Is Charitable Giving Political? Evidence from Wealth and Income Tax Returns*

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Abstract

Is charitable giving politically motivated? In this article, we use exhaustive administrative household panel data and a natural experiment to investigate the giving behavior of wealthy households and quantify their preferences for charitable and political donations. Our dataset includes all the households filing their income tax and/or their wealth tax returns in France between 2006 and 2021. In France, both charitable and political donations benefit from a 66% income tax credit, but only the charitable ones are eligible for the 75% wealth tax credit. We exploit the 2017 wealth tax reform – a change in the taxable base that led to a drop of two thirds in the number of liable households and, as a result, an increase in the price of charitable giving – and show that charitable and political donations are substitute. According to our estimates, a one-percent increase in the price of charitable giving leads to an increase of around 0.13% in political donations. Next, using city-level information, we show that the increase in the price of charitable giving mostly benefits pro-business political parties. Finally, we document that the drop in charitable donations is mostly driven by politically involved nonprofit organizations, pointing toward political motivations behind charitable giving.

Keywords: charitable giving, political donations, tax incentives for giving, tax deductions, wealth tax credit, cross-elasticity of donations, nonprofit organizations

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1 Introduction

There has been a rise in philanthropy in Western democracies in recent years. In the United States, charitable giving increased by 43% between 2000 and 2021 – from 390 (inflation-adjusted) billion dollars to 558 billion; in Switzerland, we similarly observe a 78.3% increase between 2003 and 2019, and in France, a 91% increase between 2010 and 2019, from €2.789 billion to €5.319 billion. How to explain such a rise? In many countries, increases in tax policies offering substantial incentives to donate to charities provide an initial explanation. This increase has also been related to individuals' growing desire to be seen to be doing good (e.g. the so-called warm-glow motive for giving described by Andreoni, 1989, 1990). Yet, philanthropy may not be just about giving, and can also serve political objectives (Reich, 2018; Bertrand et al., 2020a).

In this article, we study how charitable giving and political donations intertwine, and investigate in particular the extent to which charitable giving is politically motivated. To do so, we proceed in two steps. First, using exhaustive tax data and a natural experiment, we estimate the cross-price elasticity of charitable and political giving. Then, we discuss various interpretations for the observed substitutability between charitable and political donations, and use political party information and nonprofits' accounts to provide evidence that charitable giving is partly driven by political motivations.

Our dataset includes all the households filing income tax and/or their wealth tax returns in France between 2006 and 2021, i.e. around 39 million households per year that we can follow over time and across wealth and income tax returns thanks to a unique household identifier. France provides a unique empirical framework to investigate whether donations to charities and to political parties are substitutes or complements. Both charitable and political donations can indeed benefit from tax deductions that are relatively generous in international comparisons. On the one hand, charitable and political giving can benefit from a nonrefundable income tax credit equal to 66% of the gift. On the other hand, charitable donations (but not the political ones) can benefit from a nonrefundable wealth tax credit equal to 75% of the amount of the donations made (up to a limit of $\leq 50,000$ per year. Taxpayers liable to the wealth tax can choose to declare their charitable donations either to the wealth tax or to the income tax (but they cannot declare them twice). Importantly, charitable donations and political donations are reported separately on the tax forms.

Estimating the cross-elasticity of political and charitable donations raises a number of em-

¹US data are from Giving US: https://givingusa.org/. Data for Switzerland and France were computed by the authors and reported in 2015 constant euros for France. See Section 3 for detailed information on the data sources.

²The gift can be deducted from the income tax up to a ceiling currently equal to 20% of taxable income (see Section 2 for details).

³However, households are offered the possibility to fiscally report excess donations from one year to the other.

pirical challenges, reverse causality to begin with. In this article, we overcome these challenges by exploiting the panel dimension of our data and using a tax reform to instrument the price of charitable giving in a difference-in-differences framework. In 2017, the solidarity tax on wealth became a real-estate tax⁴. This reform did not modify the tax schedule but restricted the definition of the tax base to real-estate assets, excluding other investments (in particular financial assets) which were previously included. With this transformation of the wealth tax, two thirds of the households liable to the wealth tax on their 2016 wealth were no longer liable for their 2017 wealth, and thus could no longer benefit from the 75% wealth tax deductions for charitable giving.⁵ In other words, the reform created a shock on the price of charitable giving - which increased from 25 to 34% of the amount of the gift, given that the income tax credit is "only" equal to 66% of the donations⁶ – but not on the price of political donations, given that political giving was not eligible to the wealth tax deduction before the reform. This is illustrated in Figure 1 where we plot the underlying variations in the price of charitable giving we exploit in our analysis. While the 115,013 "control" households who continue paying the real-estate tax following the reform still benefit from a 75% tax credit, the price of charitable giving increases from 25 to 34% for the 236,216 "treated" households in 2017. These wealth tax payers represent 1% of the households, but 4.8% of the total gross income, 16% of the charitable donations declared in the income tax returns, and 13.8% of the declared political donations. Furthermore, they represent 22.5% of the total (non-political) income and wealth tax donations.

In practice, to estimate the cross-elasticity of political and charitable donations, we first employ an instrumental variable strategy where we use the 2017 wealth tax reform as an instrument for the price of charitable giving. To take into account the fact that the wealth tax reform led to a decrease in the amount of taxes paid for the households in the treated and the control group, i.e. an increase in the resources at their disposal (a phenomenon that we can approach just like a positive "income effect" 7), we reduce our sample of analysis to the treated and control households who face approximately the same tax saving (between $\in 0$ and $\in 15,000$

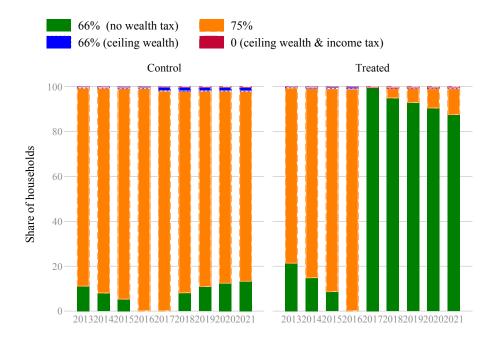
⁴The solidarity tax on wealth was called ISF or "impôt de solidarité sur la fortune". The real-estate tax is called IFI or "impôt sur la fortune immobilière".

