What do women want?
Female suffrage and the size of government.[1]

Claudio Bravo-Ortega
Department of Economics
Universidad de Chile

Nicolas A. Eterovic
Department of Economics
Essex University

Valentina Paredes
Department of Economics
Universidad de Chile

Comments Welcome

Abstract

The scanty economic literature has attributed to female voting part of the increase in government expenditure and social government expenditure over the XXth century. This finding results puzzling considering that the political science literature has documented that women tended to be more conservative and right wing supporters over the first half of the XXth century across a wide set of developed and developing countries. We argue that current estimates on this relationship are afflicted by strong endogeneity bias. Using data for 46 countries we find that the introduction of female suffrage did not increased in average the social and total government expenditure. In our estimates we use a novel instrument set related to the diffusion of female suffrage across the globe. Further, research should focus on the determinants of women preferences across the political spectrum in order to understand the also documented movement of women towards the left that has occurred in some countries after the eighties, well after the introduction of female suffrage.

Keywords: Female suffrage, Government Size, Voting right.

JEL:

---

[1] We thank the comments of seminar participants at the Center of Microdata-Nucleo Milenio at the Universidad de Chile and graduate seminar at the University of Essex. We also thank Toke Aidt for sharing relevant data with us. Claudio Bravo-Ortega acknowledges Fondecyt Grant 1130575 that helped to fund this research. Do not circulate neither quote nor cite without the previous authorization from the authors.

1. Introduction.

Since the seventies economists have tried to understand the political economy of taxing and redistribution (see Romer, 1975 and Roberts, 1977) and how voters influence the scope of government (see Persson and Tabelinni, 2000, for a thorough revision of this literature). Moreover, during the last decades the size and scope of government and their impact on economic growth and development has been a topic that has generated a heated empirical debate (see Barro, 1991, Sachs and Warner, 1995, Barro and Sala I Martin, 2004, among others, and Lindert, 2004, for a survey). Thus, the understanding of what are the determinants of the size of governments is relevant for both developed and developing world.

After the Second World War the size and scope of governments grew significantly (Lindert, 2004) and never went back to previous pre war expenditure levels. Recent economic literature has argued that women suffrage was one of the determinants of such growth. Indeed, Lott and Kenny (1999) found that the introduction of women suffrage in the US states increased the current (state) government expenditure in 14%, followed by a 28% increase over the next 45 years. Aidt and Dallal (2008) found that in six Western European countries, women's suffrage increased the fraction of social spending out of GDP in 0.6-1.2% in the short run, with a long run effect three to eight times larger. The previous findings were sustained in a context that has found important differences between women and men voting in elections, particularly in the US, since the 80s (see for example, Norander, 2008).

Notwithstanding the previous econometrics results, these turn to be puzzling at the light of the political science literature that documented since the 50s that women were more conservative, religious and prone to support right wing parties than men (see Duverger, 1955, Lipset, 1960, and Inglehart and Norris, 2000, for a thorough discussion). One possible explanation for these contradictory pieces of evidence would be the presence of endogeneity on the estimations from previous research. For example, previous levels of government expenditure on education and health might have influenced the role that women had in society and thus could have influenced the political forces behind introduction of female suffrage. For this reason in this paper we investigate what it is the role of the introduction of the female suffrage on the size of governments addressing the possible endogeneity on this relationship. We use a sample of 46 countries in three geographical regions of the world.

To address endogeneity we use a set of carefully selected instruments related to the geographical diffusion of female voting across the globe. In our first stage regression we use the fact that ideas and political reforms slowly spread across the globe, and this diffusion happens more easily in countries that are closer to each other and/or speak the same language. Our proposed set of instruments survives most weak instruments and over-identification tests. Moreover, our estimations are computed using limited information maximum likelihood, which makes our estimations unbiased in the presence of weak instruments.

Contrarily to the existing consensus, our main findings show that the introduction of female suffrage has none or negative impact on the size of government.

Our paper is structures as follows. Section 2 presents a brief literature review. Section 3 discusses how geographical and linguistic proximity can help to the diffusion of women´s suffrage. Section 4 shows an event case study on the introduction of female suffrage across different regions of the world. Section 5 discusses the empirical approach of our estimations. Section 6 discusses the results and Section 7 concludes.

2. The voting Gender Gap and the size of the Government.

If women and men vote differently, then granting women the right to vote should have an impact in different policy outcomes, such as fiscal policy. This idea has been explored in a number of articles that studied the effect of women suffrage on the size of the government. For example, Lott and Kenny

(1999) argue that women suffrage caused a substantial increase in the size of government in the U.S. They authors study the effect of women suffrage on a range of different indicators of the size of government, from revenues and expenditures of the federal government, to voting indices of the Federal House and members of the senate from 1870 to 1940, and find that an increase in female political participation is positively related to an expansion in the size of the government.

Aidt, Dutta and Loukoianova (2004) estimate a model for 12 western European countries for the period 1830-1938 and find that the lift of economic restrictions in suffrage contributed to the growth in public expenditure mainly by increasing expenditure on infrastructure and internal security. Concerning gender restrictions, they find a positive effect though quite weak in the items of health, education and welfare. In a subsequent study carried out by Aidt and Dallal (2008) for six Western European countries for the period 1869-1960, they provide evidence that social spending out of GDP increased by 0.6-1.2% in the short run as a consequence of women´s suffrage, while in the long-run effect is three to eight times larger.

Other than for the U.S and Western Europe, the literature on women suffrage is rather limited. Aidt and Eterovic (2007), examine the relationship between political participation and political competition and its effects on the size of the government, for a panel of 18 Latin-American countries for the period 1920-2000. They show that political participation and political competition have different implications for the size of the government and other policy outcomes, with reforms that allow greater political participation tending to increase the size of the government, while reforms that enhance political competition tending to decrease it. In their analysis, they find that women suffrage does not seem to have significant effects on the size of the government.

These studies motivate the question of what are the differences between men and women that make the latters to prefer different policy platforms. As pointed out by Lott and Kenny (1999), there are a number of reasons for this, such as the fact that men are prone to take more risks when choosing their career paths and are more focused on accumulating resources, while women are more concentrated on household activities related to child rearing.

According to the authors, marital status also provides another reason why men and women may prefer different fiscal policies. This is so, because it leads men to accumulate market capital and women to acquire household abilities and most of the burden of child rearing. In this context, marriage can be regarded as mean of internalizing the gains from marital specialization and statistical discrimination in the labor market and therefore, divorced women may find it difficult to return to the labor market stemming from their specific investments in the household and single women will tend to lose with labor market discrimination.

In this sense, single women and those likely to become single may prefer a more progressive tax system and more wealth transfers to low income people as an alternative to the uncertain incomes of their husbands. As divorced women are more likely to assume the costs of child rearing, they will tend to seek for legal guarantees in order to obtain some income through alimonies, but this entails a risk given the difficulties in tracking the man and securing the payment. Keeping this in mind, relatively risk averse women may prefer a minimum guaranteed income provided by the State relative to the risky income of the man they were previously married with.

In light of this, women have to balance to options; they either rely on the income of their former husbands (presuming these gains can be appropriated) or a minimum guaranteed income. Therefore, women will be more likely to support publicly provided public goods, such as education and healthcare as a way of insurance against unexpected unemployment or marital disruption (Lott and Kenny, 1999).

Another reason for women preferring larger government[2] is found in Cavalcanti and Tavares (2007). They argue that the demand for social services naturally arises along with the growing need to change part of the burden of the household obligations, as child caring, to the State.

The political science literature has also found differences in preferences between women and men regarding public policies. Norrander (2008) reviews that these differences in preferences can manifest themselves in *post seventies* surveys on nearly 10% point of difference between men and women on a variety of subjects. For example when questioned on whether "the government in Washington should see it to that every person has a job and a good standard of living" against the option "the government should just let each person to get ahead on his own," 53% of men preferred the individualistic option whereas just 43% of women did. The gap its maintained when a similar question is proposed regarding the provision of public services where 45% of women preferred more services, against 34% of men. A similar gap occurs regarding the need to solve society's problems against the option to use the force.

This *post seventies* difference in preferences suggests that granting women the right to vote should have a significant impact in the size of the government. However, there should be noted that these pieces of evidence

---

[2] Most of the recent economic literature has argued that women prefer greater social spending and transfers. In principle, this could imply a larger size of the government, however it might not always be the case. Indeed, recent evidence has found that although women have different public spending preferences than men, under constrained public budget this could imply a crowding out of social spending with other items of public spending as infrastructure. This was found by Chattopadhyay and Duflo (2001) for the case of India. Thus, when looking at aggregate social spending one should be cautious in asserting that women prefer larger governments.

were based on opinion surveys taken post seventies, well beyond the period of time where women got the right to vote. On the other hand, the early political science literature finds that women in both USA and Western Europe (UK, Germany, France, Austria among others) tend to support more center right wing parties than men[3] As stated by Inglehart and Norris (2000) "The early classics in the 1950s and 1960s established the orthodoxy in political science; gender differences in voting tended to be fairly modest but nevertheless women were found to be more apt than men to support center-right parties in Western Europe and in the United States…" This finding was named *"traditional gender gap"* in the political science literature.[4] Additionally, women's turnout was significantly lower than men as well. [5] Thus, the small gender difference in preferences were even less likely to change election outcomes given the lower women's participation in elections. The two previous facts decrease the likelihood that women could have affected the size and scope of government in the pre-seventies period.

