)	
Legal quotas	2.45	1.35	22	2.51	1.35	19
	(0.48)	(0.18)		(0.55)	(0.20)	
No quotas	2.87	2.22	43	2.71	2.24	40
	(0.55)	(0.25)		(0.57)	(0.25)	
Health						
Quotas	1.86	3.15	56	1.61	2.53	38
	(0.24)	(0.32)		(0.27)	(0.33)	
Party quotas	1.97	3.44	47	1.72	2.81	29
	(0.27)	(0.35)		(0.34)	(0.40)	
Legal quotas	1.20	1.63	22	1.00	1.45	19
	(0.24)	(0.38)		(0.20)	(0.32)	
No quotas	2.00	2.33	43	1.64	2.22	40
	(0.35)	(0.22)		(0.18)	(0.20)	
Education						
Quotas	2.86	3.23	56	2.83	3.25	38
	(0.22)	(0.27)		(0.24)	(0.28)	
Party quotas	2.78	3.25	47	2.69	3.28	29
	(0.23)	(0.30)		(0.25)	(0.31)	
Legal quotas	2.92	3.02	22	2.61	3.00	19
	(0.36)	(0.38)		(0.37)	(0.42)	
No quotas	4.00	3.77	43	3.64	3.82	40
	(0.52)	(0.39)		(0.34)	(0.40)	

(continued)

(continued)

	with OECD countries countries			**without OECD countries**		
	Before	**After**	**Obs.**	**Before**	**After**	**Obs.**
Housing						
Quotas	0.56	0.52	56	0.5	0.57	38
	(0.08)	(0.07)		(0.10)	(0.08)	
Party quotas	0.57	0.48	47	0.51	0.53	29
	(0.09)	(0.07)		(0.12)	(0.09)	
Legal quotas	0.43	0.57	22	0.41	0.64	19
	(0.09)	(0.12)		(0.10)	(0.13)	
No quotas	0.92	1.02	43	0.92	1.06	40
	(0.22)	(0.29)		(0.24)	(0.31)	
Economic Affairs						
Quotas	5.29	3.25	56	5.67	3.22	38
	(0.65)	(0.30)		(0.93)	(0.33)	
Party quotas	5.22	3.43	47	5.69	3.50	29
	(0.72)	(0.32)		(1.12)	(0.36)	
Legal quotas	5.08	2.34	22	5.03	2.39	19
	(0.70)	(0.35)		(0.81)	(0.40)	
No quotas	8.20	4.16	43	7.70	4.29	40
	(1.40)	(0.47)		(1.31)	(0.50)	
Social Welfare						
Quotas	5.76	9.32	56	3.73	6.62	38
	(0.71)	(0.90)		(0.72)	(0.93)	
Party quotas	6.62	10.69	47	4.49	8.01	29
	(0.78)	(0.94)		(0.88)	(1.06)	
Legal quotas	3.31	4.81	22	1.65	2.87	19
	(1.00)	(1.26)		(0.44)	(0.76)	
No quotas	4.42	4.42	43	3.44	4.13	40
	(1.03)	(0.64)		(0.65)	(0.65)	

Note: standard errors in parentheses.

Table 4: The effect of gender quotas on the representation of female legislators and policy outcomes

Dependent Variable	Female Legislators		Total Gov Spending		General Public Services		Defense		Health	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Quotas	5.034	-	-0.718	-	1.684	-	-0.567	-	0.881	-
	(1.710)***		(3.278)		(1.092)		(.728)		(.559)	
Party Quotas	-	4.184	-	2.216	-	1.828	-	-0.105	-	1.018
		(1.828)**		(3.045)		(.939)*		(.701)		(.499)**
Legal Quotas	-	2.325	-	-4.953	-	0.948	-	-0.413	-	-0.561
		(2.369)		(4.038)		(1.314)		(.730)		(.604)
Duration	-1.376	-1.359	-0.759	-0.517	-0.870	-0.066	0.105	0.116	-0.128	-0.065
	(.616)**	(2.369)**	(1.032)	(.962)	(.332)	(.327)	(.269)	(.250)	(.163)	(.168)
Duration²	0.041	0.041	0.021	0.016	0.000	-0.000	-0.003	-0.004	0.003	0.002
	(.016)**	(.017)**	(.026)	(.025)	(.009)	(.009)	(.007)	(.006)	(.004)	(.004)
DRGDP	1.713	1.713	5.423	4.569	0.351	0.244	0.728	0.641	0.414	0.294
	(1.619)	(1.694)	(3.679)	(3.334)	(1.637)	(1.684)	(.605)	(.654)	(.351)	(.354)
R^2	0.24	0.24	0.04	0.07	0.04	0.05	0.02	0.02	0.05	0.07
Observations	188	188	188	188	188	188	188	188	188	188