 $^{^{5}}$ In France, a wealth tax for year t is levied on the wealth evaluated at the end of year t-1, so that the reform is effective from the 2017 wealth onward, even though it corresponds to tax levied in 2018. 351, 229 households were liable to the wealth tax on their 2016 wealth, out of which 236, 216 were no longer liable in 2017.

⁶Compared to 75% for the wealth tax credit. The price of charitable giving corresponds to the cost of giving an additional euro: 25% if the household is liable to the wealth tax, 34% if the ceiling of the wealth tax deduction is reached, 0 if the income tax cap is reached (see Section 3.4 for detailed explanations).

⁷We observe a decrease of €10, 820 and €7, 702 for households in the control and treated group, respectively. This positive shock might have had a direct effect on either political or charitable donations – or on both of them – through a resource effect (with more cash at their disposal, households decide to contribute more). See for example Bakija and Heim (2011) who show that the elasticity of charitable giving with respect to a persistent income change is equal to 0.51.

Figure 1: Evolution of the marginal price of charitable giving following the 2017 wealth tax reform



Notes: The Figure plots the change in the marginal price of charitable giving separately for the 115,013 "control" households who continue paying the real-estate tax following the 2017 wealth tax reform (on the left) and the 236,216 "treated" households (on the right) who are no longer liable to the wealth tax in 2017. Green bars show the share of the households who are not liable to the wealth tax and can thus only benefit from the 66% income tax credit. Orange bars show the share of the households who are liable to the wealth tax and can thus benefit from the 75% wealth tax credit. Blue bars report the share of the households who are liable to the wealth tax but who face the \in 50,000 wealth tax credit cap. Finally, red bars show the share of the households who are liable to the wealth tax but who face both the \in 50,000 wealth tax credit cap and the income tax ceiling.

in wealth tax gains in our preferred specification⁸) following the reform (282, 999 households).

According to our first-stage estimations, the wealth tax reform led to an increase of around 26% in the marginal price of charitable giving for the treated group compared to the control group. In the second stage, we investigate how the (instrumented) price of charitable giving affects political giving. Our identification assumption is that, given that political giving was not eligible to wealth tax deductions and thus not directly affected by the reform, the 2017 wealth tax reform only affected political donations through its effect on the tax price of charitable giving (note that our sample of analysis is reduced to the households who face a similar wealth tax change following the reform). If we consider the reduced-form relationship, we document a 3.1 to 3.3% increase in political donations for the treated group compared to the control group following the reform. Importantly for the validity of our empirical strategy, we show that the two groups were following parallel trends with respect to both charitable and political giving before the reform. Further, in the spirit of a placebo test, we show that, on

⁸We show below that our findings are robust to the use of different thresholds.

the contrary, the reform did not affect trade union subscriptions although they are subject to similar tax treatment as political donations.

Regarding the cross-price elasticity of political donations (second stage of the estimation), we show that a one-percent increase in the price of charitable giving leads to an increase of around 0.13% in political donations. This effect happens both at the intensive and at the extensive margin of donations, and is economically significant for the political parties, which strongly rely on private donations. E.g. the estimated increase in political donations is equivalent to 9.8% of the total political donations made by wealth tax donors in 2017. These results are robust to the use of a number of different empirical strategies. In particular, we show that they are qualitatively similar if, rather than relying on the IV strategy, we use propensity score matching where we match the two groups on their pre-treatment observables.

How to interpret this substitutability? In the second part of the paper, we provide evidence pointing toward the fact that charitable donations may be at least partly driven by political motivations. More precisely, we begin by investigating whether the increase in the price of charitable giving benefits all the political parties in a similar way. To do so, we collect novel data on annual city-level donations received by each political party and merge them with information on "treatment intensity" at the level of the city. "Treatment intensity" is defined as the share of the households in the city liable to the wealth tax in 2016 but not in 2017, normalized by the total number of households liable to the wealth tax in 2016. We show that the tax reform mostly benefited the right-wing Les Républicains party. On the contrary, if anything, we observe a small decrease in the donations received by the parties on the left of the political spectrum.

Next, we list all the public-utility nonprofit organizations that could benefit from both the income tax and the wealth tax credit in France⁹, and the annual amount of donations they receive, which we hand-collected from their paper-format "auditor's reports on the annual accounts". Using their stated purpose, we classify the organizations depending on their object, and study aggregate changes in the amount of donations received by the nonprofit organizations whose purpose is classified as "politics" and the ones whose purpose is not (e.g. the foundations that are classified as "humanitarian" or "solidarity"). We document that the drop in the charitable donations received is larger for the charities whose purpose is political than for the non-political ones. We provide both suggestive and anecdotal evidence pointing toward the fact that former contributors to right-wing political foundations might have decided, following the increase in the price of charitable giving, to instead contribute directly to the right-wing political parties.