Furthermore, only in the eighties, women started moving towards the left with respect to men. This pattern of gender dealignment was found in Britain, Germany, the USA, the Netherlands and New Zealand among other

---

[3] See Duverger (1955), Lipset (1960), Pulzer (1967), Goot and Reid (1984), Blondel (1975) and other references also included in Inglehart and Norris (2000) review of the literature.

[4] Inglehart et al (2000) explain this difference in preferences and voting behavior by differences in religiosity, longevity and labor force participation, which make women more conservative in values and hence politically than men.

[5] Indeed, in Sweden between 1919 and 1934 women turnout was between 7% and 15% lower than men's, in Norway between 7% and 18% lower during 1909 and 1933, in Denmark between 11% and 12% for the period 1919-1926, in Iceland between 13% and 39% lower for the period 1916-1933, in Finland between 5% and 11% lower for the period 1908-1931, in Australia between 7 and 14% lower during 1903-1922. All figures obtained from Tingsten (1937).

countries. [6] This new evidence challenged the view that women were more conservative than men, giving origin to what has been named *"modern gender gap".*

Inglehart and Norris (2000), using a sample of nearly 60 countries, find that in established democracies as recent as the 80s, women tended to be more conservative than men, in both ideology and voting. The traditional gender gap continued to be detected in postindustrial societies even in the 80s, situation that prevails even today in many countries. But they also find that in many postindustrial societies women have moved to the left since the 90s. The modern gender gap is stronger in younger cohorts, while the traditional gender gap prevails on older women, fact that would allow us to anticipate the development of the modern gender gap for many countries in the future. Thus, with this and other evidence the authors conclude that modern gender gap is linked to the process of economic and political development.

Moreover and most importantly the recent economic literature is in strong conflict with the political science evidence compiled since the fifties that find that, even in countries where today women lean to the left, they used to lean towards the right even as late as the eighties. Thus, there are theories and evidence that apply to some countries post eighties, that have been used by previous economic literature to explain the supposed behavior of women sixty or seventy years before –at the moment they got the right to vote. Indeed, there are important pieces of evidence on the traditional gender gap, that does not support the extrapolation of current circumstances and women's behavior –and the "modern gender gap" in some countries- to the introduction of women's suffrage period.

2. Data Sources.

[6] See Baxter and Lansing (1983), Rose and Mc Alluster (1986), Rusticiano (1992) among others cited in Inglehart and Norris (2000). And for an alternative survey on the US see Norrander (2008).

We obtained the date of the introduction of women's right to vote across the globe from Inter-parliamentary Union website. We use historical books in order to gather the expenditure data (International Historical Statistics 1750-1993 - International Historical Statistics Africa, Asia and the Americas and Oceania. B.R Mitchell). We also use the dataset from the Finnish Social Science Data Archive, University of Tampere (2000) (Vanhanen, Democratization and Power Resources 1850-2000). In addition, we also use the Cross-National Time- Series Data Archive, by Arthur S. Banks, 2000.

In particular we use government expenditure as share of GDP and population over 60 years from Mitchell (several editions). Urban population and percentage of students and literacy from Vanhanen (2000). From Banks (2000) we take the railroads kilometers. From the inter-parliamentary Union we obtained the years in which female suffrage was enacted. From Polity IV from Marshall and Jaggers (2000) we obtain the variable polity2 that we use to classify governments as democratic or not. We use geographical distance, neighboring countries, colonies and language from the website of the French research center CEPII. The dataset used by Aidt and coauthors (2005-2008) was provided directly and generously by Toke Aidt.

3. The Introduction of Women's Suffrage.

Spatial dependence exists whenever the expected utility of one unit of analysis is affected by the decisions or behavior made by other units of analysis. From a theoretical perspective, spatial dependence can arise from a number of sources, namely, coercion, competition, externalities, learning, or emulation (Simmons and Elkins 2004; Elkins and Simmons 2005; Franzece and Hays 2010). Agents change their behavior because others exert pressure on them (Levi-Faur 2005), because the strategies carried out by other agents affect the gains they generate from their own behavior (Genbschel and Plumper 1997; Simmons and Elkins 2004; Franzese and Hays 2006; Plumper and Troeger 20008), because agents emulate strategies that are proved to be more successful (Mooney 2001; Meseguer 2005), or because they want to mimic the behavior of others (Weyland 2005).

In the context of women´s suffrage acquisition, it may be the case that the acquisition of women´s suffrage in one country was affected by the successes and failures of franchise movements in other countries. As argued by Ramirez et al (1997), *"Victories in New Zealand, Australia and Finland were not regarded elsewhere as examples of local color, but as markers of transnational development of worldwide significance. Nor did these early successful movements operate as if they were localized."*

The first country that introduced women's suffrage was New Zealand in 1893, followed by Australia and Finland in 1902 and 1906 respectively. There was an early wave of suffrage extensions that occurred mostly in Europe between 1900 and 1930, but the largest wave of countries extending the franchise to women occurred after 1930 (Ramirez et al 1997). As Paxton and Hughes claim, *"as increasing numbers of countries increasingly granted women suffrage, the pressure on surrounding countries that had not yet extended rights to women mounted"*.

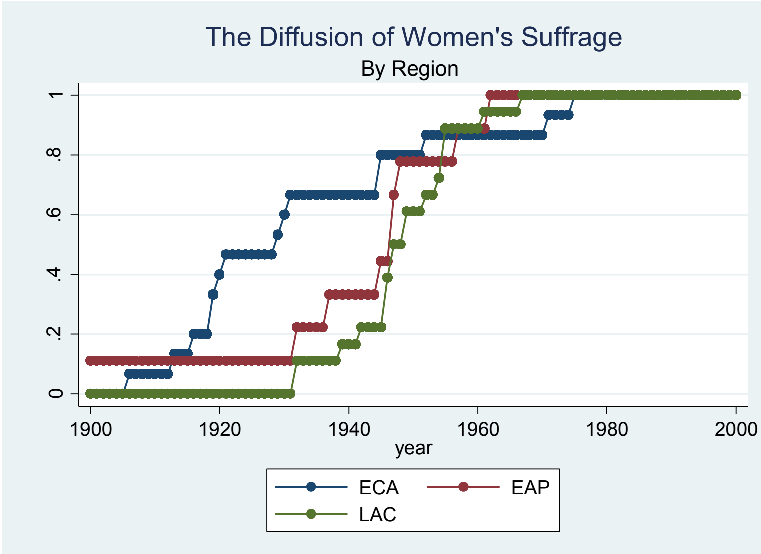
We share Ramirez et al (1997) hypothesis that suffrage rights were partly forged by international movements. Moreover, we believe that the country´s decision to grant women the right to vote was mostly influenced by countries with historically shared ties (such as language or colonial history) or high levels of interaction. Therefore, in this study, we use the number countries, weighted by distance, that allow women to vote as an instrument for women´s suffrage. We also use the number and percentage of countries that share the same language and have women franchise, as a second set of instruments.

The idea that agents are influenced not only by geographically proximate units, but also by historically shared ties is not new. Dow et al (1984) consider dependence from geographical distance as well as language similarity in an application to the diffusion of gambling. Simmons and Elkins

(2004) model the diffusion of economic liberalization as a function partially of the liberalization of one´s neighbors, where neighborhood is defined by either trade or group membership, not geography. Aidt and Jensen (2010) tested the hypothesis that the extension of the voting franchise was caused by the threat of revolution, as proposed by Acemoglu and Robinson (2000). As opposed to previous studies attempting to test this hypothesis by using proxies of the threat of revolution, such as measures of strikes, riots and demonstrations, the authors use instead, records of revolutionary events in neighboring countries, based on the logic of international transmission of information. The underlying argument suggests that the governing elites would learn from revolutionary events closer to home and would interpret this as an increase in the probability of revolution in their own country. They construct threat measures based on geographical and linguistic distances to the event.