(continued)

(continued)

Dependent Variable	Education		Housing		Economic Affairs		Social Welfare	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Quotas	0.156	-	-0.458	-	1.508	-	3.383	-
	(.793)		(.383)		(1.406)		(1.189)***	
Party Quotas	-	0.242	-	-0.476	-	1.465	-	3.545
		(.699)		(.343)		(1.275)		(1.033)***
Legal Quotas	-	-0.228	-	0.015	-	0.216	-	-0.548
		(.646)		(.212)		(1.413)		(.999)
Duration	-0.015	0.003	0.094	0.075	-0.504	-0.457	-0.514	-0.354
	(.236)	(.243)	(.089)	(.085)	(.419)	(.425)	(.377)	(.367)
Duration^2	-0.000	-0.001	-0.002	-0.002	0.009	0.008	0.013	0.009
	(.006)	(.006)	(.002)	(.002)	(.011)	(.011)	(.009)	(.009)
DRGDP	1.466	1.424	0.378	0.415	2.241	2.154	0.270	-0.033
	(.626)**	(.648)**	(.517)	(.529)	(1.556)	(1.613)	(.780)	(.790)
R^2	0.06	0.06	0.05	0.06	0.08	0.08	0.13	0.14
Observations	188	188	188	188	188	188	188	188

(continued)

(continued)

	Total Gov Spending		**General Public Services**		**Defense**		**Health**	
	(1)	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**
Fem	-0.137	-0.027	0.334	0.390	-0.113	-0.056	0.175	0.115
	(.572)	(.462)	(.233)	(.236)	(.154)	(.145)	(.113)	(.109)
Duration	-0.945	-0.807	0.373	0.443	-0.050	0.022	0.113	0.037
	(1.281)	(1.330)	(.509)	(.526)	(.335)	(.322)	(.246)	(.228)
Duration²	0.027	0.023	-0.014	-0.016	0.001	-0.001	-0.004	-0.002
	(.035)	(.037)	(.014)	(.014)	(.009)	(.009)	(.007)	(.006)
DRGDP	5.650	5.373	-0.222	-0.362	0.921	0.777	0.114	0.265
	(3.371)*	(3.700)	(1.324)	(1.374)	(.871)	(.841)	(.640)	(.595)
IV								
Gender quotas	Y	-	Y	-	Y	-	Y	-
Party & Legal quotas	-	Y	-	Y	-	Y	-	Y
p-value	0.810	0.940	0.108	0.069	0.447	0.719	0.091	0.254
Observations	188	188	188	188	188	188	188	188

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Duration and DRGDP refer to the first difference of year and real GDP per capita, respectively. Duration² denotes the square of Duration.*

Table 5: The effect of female legislators on policy outcomes

	Education		**Housing**		**Economic Affairs**		**Social Welfare**	
	(1)	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**
Fem	0.031	0.019	-0.091	-0.077	0.299	0.262	0.672	0.533
	(.133)	(.139)	(.060)	(.068)	(.259)	(.241)	(.322)**	(.277)*
Duration	0.027	0.011	-0.031	-0.013	-0.092	-0.140	0.411	0.234
	(.289)	(.284)	(.131)	(.125)	(.566)	(.555)	(.702)	(.617)
Duration^2	-0.001	-0.001	0.002	0.001	-0.004	-0.002	-0.015	-0.009
	(.008)	(.008)	(.004)	(0.003)	(.016)	(.015)	(.019)	(.017)
DRGDP	1.413	1.444	0.534	0.499	1.728	1.824	-0.881	-0.530
	(.752)*	(.741)*	(.340)	(.326)	(1.472)	(1.449)	(1.826)	(1.611)
IV								
Gender quotas	Y	-	Y	-	Y	-	Y	-
Party & Legal quotas	-	Y	-	Y	-	Y	-	Y
p-value	0.813	0.882	0.093	0.163	0.253	0.348	0.002	0.004
Observations	188	188	188	188	188	188	188	188

(continued)

(continued)

