Political Institutions and the Distributional Consequences of Suffrage Extension.*

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Abstract

In this paper we show how the impact of suffrage extension on public goods provision and redistribution depends on the context of political institutions. While it has been argued that suffrage extension leads to larger shares of state budgets being spent on public goods and redistribution, we demonstrate that this effect is conditional upon the type of electoral system and the existence of veto points. Majoritarian systems significantly decrease the positive effect that suffrage extension has on public goods provision. The opposite is true, however, for redistributive measures like social spending and taxation. Historically, introducing proportional representation was a possibility for ruling elites to protect their parliamentary majorities against the electoral threat posed by the rising left. As a result the relocation of the median voter through suffrage extension had a weaker effect on redistribution in systems of proportional representation as compared to countries with majoritarian electoral institutions. The same is true for systems where veto points allowed the old elites to block legislation and, thus, impeded changes towards more redistribution. We provide empirical support for this argument analyzing data on government spending and inheritance taxation in 11 Western European countries between 1860 and 1938.
1 Introduction

Historically, the extension of voting rights has constituted one of the biggest steps towards modern representative democracy. It is, thus, not surprising that the causes and effects of these developments have attracted a considerable amount of scholarly attention. The most prominent political economy accounts of democratization all relate suffrage extension to its presumed distributional consequences (Boix, 2003; Acemoglu and Robinson, 2000; Lizzeri and Persico, 2004). Following Acemoglu and Robinson (2000, 2006), and in line with Meltzer and Richard (1981), one should observe an increase in social spending and redistribution, since suffrage extension constituted a credible commitment by the ruling elites facing a revolutionary threat by the masses. On the other hand Lizzeri and Persico (2004) argue that parts of the ruling elites used the extension of the franchise to achieve their goal of higher levels of public spending. Hence, although differing on the assumed preferences of the elites, these approaches regard the distributional effects of suffrage extension as key to understanding processes of democratization. However, empirical evidence on the effects of suffrage extension on government spending is mixed, casting some doubt on the assumed relationships in these models, thus, speaking for further research on the topic (cf. Dewan and Shepsle, 2008). Whereas some studies find a positive effect for social spending (Husted and Kenny, 1997; Lindert, 1994) and public goods provision (Aidt, Dutta and Loukoianova, 2006), a very thoroughly executed recent
study by Scheve and Stasavage (2012) does not find empirical support for an
effect of suffrage extension on redistribution through inheritance taxation.
While all these theoretical accounts and empirical investigations are built on
distinguished models of voter preferences and political strategies, they share
a common assumption about the direct translation of voter preferences into
policy outcomes, thereby ignoring the crucial role that political institutions
play in this context - a possible reason for the diverging empirical findings.

This paper aims at conceptualizing and empirically investigating how po-
litical institutions influence the impact of suffrage extension on the provision
of public goods and redistribution. We argue that an extended franchise
as such does not necessarily lead to more spending in this direction, since
a change in voter distribution does not inevitably lead to changes in poli-
cies. Political institutions determine how changes of the electorate result in
de facto changes of strategic incentives and power distributions. First, elec-
toral systems provide their own incentives for targeted versus broad spend-
ing. Since majoritarian systems encourage targeted spending as an elec-
toral strategy, suffrage extension should have a much smaller effect on public
goods provision in these systems. Second, if political institutions allow ruling
elites to keep representatives of the lower classes from entering government
and allow them to block legislation, this will significantly impede changes
towards more redistribution. Historically, systems of proportional represen-
tation (PR) helped the ruling elites to constrain the political power of ris-
ing socialist parties (Duverger, 1954; Rokkan, 1970; Boix, 1999). Moreover,
institutional veto points in the form of second chambers allowed blocking legislation that intended to establish redistribution through social spending. Hence, in countries where one of these political institutions was present, one should observe a much lower effect of franchise extension on redistributive spending.

We empirically test these hypotheses in a time-series cross-section analysis of 11 Western European countries in the time from 1860-1938. Once we analyze its interaction with political institutions, we find a significant effect of suffrage extension on public goods provision and redistribution. In line with our hypotheses we also find that majoritarian electoral systems decrease the positive effect of suffrage extension on public goods provision. Moreover, PR systems as well as veto points significantly reduce the positive effect that franchise extension has on social spending. For inheritance taxation the effect is only mediated by veto points, while the electoral system does not play a significant role. These results shed light on the crucial role that political institutions played in mediating the distributional consequences of suffrage extension. Hence, they also point to the importance of investigating the institutional context, when determining the causes of democratization in a political economy framework.

The following section will briefly present the most important economic approaches of democratization and will introduce our new framework which takes into account the mediating role of political institutions. Next we outline our data, operationalization and method before presenting our empirical
findings.