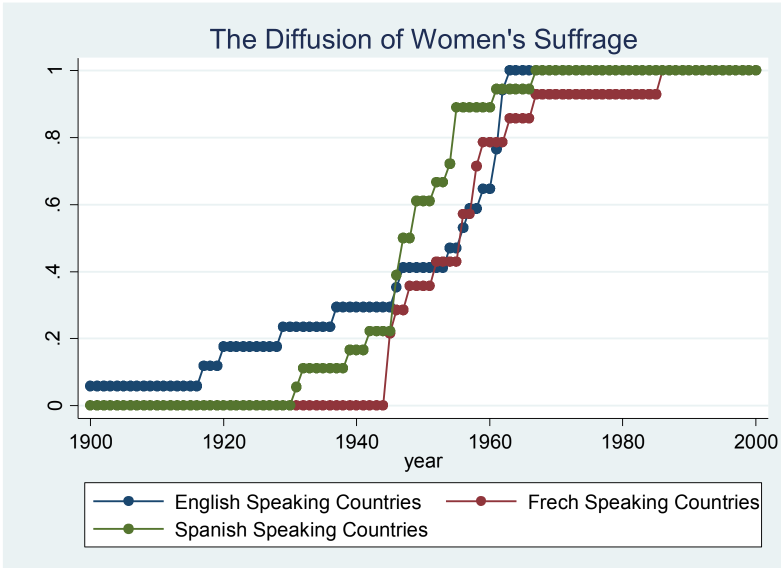
In Graph 1, countries are classified within three regions according to the World Bank geographical classification: Europe and Central Asia, Latin America and the Caribbean and East Asia and the Pacific (countries in other regions are excluded from the graph). Before 1900, the only region with women franchise was EAP. By 1980, women suffrage was approved in every country in these 3 regions.

Graph 1.



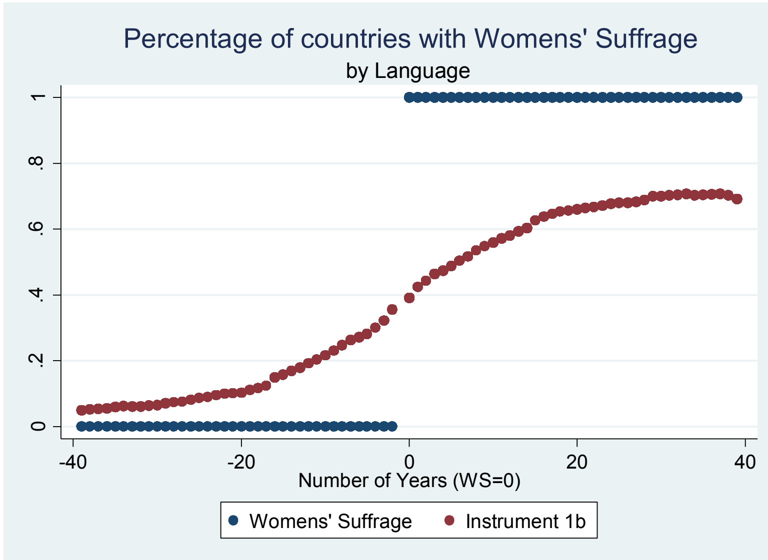
Graph 2 classifies countries in three groups that share the same language: French speaking countries, English speaking countries and Spanish speaking countries. Countries that speak other languages are excluded from this graph. We can see that for both French and Spanish speaking countries, women suffrage was introduced in every country in approximately 40 years. The time span is larger for English speaking countries, with New Zealand introducing women suffrage before 1900, and XX introducing women suffrage in XX.

Graph 2.

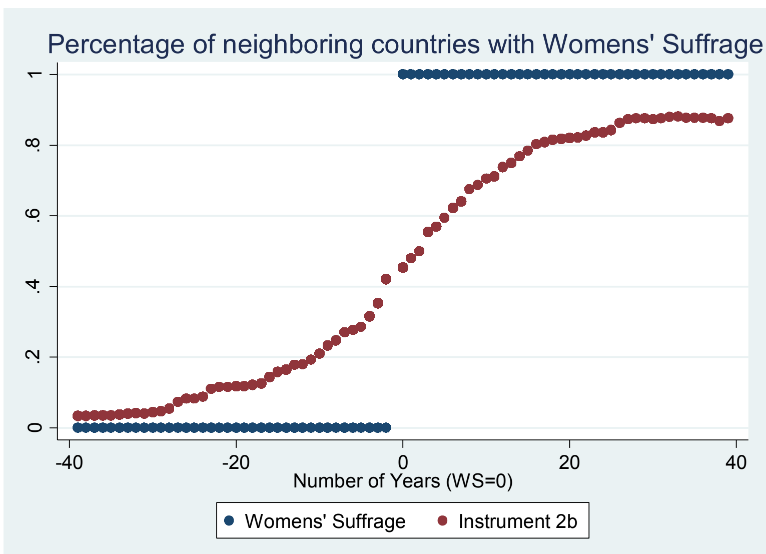


The previous graphs don´t provide clear evidence that language or geographic proximity helps to the diffusion of women suffrage. To show how proximity can help to the diffusion, we graph the relation between the time women suffrage was introduced and the percentage of countries that share the same language in Graph 3, and the percentage of neighboring countries with women suffrage in Graph 4. Both graphs show that, on average, countries introduced women´s suffrage when 40% of their neighbors had introduced women´s suffrage, and 40% of the countries that share the same language had granted women the right to vote.

Graph 3.



Graph 4



Finally, Table 1 presents correlation between a women´s suffrage dummy, that takes the value of one after the country granted women the right to vote, and a value of zero before, and the 3 instruments that we will use in our estimations. We can see that all correlations are significant at 1%.

Table 1

	Women's Suffrage	Instrument 2a	Instrument 2b
Women's Suffrage	1.0000		
Instrument 2a	0.5940***	1.0000	
Instrument 2b	0.7409***	0.7720***	1.0000
Instrument 2c	0.6125***	0.6950***	0.6962***

Notes: Instrument 2a is the number of countries that have women's suffrage by language. Instrument 2b is the percentage of countries that have women's suffrage, by language. Instrument 2c is the number of countries, weighted by distance, that have women's suffrage, by language.

*** Significant at 1%

4. Women's Suffrage and Public Spending

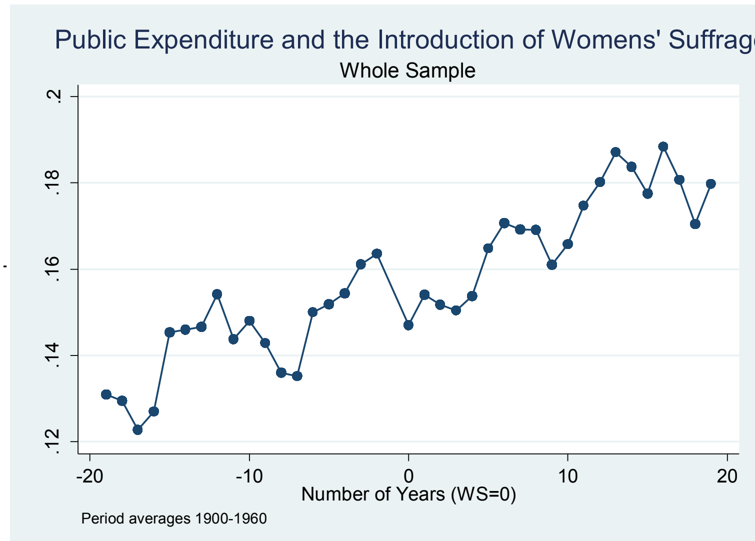
In our analysis we will use the whole sample of countries and their geographical locations as subsamples. We count with countries with enough data in Europe and Central Asia (eca), Latin America (lac), East Asia and the Pacific (eap) and Middle East and North Africa (mena). Countries are classified within these regions according to the World Bank geographical classification. Table A in the Appendix show the complete sample of countries included in the analysis, the region and language.

Graphs 5 to 8 show our event analysis for the whole sample, and the three regions specified. We consider year 0, the year in which female suffrage was enacted, and in the x-axis we plot the period between 20 years previous to the reform and the 20 years that followed. On the y-axis we plot the share of GDP that corresponds to total government expenditure.

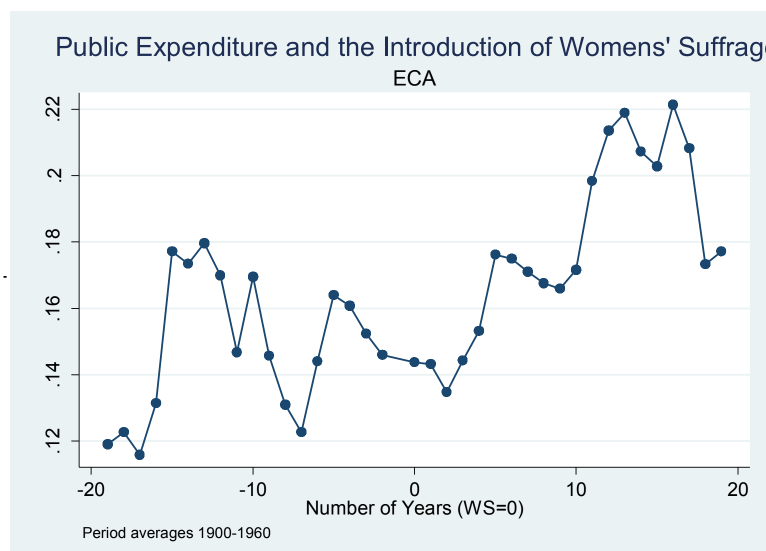
These graphs show no clear pattern. While in some regions –eca and lac - we observe an upward trend in the share of government expenditure, in general this trend starts previous to the reform. Moreover, we observe also a region –eap- in which there is also a clear downward trend that also starts before the reform.