	Education		**Housing**		**Economic Affairs**		**Social Welfare**	
	(1)	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**
Fem	0.031	0.019	-0.091	-0.077	0.299	0.262	0.672	0.533
	(.133)	(.139)	(.060)	(.068)	(.259)	(.241)	(.322)**	(.277)*
Duration	0.027	0.011	-0.031	-0.013	-0.092	-0.140	0.411	0.234
	(.289)	(.284)	(.131)	(.125)	(.566)	(.555)	(.702)	(.617)
Duration²	-0.001	-0.001	0.002	0.001	-0.004	-0.002	-0.015	-0.009
	(.008)	(.008)	(.004)	(0.003)	(.016)	(.015)	(.019)	(.017)
DRGDP	1.413	1.444	0.534	0.499	1.728	1.824	-0.881	-0.530
	(.752)*	(.741)*	(.340)	(.326)	(1.472)	(1.449)	(1.826)	(1.611)
IV								
Gender quotas	Y	-	Y	-	Y	-	Y	-
Party & Legal quotas	-	Y	-	Y	-	Y	-	Y
p-value	0.813	0.882	0.093	0.163	0.253	0.348	0.002	0.004
Observations	188	188	188	188	188	188	188	188

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Duration and DRGDP refer to the first difference of year and real GDP per capita, respectively. Duration² denotes the square of Duration. 4. P-value refers to conditional p-value of Fem estimated by LIML.*

Table 6: Robustness check: does civil war matter? (I)

Dep. Var.	Female Legislators			General Public Services			Defense			Health		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Quotas	4.801	5.136	6.116	1.654	1.646	2.499	-0.600	-0.069	-0.295	0.875	1.062	1.176
	(1.691)***	(2.009)**	(2.211)***	(1.119)	(1.025)	(1.030)**	(.720)	(.835)	(1.050)	(.569)	(.687)	(.873)
War	Y	-	-	Y	-	-	Y	-	-	Y	-	-
Africa	Y	N	N	Y	N	N	Y	N	N	Y	N	N
Latin America	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y	N
R^2	0.3	0.24	0.29	0.04	0.05	0.13	0.03	0.03	0.05	0.05	0.06	0.05
Observations	188	156	124	188	156	124	188	156	124	188	156	124
Dep. Var.	**Education**			**Housing**			**Economic Affairs**			**Social Welfare**		
	(1)	**(2)**	**(3)**	**(1)**	**(2)**	**(3)**	**(1)**	**(2)**	**(3)**	**(1)**	**(2)**	**(3)**
Quotas	0.158	0.675	0.691	-0.45	-0.716	-0.936	1.527	0.865	1.171	3.378	3.924	4.533
	(.807)	(.912)	(1.142)	(.389)	(.436)	(.562)	(1.453)	(1.514)	(1.852)	(1.213)***	(1.427)***	(1.758)**
War	Y	-	-	Y	-	-	Y	-	-	Y	-	-
Africa	Y	N	N	Y	N	N	Y	N	N	Y	N	N
Latin America	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y	N
R^2	0.06	0.02	0.02	0.06	0.06	0.19	0.08	0.06	0.07	0.13	0.15	0.18
Observations	188	156	124	188	156	124	188	156	124	188	156	124

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Real GDP per capita and year are control variables in each regression.*

Table 7: Robustness check: does civil war matter? (II)

IV: gender quotas	General Public Services			Defense			Health			Education		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Fem	0.345	0.32	0.409	-0.125	-0.013	-0.048	0.182	0.207	0.192	0.033	0.131	0.113
	-0.247	-0.224	(.235)*	-0.161	-0.168	-0.176	-0.119	-0.139	-0.14	-0.14	-0.164	-0.164
War	Y	-	-	Y	-	-	Y	-	-	Y	-	-
Africa	Y	N	N	Y	N	N	Y	N	N	Y	N	N
Latin America	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y	N
p-value	0.116	0.084	0.011	0.422	0.937	0.782	0.095	0.092	0.131	0.811	0.362	0.448
Observations	188	156	124	188	156	124	188	156	124	188	156	124
	Housing			**Economic Affairs**			**Social Welfare**					
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)			
Fem	-0.094	-0.139	-0.153	0.318	0.168	0.191	0.704	0.764	0.741			
	-0.063	-0.079	(.083)*	-0.272	-0.262	-0.269	(.341)**	(.401)*	(.397)*			
War	Y	-	-	Y	-	-	Y	-	-			
Africa	Y	N	N	Y	N	N	Y	N	N			
Latin America	Y	Y	N	Y	Y	N	Y	Y	N			
p-value	0.1	0.023	0.011	0.25	0.528	0.484	0.002	0.002	0.002			
Observations	188	156	124	188	156	124	188	156	124			