2 Franchise Extension and Government Spending -
The Role of Political Institutions

During the late 19th and early 20th century all Western European countries abolished restrictions to voting rights such as property or income qualifications and thereby extended the franchise to the whole male population. One can distinguish two leading political-economy accounts to why suffrage was extended. The first can be labeled as the “threat of revolution argument” and has been formalized most prominently by Acemoglu and Robinson (2000, 2006). Ruling elites, facing a threat by the working class, generally have the possibility to appease the masses by providing goods. However, in times of a transient insurrectionary threat, the promise of providing more goods will not be credible (Przeworski, 2008; Acemoglu and Robinson, 2006). Suffrage extension constitutes a credible proposition, since it allows the working class to enter the arenas of political decisions and, thus, to guarantee permanent redistribution through the means of democratic politics. Formally, extending suffrage to the lower classes leads to a shift of the median voter. Hence, following this account, in order to prevent social unrest (and instead of using repression) franchise extension should lead to more redistribution through an increase in spending on social services and transfers as well as higher redistributive taxes as a result of the processes of democratic policy making.

In contrast to this explanation, which regards suffrage extension as a
concession in response to a revolutionary threat, Lizzeri and Persico (2004) provide a framework that can account for elites voluntarily extending the franchise in the absence of such a threat. Assuming some part of the ruling elite aims at reducing clientelism and has a demand for public goods provision, suffrage extension provides a strategic opportunity to achieve this goal by means of electoral competition. Increasing the electorate leads to a smaller share of voters that can be “bought off”, since the disenfranchised benefit less from targeted goods in relation to public goods as compared to the currently ruling elites (Lizzeri and Persico, 2004, 713). Hence, as a result of suffrage extension one should observe an increase in public goods provision in contrast to pork-barrel spending. The major distinction between the two approaches lies, thus, in the assumed preferences and behavior of the ruling elites. While Acemoglu and Robinson regard suffrage extension completely as concessions, Lizzeri and Persico emphasize that especially urban elites want to extend the franchise in order to achieve more provision of public goods. Hence, whereas more redistribution is a possible consequence of suffrage extension which is not necessarily intended by the elites, more public goods provision is an actual goal.

Empirically assessing the predictions of these differing accounts, Aidt, Dutta and Loukoianova (2006) analyze the effect of suffrage extension on government spending in 11 Western European countries from 1830-1938 and find that suffrage extension has a positive and robust impact on the size of spending on public goods such as security and long-term services. However,
their findings on social services and transfers are more mixed. Similarly, Scheve and Stasavage (2012) find no effect of suffrage extension and other measures of democratization on redistribution through inheritance taxation, casting some doubt on the empirical validity of the hypothesis that enfranchisement should lead to more redistribution.

While this literature provides a very distinguished model of the strategic considerations leading to suffrage extension as well as a profound analysis of its consequences, these frameworks all assume a more or less direct translation of voter preferences into policy outcomes. In this paper, however, we argue that the effect of enfranchisement on public goods provision and redistribution depends on the institutional context of policy making. Political institutions structure how changes in the electorate affect political decision making and, thus, determine the strategies of political actors as well as policy outcomes. We argue that the effect of franchise extension on public goods provision and redistribution crucially depends on the electoral system and the existence of veto points, both of which determine the influence of different societal groups in the game of democratic politics.

A considerable amount of research has been dedicated to the question of how electoral systems affect economic policies and redistribution (Iversen and Soskice, 2006; Milesi-Ferretti, Perotti and Rostagno, 2002; Rickard, 2009). As a general finding one can state that systems of proportional representation provide an incentive for public goods provision, while majoritarian systems and single member districts promote targeted spending (Lizzeri and
Persico, 2001; Persson and Tabellini, 2004a). Politicians in majoritarian systems have strong incentives to design specific distributive programs targeted at relatively small societal groups in order to gain support of pivotal groups in particular electoral districts. On the contrary, in PR systems broad redistributive programs and public goods provision are most promising to ensure incumbents the support of a large share of the overall population. Hence, PR systems are linked to both higher spending on public goods and higher levels of overall spending. There is also rich empirical evidence on this question, however, mostly limited to the post World War II period (Blume et al., 2009; Milesi-Ferretti, Perotti and Rostagno, 2002; Persson and Tabellini, 2004b; Persson, Roland and Tabellini, 2007; Rickard, 2012).

We are interested in how electoral systems structure the effect of suffrage extension on patterns of government spending and taxation. Electoral systems play a crucial role for both mechanisms of suffrage extension presented earlier, since they provide different incentives for politicians and determine the de facto power distribution in democratic policy making. As proposed by Lizzeri and Persico, suffrage extension should increase government spending on public goods, following from the demand of urban elites. An extended electorate will benefit these platforms in contrast to those promoting more clientelistic types of spending. This, however, should depend on the electoral system in place. While in a system of proportional representation one should indeed observe this outcome, single member districts continue to provide an incentive for more targeted spending. Rural elites, for example, might not
see a need to adapt their platforms, since they can continue to satisfy their constituencies with pork barrel spending. The effect that enfranchisement has on public goods provision should, thus, be substantially smaller in majoritarian than in PR systems.