The graphs reported are a clear signal that to disentangle the real effect that women suffrage had on government size is not an easy task. There is no consistent pattern and the changes in trend in government size precede in all cases the voting reform.

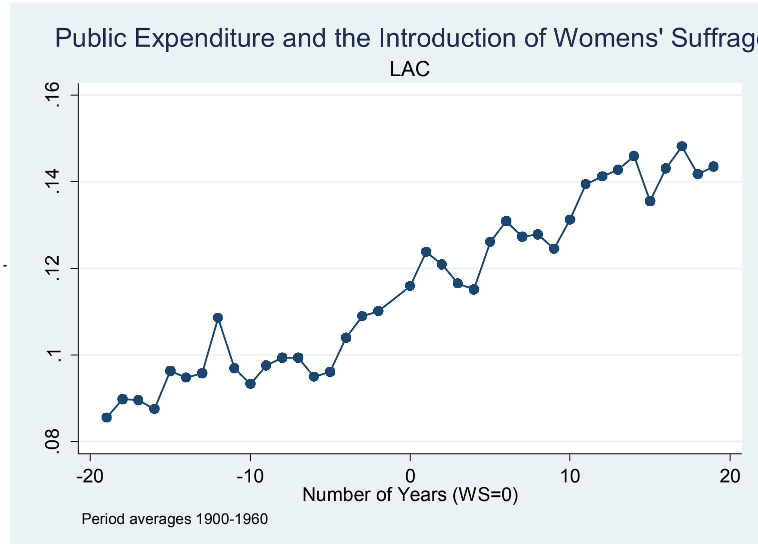
Graph 5



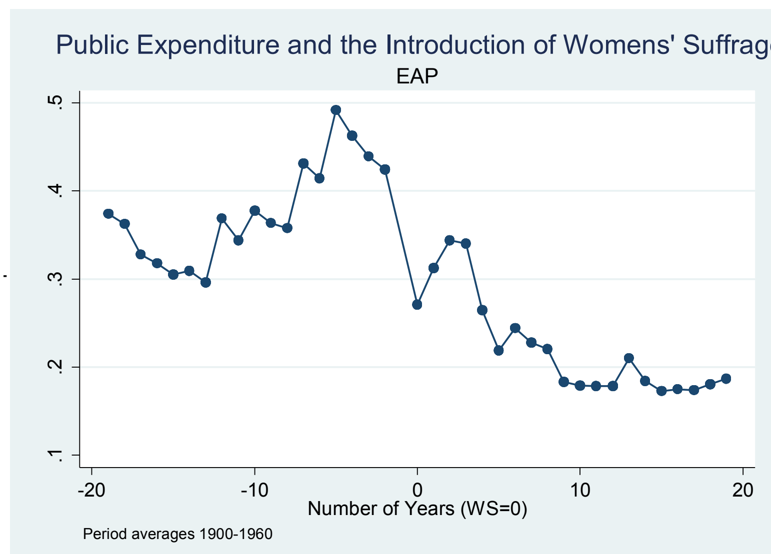
Graph 6



Graph 7



Graph 8



5. Econometric Framework

To make our results comparable to previous studies, we begin by replicating the methodology presented in Aidt et al (2008). That, is, we estimate the following regression:

$$y_{i,t} = \eta_i + \delta_t + TREND_i + \beta\, WS_{i,t}^{T} + \gamma X_{i,t} + \theta y_{i,t-1} + \varepsilon_{it} \qquad (1)$$

Where η_i is the country fixed effect, δ_t is a time fixed effect, $TREND_i$ is a country time trend variable, $y_{i,t-1}$is the lagged endogenous variable, and X_i, t is a number of control variables, including the country's divorce rate, the log of single women, female labor force participation, economic franchise, political competition, proportional rule, age structure, the log of GDP per capita, education and the log of population. The dependent variables, $y_{i,t}$, that we consider in our analysis are total spending as a percentage of GDP, social spending as a fraction of GDP, and security spending as a fraction of GPD. Finally, we construct the women suffrage variable as a spline function, where WS_i takes the value one once the female voting right was enacted, and then increases linearly to T, with T={0, 10, 15, 20}. Then, if T=20 and women suffrage was introduced in $t = t^*$,

$$W_{i,t}^{*} = \begin{Bmatrix} 0 & if & t < & t^{*} \\ i & if & t = & t^{*} + i < T \\ T & if & t \geq & t^{*} + T \end{Bmatrix}$$

Finally, ε_{it} is the error disturbance term.

The previous estimations are biased in the presence of endogeneity. For this reason we then proceed to estimate a model using instrumental variables that can be expressed as follows:

$$y_{i,t} = \eta_i + \delta_t + TREND_i + \beta\, WS_{i,t}^{T} + \gamma X_{i,t} + \theta y_{i,t-1} + \varepsilon_{it} \qquad (2)$$

$$WS_{i,t}^{T} = \eta_i + \delta_t + TREND_i + \zeta X_{i,t} + \varphi Z_{i,t} + \varepsilon_{it} \qquad (3)$$

where $Z_{i,t}$ corresponds to our set of instrumental variables related to the voting reform diffusion across countries that speak the same language, or are country i´s neighbors. These three diffusion variables can enter the estimation either as level, as a share of the corresponding total, or weighted by distance.

6. Results

We estimate both models for 2 different samples. First, we use the same data used in Aidt et al (2008). This sample includes 6 European countries versus the 46 countries we have in the second sample. Despite the smaller sample of countries, this sample includes better control variables, and we can distinguish between different types of spending. In our second sample, we have more countries but a smaller time period, fewer control variables, and we only observe total spending.

6.1 Aidt's Sample

Table 2 replicates Aidt et al (2008) specification but with total government expenditure as dependent variable. The first three columns show a OLS set of estimations. We observe that the introduction of women's suffrage seems not to increase total government expenditure neither at 10, 15 nor 20 years after the introductions. As we have discussed estimations by OLS are afflicted by endogeneity bias, therefore in columns 4 to 6 we estimate the same specifications by instrumental variables by limited information maximum likelihood (LIML). This new set of estimates show a negative impact of the introduction of women's suffrage after 10, 15 or 20 years of the introduction of female suffrage. This last set of estimates survive the Hansen's overidentification tests and weak instruments tests. We use Hansen's tests because these and all the estimations of the paper are computed with robust standard errors.

Regarding other controls, the lagged dependent variable is significant in both OLS and LIML estimations, while female labor participation is only significant in the OLS estimates. None of the other controls show as significant in any estimation.

Tables 3 replicate some of the results presented in Tables 3-6 in Aidt et al (2008). Table 3 uses Aidt et al (2008)'s broad definition of social spending, which includes spending on health, education, public housing, redistribution and insurance programs (retirement benefits, pensions, child support among others), plus economic services, transport and communications.

The results in the first three columns of Table 3 show the same results than Aidt because we use the same methodology and data as his study. We observe that indeed the OLS estimates show a positive effect of women suffrage on the broad definition of social spending after 10, 15 and 20 years of the introduction of women's suffrage. However, when we estimate the model using instrumental variables, this positive effect becomes not significant. Again, all LIML estimations survive Hansen's and weak instruments tests and show robust standard errors.

Regarding other controls, the lagged dependent variable and population are positive and significant in both OLS and LIML estimations, while economic franchise and education are only significant in the OLS estimates and show positive coefficients, whereas gdp per capita and proportional rule are also significant in the OLS estimates but shows negative sign. None of the other controls show as significant in any estimation.

We investigate whether female voting has had impact in other types of public spending as defense, finding that it neither has an impact. In this case none of the OLS and LIML coefficients linked to the introduction of women's suffrage turn to be significant. All LIML estimations survive the specifications tests.

Regarding other controls, the lagged dependent variable is positive and significant in both OLS and LIML estimations, while education and gdp per capita show a negative and significant coefficient in some estimations. None of the other controls show as significant in any estimation.

TABLE 2: TOTAL GOVERNMENT SPENDING. AIDT's SAMPLE (1860-1960?)