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Real GDP per capita and year are control variables in each regression. 4. P-value refers to conditional p-value estimated by LIML.*

Table 8: Robustness check: do OECD countries drive the results? (I)

Dependent Variable	Female Legislators		General Public Services		Defense		Health	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Quotas	3.113	-	.846	-	-1.057	-	.236	-
	(1.813)*		-1.16		(.851)		(.321)	
Party Quotas	-	.718	-	1.161	-	-.496	-	.397
		(1.937)		(.994)		(.935)		(.345)
Legal Quotas	-	6.561	-	-.219	-	-.562	-	-.283
		(2.370)***		(1.498)		(.967)		(.390)
R^2	0.1	0.19	0.03	0.03	0.04	0.03	0.03	0.05
Observations	146	146	146	146	146	146	146	146
Dependent Variable	**Education**		**Housing**		**Economic Affairs**		**Social Welfare**	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Quotas	-.398	-	-.424	-	.194	-	1.924	-
	(.524)		(.411)		(1.232)		(.714)***	
Party Quotas	-	-.172	-	-.428	-	.165	-	2.316
		(.482)		(.359)		(1.356)		(.761)***
Legal Quotas	-	-.141	-	.022	-	.554	-	-.549
		(.575)		(.263)		(1.706)		(.867)
R^2	0.19	0.19	0.06	0.06	0.11	0.11	0.11	0.14
Observations	146	146	146	146	146	146	146	146

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Real GDP per capita and year are control variables in each regression.*

Table 9: Robustness check: do OECD countries drive the results? (II)

	General Public Services		**Defense**		**Health**		**Education**	
	(1)	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**
Fem	.272	.028	-.340	-.105	.076	-.024	-.128	-.028
	(.408)	(.246)	(.346)	(.122)	(.109)	(.061)	(.165)	(.084)
IV								
Gender quotas	Y	-	Y	-	Y	-	Y	-
Party & Legal quotas	-	Y	-	Y	-	Y	-	Y
p-value	0.483	0.953	0.233	0.451	0.468	0.630	0.407	0.763
Observations	146	146	146	146	146	146	146	146
	Housing		**Economic Affairs**		**Social Welfare**			
	(1)	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**		
Fem	-.136	-.022	.062	.089	.618	.021		
	(.128)	(.047)	(.411)	(.210)	(.406)	(.116)		
IV								
Gender quotas	Y	-	Y	-	Y	-		
Party & Legal quotas	-	Y	-	Y	-	Y		
p-value	0.195	0.732	0.884	0.729	0.007	0.339		
Observations	146	146	146	146	146	146		

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Real GDP per capita and year are control variables in each regression. 4. P-value refers to conditional p-value estimated by LIML.*

Table 10: Robustness check: do trends matter? (I)

Dependent Variable	Female Legislators		General Public Services		Defense		Health	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Quotas	4.459	-	2.38	-	-.218	-	.274	-
	(1.780)**		(.922)**		(.601)		(.446)	
Party Quotas	-	5.593	-	1.506	-	-.406	-	.247
		(1.707)***		(.791)*		(.576)		(.447)
Legal Quotas	-	3.018	-	2.232	-	.536	-	-.463
		(2.463)		(1.251)*		(.498)		(.510)
R^2	0.82	0.83	0.65	0.64	0.66	0.66	0.66	0.66
Observations	189	184	189	184	189	184	189	184
Dependent Variable	**Education**		**Housing**		**Economic Affairs**		**Social Welfare**	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Quotas	-.030	-	-.441	-	1.832	-	1.246	-
	(.570)		(.350)		(1.158)		(.558)**	
Party Quotas	-	-.281	-	-.511	-	1.210	-	1.325
		(.558)		(.331)		(1.075)		(.583)**
Legal Quotas	-	.546	-	.143	-	1.978	-	.131
		(.565)		(.285)		(1.512)		(.704)
R^2	0.7	0.7	0.55	0.55	0.71	0.71	0.86	0.86
Observations	189	184	189	184	189	184	189	184

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Real GDP per capita and year are control variables in each regression. 4. Trend, country and time dummies are included.*

Table 11: Robustness check: do trends matter? (II)