Our results have important policy implications. If donations to charities are (at least) partly driven by political considerations, then one might question the relevance of having

⁹The so-called *Fondations Reconnues d'Utilité Publiques*. See Section 2.1.2 for details.

different tax deductions for charitable and political giving. Next, given that political donations are capped in France (as well as in a number of other countries) to assure political equity, it may also be relevant to limit (politically driven) charitable contributions. We discuss these implications at the end of the paper, as well as the external validity of our findings. With the notable exception of the US, there is limited research on charitable giving. Yet, in international comparison, the size of the philanthropic sector in the US is disproportionately large. On the contrary, France has the advantage of being much more like other OECD countries. Note furthermore that the wealth tax reform we exploit here offers us a "perfect" empirical setting (in the sense of List, 2020) to causally estimate the impact of a drop in charitable giving on political donations among rich donors. To the extent of our knowledge, no other natural experiment would allow us to better quantify this impact.

Literature review Our paper first contributes to the long tradition of research analyzing philanthropic giving, and in particular estimating the tax-price elasticity of giving (Feldstein and Taylor, 1976; Randolph, 1995; Bakija and Heim, 2011; Andreoni and Payne, 2013; Meer and Priday, 2020). Several articles in this literature have estimated the effect of tax incentives for charitable contributions. Fack and Landais (2010) use two reforms in France that increased the nonrefundable tax credit rate in 2003 and 2005, and Fack and Landais (2016b) exploit the 1983 tightening of the requirements to claim charitable deductions. Fack and Landais (2010) find that the elasticity price of gifts is around -0.2 to -0.6 depending on income; in the US context, Bakija and Heim (2011) estimate an elasticity in excess of -1; Almunia et al. (2020) find an elasticity of -0.3 for the UK. 12

Compared to this literature, our contribution is fourfold. First, while the focus of these papers is on charitable contributions, we also consider political donations that benefit from similar tax incentives but may be driven by different motivations. Indeed, political contributions and charitable giving are not usually analyzed in conjunction, although they may be considered as two sides of the same coin. An exception is Yildirim et al. (2021) who provide evidence that individuals substitute between political contributions and charitable contributions using data from the US and shocks on charitable and political giving (see also Yörük (2015) who uses survey data to investigate the spillover effects of charitable subsidies on political giving in the US between 1990 and 2001 and finds complementarity between the two kinds of donations). We contribute to this literature by looking at substitution effects within the

¹⁰See also Bakija (2013) and Fack and Landais (2016a) for a literature review on tax policy and philanthropy.

¹¹See also Doerrenberg et al. (2017) who exploit several tax reforms implemented in Germany between 2001 and 2008 to estimate both the elasticity of taxable income and the elasticity of deductions with respect to net-of-tax rate. In the French context, Guillot (2019) and Aghion et al. (2019) study behavioral responses to changes in taxation.

¹²Karlan and List (2007) use a natural field experiment to explore the importance of price on charitable giving (see also Landry et al., 2006).

¹³Hungerman et al. (2018) investigate the effect of campaign activity on non-political donations, and doc-

same donors. Our data indeed allow us to investigate at the taxpayer level the propensity of individuals to contribute to both political parties and charities and, thanks to our empirical strategy, we can isolate the causal effect of an increase in the price of charitable giving (driven by a change in tax incentives) on political donations (not affected directly by this change). ¹⁴ Furthermore, while Yildirim et al. (2021) use a subset of nonprofit organizations in the US, our data cover the entirety of political and charitable donations reported to the tax administration and allow us to estimate the price elasticity of giving among rich donors, and to investigate whether the magnitude of the effect varies with the characteristics of those households (and depending on their wealth to begin with). Besides, we estimate the substituability between political and charitable giving in normal times, while Yildirim et al. (2021) exploit rare events such as foreign natural disasters.

Second, while the focus of the existing literature has been on the income tax, our paper also exploits variations in the wealth tax and estimates the cross-price elasticity of giving. While there exists a large literature investigating the impact of wealth taxation (Brülhart et al., 2016; Seim, 2017; Jakobsen et al., 2019), to the extent of our knowledge, we are the first to study the extent to which wealth tax deductions impact donations. Furthermore, while the existing research mostly considers direct variations in the price of giving (through changes in the tax treatment that donations benefit from), we consider indirect shocks (exploiting a wealth tax reform).

Third, while the existing research mostly uses survey data or samples of taxpayers¹⁵, or focuses on the top of the income distribution when using tax returns, we rely on an exhaustive administrative panel dataset and estimate the elasticities at different levels of the distribution.¹⁶ Almunia et al. (2020) similarly use administrative tax return data (from the UK) and exploit a tax reform; more closely related to our paper is recent work by Ring and Thoresen (2022) who use a shock to wealth tax exposure in the Norwegian context. However, both papers focus on charitable giving, while we investigate whether there are substitution effects

ument an increase in collections for nearby churches the week following a campaign stop by a presidential candidate. Perroni et al. (2022) study the role of salience in charitable giving, using a dataset on phone text donations.

¹⁴There is a large literature on the determinants of campaign contributions (for a literature review, see Dawood, 2015), but this literature mostly overlooks the issue of the tax price of political giving. This may be due to the fact that political donations in the US do not give rise to tax deductions – while this is the case in France (as well as in many other Western democracies), and so can be studied in our context. The main determinants of campaign donations that have been highlighted in the literature are political influence (see Gordon et al. (2007); Chamon and Kaplan (2013); Barber (2016) for empirical evidence, and Grossman and Helpman (1994, 1996) for the leading theoretical models); the willingness to affect election outcomes (Poole and Romer, 1985; Wand, 2007); a consumption motive (Ansolabehere et al., 2003; Gimpel et al., 2008); and the effect of political advertising (see e.g. Green et al., 2015, on the impact of non-partisan messages).

¹⁵For papers using survey data, see Brown and Lankford (1992); Scharf and Smith (2015); Yörük (2015); Backus and Grant (2016). Fack and Landais (2010) use a repeated cross-section of 500,000 tax payers drawn every year by the tax administration; Bakija and Heim (2011) relies on a panel of 550,000 disproportionately high-income tax returns.