	OLS			IV		
	(1)	(2)	(3)	(1)	(2)	(3)
WS, 10 years lag	-0.017			-0.075*		
	(0.013)			(0.030)		

WS, 15 years lag		-0.014			-0.058*	
		(0.011)			(0.026)	
WS, 20 years lag			-0.008			-0.052*
			(0.010)			(0.022)
Divorce Rate	-0.009	-0.009	-0.008	-0.022	-0.019	-0.018
	(0.008)	(0.008)	(0.008)	(0.012)	(0.010)	(0.010)
ln(single women)	-0.161	-0.161	-0.174	0.047	0.050	0.004
	(0.123)	(0.124)	(0.123)	(0.260)	(0.264)	(0.252)
Female labor force participation	-0.901***	-0.894***	-0.906***	-0.625	-0.596	-0.537
	(0.336)	(0.338)	(0.342)	(0.387)	(0.533)	(0.591)
Economic franchise	-0.001	-0.001	-0.001	-0.002	-0.002	-0.003
	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)
Political competition	-0.018	-0.018	-0.022	-0.058	-0.067	-0.076
	(0.042)	(0.043)	(0.043)	(0.063)	(0.060)	(0.059)
Proportional rule	-0.039	-0.040	-0.048	0.042	0.031	0.034
	(0.045)	(0.043)	(0.043)	(0.074)	(0.061)	(0.061)
Age structure	0.021	0.019	0.020	0.037	0.029	0.022
	(0.017)	(0.018)	(0.018)	(0.044)	(0.039)	(0.037)
ln(gdp per capita)	-0.219	-0.199	-0.233	-0.119	-0.077	-0.045
	(0.142)	(0.148)	(0.157)	(0.302)	(0.298)	(0.346)
Education	-0.239	-0.267	-0.250	-0.633	-0.769*	-0.837*
	(0.197)	(0.198)	(0.199)	(0.388)	(0.380)	(0.404)
ln(population)	-0.417	-0.449	-0.462	0.327	0.218	0.057
	(0.488)	(0.485)	(0.485)	(1.426)	(1.257)	(1.140)
Lagged endogenous	0.657***	0.658***	0.664***	0.602***	0.613***	0.615***
	(0.050)	(0.049)	(0.049)	(0.050)	(0.050)	(0.051)
Observations	409	409	409	351	351	351
R-squared	0.966	0.966	0.966	0.581	0.587	0.580
Countries	6	6	6	6	6	6
Hansen J test				0.821	0.257	0.408
F-test, weak Ident				763.300	23.840	10.490

TABLE 3: BROAD DEFINITION OF SOCIAL EXPENDITURE AIDT's SAMPLE (1860-1960?)

	OLS			IV		
	(1)	(2)	(3)	(1)	(2)	(3)

WS, 10 years lag	0.037**			-0.070		
	(0.017)			(0.068)		
WS, 15 years lag		0.031**			-0.031	
		(0.014)			(0.022)	
WS, 20 years lag			0.026**			-0.019
			(0.012)			(0.017)
Divorce Rate	-0.001	-0.003	-0.002	0.005	0.004	0.003
	(0.010)	(0.010)	(0.010)	(0.018)	(0.014)	(0.011)
ln(single women)	-0.045	-0.041	-0.015	-0.053	-0.112	-0.169*
	(0.161)	(0.160)	(0.161)	(0.198)	(0.063)	(0.082)
Female labor force participation	0.578	0.542	0.488	1.016	0.875	0.839
	(0.591)	(0.583)	(0.591)	(0.581)	(0.571)	(0.587)
Economic franchise	0.002*	0.002*	0.003*	0.001	0.002	0.002
	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)
Political competition	-0.073	-0.073	-0.069	-0.010	-0.024	-0.028
	(0.077)	(0.077)	(0.078)	(0.077)	(0.072)	(0.077)
Proportional rule	-0.154***	-0.154***	-0.153***	-0.026	-0.067	-0.079
	(0.055)	(0.055)	(0.056)	(0.090)	(0.091)	(0.101)
Age structure	-0.053	-0.046	-0.040	-0.090	-0.096*	-0.102*
	(0.042)	(0.042)	(0.043)	(0.060)	(0.046)	(0.046)
ln(gdp per capita)	-0.753***	-0.806***	-0.795***	-0.133	-0.278	-0.356
	(0.236)	(0.244)	(0.247)	(0.409)	(0.377)	(0.400)
Education	0.767***	0.841***	0.822***	0.382	0.506	0.628
	(0.269)	(0.285)	(0.285)	(0.421)	(0.337)	(0.387)
ln(population)	2.229***	2.305***	2.322***	2.263	2.136*	2.111*
	(0.769)	(0.768)	(0.771)	(1.387)	(0.978)	(0.940)
Lagged endogenous	0.749***	0.750***	0.753***	0.736***	0.738***	0.737***
	(0.045)	(0.045)	(0.046)	(0.056)	(0.049)	(0.049)
Observations	346	346	346	308	308	308
R-squared	0.98	0.98	0.98	0.636	0.659	0.666
Countries	6	6	6	6	6	6
Hansen J test				0.505	0.477	0.460
F-test, weak Ident				23.79	702.6	33.97

TABLE 4: SPENDING ON DEFENSE. AIDT's SAMPLE (1860-1960?)

	OLS			IV		
	(1)	(2)	(3)	(1)	(2)	(3)

WS, 10 years lag	0.012			-0.061		
	(0.021)			(0.031)		
WS, 15 years lag		0.016			-0.041	
		(0.017)			(0.038)	
WS, 20 years lag			0.018			-0.032
			(0.016)			(0.032)
Divorce Rate	0.006	0.005	0.004	0.011	0.012	0.010
	(0.013)	(0.013)	(0.013)	(0.014)	(0.017)	(0.015)
ln(single women)	-0.307	-0.310	-0.301	-0.151	-0.152	-0.205
	(0.196)	(0.198)	(0.198)	(0.335)	(0.289)	(0.227)
Female labor force participation	-0.613	-0.651	-0.715	-0.224	-0.236	-0.216
	(0.678)	(0.670)	(0.677)	(0.392)	(0.435)	(0.416)
Economic franchise	0.000	0.000	0.000	-0.001	-0.001	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Political competition	0.035	0.032	0.032	0.054	0.044	0.041
	(0.094)	(0.095)	(0.095)	(0.088)	(0.076)	(0.069)
Proportional rule	0.000	-0.008	-0.017	0.090	0.072	0.068
	(0.066)	(0.065)	(0.066)	(0.060)	(0.076)	(0.079)
Age structure	-0.027	-0.023	-0.018	-0.023	-0.026	-0.035
	(0.053)	(0.053)	(0.054)	(0.064)	(0.051)	(0.041)
ln(gdp per capita)	-0.494	-0.568*	-0.621*	-0.031	-0.025	-0.065
	(0.315)	(0.334)	(0.352)	(0.688)	(0.782)	(0.737)
Education	-0.395	-0.324	-0.290	-0.850**	-0.917	-0.824
	(0.327)	(0.338)	(0.336)	(0.323)	(0.526)	(0.508)
ln(population)	0.750	0.787	0.814	0.817	0.733	0.697
	(0.895)	(0.905)	(0.911)	(0.420)	(0.406)	(0.479)
Lagged endogenous	0.800***	0.798***	0.794***	0.804***	0.806***	0.811***
	(0.047)	(0.048)	(0.049)	(0.041)	(0.037)	(0.039)
Observations	337	337	337	299	299	299
R-squared	0.957	0.957	0.958	0.705	0.706	0.706
Countries	6	6	6	6	6	6
Hansen J test				0.937	0.963	0.846
F-test, weak Ident				68.2	2233	19.55

6.2 Whole Sample

We replicate our estimations for the second database that includes 46 countries. It should be noted that the time period is shorter as it covers only the period 1900-1960, and we have fewer control variables.

In Table 5, as a first exercise we run a restricted sample that includes the six countries included in Aid et al (2008)'s sample. We observe again see a marginally positive effect of women suffrage when using OLS, which is even significant at ten years after the introduction of women suffrage. However, this positive effect disappears when using instrumental variables. All LIML estimations survive the Hansen's and weak instruments tests by a wide margin.

Regarding other controls, the lagged dependent variable is positive and significant and age structure is negative and significant in both OLS and LIML estimations, while literates, political competition and gdp per capita show a positive and significant coefficient in OLS estimations. Population does not show as significant in any estimation.

TABLE 5: COUNTRIES INCLUDED IN AIDT'S SAMPLE
(1900-1960?)