	General Public Services		**Defense**		**Health**		**Education**	
	(1)	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**
Fem	.534	.334	-.049	-.038	.062	.017	-.007	-.018
	(.256)**	(.142)**	(.113)	(.087)	(.086)	(.068)	(.107)	(.079)
IV								
Gender quotas	Y	-	Y	-	Y	-	Y	-
Party & Legal quotas	-	Y	-	Y	-	Y	-	Y
Observations	189	184	189	184	189	184	189	184
	Housing		**Economic Affairs**		**Social Welfare**			
	(1)	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**		
Fem	-.099	-.072	.411	.277	.279	.210		
	(.070)	(.050)	(.245)*	(.167)	(.122)**	(.081)***		
IV								
Gender quotas	Y	-	Y	-	Y	-		
Party & Legal quotas	-	Y	-	Y	-	Y		
Observations	189	184	189	184	189	184		

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Real GDP per capita and year are control variables in each regression. 4. Country and time dummies are included.*

Appendix

Table A1: Robustness check: does civil war matter? (I)

Dep. Var.	Female Legislators			General Public Services			Defense			Health		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Quotas	4.80	5.14	6.12	1.65	1.65	2.50	-0.60	-0.07	-0.30	0.88	1.06	1.18
	(1.69)***	(2.01)**	(2.21)***	(1.12)	(1.03)	(1.03)**	(.72)	(.84)	(1.05)	(.57)	(.69)	(.87)
Duration	-1.21	-1.28	-1.87	-0.07	0.12	-0.11	0.13	0.23	0.29	-0.12	-0.16	-0.10
	(.62)*	(.74)*	(.84)**	(.33)	(.32)	(.34)	(.26)	(.32)	(1.05)	(.17)	(.21)	(.29)
Duration²	0.04	0.04	0.06	-0.00	-0.00	0.00	-0.00	-0.01	-0.01	0.00	0.00	0.00
	(.02)**	(.02)**	(.02)**	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.00)	(.01)	(.01)
DRGDP	0.98	-0.53	-0.18	0.26	0.07	0.67	0.62	0.58	1.12	0.40	0.18	0.05
	(1.68)	(2.35)	(2.89)	(1.71)	(.97)	(.91)	(.59)	(.98)	(1.41)	(.35)	(.48)	(.57)
War	-5.76	-	-	-0.73	-	-	-0.82	-	-	-0.14	-	-
	(2.03)***			(1.20)			(.88)			(.44)		
Africa	Y	N	N	Y	N	N	Y	N	N	Y	N	N
Latin America	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y	N
R^2	0.3	0.24	0.29	0.04	0.05	0.13	0.03	0.03	0.05	0.05	0.06	0.05
Observations	188	156	124	188	156	124	188	156	124	188	156	124

(continued)

(continued)

Dep. Var.	Education			Housing			Economic Affairs			Social Welfare		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Quotas	0.16	0.68	0.69	-0.45	-0.72	-0.94	1.53	0.87	1.17	3.38	3.92	4.53
	(.81)	(.91)	(1.14)	(.39)	(.44)	(.56)	(1.45)	(1.51)	(1.85)	(1.21)***	(1.43)***	(1.76)**
Duration	-0.02	-0.12	-0.06	0.09	0.12	0.15	-0.52	-0.69	-0.82	-0.51	-0.53	-0.87
	(.24)	(.27)	(.38)	(.09)	(.10)	(.14)	(.43)	(.48)	(.67)	(.39)	(.45)	(.61)
Duration²	-0.00	0.00	0.00	-0.00	-0.00	-0.00	0.01	0.01	0.02	0.01	0.01	0.02
	(.01)	(.01)	(.01)	(.00)	(.00)	(.00)	(.01)	(.01)	(.02)	(.01)	(.01)	(.01)
DRGDP	1.47	0.37	0.41	0.40	0.87	1.14	2.30	1.57	2.03	0.25	-0.72	-1.04
	(.62)**	(.72)	(.88)	(.51)	(.69)	(.80)	(1.64)	(1.05)	(1.45)	(.79)	(.84)	(1.01)
War	0.06	-	-	0.18	-	-	0.48	-	-	-0.12	-	-
	(.60)			(.20)			(1.76)			(.96)		
Africa	Y	N	N	Y	N	N	Y	N	N	Y	N	N
Latin America	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y	N
R^2	0.06	0.02	0.02	0.06	0.06	0.19	0.08	0.06	0.07	0.13	0.15	0.18
Observations	188	156	124	188	156	124	188	156	124	188	156	124

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Duration and DRGDP refer to the first difference of year and real GDP per capita, respectively. Duration² denotes the square of Duration.*

Table A2: Robustness check: does civil war matter? (II)