¹⁶A strand of the literature also relies on charities' tax filings. See in particular Duquette (2016).

between charitable and political donations.

The rest of the paper is organized as follows. In Section 2 below, we provide historical background on tax deductions for charitable and political contributions in France, and describe the tax reforms that took place during our period of interest. Section 3 presents the unique panel data we use, provides descriptive statistics and exposes our identification strategy. Section 4 presents our main empirical results, shows their robustness, and investigates the heterogeneity of the effect across various dimensions. In Section 5, we show that the substitutability between charitable and political giving is at least partly driven by political motivations behind charitable donations. Finally, Section 6 concludes.

2 Historical background and tax legislation

In this section, we first describe the French regulatory background for charitable and political contributions. We then outline the main tax reforms that took place during our period of interest (2006-2021). The time period considered is determined by data availability reasons: the wealth tax return data at the households level are only available between 2006 and 2021.

2.1 Tax deductions for charitable and political contributions

2.1.1 Income tax credit

Tax credit for charitable giving A tax incentive toward charitable giving has existed in France since 1954, but has been significantly modified over time (Fack and Landais, 2010). The initial deduction mechanism, which worked as a deduction from taxable income, was replaced in 1989 by a nonrefundable tax credit of 40%. With a nonrefundable tax credit, all taxpayers benefit from the same tax credit rate equal to x% of the gift, regardless of their income level. However, the gift can only be deducted up to a ceiling currently equal to 20% of the taxable income.¹⁷ Further, given that the tax credit is nonrefundable, the deduction cannot exceed the income tax that is due for taxable households.

The tax credit rate has been raised three times since the late 1980s: from 40% to 50% in 1996, from 50 to 60% in 2003, and from 60% to 66% in 2005, a rate that has remained unchanged since then (and in particular during our period of interest).

Tax credit for political giving Political donations, i.e. donations to political parties and to campaigns, have been allowed in France since 1988 (Cagé, 2018; Bekkouche et al., 2022). Tax deductions for these donations were introduced at the exact same time, with the same rate

¹⁷However, if the gift exceeds the ceiling, its reporting can be spread out over five years. We show in online Appendix Table D.5 that our results are robust to including the reported donations in the computation of the price of charitable giving (see Section 4.5).

as for other charitable donations (i.e., a 66% nonrefundable income tax credit as of today). However, contrary to charitable donations, political donations are limited by law in France. A natural person may contribute up to $\leq 4,600$ to each campaign, and donate an annual maximum of $\leq 7,500$ to political parties or groups. ¹⁸

We observe donations to political parties directly in the income tax returns data since 2013 (they were previously bundled with charitable donations).¹⁹ We report descriptive statistics on these donations in Section 3.2 below.

2.1.2 Wealth tax credit

The wealth tax credit for charitable donations – political donations are not eligible to this tax credit – was introduced in 2007 as part of the "loi TEPA", a fiscal package aiming at lightening the fiscal burden on businesses, liberalizing the labor market and stimulating investment. Interestingly, Section 6 of this Law – introducing the wealth tax deductions – went relatively unnoticed at the time, with virtually no media coverage. The wealth tax credit is very generous, though, with a wealth tax reduction equal to 75% of the amount of the donations made, up to a limit of $\in 50,000$ per year. 21

Taxpayers liable to the wealth tax can choose to declare their charitable donations either in the wealth tax or the income tax return, but they cannot declare it twice. However, contrary to the income tax credit, not all nonprofit organizations are eligible to the wealth tax credit. Indeed, only a subset of the nonprofit organizations that are recognized as "being of public utility" (the so-called *Fondations Reconnues d'Utilité Publique* or FRUP) can benefit from it, as well as the nonprofit research, higher education or artistic institutions of general interest.

As of today, there are 661 FRUPs in France. While this number might seem small, in

¹⁸Corporations are not allowed to contribute to political parties or campaigns since 1995 (Bekkouche et al., 2022; Cagé et al., 2021b). Until 2012, individuals were allowed to give €7,500 annually to each of the political parties of their choice. The rule was changed in 2012 − €7,500 overall, taking into account the donations made to all the political parties − because parties were increasingly creating micro-parties to augment the donations they could receive.

¹⁹Taxpayers report their charitable and political giving on the same page of their income tax form, but on different rows (see online Appendix Figure B.1 for an illustration). Donations to electoral campaigns are bundled with charitable donations in the tax data. We provide below descriptive statistics on these donations that we compute from the electoral campaign records.

²⁰We have gone through all the articles on the law published by the five main daily newspapers (*Le Monde*, *L'Humanité*, *La Croix*, *Le Figaro*, and *Libération*) at the time, and found nearly no mention of Section 6. All the media attention was focused on Articles 1 to 4 of the law that introduced a tax exemption for overtime, a reform of the inheritance tax, a change of the tax shield, and an experimentation of the "in-work solidarity benefit" (RSA).

²¹There were also very few discussions at the time in the parliament about this specific section of the law – with the exception of some debate about whether political donations should also benefit from it. In particular, no specific estimation was made of the cost of the reform. The only estimation provided was the joint estimated cost of this reduction together with other measures in favor of SMBs (overall, the estimated cost was equal to €410 million per year).

 $^{^{22}}$ If they reach the €50,000 cap, however they can split their charitable donations between the two forms, and declare the remaining amount on their income tax form so as to benefit from the 66% deduction (see Figure 1 for an illustration).

particular compared to the 1.3 million associations, in fact it is not. Indeed, while the majority of the associations are very small structures, with nearly no funding and most often no employees, FRUPs tend to be much larger and represent a larger part of the not-for-profit sector. Two thirds of the associations have annual budgets of less than \in 7,500, and only 5% of the associations have an annual budget of more than \in 150,000.²³ On the contrary, to become a FRUP, a foundation needs to have an endowment of at least \in 1.5 million.²⁴ We come back to this point in Section 5, where we discuss the political dimension of a number of foundations and present the novel data we collect on FRUPs.