In contrast to public goods provision, the ruling elites did not have an interest in redistribution through social spending and taxation. Nevertheless, before suffrage was extended to the working class, social transfers had provided a possibility for the elites to temporarily appease the masses, as can be seen prototypical in Bismarckian Germany. Since this did not constitute a credible commitment facing revolutionary threats, enfranchisement was considered as a mechanism to integrate the lower classes into the processes of policy making and was therefore supposed to result in higher levels of redistribution. However, their integration also meant a shift of political accountability, in the sense that the old elites had stopped being the solely responsible for policy outcomes. In this context the old elites had an incentive to use all (democratic) power at their disposal to reduce social spending and taxation because a system of shared democratic accountabilities had been established, which significantly reduced the threat of revolution. Hence, in order to explain the effect that suffrage extension had on redistribution, it is necessary to analyze to what extent representatives of the newly enfranchised gained power in comparison to the old elites. The establishment of redistributive measures should, thus, have been highly dependent on the old elite’s opportunities to impede changes of the status quo, which was deter-
mined by the political institutions in place.

In this sense electoral systems did not only structure incumbents’ incentives for allocating between targeted and general spending, but played a crucial role for how voter preferences affected the distribution of power in parliament and government. Historically one can argue that proportional representation was introduced to keep socialist parties from parliamentary dominance (Duverger, 1954, 247ff.; Rokkan, 1970, 157ff.). The extension of the franchise as well as urbanization and industrialization led to changes in the electorate which were highly conducive for socialist parties. Facing this electoral threat, the ruling conservative and liberal parties in most countries had an incentive to change the electoral system to proportional representation. As Boix (1999) also shows formally, PR constituted an opportunity for the old elites which were split into conservative and liberal parties to defend their parliamentary majorities even though socialist parties were dominant in a larger number of districts. Hence, PR systems provided an opportunity for ruling elites to control legislative processes, even though voter distributions changed and socialist parties found large support. This, in turn, should affect the impact suffrage extension had on redistribution through social spending and taxation. Although suffrage extension led to a shift of the median voter and constituted a broad basis for socialist party support, changing the pattern of government spending required the support of the parliamentary majorities necessary for changing legislation. In majoritarian systems, changes of the distribution of voters are far more likely to cause changes in govern-
ment spending, because they more strongly affect the distribution of power in parliament and government. PR systems, however, provided a context which was favorable to old elites keeping control of legislative processes. Hence, the positive effect of suffrage extension on redistributive taxation and social spending should be higher in majoritarian systems as compared to systems of proportional representation.

The distribution of de facto power and the possibility to change the status quo, which determines the effect of suffrage extension on social spending and taxation, should not only depend on the electoral system but also on the existence of veto points, i.e. counter-majoritarian institutions that have the possibility to block legislation (Immergut, 1990, 1992). For the development of welfare states it has been shown that veto points significantly inhibited the introduction of systems of social security (Immergut, 1992; Huber, Ragin and Stephens, 1993). “The more opportunities that political institutions offer to those whose interests are affected negatively for mobilizing opposition, extracting concessions, or blocking legislation altogether, the less likely it is for comprehensive programs to be implemented.” (Huber and Stephens, 2001, 22) Against the preferences of the newly enfranchised, veto points enabled the old elites to impede legislative changes which would have resulted in more social transfers and higher taxes. For the countries and time under consideration here, second chambers such as the British House of Lords (before 1911) constituted veto points that allowed to block lower house legislation. The existence of second chambers with legislative veto rights, thus, reduced
the possibility of the newly enfranchised groups to establish redistributive measures.

In sum, franchise extension will affect spending on public goods and redistribution depending on the political-institutional context, since the electoral system and the existence of veto points determine how changes in the preference distribution of the electorate affect policy outcomes. The positive effect that suffrage extension is supposed to have on public goods provision should be considerably lower in majoritarian systems, since they provide a general incentive for targeted spending. On the other hand, social spending and taxation should increase much less in systems of proportional representation, since they reduce the effect that franchise extension has on parliamentary representation. Second chambers as veto points should also decrease the positive effect of suffrage extension on redistribution, because they allow old elites to impede legislative changes in this direction. We do not expect veto points to affect public goods provision in the same way, since parts of the old elites too, do have a demand for them. Our hypotheses about the mediating effects that political institutions have on the relationship between suffrage extension, redistribution and public goods provision are, thus:

H 1 The positive effect of suffrage extension on public goods provision is higher in PR than in majoritarian systems.

H 2 Contrarily, the effect on redistribution is smaller in PR than in majoritarian systems.
The positive effect of suffrage extension on redistribution is smaller where veto points exist.

Utilizing data on central government expenditure and inheritance taxation, these hypotheses will be tested empirically in the subsequent section.

3 Empirical Analysis

3.1 Data

In order to empirically test our hypotheses we use a data set covering 11 Western European countries from 1860-1938. We analyze the effect of suffrage extension on public goods provision and redistribution using three dependent variables: (1) central government spending on security and (2) social transfers as a proportion of nominal GDP, as well as (3) inheritance taxation. The first variables, security spending, encompasses spending on defense, general administration, the judiciary and the police. Social spending includes spending on health, public housing and education. Inheritance taxation is measured as the top marginal rate for a direct descendant inheriting an estate.