	OLS			IV		
	(1)	(2)	(3)	(1)	(2)	(3)
WS, 10 years lag	0.002*			0.001		
	(0.001)			(0.003)		
WS, 15 years lag		0.002			0.000	
		(0.001)			(0.002)	
WS, 20 years lag			0.001			0.000
			(0.001)			(0.002)
Political competition	0.029***	0.030***	0.030***	0.029	0.029	0.029
	(0.009)	(0.009)	(0.009)	(0.015)	(0.016)	(0.016)
	-	-				
Age structure	0.000***	0.000***	-0.000**	-0.000*	-0.000**	-0.000**
	0.000	0.000	0.000	0.000	0.000	0.000
ln(gdp per capita)	0.052*	0.052*	0.056*	0.057	0.061	0.064
	(0.027)	(0.029)	(0.031)	(0.041)	(0.047)	(0.050)
Literates	1.970***	1.990***	1.788**	1.804	1.626	1.529
	(0.678)	(0.706)	(0.696)	(1.069)	(1.271)	(1.266)
ln(population)	0.101	0.115	0.12	0.102	0.107	0.106
	(0.160)	(0.164)	(0.171)	(0.154)	(0.174)	(0.198)
Lagged endogenous	0.606***	0.600***	0.601***	0.605***	0.601***	0.602***
	(0.048)	(0.048)	(0.048)	(0.039)	(0.040)	(0.040)

Observations	334	334	334	334	334	334
R-squared	0.929	0.929	0.929	0.63	0.628	0.627
Countries	6	6	6	6	6	6
Hansen J test				0.940	0.890	0.802
F-test, weak Ident				5.826	101.4	162.9

Estimations in Table 6 include the whole 46 countries. Both OLS and LIML estimations show no effect of women's suffrage on total government expenditure. The LIML estimates survive the Hansen's overidentification test and…. weak instruments tests?

Regarding other controls, the lagged dependent variable, literates and gdp per capita are positive and significant in almost all OLS and LIML estimations. No other variable shows as significant in any estimation.

TABLE 6: WHOLE SAMPLE
(1900-1960?)

	OLS			IV		
	(1)	(2)	(3)	(1)	(2)	(3)
WS, 10 years lag	-0.001			0.000		
	(0.001)			(0.001)		
WS, 15 years lag		-0.001			0.001	
		(0.001)			(0.001)	
WS, 20 years lag			-0.001			0.001
			0.000			(0.001)
Political competition	0.004	0.004	0.005	0.003	0.003	0.002
	(0.004)	(0.004)	(0.004)	(0.003)	(0.003)	(0.003)
Age structure	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
ln(gdp per capita)	0.054***	0.054***	0.055***	0.054***	0.053***	0.052***

	(0.012)	(0.012)	(0.011)	(0.014)	(0.014)	(0.014)
Literates	0.185**	0.184**	0.185**	0.202	0.212*	0.218*
	(0.080)	(0.081)	(0.079)	(0.121)	(0.125)	(0.129)
ln(population)	-0.055	-0.054	-0.055	-0.068	-0.076	-0.08
	(0.056)	(0.055)	(0.052)	(0.058)	(0.055)	(0.051)
Lagged endogenous	0.707***	0.707***	0.707***	0.709***	0.709***	0.710***
	(0.029)	(0.029)	(0.029)	(0.032)	(0.032)	(0.032)
Observations	1,323	1,323	1,323	1,320	1,320	1,320
R-squared	0.893	0.893	0.893	0.596	0.595	0.593
Countries	46	46	46	43	43	43
Hansen J test				0.378	0.409	0.434
F-test, weak Ident				6.777	4.883	3.933

Table 7 reports the estimations for Europe and Central Asia. In this case both OLS and LIML estimates show no effect of the introduction of women's suffrage. In this case the estimated coefficients are not only not significant, but also with point estimates very close to zero. The LIML estimates survive the Hansen's overidentification test and…. weak instruments tests?

Regarding other controls, the lagged dependent variable, gdp per capita and literates are positive and significant in both OLS and LIML estimations, while political competition show a positive and significant coefficient in OLS estimations and age structure shows a negative sign in the OLS as well. Population does not show as significant in any estimation.

TABLE 7: EUROPE AND CENTRAL ASIA
(1900-1960?)

	OLS			IV		
	(1)	(2)	(3)	(1)	(2)	(3)
WS, 10 years lag	0.000			0.001		
	(0.001)			(0.003)		
WS, 15 years lag		0.000			0.000	
		(0.001)			(0.003)	
WS, 20 years lag			-0.001			0.000
			(0.001)			(0.003)
Political competition	0.016**	0.016**	0.016**	0.014	0.015	0.015
	(0.007)	(0.007)	(0.007)	(0.009)	(0.009)	(0.009)

	-	-	-			
Age structure	0.000***	0.000***	0.000***	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
ln(gdp per capita)	0.104***	0.105***	0.107***	0.101***	0.103***	0.104**
	(0.015)	(0.015)	(0.015)	(0.029)	(0.032)	(0.036)
Literates	0.608***	0.607***	0.605***	0.603**	0.606**	0.606**
	(0.173)	(0.171)	(0.170)	(0.241)	(0.232)	(0.227)
ln(population)	-0.123	-0.119	-0.119	-0.138	-0.128	-0.126
	(0.081)	(0.080)	(0.078)	(0.135)	(0.148)	(0.146)
Lagged endogenous	0.641***	0.641***	0.640***	0.643***	0.642***	0.641***
	(0.024)	(0.024)	(0.024)	(0.053)	(0.053)	(0.053)
Observations	597	597	597	597	597	597
R-squared	0.874	0.874	0.874	0.582	0.582	0.582
Countries	14	14	14	14	14	14
Hansen J test				0.599	0.593	0.581
F-test, weak Ident				5.631	3.977	4.866

Tabler 8 shows the estimations for or Latin America and the Caribbean. In this case we find a positive and statistically significant effect when using OLS. As with the countries included in Aidt´s sample, this effect disappears when using instrumental variables. The LIML estimates survive the Hansen's overidentification test and…. weak instruments tests?, except in estimation 6.

Regarding other controls, the only significant variables is the lagged dependent variable in both OLS and LIML estimations. No other variables shows as significant in any estimation.

TABLE 8: LATIN AMERICA AND THE CARIBBEAN (1900-1960?)

	OLS			IV		
	(1)	(2)	(3)	(1)	(2)	(3)
	-					
WS, 10 years lag	0.002***			0.000		
	0.000			(0.001)		
		-				
WS, 15 years lag		0.001***			0.001	
		0.000			(0.002)	

WS, 20 years lag			- 0.001***			0.003
			0.000			(0.003)
Political competition	-0.003	-0.002	-0.002	-0.002	-0.002	-0.002
	(0.002)	(0.002)	(0.002)	(0.004)	(0.004)	(0.004)
Age structure	-0.000*	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000
ln(gdp per capita)	0.008	0.007	0.007	0.007	0.008	0.009
	(0.007)	(0.006)	(0.006)	(0.009)	(0.011)	(0.014)
Literates	0.135	0.116	0.12	0.116	0.107	0.092
	(0.104)	(0.102)	(0.101)	(0.086)	(0.075)	(0.066)
ln(population)	-0.016	-0.013	-0.019	-0.008	0.001	0.024
	(0.034)	(0.033)	(0.034)	(0.025)	(0.025)	(0.038)
Lagged endogenous	0.428***	0.438***	0.438***	0.441***	0.450***	0.459***
	(0.037)	(0.038)	(0.038)	(0.062)	(0.059)	(0.062)
Observations	405	405	405	405	405	405
R-squared	0.901	0.899	0.899	0.242	0.221	0.174
Countries	17	17	17	17	17	17
Hansen J test				0.521	0.522	0.378
F-test, weak Ident				15.91	5.316	1.781

Finally, Table 9 shows the estimations for East Asia and the Pacific sample. In this case, although we find no effect of women´s suffrage on total government expenditure when using OLS, a positive and significant effect appears when using instrumental variables. The LIML estimates survive the Hansen's overidentification test and weak instruments tests by a wide margin.

Regarding other controls, the lagged dependent variable coefficient is positive and significant in both OLS and LIML estimations, while age structure's coefficient is negative and significant coefficient in LIML estimations, whereas literates' coefficient is positive and significant in the same set of estimations. No other variable shows as significant in any estimation.

TABLE 9: EAST ASIA AND THE PACIFIC

(1900-1960?)

	OLS			IV		
	(1)	(2)	(3)	(1)	(2)	(3)
WS, 10 years lag	-0.001			0.020**		
	(0.018)			(0.007)		
WS, 15 years lag		0.014			0.023**	
		(0.017)			(0.007)	
WS, 20 years lag			0.01			0.020*
			(0.014)			(0.008)
Political competition						
Age structure	0.000	0.000	0.000	-0.000**	-0.000**	- 0.000**
	0.000	0.000	0.000	0.000	0.000	0.000
ln(gdp per capita)	0.046	0.008	0.019	0.004	-0.016	-0.004
	(0.090)	(0.098)	(0.093)	(0.023)	(0.025)	(0.029)
Literates	1.908	2.759	2.591	3.073*	3.274*	3.183*
	(1.767)	(1.727)	(1.757)	(1.208)	(1.211)	(1.234)
ln(population)	-0.705	-0.991	-0.92	-1.256	-1.158	-1.096
	(0.957)	(0.935)	(0.934)	(0.654)	(0.589)	(0.563)
Lagged endogenous	0.520**	0.520**	0.503**	0.551***	0.519***	0.486**
	(0.209)	(0.222)	(0.224)	(0.076)	(0.089)	(0.115)
Observations	160	160	160	159	159	159
R-squared	0.959	0.960	0.960	0.653	0.685	0.68
Countries	6	6	6	5	5	5
Hansen J test				0.230	0.169	0.319
F-test, weak Ident				22.62	212.4	180.3

7. Concluding remarks

In this paper we investigate what it is the role of the introduction of the female suffrage on the size of governments. For this purpose we address carefully the endogeneity that afflicts the relationship between these two variables using a sample of 46 countries with data that cover the first half of the XXth century.