2.2 The 2017 wealth tax reform

The first goal of this paper is to estimate the cross-elasticity of political and charitable donations. However, doing so raises a number of empirical challenges given reverse causality and omitted variable bias. To obtain a causal estimate, we propose to exploit the 2017 wealth tax reform. We present our empirical strategy in Section 3 below; here, we simply describe the reform.

In 2017, the solidarity tax on wealth became a real-estate tax. While the tax schedule was unchanged²⁵, the taxable base was not: compared to the previous solidarity tax on wealth, the real-estate tax only covers real-estate assets and excludes other investments (in particular financial assets). Because of the reform, two thirds of the households who were liable to the wealth tax in 2016 were no longer liable in 2017, i.e. 236, 216 out of 351, 229 households.

Hence, this wealth tax reform led to a drop in the number of households liable to the wealth tax, and so in the number of households eligible to the wealth tax deduction. For the households no longer liable to the wealth tax following the reform, it also implied an increase in the price of charitable giving – given that they could no longer benefit from the 75% wealth tax credit, as illustrated in Figure 1 above – but no changes for political donations, which have never been eligible to this credit.

3 Data, descriptive analysis and identification strategy

The confidential data used in this paper are from the General Directorate of Public Finance, and access has been made possible within a secure environment offered by the CASD ("Centre").

²³According to the Ministry of the interior: https://www.associations.gouv.fr/les-associations-en-france.html#Les-chiffres. 92% of the associations have annual budgets of less than €75,000.

 $^{^{24}}$ Law n°87-571 of July 23, 1987 on the development of patronage.

²⁵Only the households whose net taxable wealth is above €1.3 million are liable to the wealth tax. The tax rates are equal to (i) 0% between €0 and €800,000, (ii) 0.5% between €800,000 and €1.3 million, (iii) 0.7% between €1.3 million and €2.57 million, (iv) 1% between €2.57 million and €5 million, (v) 1.25% between €5 million and €10 million, and (vi) 1.5% above €10 million.

 $d'accès\ s\'{e}curis\'{e}\ aux\ donn\'{e}es")^{26}$. We briefly describe the dataset here and provide more details on data construction in the online Appendix Section A.

3.1 An exhaustive panel dataset of income and wealth tax returns

Our dataset includes all the households who must declare their taxes in France, i.e. all the households filing their income tax and/or their wealth tax returns. An individual must file an annual tax return if she is in one of the following situations: (i) she resides in France; (ii) her main professional activity is in France; (iii) she turned 18 in year N and she is no longer attached to her parents' tax household; (iv) she lives abroad but her income is from a French source. The tax return is mandatory regardless of the amount of her income, even if it is zero or low. Overall, around 38.5 million households file an income tax return as of 2018. There is a single tax return per tax household, unless there is a change in the household definition during the year (e.g. because of a marriage or a divorce). For single persons (single, divorced, widowed, cohabiting), the tax household is made up of the taxpayer and her dependents. For married and civil union partners, the tax household consists of the taxpayer, his/her spouse and dependents. The income and expenses of all members of the tax household are taken into account to establish a single tax assessment (in the empirical analysis below, we always control for the number of fiscal shares).

Regarding the wealth tax, since the 2017 wealth tax reform, individuals whose real-estate assets have a net taxable value strictly superior to the tax threshold, i.e. ≤ 1.3 million, are required to file a declaration. Online Appendix Figure B.2 reports the evolution of the number of households filing their income tax and/or their wealth returns during our period of interest.

Thanks to a unique household identifier, we follow households over time for both income and wealth tax. Our tax return data contains information on households' composition, detailed income composition, wealth²⁹ (if they file a wealth tax return), and all reductions and rebates claimed. The data also contains output variables of the income tax computation such as the tax due and the amounts deducted for it. In this article, we mainly rely on the information

 $^{^{26}}$ Ref. 10.34724CASD.

²⁷Note that in 2019, a reform introduced the "prélèvement à la source" or tax withholding in France. Before January 2019, French tax residents paid income tax on their wages via self-assessment; income tax was payable after completion and submission of the tax return and employers were not involved in this collection. Since January 2019, the income tax is paid to the government by the payer of the income rather than by the recipient of the income. However, this new income tax withholding did not change the obligation to file the tax return.

 $^{^{28}}$ An individual domiciled outside of France for tax purposes (and so not filing an income tax return) has to file a wealth tax declaration if her real-estate assets and rights located in France, as well as her shares in companies or organizations (established in France or abroad) for the portion of their value representing these real-estate assets or rights, are above €1.3 million. 1.4% of the households filing a wealth tax return are not liable to French income tax. We do not include these households in our sample.

²⁹Detailed wealth composition is only available for the households liable to the wealth tax with a wealth above €2.57 million. Indeed, those with a wealth below €2.57 million did not have to file a detailed wealth tax return until 2018.

on income, wealth, charitable and political donations, department of residency, number of dependents and age, as well as on the panel structure of the data. Table 1 provides summary statistics on these variables when we consider all the households filing an income tax return.

Regarding donations, we have information on the total amount of donations eligible for income and wealth tax deductions, i.e. both charitable and political donations that are declared by the households on their tax form(s). 30

3.2 Charitable donations

As highlighted above, donations can be declared either on the income tax form or on the wealth tax form for the households liable to both income and wealth tax. However, households cannot declare the same donation twice.