Our main independent variable of interest is the abolishment of voting

1The countries included are Austria, Belgium, Germany, Denmark, Finland, France, Italy, the Netherlands, Norway, Sweden, and the United Kingdom.
2The data on government spending was originally compiled by Flora et al. (1983, 1987). If GDP numbers are not available, NNP is used as the base instead.
3We thank Toke Aidt and Adam Przeworski for providing us a copy of their data sets for our analysis. The measures for inheritance taxation collected by Scheve and Stasavage (2012) is publicly available at http://isps.yale.edu/research/data/d025.
rights restrictions for male citizens. For the following analyses we apply two different operationalizations of enfranchisement. First, we use a measure of economic franchise (Aidt, Dutta and Loukoianova, 2006; Aidt and Jensen, 2013): the electorate as a percentage of the enfranchised age and sex group. While this is a straight-forward measure of our quantity of interest, using the enfranchised electorate as an indicator for suffrage restrictions is problematic since it potentially indicates franchise extensions without any actual legal changes occurring (Przeworski, 2008, 297). If national wealth increases and its distribution shifts to the benefit of the poor, the share of the total population passing some income threshold associated with the right to vote increases without changes in this threshold itself. Hence, we also conduct our analyses using a binary indicator for suffrage extension to all male population (Przeworski, 2011). This allows us to capture the impact of suffrage extension as such in contrast to changes in the income or wealth distribution.

Two measures are employed to capture the institutional set up of electoral systems. First, we calculated Gallagher’s (1991) disproportionality index (lsq) based on the votes and seats data reported by Mackie and Rose (1982). Open list proportional representation systems usually are associated with disproportionality values of between 0.5 and 7 while single member district majoritarian systems can lead to an lsq value of up to 30. In order to evaluate the robustness of the findings we estimate the same models using a dummy variable indicating the presence of systems of proportional representation ($pr = 1$) and majoritarian systems ($pr = 0$) respectively following Colomer
The results for these additional regressions can be found in Table 3 in the appendix.

The third institutional variable of interest indicates whether the upper house of parliament had the right to block legislation passed by the lower house. A dummy for upper house block is, thus, included in our models. Since all our hypotheses are formulated as interactions, the models successively include an interaction term of an institutional variable with the economic franchise or suffrage extension respectively.

All models contain additional control variables: a binary variable indicating female suffrage; urbanization measured as the percentage of population living in towns above 10,000 inhabitants; school enrollment of 5-14 year olds as a percentage of all in that age group, the natural logarithm of the total population size and real GDP per capita;\textsuperscript{4} as well as a dummy variable indicating years when a particular country was at war.

In all models of social spending and inheritance taxation, the fraction of the population aged 66 or older is included as an additional control variable. This variable is not included in the models of security spending, which are complemented by a control for the size of the military measured as the fraction of military personal in the male population aged 20 to 44.

\textsuperscript{4}Real GDP is based on 1990 International Geary-Khamis dollars (Aidt, Dutta and Loukoianova, 2006).
3.2 Methods

The time-series cross-sectional nature of our data allows for the application of difference-in-difference estimation to identify the effect suffrage extension has on public goods provision and redistribution conditional on the political-institutional context. Accordingly, we estimate models of the following form:

\[ y_{i,t} = \beta_1 f_{i,t-1} + \beta_2 d_{i,t-1} + \beta_3 f_{i,t-1} d_{i,t-1} + \gamma X_{i,t-1} + \rho y_{i,t-1} + \alpha_i + \theta_t + \epsilon_{i,t} \]

The index for countries is denoted by \( i \) and that for time by \( t \). Our main interest is to correctly identify the coefficients \( \beta_1 \) through \( \beta_3 \) for the interaction between the measure of suffrage extension \( f \) and the political institutions \( d \) and its constitutive terms. \( X \) denotes a matrix with the control variables and \( \gamma \) the vector with the corresponding regression coefficients. In order to avoid omitted variable bias due to time-constant unobserved unit heterogeneity, we exploit within country variation only by including country fixed effects \( \alpha \). All independent variables are lagged by one year. To account for serial autocorrelation, we also include the dependent variable lagged by one year on the right hand side of the equation, therewith modeling a first order autoregressive process.\(^5\) The standard errors are corrected for panel het-

\(^5\)For a finite number of within unit observations \( T \), OLS has been shown to be inconsistent and biased when both unit fixed effects and a lagged dependent variable are included in the model (Nickell, 1981). Alternative estimators that have been proposed to deal with this source of bias mostly rely on the asymptotics in the number of units (Arellano and Bond, 1991; Hsiao, Pesaran and Tahmiscioglu, 2002). Since we have only 11 countries in our data set, but more than 30 yearly observations for most countries, we refrain from applying these methods but estimate all models using OLS. Since the Nickel-bias declines
eroskedasticity (Beck and Katz, 1995) and year fixed effects $\theta$ are included in all models to account for common time shocks. All models are estimated using OLS.\footnote{The models were fitted using the \texttt{plm} package for R maintained by Croissant and Millo. All plots are created using Wickham’s \texttt{ggplot2} package.}

Although the difference-in-difference design allows us to rule out several sources of potential bias, two potential problems for correctly identifying the parameters of interest here persist. First, we cannot preclude that any correlation between suffrage extension and our dependent variables is due to an endogeneous process. There could exist a reverse relationship between public goods provision or redistribution and suffrage extension. It is reasonable indeed to assume that the size and composition of central government expenditures affected the timing of suffrage extension in the countries under consideration here. Second, changes in social spending and redistribution might have been the response to the same revolutionary threat that caused suffrage extension. Both possibilities, however, would bias our estimates against the relationship we have proposed here. If at all, redistribution and public goods provision decreased the demand for enfranchisement among the working class, thus, implying a negative relationship between the two. Moreover, if redistribution were only caused by a revolutionary threat, one should observe a decrease in redistribution after the enfranchisement of the working class, since it ended this potential threat. We are therefore confident that

\footnote{In $T$ and becomes very small for $T > 20$ (Beck and Katz, 2011), we accept the potential downward bias in our estimates to the benefit of greater efficiency.}
the proposed method allows us to correctly identify the effect suffrage extension had on redistribution and public goods provision conditional on the political-institutional context.