IV: gender quotas	General Public Services			Defense			Health			Education		
	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
Fem	0.34	0.32	0.41	-0.12	-0.01	-0.05	0.18	0.21	0.19	0.03	0.13	0.11
	(.25)	(.22)	(.24)*	(.16)	(.17)	(.18)	(.12)	(.14)	(.14)	(.14)	(.16)	(.16)
Duration	0.35	0.53	0.65	-0.02	0.22	0.20	0.10	0.11	0.26	0.02	0.05	0.15
	(.50)	(.50)	(.66)	(.33)	(.38)	(.49)	(.24)	(.31)	(.39)	(.28)	(.36)	(.46)
Duration^2	-0.01	-0.02	-0.22	0.00	-0.01	-0.01	-0.00	-0.00	-0.01	-0.00	-0.00	-0.01
	(.01)	(.01)	(.02)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)	(.01)
DRGDP	-0.08	0.24	0.74	0.75	0.58	1.11	0.22	0.29	0.08	1.44	0.44	0.43
	(1.28)	(1.30)	(1.64)	(.84)	(.98)	(1.23)	(.62)	(.81)	(.98)	(.73)*	(.95)	(1.14)
War	1.26	-	-	-1.54	-	-	0.91	-	-	0.25	-	-
	(2.06)			(1.34)			(.99)			(1.17)		
Africa	Y	N	N	Y	N	N	Y	N	N	Y	N	N
Latin America	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y	N
p-value	0.12	0.08	0.01	0.42	0.94	0.78	0.10	0.09	0.13	0.81	0.36	0.45
Observations	188	156	124	188	156	124	188	156	124	188	156	124

(continued)

(continued)

	Housing			**Economic Affairs**			**Social Welfare**		
	(1)	**(2)**	**(3)**	**(1)**	**(2)**	**(3)**	**(1)**	**(2)**	**(3)**
Fem	-0.09	-0.14	-0.15	0.32	0.17	0.19	0.70	0.76	0.74
	(.06)	(.08)*	(.08)*	(.27)	(.26)	(.27)	(.34)**	(.40)*	(.40)*
Duration	-0.02	-0.06	-0.14	-0.13	-0.48	-0.47	0.34	0.45	0.52
	(.13)	(.18)	(0.23)	(.55)	(.58)	(.75)	(.69)	(.89)	(1.11)
Duration²	0.00	0.00	0.00	-0.00	0.01	0.01	-0.01	-0.02	-0.02
	(.00)	(.00)	(.01)	(.02)	(.02)	(.02)	(.02)	(.03)	(.03)
DRGDP	0.49	0.79	1.11	1.99	1.66	2.07	-0.44	-0.32	-0.90
	(.33)	(.46)	(.58)*	(1.41)	(1.52)	(1.88)	(1.77)	(2.33)	(2.77)
War	-0.36	-	-	2.31	-	-	3.93	-	-
	(.53)			(2.26)			(2.84)		
Africa	Y	N	N	Y	N	N	Y	N	N
Latin America	Y	Y	N	Y	Y	N	Y	Y	N
p-value	0.10	0.02	0.01	0.25	0.53	0.48	0.00	0.00	0.00
Observations	188	156	124	188	156	124	188	156	124

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Duration and DRGDP refer to the first difference of year and real GDP per capita, respectively. Duration² denotes the square of Duration. 4. P-value refers to conditional p-value of Fem estimated by LIML.*

Table A3: Robustness check: do OECD countries drive the results? (I)

Dependent Variable	Female Legislators		General Public Services		Defense		Health	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Quotas	3.113	-	0.846	-	-1.057	-	0.236	-
	(1.813)*		-1.16		(.851)		(.321)	
Party Quotas	-	0.718	-	1.161	-	-0.496	-	0.397
		(1.937)		(.994)		(.935)		(.345)
Legal Quotas	-	6.561	-	-0.219	-	-0.562	-	-0.283
		(2.370)***		(1.498)		(.967)		(.390)
Duration	-0.840	-1.141	0.089	0.141	0.171	0.173	-0.013	0.015
	(.657)	(.675)*	(.375)	(.366)	(.320)	(.280)	(.097)	(.096)
Duration²	0.024	0.030	-0.004	-0.006	-0.005	-0.005	0.000	-0.001
	(.017)	(.017)*	(.011)	(.010)	(.009)	(.008)	(.002)	(.002)
DRGDP	1.129	1.675	0.342	0.217	0.871	0.804	0.342	0.284
	(1.287)	(1.366)	(1.650)	(1.716)	(.594)	(.647)	(.310)	(.314)
R^2	0.10	0.19	0.03	0.03	0.04	0.03	0.03	0.05
Observations	146	146	146	146	146	146	146	146