In our estimations we use as instruments variables related to the voting reform diffusion across countries that speak the same language, or are country neighbors. In most of our estimations these instruments passed the weak instruments and overidentification tests giving thus credence to our results. Moreover, our instrumental variables estimations challenge the results shown by OLS estimations for two regional subsamples and the Aidt's restricted sample estimations. These results highlight the relevance of addressing endogeneity properly when studying the impact of the introduction of female voting on fiscal expenditure.

Contrarily to the existing consensus, our main findings show that the introduction of female suffrage has no impact on the size of government, with the exception of the East Asian Pacific countries where we find a positive effect. Thus, there is no evidence that the "modern gender gap" implications regarding women's public expenditure preferences had influenced the size and scope of government at least in Europe and Latin America, which include a set of 31 countries in total.

Despite our "no results" we can extract some lessons regarding the external and internal validity of papers like ours. Studies with many countries do not warranty external validity, indeed behavior of women have evolved significantly across countries and most importantly over time within countries.

Very importantly, we consider that before drawing important lessons from an empirical study it is important to look at the historical foundations of the phenomena under scrutiny which can help to raise a reasonable quota of skepticism or wider support to the results.

From a public policy point of view or when analyzing electoral platforms there must be recognized that women preferences might show important differences across countries and even within a country over time. Moreover, the understanding of differences in preferences between women and men are a complex matter that go well beyond economics reasoning and disciplines as sociology, anthropology and even neuroscience can contribute importantly to this understanding.

In future research we will address the impact of female political participation on the parliament, and whether this participation has changed the government budgeting process along the lines of the "modern gender gap" for the period 1960-2010.

Appendix 1. Data.

Table A1

Country	Region	Language	Women's Suffrage	Country	Region	Language	Women's Suffrage
Argentina	lac	Spanish	1947	Mexico	lac	Spanish	1947
Austria	eca	German	1919	Morocco	mena	Arabic	1963
Belgium	eca	Dutch	1919	Netherlands	eca	Dutch	1920
Brazil	lac	Portuguese	1932	New Zealand	eap	English	1893
Canada	na	English	1917	Nicaragua	lac	Spanish	1955
Chile	lac	Spanish	1949	Norway	eca	Norwegian	1913
Colombia	lac	Spanish	1954	Pakistan	sa	Urdu	1947
Costa Rica	lac	Spanish	1949	Panama	lac	Spanish	1946
Denmark	eca	Danish	1916	Paraguay	lac	Spanish	1961
Dominican Republic	lac	Spanish	1942	Peru	lac	Spanish	1955
Ecuador	lac	Spanish	1967	Philippines	eap	English	1937
Egipt	mena	Arabic	1956	Portugal	eca	Portuguese	1975
El Salvador	lac	Spanish	1939	South Korea	eap	Korean	1948
Finland	eca	Swedish	1906	Spain	eca	Spanish	1931
France	eca	French	1945	Sri Lanka	sa	Sinhala	1931
Ghana	saa	English	1954	Sweden	eca	Swedish	1921
Greece	eca	Greek	1952	Switzerland	eca	German	1971
Guatemala	lac	Spanish	1946	Thailand	eap	Thai	1932
Honduras	lac	Spanish	1955	Turkey	eca	Turkish	1930
Iran	mena	Persian	1963	United Kingdom	eca	English	1929
Iraq	mena	Arabic	1980	United States	na	English	1920
Italy	eca	Italian	1945	Uruguay	lac	Spanish	1932
Japan	eap	Japanese	1947	Venezuela	lac	Spanish	1946

Notes: Countries are classified within these regions according to the World Bank geographical classification. Women's suffrage refers to the year the legislation that enfranchised women was introduced.

Table A2

Variables		Mean	Std. Dev.	Min	Max
Public Expenditure	overall	0.151	0.104	0.015	0.744
	between		0.068	0.066	0.320
	within		0.076	-0.087	0.580
ln(population)	overall	9.311	1.227	6.690	12.104
	between		1.190	6.874	11.699
	within		0.193	8.680	10.041
Age structure	overall	2066.11	3064.50	35	23570
	between		2161.08	46.93	11827.19
	within		1294.88	-4789.47	13808.91
ln(gdp per capita)	overall	10.439	1.413	7.046	14.532
	between		1.306	7.401	13.608
	within		0.419	9.343	11.891
Literates	overall	0.725	0.260	0.114	0.990
	between		0.282	0.114	0.987
	within		0.072	0.383	0.956
Political competition	overall	0.712	0.453	0	1
	between		0.428	0	1
	within		0.282	-0.255	1.612
War Dummy	overall	0.105	0.307	0	1
	between		0.117	0	0.333
	within		0.285	-0.228	1.088
WS, 10 years lag	overall	4.398	4.659	0	10
	between		3.809	0	10
	within		3.396	-2.852	12.815
WS, 15 years lag	overall	5.944	6.636	0	15
	between		5.530	0	15
	within		4.680	-4.306	18.694

WS, 20 years lag	overall	7.138	8.366	0	20
	between		7.078	0	20
	within		5.754	-5.696	20.871
lang_s~l	overall	3.651	4.965	0	16
	between		5.229	0	15.000
	within		3.207	-3.607	15.244
lang_s~t	overall	0.002	0.003	0	0.019
	between		0.004	0	0.016
	within		0.002	-0.007	0.012
cont_s~l	overall	1.351	1.327	0	6
	between		1.222	0	5.900
	within		0.918	-1.117	6.018
cont_s~r	overall	0.486	0.417	0	1
	between		0.324	0	1.000
	within		0.308	-0.373	1.176
cont_s~t	overall	0.016	0.013	0	0.051
	between		0.010	0.003	0.047
	within		0.009	-0.010	0.037

Notes: The number of countries included in the sample is 46. The total number of observation is 1323

References.

Acemoglu, Daron; and Robinson, James.A (2000), "Why did the West Extend the Franchise? Democracy, Inequality, and Growth in Historical Perspective", *Quarterly Journal of Economics,* November 2000, Vol. 115, No. 4, Pages 1167-1199.

Acemoglu, Daron; David H. Autor, and David Lyle (2004), "Women, War, and Wages: The Effect of Female Labor Supply on the Wage Structure at Midcentury", *Journal of Political Economy*, 2004, 112(3), pp. 497–551.

Aidt T.S; Dutta, Jayasri; and Loukoianova, Elena (2004), "Democracy comes to Europe: Franchise extension and fiscal outcomes 1830–1938", European Economic Review 50 (2006) 249–283.

Aidt, T., Eterovic, D. 2007. "Give and Take: Political Competition, Participation and Public Finance in 20th Century Latin America. Cambridge Working Papers in Economics 0714.

Aidt T.S and Dallal B (2008), "Female voting power: the contribution of women's suffrage to the growth of social spending in Western Europe (1869–1960)", *Public Choice (2008)* 134: 391–417

Almond, Gabriel; Verba, Sidney. The Civic Culture: Political Attitudes and Democracy in Five Nations. Princeton, NJ: Princeton UP, 1963. p.11.

Andersen, Kristi (1975)."Working Women and Political Participation, 1952-1972." *American Journal of Political Science* 19:439-53.

Cavalcanti, Tavares, J, 2007. "Women Prefer Larger Governments: Growth, Structural Transformation and Government Size", Nova University Lisbon

Chattopadhyay, Raghabendra; and Duflo, Esther (2001), "Women as Policy Makers: Evidence from a India-wide Randomized Policy Experiment". NBER Working Paper No. 8615.

Christie, Carol. 1987. Sex Differences in Political Participation. New York: Praeger.

Conway, Michael, M. Teresa Pizzamiglio and Lauren Mount (1996). *Status, Communality and Agency: Implications for Stereotypes of Gender and Other Groups.* Journal of Personality and Social Psychology, 71 : 25-38.

Dahlerup, D. (2003), "Comparative Studies of Electoral Gender Quotas", in International
IDEA *The Implementation of Quotas: Latin American Experiences*, Quota Workshop Report Series no. 2, Stockholm: International IDEA, pp. 10–19.

Dahlerup, Drude. (2006), "Using Quotas to Increase Women´s Political Representation". International Institute for Democracy and Electoral Assistance (IDEA) and Stockholm University: 2006 Available: http://archive.idea.int/women/parl/ch4a/htm.

Darcy, R., Susan Welch, and Janet Clark. 1994. Women, Elections, and Representation. 2nd edition. Lincoln: University of Nebraska Press.

Doepke, Matthias; and Tertilt, Michèle (2008), "Women´s Liberation: What´s in it for Men?". NBER Working Paper No. 13919.