### 3.3 Estimation Results

The estimation results for the different models of central government spending on security, social transfers, and inheritance tax rates are reported in Table 1. The models containing the alternative operationalizations for suffrage extension and the electoral system can be found in Tables 2 and 3 respectively in the appendix.

Model 1 in Table 1 depicts the estimates for the model of central government spending on security without any interaction terms specified. The share of the enfranchised male population in the overall male population at voting age has a weak positive effect on our measure of public goods provision. For a given electoral system, increases in the enfranchised male population are associated with increases in security spending as implied by the theoretical argument put forward by Lizzeri and Persico (2004) that parts of the elites fostered franchise extensions in order to enhance public goods provision. This effect does not reach statistical significance at conventional levels, however.

Table 3 in the Appendix illustrates, that this is mainly due to the number of observations. In the Models reported in Table 3, the continuous disproportionality index is replaced with a binary coding of electoral systems. This
Table 1: Franchise extension, political institutions, public goods provision and redistribution.

<table>
<thead>
<tr>
<th></th>
<th>Security Spending</th>
<th>Social Spending</th>
<th>Inheritance Tax</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Economic franchise(_{t-1}) (E)</td>
<td>0.012</td>
<td>0.024*</td>
<td>0.004*</td>
</tr>
<tr>
<td>Disproportionality(_{t-1}) (Laq)</td>
<td>(0.008)</td>
<td>(0.012)</td>
<td>(0.003)</td>
</tr>
<tr>
<td>(<em>{t-1}) × LnE(</em>{t-1})</td>
<td>(0.026)</td>
<td>(0.065)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>Upper house block(_{t-1}) (UB)</td>
<td>(0.012)</td>
<td>(0.003)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>Female suffrage(_{t-1})</td>
<td>(0.047)</td>
<td>(0.048)</td>
<td>(0.012)</td>
</tr>
<tr>
<td>School enrollment(_{t-1})</td>
<td>(0.024)</td>
<td>(0.024)</td>
<td>(0.008)</td>
</tr>
<tr>
<td>Urbanization(_{t-1})</td>
<td>(0.063)</td>
<td>(0.064)</td>
<td>(0.020)</td>
</tr>
<tr>
<td>Population (Ln)(_{t-1})</td>
<td>(0.012)</td>
<td>(0.014)</td>
<td>(0.051)</td>
</tr>
<tr>
<td>GDP per capita (Ln)(_{t-1})</td>
<td>(1.938)</td>
<td>(1.753)</td>
<td>(0.443)</td>
</tr>
<tr>
<td>War(_{t-1})</td>
<td>(0.659)</td>
<td>(0.769)</td>
<td>(0.154)</td>
</tr>
<tr>
<td>LDV</td>
<td>(0.089)</td>
<td>(0.069)</td>
<td>(0.039)</td>
</tr>
<tr>
<td>Size of military(_{t-1})</td>
<td>(0.065)</td>
<td>(0.062)</td>
<td>(0.041)</td>
</tr>
<tr>
<td>Population above 65(_{t-1})</td>
<td>0.062</td>
<td>0.064</td>
<td>0.007</td>
</tr>
</tbody>
</table>

Panel-corrected standard errors in parentheses. Within country OLS estimation. Year fixed effects are not reported. \*p<0.1; \*\*p<0.05; \*\*\*p<0.01
allows for the inclusion of observations where data on the electoral system’s
disproportionality is missing. For these estimates, the effect of economic
franchise remains in the same ballpark in terms of magnitude but reaches
statistical significance at the 95% level.

The disproportionality of the electoral system does not significantly affect
security spending within countries. Moreover, its effect is not robust against
the alternative binary coding of electoral systems. In Table 3 the coefficient
for the dummy variable indicating systems of proportional representation is
negative, contradicting the negative relationship between disproportionality
and security spending. Thus, we do not find a robust unconditional effect
of electoral systems type or disproportionality on security spending depicted
in Table 1. If the veto rights of the second chamber had been abolished
in a given country, security spending in that country was higher in years
without a upper house veto as compared to the years before. This effect is
not statistically significant, however.