(continued)

(continued)

Dependent Variable	Education		Housing		Economic Affairs		Social Welfare	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Quotas	-0.398	-	-0.424	-	0.194	-	1.924	-
	(.524)		(.411)		(1.232)		(.714)***	
Party Quotas	-	-0.172	-	-0.428	-	0.165	-	2.316
		(.482)		(.359)		(1.356)		(.761)***
Legal Quotas	-	-0.141	-	-0.022	-	0.554	-	-0.549
		(.575)		(.263)		(1.706)		(.867)
Duration	0.035	0.032	0.083	0.067	-0.208	-0.232	-0.131	-0.016
	(.169)	(.175)	(.093)	(.091)	(.385)	(.391)	(.245)	(.235)
Duration²	-0.001	-0.001	-0.002	-0.001	0.001	0.002	0.003	0.000
	(.004)	(.005)	(.002)	(.002)	(.011)	(.011)	(.006)	(.006)
DRGDP	1.774	1.749	0.479	0.506	2.606	2.622	0.305	0.082
	(.592)***	(.608)***	(.537)	(.546)	(1.541)*	(1.626)	(.647)	(.678)
R^2	0.19	0.19	0.06	0.06	0.11	0.11	0.11	0.14
Observations	146	146	146	146	146	146	146	146

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Duration and DRGDP refer to the first difference of year and real GDP per capita, respectively. Duration² denotes the square of Duration.*

Table A4: Robustness check: do OECD countries drive the results? (II)

	General Public Services		Defense		Health		Education	
	(1)	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**
Fem	0.272	0.019	-0.340	-0.105	0.076	-0.024	-0.128	-0.028
	(.408)	(.219)	(.346)	(.122)	(.109)	(.061)	(.165)	(.084)
Duration	0.318	0.120	-0.115	0.069	0.050	-0.028	-0.072	0.005
	(.539)	(.446)	(.458)	(.337)	(.144)	(.123)	(.218)	(.177)
Duration^2	-0.011	-0.005	0.003	-0.002	-0.002	0.001	0.002	-0.000
	(.015)	(.012)	(.012)	(.009)	(.004)	(.003)	(.006)	(.005)
DRGDP	0.035	0.426	1.254	0.892	0.257	0.412	1.918	1.764
	(1.339)	(1.168)	(1.137)	(.882)	(.359)	(.323)	(.542)***	(.463)***
IV								
Gender quotas	Y	-	Y	-	Y	-	Y	-
Party & Legal quotas	-	Y	-	Y	-	Y	-	Y
p-value	0.483	0.953	0.233	0.541	0.468	0.630	0.407	0.763
Observations	146	146	146	146	146	146	146	146

(continued)

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	Housing		**Economic Affairs**		**Social Welfare**	
	(1)	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**
Fem	-0.136	-0.022	0.062	0.089	0.618	0.021
	(.128)	(.047)	(.411)	(.210)	(.406)	(.116)
Duration	-0.031	0.058	-0.155	-0.134	0.388	-0.078
	(.169)	(.122)	(.543)	(.469)	(.537)	(.256)
Duration²	0.002	-0.001	-0.000	-0.001	-0.012	0.002
	(.005)	(.003)	(.015)	(.012)	(.014)	(.007)
DRGDP	0.633	0.457	2.535	2.494	-0.392	0.529
	(.419)	(.319)	(1.348)*	(1.230)	(1.335)	(.723)
IV						
Gender quotas	Y	-	Y	-	Y	-
Party & Legal quotas	-	Y	-	Y	-	Y
p-value	0.195	0.732	0.884	0.729	0.007	0.339
Observations	146	146	146	146	146	146

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Duration and DRGDP refer to the first difference of year and real GDP per capita, respectively. Duration² denotes the square of Duration. 4. P-value refers to conditional p-value of Fem estimated by LIML.*

Table A5: Robustness check: do trends matter? (I)