Figure 2 plots the evolution of the number of households who declare a charitable donation during our period of interest. We observe a large increase in the number of households declaring a donation on their wealth tax form (henceforward the wealth tax donors, dashed red line) between 2008 and 2009³¹, a drop in 2010, and then a continuous increase until 2016. The drop in 2010 is most probably due to the 2011 wealth tax reform that increased the amount of net property assets above which individuals were liable for the wealth tax from €0.8 to €1.3 million (thus decreasing the number of liable households – see Figure B.2).³² Similarly, the 2017 drop can be explained by the 2017 wealth tax reform that led to a decrease in the number of liable donors and which we exploit in this paper. However, while we observe a drop in the absolute number of wealth tax donors in 2017, the *share* of donors among households liable to the wealth tax increases, as shown in the online Appendix Figure B.3.

The picture is quite different if we consider the households who declare a donation on their income tax form (henceforward the income tax donors). We observe a continuous decline in the share of donors since the mid-2010s, as illustrated in the online Appendix Figure B.4. In 2019, around 9% of the households declared a charitable donation on their income tax form compared to more than 12% in 2014.

This decrease in the share of income tax donors was not accompanied by a decline in the

³⁰We do not observe in the data the detailed composition of the giving made by households, e.g. how much they contribute to different associations and the associations they contribute to. We come back to this point in Section 5.2 below where we collect novel data on the foundations' financial accounts to investigate whether foundations were differentially affected by the wealth tax reform depending on their purpose. Similarly, the tax data only provide us with aggregate political giving, but give no information on the identity of the parties that benefit from the political donations. We overcome this limitation of the data in Section 5.1 by collecting city-level information on the donations received by each party.

³¹In 2006, this number is equal to zero given that the wealth tax deduction was introduced in 2007.

³²Contrary to the 2017 reform, we cannot exploit the 2011 change in our empirical analysis given that the data on political donations is only available since 2013. An alternative explanation for the 2010 drop could be the consequences of the 2007-2008 financial crisis. There is indeed a literature that documents that changes in the stock-market co-vary with changes in charitable giving (see e.g. List, 2011). While this may partly explain the observed decline, note that we observe a similar drop in the number of households liable to the wealth tax.

Table 1: Descriptive statistics: characteristics of the households filing an income tax return (2016)

(a) All households liable to income tax

	Mean	Std. Dev.	p25	p50	p75	Frac. > 0
Gross Taxable Income	26,004	38,496	11,504	19,249	32,392	0.94
Number of fiscal dependents	1.8	0.9	1.0	2.0	2.0	0.28
Age (individual 1)	51	19	35	50	65	1.00
Total donations (income tax)	63.4	$1,\!216.3$	0.0	0.0	0.0	0.14
Political donations (income tax)	2.2	92.4	0.0	0.0	0.0	0.0075
Charitable donations (income tax)	50.0	1,167.6	0.0	0.0	0.0	0.11
Coluche donations (income tax)	11.2	294.1	0.0	0.0	0.0	0.050

Observations

37,551,043

(b) All households liable to wealth tax

	Mean	Std. Dev.	p25	p50	p75	Frac. > 0
Gross Taxable Income	134,867	265,361	52,462	85,993	143,663	0.99
Number of fiscal dependents	1.9	1.0	1.0	2.0	2.0	0.19
Age (individual 1)	68	13	60	68	77	1.00
Total donations (income tax)	1,002.4	9,882.6	0.0	60.0	588.0	0.55
Political donations (income tax)	33.0	445.4	0.0	0.0	0.0	0.050
Charitable donations (income tax)	888.8	$9,\!828.1$	0.0	0.0	426.0	0.49
Coluche donations (income tax)	80.6	240.9	0.0	0.0	0.0	0.23
Total gross wealth	2,962,612	3,997,285	1,685,420	2,123,300	2,971,474	0.99
Total donation (wealth tax)	749.1	4,885.4	0.0	0.0	0.0	0.15
Charitable donation (wealth tax)	740.8	4,859.6	0.0	0.0	0.0	0.14
Charitable donation in E.U (wealth tax)	8.3	492.5	0.0	0.0	0.0	0.0019
Charitable giving (income & wealth tax)	1,637.9	11,730.3	0.0	50.0	645.0	0.54

Observations

351,229

(c) Households giving to a political party

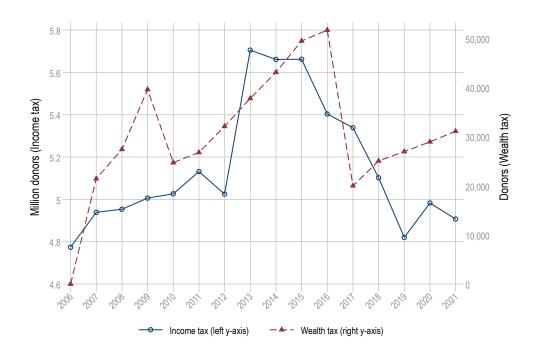
	Mean	Std. Dev.	p25	p50	p75	Frac. > 0
Gross Taxable Income	55,779	118,322	26,707	40,614	61,194	1.00
Number of fiscal dependents	1.8	0.9	1.0	2.0	2.0	0.26
Age (individual 1)	61	15	50	63	72	1.00
Total donations (income tax)	773.0	5,144.1	76.0	210.0	622.0	1
Political donations (income tax)	287.3	1,027.6	40.0	80.0	170.0	1
Charitable donations (income tax)	414.2	4,943.8	0.0	22.0	230.0	0.54
Coluche donations (income tax)	71.5	185.0	0.0	0.0	30.0	0.27
Total gross wealth	242,613	2,242,111	0	0	0	0.062
Total donations (wealth tax)	115.2	1,741.6	0.0	0.0	0.0	0.016
Charitable donations (wealth tax)	114.0	1,719.1	0.0	0.0	0.0	0.016
Charitable donations in E.U (wealth tax)	1.2	271.8	0.0	0.0	0.0	0.00018