The only statistically significant effect for any of the control variables in-
cluded in Model 1 is the effect of urbanization on central government spend-
ing on security. If the share of the population living in urban areas increases
within a given country, the share of security spending in GDP increases too.
This reflects the growing demand for policing and judiciary commonly asso-
ciated with urban agglomeration. The coefficients of the remaining control
variables are of the expected sign but lack statistical significance at conven-
tional levels.\footnote{The statistical insignificance of these estimates is likely due to the inclusion of the lagged dependent variable in all models and the limitation to within country variance. The lagged dependent variable accounts for a large share of within country variance in the dependent variables. Furthermore, the within country variability of many regressors is rather limited and they only change slowly over time. Since we are primarily interested in estimating the effects of changes in franchise conditional on different political institutional contexts, we accept these limitations for the benefit of modeling serial autocorrelation and controlling for a large source of potential omitted variable bias.}

Including the interaction between economic franchise and disproportionality in Model 2 does not significantly alter the effects of any of the control variables. The nature of the interaction is best assessed using the marginal effects plot displayed in Figure 1. In line with our expectations, for counties with a proportional electoral system, an increase in the share of the enfranchised male population is associated with increases in central government spending on security. The positive effect decreases as the disproportionality of the electoral system increases. For disproportionality values above 9, the effect of franchise on security spending turns statistically insignificant even at a comparatively high alpha level of 0.1. Thus, Model 2 supports the hypothesis that an increased franchise fostered public goods provision but that this is only the case for systems of proportional representation.

On average, the change in economic franchise due to the introduction of universal male suffrage in our sample is about 40 percentage points. According to the estimates of Model 2 in Table 1, for a change of 40 percentage points in economic franchise in a typical system of proportional representation with an lsq value of four, the security spending figure is predicted to change by
0.77 percentage points. This almost corresponds to the interquartile range of security spending in our sample and therewith constitutes a substantially relevant positive effect. For majoritarian systems with lsq values of 15, for the same increase in economic franchise our model estimates imply only a difference of 0.32 percentage points in security spending. Thus, the shift in the median voter position induced by suffrage extension appears to have led to a much stronger increase of public goods provision in countries with proportional electoral systems as compared to majoritarian systems. In line with our initial hypothesis, suffrage extension did not motivate politicians to increase spending on public security in order to appeal to the newly enfranchised where the electoral system incentivized them to adhere to targeted spending. This effect is generally corroborated for both, the alternative binary coding of universal male suffrage (Model 2 in Table 2) and the binary coding of electoral systems as majoritarian or proportional (Model 2 in Table 3).\textsuperscript{8}

The estimation results for the regressions of central government spending on social transfers are reported in Models 3 through 5 in Table 1. In these models, the share of population above 65 is included as a control whereas the size of the military is dropped.

\textsuperscript{8}As illustrated in Figure 4(a) in the appendix, the magnitude of the effect is larger for the estimates based on the binary coding of suffrage extension. The predicted difference in central government spending on security after the introduction of full male suffrage as compared to the years before suffrage was extended is about 1.5 percentage points for a country with an lsq value of four. For majoritarian systems with lsq values above 10, again, our model estimates do not predict significant differences in security spending figures for periods with and without universal male suffrage.
As can be seen in Model 3, economic franchise has a weakly significant positive effect on social spending, while the existence of a veto point significantly reduces it. All control variables except for female suffrage show an effect in the expected direction, with significant effects for the degree of urbanization and school enrollment rates. The negative significant effect of the existence of female suffrage on social spending goes against our prior intuition, since one would expect female suffrage to positively affect social spending. However, as Aidt and Dallal (2008) have shown, female suffrage might only affect social spending with a high time lag and in a more complex
interaction with de facto female turnout. One should, thus, not overestimate this counter-intuitive finding, it might, however, be an indication that further analysis in this direction is necessary.

Model 4, again, includes the interaction of economic franchise with the disproportionality of the electoral system, not significantly changing the effects of the other variables in the model. The marginal effects plot in Figure 2 shows how the positive effect of the size of the enfranchised population increases with the disproportionality of the electoral system. For low values on the lsq index, i.e. for systems of proportional representation, suffrage ex-

![Figure 2: The marginal effect of franchise on central government social spending by electoral system disproportionality.](image)
tension does not have a significant effect on social spending. In majoritarian systems, however, there is a significant positive effect. This again supports our hypothesis that systems of proportional representation reduce the opportunities for the newly enfranchised to increase redistribution through social spending.

For a typical PR country with an lsq value of four, the predicted difference in social spending for an increase of economic franchise by 40 percentage points is only 0.13 percentage points, whereas, everything else being constant, the predicted difference for a majoritarian country with an lsq of 15, is about 0.1 percentage points higher.\(^9\) The findings for social spending again are in line with our theoretical expectations. Whereas the effect of suffrage extension is positive and statistically significant in majoritarian systems, there is no significant effect in systems of proportional representation. The differences in how the two types of electoral systems translated the shifts in the electorate into parliamentary representation affected succeeding legislation on social spending. Spending on social transfers was increased in majoritarian systems, where the newly enfranchised could easily gain broad parliamentary support. In PR systems which protected the substantial parliamentary representation of old elites, on the contrary, the introduction of universal male suffrage did not significantly affect social spending.