Dependent Variable	Female Legislators		General Public Services		Defense		Health	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Quotas	4.459	-	2.380	-	-.218	-	.274	-
	(1.780)**		(.922)**		(.601)		(.446)	
Party Quotas	-	5.593	-	1.506	-	-.406	-	.247
		(1.707)***		(.791)*		(.576)		(.447)
Legal Quotas	-	3.018	-	2.232	-	.536	-	-.463
		(2.463)		(1.251)*		(.498)		(.510)
Trend	1.684	1.575	0.079	-0.063	-0.419	-0.512	0.386	0.444
	(1.301)	(1.433)	(.981)	(.976)	(.514)	(.515)	(.256)	(.281)
Duration	0.456	0.419	-0.019	0.049	0.004	0.022	-0.027	-0.025
	(.306)	(.333)	(.157)	(.167)	(.137)	(.149)	(.075)	(.081)
DRGDP	0.493	0.264	1.570	1.717	0.701	0.784	0.069	0.019
	(2.835)	(2.973)	(2.246)	(2.302)	(1.226)	(1.267)	(.486)	(.494)
R^2	0.82	0.83	0.65	0.64	0.66	0.66	0.66	0.66
Observations	189	184	189	184	189	184	189	184

(continued)

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Dependent Variable	Education		Housing		Economic Affairs		Social Welfare	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Quotas	-.030	-	-.441	-	1.832	-	1.246	-
	(.570)		(.350)		(1.158)		(.558)**	
Party Quotas	-	-.281	-	-.511	-	1.210	-	1.325
		(.558)		(.331)		(1.075)		(.583)**
Legal Quotas	-	.546	-	.143	-	1.978	-	.131
		(.565)		(.285)		(1.512)		(.704)
Trend	-0.026	-0.148	0.161	0.103	-3.075	-3.310	0.185	0.169
	(.347)	(.331)	(.176)	(.183)	(1.514)**	(1.599)**	(.428)	(.430)
Duration	0.023	0.062	-0.026	-0.013	0.358	0.444	0.117	0.137
	(.099)	(.091)	(.071)	(.074)	(.294)	(.322)	(.150)	(.165)
DRGDP	0.646	0.679	0.510	0.544	3.521	3.562	0.228	0.132
	(.675)	(.686)	(.482)	(.481)	(2.656)	(2.725)	(1.297)	(1.321)
R^2	0.7	0.7	0.55	0.55	0.71	0.71	0.86	0.86
Observations	189	184	189	184	189	184	189	184

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Duration and DRGDP refer to the first difference of year and real GDP per capita, respectively. 4. Country and time dummies are included.*

Table A6: Robustness check: do trends matter? (II)

	General Public Services		**Defense**		**Health**		**Education**	
	(1)	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**
Fem	.534	.334	-.049	-.038	.062	.017	-.007	-.018
	(.256)**	(.142)**	(.113)	(.087)	(.086)	(.068)	(.107)	(.079)
Trend	0.094	1.158	-0.412	-0.500	-0.672	-0.416	-0.420	-0.371
	(1.637)	(1.135)	(.775)	(.661)	(.781)	(.703)	(.923)	(.805)
Duration	-0.263	-0.121	0.026	0.023	-0.055	-0.020	0.026	0.055
	(.222)	(.155)	(.143)	(.149)	(.083)	(.075)	(.113)	(.097)
DRGDP	1.307	1.513	0.725	0.733	0.038	0.063	0.649	0.626
	(1.915)	(1.844)	(1.019)	(1.037)	(.436)	(.421)	(.591)	(.578)
IV								
Gender quotas	Y	-	Y	-	Y	-	Y	-
Party & Legal quotas	-	Y	-	Y	-	Y	-	Y
Observations	189	184	189	184	189	184	189	184

(continued)

(continued)

	Housing		**Economic Affairs**		**Social Welfare**	
	(1)	**(2)**	**(1)**	**(2)**	**(1)**	**(2)**
Fem	-.099	-.072	.411	.277	.279	.210
	(.070)	(.050)	(.245)*	(.167)	(.122)**	(.081)***
Trend	0.302	0.162	-4.093	-3.395	-2.247	-1.881
	(.598)	(.510)	(1.780)**	(1.483)**	(1.054)**	(.968)*
Duration	0.019	0.009	0.171	0.301	-0.011	0.061
	(.084)	(.079)	(.253)	(.240)	(0.162)	(.162)
DRGDP	0.559	0.528	3.318	3.381	0.090	0.124
	(.470)	(.439)	(2.170)	(2.144)	(1.049)	(1.044)
IV						
Gender quotas	Y	-	Y	-	Y	-
Party & Legal quotas	-	Y	-	Y	-	Y
Observations	189	184	189	184	189	184

*Note: 1. Standard errors in parentheses. One, two and three * indicate significance at the 10, 5 and 1% level respectively. 2. Standard errors are corrected for clustering at the country level. 3. Duration and DRGDP refer to the first difference of year and real GDP per capita, respectively. 4. Country and time dummies are included.*