Observations

281,538

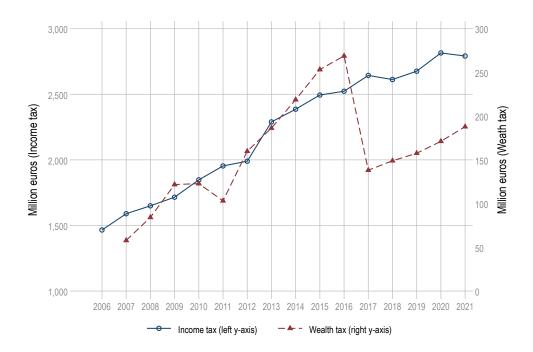
Notes: The table shows descriptive statistics for the characteristics of the households filing an income tax return in 2016. Panel (a) includes all the households liable to the income tax while panel (b) is restricted to the households liable to the wealth tax as well. Finally, panel (c) shows the characteristics of the households who declare a political donation that year. All the variables but age (in years) and the number of fiscal dependents are in euros. We call "Coluche donations" the donations to charities that help people in need (see Section 4.5). The total donations to the wealth tax correspond to the sum of the donations for a French-based charity and a EU-based charity.

Figure 2: Evolution of the number of households who declare a charitable donation, Income tax and wealth tax donors, 2006-2021



Notes: The figure plots the evolution of the number of households who declare a charitable donation on their income and wealth tax forms per year. The time period covered is 2006-2021. The number of income tax donors is reported in millions on the left y-axis (blue line with dots) and the number of wealth tax donors on the right y-axis (dashed red line with triangle).

Figure 3: Evolution of the total amount of income tax and wealth tax donations, 2006-2021



Notes: The figure plots the evolution of the total amount of income tax and wealth tax donations. The time period covered is 2006-2021. The amount of donations declared to the income tax is reported on the left y-axis (blue line with dots) and the amount of the donations declared to the wealth tax on the right y-axis (dashed red line with triangle).

amount of total donations, however. Figure 3 plots this amount for both income tax and wealth tax donations. Income tax donations increased from around €1.1 billion in 2006 to more than €2.1 billion in 2019. This is due to the fact that the average amount declared increased during the same time period, from €33 (€317 among donors) to €55 (€579 among donors) (online Appendix Figure B.5).

Incentives to report One legitimate concern regarding the data we are using in the paper comes from the fact that, given the tax credit is non refundable, only the households who actually pay income tax have a fiscal incentive to report their donations given they are the only ones who can benefit from the tax rebate. However, according to Fack and Landais (2010), given it is almost costless for a household to report its contributions, the vast majority of contributions to charities are reported in the tax data, even those made by nontaxable households. In this paper, using an alternative data source – the *Panorama des générosités 2020* – to compute the aggregated evolution of the donations made to general interest organizations ("organismes d'intérêt général"), we show that the overall picture is fully consistent across the two sources (online Appendix Figure B.6).

Further, the focus of this article is on the households who were liable to the wealth tax in 2016; nearly all these households are also at the top of the income distribution and so do

actually pay the income tax. The possibility of misreporting is thus less of a concern for us given our empirical setting. What is more, unlike for the income tax, all the households who have to fill in a wealth tax form are taxable households from the wealth tax point of view, and could actually benefit from a tax rebate. Given this tax rebate is higher than for the income tax (75 vs. 66%), misreporting should be even less of an issue for the wealth tax.

3.3 Political donations

If we now turn to political donations, we see that less than one percent of the households make a donation to political parties every year (online Appendix Figure B.4), and that, during our period of interest, the annual amount of political donations has varied between around \leq 60 million and \leq 120 million (Figure B.7). Political donations vary strongly with the electoral cycles, with presidential and legislative campaign years resulting in more contributions.³³

While these figures might seem small – both in international comparisons and compared to charitable giving – they are in fact of importance in the French context where campaign expenditures are limited by law (Cagé, 2018). In the 2022 presidential elections for example, first-round candidates could not spend more than $\leq 16,851,000$, out of which up to $\leq 8,004,225$ could be reimbursed by the State. Hence, the maximum differential spending between candidates stemming from private donations was around ≤ 8.8 million. Further, due to the spending caps, the marginal price of a vote is relatively low in France (e.g. between ≤ 10 and ≤ 35 for the legislative elections according to the estimations of Bekkouche et al., 2022).

Finally, note that these aggregated political donations are higher overall than the direct public subsidies received by the political parties. In 2020, the direct public subsidies to political parties amounted to €66,080,892. E.g. the Parti socialiste received €6,001,343 in public subsidies, compared to €8,477,653 in total donations. Overall, even if we observe variations depending on the parties and over time, private donations tend to represent a very large share of the political parties' total revenues; 70% for both La France Insoumise (LFI, the left-wing party of Jean-Luc Mélenchon) and La République en Marche (LREM, the presidential party of Emmanuel Macron) in 2017 for example, and nearly 50% for the Parti socialiste in 2020 (online Appendix Figure B.8).

Who benefits from political donations? Unfortunately, from the fiscal data, we do not know which political party each donor contributes to. But we can study the aggregate change in political donations by using the accounts of the political parties that have to report annually the donations they receive; online Appendix Figure B.7 plots this number together with the fiscal data and shows that they are roughly consistent.³⁴

³³The campaign took place in 2006-2007 for the 2007 elections, in 2011-2012 for the 2012 ones, etc.