Dollar, David; Fisman, Raymond; and Gatti, Roberta (1999), "Are Women Really the "Fairer"Sex? Corruption and Women in Government", *The World*

Bank Development Research Group/Poverty Reduction and Economic Management Network, Working Paper Series, No. 4

Duflo, Esther & Pande, Rohini, 2007. "Dams," The Quarterly Journal of Economics, MIT Press, vol. 122(2), pages 601-646, 05.

Duverger, M. (1955). *The Political Role of Women.* Paris: UNESCO.

Edlund, Lena; and Pande, Rohini (2002). "Why Have Women Become Left-Wing? The Political Gender Gap And The Decline In Marriage," The Quarterly Journal of Economics, MIT Press, vol. 117(3), pages 917-961, August.

Engelhardt, Henriette and Prskawetz, Alexia (2002), "On the Changing Correlation Between Fertility and Female Employment over Space and Time", MPIDR WORKING PAPER WP 2002-052, DECEMBER 2002.

Fernández, Raquel; Fogli, Alessandra and Olivetti, Claudia (2004), "Mothers and Sons: Preference Formation and Female Labor Force Dynamics", *Quarterly Journal of Economics*, 2004.

Fernández, Raquel (2007), "Women, Work and Culture", Slides from Marshall Lecture Presentation, August 2006.

Fernández, Raquel (2007), "Culture as Learning: The Evolution of Female Labor Force Participation over a Century", New York University Working Paper, November 2007.

Frechette, Guillaume R., Maniquet, Francois and Morelli, Massimo (2007), "Incumbents' Interests and Gender Quotas" (September 17, 2007). Available at SSRN: http://ssrn.com/abstract=1081773

Freidenvall, Lenita (2003), "Women's Political Representation and Gender Quotas - the Swedish Case", The Research Program: Gender Quotas - a Key to Equality? Department of Political Science, Stockholm University. www.statsvet.su.se/quotas

Goldin, Claudia (1991), "The Role of World War II in the Rise of Women's Employment", *American Economic Review*, September 1991, pp. 741-56.

Goldin, Claudia (1995), "The U-Shaped Female Labor Force Function in Economic Development and Economic History," in T. Paul Schultz, ed., *Investment in women's human capital and economic development*. Chicago: University of Chicago Press, 1995, pp. 61–90.

Goldin, Claudia (2004), "From the Valley to the Summit: The Quiet Revolution that Transformed Women's Work", *Regional Review* Federal Reserve Bank of Boston, Q4 2004.

High-Pipper, Angela; and Comer, John (1998), “Female Empowerment: The Influence of Women Representing Women”, *Women & Politics* 19:4 (1998), pp. 55-66; © 1998 by The Haworth Press, Inc.

Husted, T.A., Kenny, L.W., 1997. The effect of the expansion of the voting franchise on the size and scope of government. Journal of Political Economy 105, 54-82.

Inglehart, Ronald; Norris, Pippa (2000), “Cultural Barriers to Womens Leadership: A Worldwide Comparison”, Paper for Special Session 16 ‘*Social Cleavages and Elections*’ 13.00-15.15 Thursday 3rd August 2000 at the International Political Science Association World Congress, Quebec City.

Inglehart, Ronald; Norris, Pippa (2000), “The Developmental Theory of the Gender Gap: Women's and Men's Voting Behavior in Global Perspective”, *International Political Science Review / Revue internationale de science politique*, Vol. 21, No. 4, Women, Citizenship, and Representation. Femmes, citoyenneté et représentation#. (Oct., 2000), pp. 441-463.

Inglehart, Ronald; Norris, Pippa; and Welzel, Christian (2003), “Gender equality and democracy”, *Comparative Sociology*. 1(3-4): 321-346.

Htun, Mala (2005), “Women, Political Parties and Electoral Systems in Latin America”, in International IDEA, *Women in Parliament: Beyond Numbers.* A Revised Edition.

Jaumotte, F. (2003), "Female Labour Force Participation: Past Trends and Main Determinants in OECD Countries", *OECD Economics Department Working Papers*, No. 376, OECD Publishing.

Kenworthy, Lane and Melissa Malami. 1999. "Gender Inequality in Political Representation: A Worldwide Comparative Analysis." Social Forces 78: 235-269.

Kittilson, Miki Caul, "Women's Representation in Parliament: The Role of Political Parties " (August 15, 1997). *Center for the Study of Democracy.* Paper 97-08.

Krook, Mona Lena; Lovenduski, Joni; and Squires, Judith (2008), “Gender Quotas and Models of Political Citizenship”, Paper presented at the Midwest Political Science Association National Conference, Chicago, IL, April 3-6, 2008.

Larcinese, V. 2007. "Voting over Redistribution and the Size of the Welfare State: The Role of Turnout," Political Studies, Political Studies Association, vol. 55, pages 568 585, October

Lizzeri, A., Persico, N., 2004. Why did the elites extend the suffrage? Democracy and the scope of government. With an application to Britain's ''Age of Reform''. Quarterly Journal of Economics 119 (2), 707–765.

Lott, J.R., Kenny, L.W., 1999. Did Women's suffrage change the size and scope of government? Journal of Political Economy 107, 1163–1198.

Matland, Richard E (1993) , "Institutional Variables Affecting Female Representation in National Legislatures: The Case of Norway", *The Journal of Politics*, Vol. 55, No. 3. (Aug., 1993), pp. 737-755.

Matland, Richard E., and Donley T. Studlar. (1996). "The Contagion of Women Candidates in Single Member and Multi-Member Districts". *Journal of Politics* 58:707-33.

Meltzer, A.H., Richard S.F, 1981. A rational theory of the size of government. Journal of Political Economy 89 (5), 914-27.

Miller., Grant (2008), "Women's Suffrage, Political Responsiveness, and Child Survival in American History," *Quarterly Journal of Economics* 123(3): 1287-1327, 2008.

Norander, Barbara (2008). "The History of the Gender Gaps," in *Voting the Gender Gap*, by Lois Duke Whitaker editor. University of Illinois Press.

Norris, Pippa (1985)."Women´s Legislative Participation in Western Europe." *Western European Politics* 8:90-101.

Norris, Pippa (2001), "Women's Power at the Ballot Box" For *Voter Turnout from 1945 to 2000: A Global Report on Political Participation*. 3rd Edition. International IDEA: Stockholm.

Norris, Pippa (2006), "The impact of electoral reform on women's representation". Special issue of *Acta Politica* 41: 197-213.

Norris, Pippa (2007), "Political activism: New challenges, new opportunities". *The Oxford Handbook of Comparative Politics.* Edited by Carles Boix and Susan Stokes. Oxford: Oxford University Press. Pp.628-652.

Peschard, Jacqueline (2003), "The Quota System in Latin America: General Overview", International Institute for Democracy and Electoral Assistance (IDEA).

Powley, Elizabeth (2006), "Rwanda: The Impact of Women Legislators on Policy Outcomes Affecting Children and Family". The State of the World´s Children 2007. Background Paper. Unicef

Putnam, Robert. (1976). “The Comparative Study of Political Elites”. Englewood Cliffs, NJ: Prentice-Hall.

Rokkan, Stein, 1970: Nation-building, cleavage formation and the structuring of mass politics. S. 72-144 in: Citizens, elections, parties: Approaches to the comparative study of the processes of development. Oslo: Universitets-forlaget.

Reynolds, Andrew, and Ben Reilly. 1997. *The International IDEA Handbook of Electoral System Design*. Stockholm: International Institute for Democracy and Electoral Assistance.

Rule, Wilma (1987). “Electoral Systems, Contextual Factors, and Women´s Opportunity for Election to Parliament in Twenty-Three Democracies.” *Western Political Quarterly* 40:477-98.

Rule, Wilma and Joseph F. Zimmerman*. Electoral Systems in Comparative Perspective: Their Impact on Women and Minorities.* Westport, CT: Greenwood Press, 1994.

Tingsten, Herbert L. G. 1937. Political Behavior: Studies in Election Statistics. London: P.S. King.

Togeby, Lise. (1994). “Political Implications of Increasing Numbers of Women in the Labor Force.” *Comparative Political Studies* 27:211-40.

Verba, S. & Nie, H.N. (1972). *Participation in America: Political democracy and social equality*. New York: Harper and Row.

Verba, Sidney, Norman Nie and Jae-on Kim (1978) Participation and Political Equality: A Seven-Nation Comparison New York: Cambridge University Press

Verba, Schlozman, and Brady. 1995. Participation's not a paradox: The view from American activists. British Journal of Political Science 25 (January): 1-36.

Washington, Ebonya (2008), "Female Socialization: How Daughters Affect Their Legislator Fathers' Voting on Women's Issues," *American Economic Review*,2008, 98, 1, 311-332.

Welch, Susan (1977). “Women as Political Animals? A Test of Some Explanation for Male-Female Political Participation Differences.” *American Journal of Political Science* 21:711-30.