\(^9\)Model 4 in Table 2 and the marginal effects plot in Figure 4(b) again depict a stronger effect in terms of magnitude for the alternative operationalization of suffrage extension. According to these estimates, social spending before and after the extension of suffrage to the full male population differs by about 0.3 percentage points for PR countries. In majoritarian systems, the effect is estimated to be 0.4.
Not only proportional electoral systems allowed old elites to stay in control of the legislative process despite the shifts in the electorate, but also the legislative veto rights granted to second chambers in some countries. Model 5 in Table 1 includes an interaction of economic franchise with the indicator for the existence of an upper house legislative veto. The main effect of economic franchise represents the marginal effect in the absence of an upper house veto. It is highly significant, thus, speaking for a positive effect of suffrage extension on redistribution through social spending if the upper house did not constitute a veto point. According to these estimates, social spending was 1.6 percentage points higher after economic franchise had been extended by 40 percentage points as compared to the periods before the suffrage extension in countries where the upper house did not have the right to veto lower house legislation. For countries with an upper house veto the predicted difference before and after such a suffrage extension was only 0.12 percentage points. Hence, in line with our argument, social spending increased as a result of franchise extensions only if the old elites did not have the opportunity to block lower house legislation in the second chamber.

Models 6 through 8 in Table 1 depict the results for the alternative indicator of redistribution we employ here: the top marginal rate of inheritance taxation. In line with Scheve and Stasavage’s (2012) original analysis, we find a significant positive effect for the war indicator and no unconditional effect for suffrage extension.

As reported in Model 7 and displayed in Figure 3, we also do not find
support for our hypothesis regarding the insulating effect of PR systems in the model of inheritance taxation. Irrespective of an electoral system’s disproportionality, we do not find a significant effect of economic franchise on the top level inheritance tax rate. Even the signs of the coefficients contradict our theoretical expectations. As the estimates indicate, there is a weak statistically insignificant positive effect for countries with highly proportional electoral systems. With an increase in disproportionality, this effect declines, turning negative for lsq values above eleven.

Figure 3: The marginal effect of franchise on inheritance tax rate by electoral system disproportionality.

The estimates for the interaction between economic franchise and the in-
icator for an upper house legislative veto reported in Model 8, however, are in line with our hypothesis. We can now see that franchise extension did indeed positively affect the inheritance tax rate in cases where the upper house could not veto lower house legislation. For a 40 percentage point increase in economic franchise within a given country where the upper house did not have the right to veto lower house legislation, the top marginal rate of inheritance taxation is predicted to increase by almost eight percentage points. Contrarily, where the old elites had the opportunity to veto lower house legislation through the second chamber, the model predicts the inheritance tax rate to be 0.1 percentage points lower as compared to the time before suffrage extension. Thus, whereas we do find a strong effect of franchise extension on redistribution through inheritance taxes for countries without upper house vetoes, the effect is basically inexistent where veto points exist. This, again, is in line with our initial hypothesis about the conditionality of the effect of suffrage extension on redistribution upon the existence of legislative veto opportunities for the old elites.

4 Conclusion

The introduction of universal male suffrage in the late 19th and early 20th century in Western Europe had a profound impact on the political landscape in these countries. Socialist movements had the chance to gain parliamentary representation and the preferences of newly enfranchised voters would gain
entrance to the legislative arena to an unprecedented extent. This development of course affected political outcomes such as the allocation of central government spending and taxation. As we have shown in this article, however, the specific nature of this relationship crucially depended on the national institutional context the relevant legislative processes were embedded in.

Analyzing time-series cross-sectional data on central government spending on security and social transfers as well as inheritance tax rates, we find support for the hypothesis that the effects of franchise extension on different types of government spending are conditional upon the electoral system and the existence of veto points. These findings are robust against alternative operationalizations of suffrage extension and electoral system types. The estimates show that suffrage extension leads to a significant increase in public goods provision only in systems of proportional representation. Where the electoral system provides strong incentives for politicians to allocate resources towards targeted programs, i.e. in majoritarian systems, the effect of suffrage extension on public goods provision is negligible. The reverse holds for the effect suffrage extension has on redistributive spending. Majoritarian systems allow newly enfranchised voters to gain larger parliamentary support which translates into increases in central government spending devoted to social transfers and services. In systems of proportional representation, extending the franchise also positively affects social spending but the effect is much smaller in magnitude. In addition to the electoral system, second
chambers with veto rights allow old elites to hinder a direct translation of median voter demands for more redistribution into policy. We find that suffrage extension significantly affects social spending and inheritance taxation only in the absence of second chamber legislative voting rights. Taken together, these findings indicate that there is a lot to gain by including the role of political institutions into existing economic arguments about the effects of suffrage extension on public goods provision and redistribution. Since they are heavily based on assumptions about the distributional consequences of suffrage extension, political institutions should be taken into consideration more strongly, when discussing the political economy determinants of democratization.

References


Appendix

(a) Marginal effect of full male suffrage on security spending.

(b) Marginal effect of full male suffrage on social spending.

(c) Marginal effect of full male suffrage on inheritance tax rate.

**Figure 4:** Marginal effects of full male suffrage on public goods provision and redistribution by electoral system disproportionality.
Table 2: Models with a binary coding for full male suffrage.

<table>
<thead>
<tr>
<th></th>
<th>Security Spending&lt;sub&gt;t&lt;/sub&gt;</th>
<th>Social Spending&lt;sub&gt;t&lt;/sub&gt;</th>
<th>Inheritance Tax&lt;sub&gt;t&lt;/sub&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Full male suffrage</td>
<td>0.466 (0.487)</td>
<td>2.207*** (0.706)</td>
<td>0.347*** (0.126)</td>
</tr>
<tr>
<td>(S)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disproportionality&lt;sub&gt;t−1&lt;/sub&gt;</td>
<td>-0.034 (0.026)</td>
<td>0.052 (0.036)</td>
<td>0.002 (0.007)</td>
</tr>
<tr>
<td>(La&lt;sub&gt;t−1&lt;/sub&gt;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S&lt;sub&gt;t−1&lt;/sub&gt; × La&lt;sub&gt;t−1&lt;/sub&gt;</td>
<td>-0.163*** (0.048)</td>
<td></td>
<td>0.010 (0.014)</td>
</tr>
<tr>
<td>Upper house block&lt;sub&gt;t−1&lt;/sub&gt;</td>
<td>0.214 (0.676)</td>
<td>-1.033 (0.756)</td>
<td>-0.323* (0.192)</td>
</tr>
<tr>
<td>(UB)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S&lt;sub&gt;t−1&lt;/sub&gt; × UB&lt;sub&gt;t−1&lt;/sub&gt;</td>
<td></td>
<td></td>
<td>-1.124*** (0.233)</td>
</tr>
<tr>
<td>Female suffrage&lt;sub&gt;t−1&lt;/sub&gt;</td>
<td>-0.639 (0.477)</td>
<td>-0.481 (0.468)</td>
<td>-0.373*** (0.127)</td>
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<tr>
<td>(F&lt;sub&gt;t−1&lt;/sub&gt;)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>School enrollment&lt;sub&gt;t−1&lt;/sub&gt;</td>
<td>0.009 (0.021)</td>
<td>0.023 (0.022)</td>
<td>0.017** (0.007)</td>
</tr>
<tr>
<td>(Enrollment&lt;sub&gt;t−1&lt;/sub&gt;)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urbanization&lt;sub&gt;t−1&lt;/sub&gt;</td>
<td>0.157** (0.067)</td>
<td>0.145** (0.065)</td>
<td>0.041** (0.021)</td>
</tr>
<tr>
<td>(Urbanization&lt;sub&gt;t−1&lt;/sub&gt;)</td>
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<td></td>
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<tr>
<td>Population (ln)&lt;sub&gt;t−1&lt;/sub&gt;</td>
<td>-2.885 (2.837)</td>
<td>-2.753 (2.767)</td>
<td>1.096 (0.809)</td>
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<td>(Population (ln)&lt;sub&gt;t−1&lt;/sub&gt;)</td>
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<td></td>
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<td>GDP per capita (ln)&lt;sub&gt;t−1&lt;/sub&gt;</td>
<td>2.270 (1.580)</td>
<td>2.012 (1.543)</td>
<td>0.548 (0.430)</td>
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<td>0.276 (0.722)</td>
<td>0.202 (0.754)</td>
<td>-0.114 (0.153)</td>
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<tr>
<td>LDV</td>
<td>0.285*** (0.068)</td>
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<td>0.750*** (0.039)</td>
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<td>(LDV)</td>
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<tr>
<td>Size of military&lt;sub&gt;t−1&lt;/sub&gt;</td>
<td>0.071 (0.056)</td>
<td>0.070 (0.055)</td>
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<td>425</td>
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<td>F statistic</td>
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<td>54.934***</td>
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Panel-corrected standard errors in parentheses. Within country OLS estimation. Year fixed effects are not reported. *p<0.1; **p<0.05; ***p<0.01
Table 3: Models with a binary coding for systems of proportional representation.

<table>
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<th>Social Spending</th>
<th>Inheritance Tax</th>
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<td>Economic freedom</td>
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<td>0.014**</td>
<td>0.004**</td>
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<td>(E)</td>
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<td>(0.006)</td>
<td>(0.002)</td>
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<td>Proportional</td>
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<td>(PR)</td>
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<td>−0.316**</td>
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<td>(0.641)</td>
<td>(0.638)</td>
<td>(0.173)</td>
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<td>Female suffrage</td>
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<td>−0.406***</td>
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<td>(FR)</td>
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<td>(0.688)</td>
<td>(0.136)</td>
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<td>LDV</td>
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<td>0.284***</td>
<td>0.750***</td>
</tr>
<tr>
<td>(LDV)</td>
<td>(0.062)</td>
<td>(0.062)</td>
<td>(0.036)</td>
</tr>
<tr>
<td>Size of military</td>
<td>0.103**</td>
<td>0.101**</td>
<td>0.047</td>
</tr>
<tr>
<td>(SM)</td>
<td>(0.050)</td>
<td>(0.051)</td>
<td>(0.034)</td>
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Observations 334 371 530
R² 0.602 0.602 0.943 0.943 0.949 0.852 0.852 0.853
F statistic 5.118*** 5.031*** 58.630*** 57.829*** 64.469*** 27.716*** 27.358*** 27.557***

Panel-corrected standard errors in parentheses. Within country OLS estimation. Year fixed effects are not reported. *p<0.1; **p<0.05; ***p<0.01