³⁴One exception is 2013 and 2014, the first two years when households had to declare their political donations separately on their income tax form. For these two years, we observe some over-declaration in the fiscal data

Further, we collect additional data on the individual donations received by the main political parties between 2016 and 2020 with precise information on the location of the donor. This data is quite unique in the French context where, unlike other countries such as Germany, the UK or the US, there is no transparency as to the identity of the donors (Cagé, 2018). Besides, it has the advantage of including information on all the donations received, independently of the amount of the donation, while the data used in the existing literature tend to only include information about individual donations above a certain amount (see e.g. Bouton et al., 2022). These data come from the Commission Nationale des Comptes de Campagne et des Financements Politiques (CNCCFP), the French agency in charge of approving candidates' campaigns accounts, which anonymized the donation data before transmitting them to us as part of a research agreement.³⁵ Donations include donations from individual donors, membership dues, and contributions from elected representatives; we can disentangle between the three different sources and will mainly focus here on individual donations.

We have information for the following main political parties (from the left to the right), whose candidate obtained more than 5% of the votes during the first round of the 2017 presidential election: La France Insoumise (LFI), the Parti socialiste (PS), La République en marche (LREM), Les Républicains (LR), and the Rassemblement National.³⁶ Online Appendix Figure B.9 details the overall donations reported by these parties between 2016 and 2020, and Figure B.10 illustrates their geographical allocation for LREM. In the discussion section, when analyzing the mechanisms at play, we rely on the geographic heterogeneity in the distribution of the donations – combined with geographic variation in the intensity of the wealth tax reform treatment – to determine which political parties mostly benefited from the substitutability between charitable and political donations.³⁷

3.4 Empirical challenges and identification strategy

Ideally, we would like to estimate the cross-elasticity of charitable and political giving, i.e. the following equation:

political giving_{i,t} =
$$\beta_0 + \beta_1$$
charitable giving_{i,t} + $\mathbf{X}'_{i,t}\beta_2 + \eta_i + \gamma_t + u_{it}$ (1)

compared to the political party accounts. While it is hard to fully explain this discrepancy, it might be due to a learning effect: during the first two years, households might have declared other donations together with their donations to political parties (e.g. donations to campaigns) in the dedicated rows. In the robustness Section 4.5 below, we show that our results are unchanged if we drop these two years.

³⁵No data is available before 2016 given the CNCCFP destroys the reported information on a regular basis. ³⁶Together, these five parties alone account for more than 56% of all the political donations received by parties in 2017. See online Appendix Section A.4 for additional details on data construction.

³⁷The focus of this paper is on donations to political parties and movements. This is due to the fact that, while citizens can also contribute to electoral campaigns, donations to elections are not reported separately in the income tax form (they are bundled with the charitable donations). However, we can compute their aggregate amount from the campaign records. Online Appendix Figure B.11 reports these numbers and shows that these donations only account for a very small share of total political giving.

where i indexes the households and t the years. We focus on 2013-2021, given that political donations have been reported separately on the tax form only since 2013, and 2021 is the last year for which the data is available. The dependent variable, political giving_{i,t}, is the total amount of political donations made by household i in year t, and our explanatory variable of interest, charitable giving_{i,t}, is the total amount of charitable donations made by household i in year t. We use the inverse hyperbolic sine (IHS) transformation for these two variables rather than their logarithm, given they are often equal to zero.³⁸ $\mathbf{X}'_{i,t}$ is a vector of annual household-level controls – including the number of fiscal shares, the marital status, a categorical variable for the age, 10-splines in income, the average gross wealth and wealth tax donations for 2013-2016 (interacted with year dummies) – and η_i and γ_t are respectively household and year fixed effects. Standard errors are clustered at the household level.

Online Appendix Table C.1 reports the results of the estimation of equation (1) using OLS. We find a negative correlation between political and charitable giving: a one-percent increase in charitable donations is associated with a 0.02-percent decrease in political donations. This negative correlation is consistent with the substitution effect documented in Yildirim et al. (2021). However, this relationship cannot be interpreted as causal given the endogeneity of charitable giving in political giving behavior. Further, it may also be biased by omitted variables (e.g. the intrinsic generosity or political ideology of the donors³⁹). To overcome these challenges, we propose a new instrumental variable approach based on a reform affecting the tax price of (charitable) giving but not political giving.

3.4.1 The 2017 wealth tax reform and the change in the price of giving

More precisely, we use the 2017 wealth tax reform described in Section 2.2 as an instrumental variable. This reform transformed the existing wealth tax (ISF) into a tax on housing assets (IFI). Following its introduction, two thirds of the 351,229 households who were liable to the wealth tax in 2016 were no longer liable in 2017, and so could no longer benefit from the 75% wealth tax deduction on their charitable donations. In other words, for these households, this reform was a shock on the price of charitable giving. However, it did not directly affect political donations, given political donations were not eligible for the wealth tax deduction before the reform (nor after).⁴⁰

To make sure to isolate the impact of the reform only through its effect on the price of

 $^{^{38}}$ In Section 4.5 below, we show that all the results are robust to instead using the logarithm of the donations plus one.

³⁹See for example Brown and Taylor (2019).

⁴⁰Note that this reform – which was one of the first undertaken during President Macron's first term – was somehow unexpected. While it was a promise made by Macron on the campaign trail, there was no poll where Macron qualified for the second round of the Presidential elections before February 2017, when François Fillon (the right-wing candidate) began to sink in the polls after the "Penelopegate" scandal. Hence, it is highly unlikely that, in anticipation of this reform, some wealth tax payers converted their real-estate holdings into other assets so as to reduce their wealth tax liability.

charitable giving, we reduce our sample of analysis to treated and control households who face similar wealth tax gains following the reform. A potential threat could otherwise come from the fact that households may decide to give more because of the wealth tax gains produced by the reform – i.e. because of the increased resources available as a result. To do so, we compute the wealth tax gain each household made from the reform. The wealth tax gain is computed as the difference between the observed wealth tax due in 2016 and the wealth tax due in 2017.

Figure 4 plots the distribution of the wealth tax gain due to the 2017 wealth tax reform both for the treated and control households. On average, households liable to the wealth tax in 2016 benefited from a $\leq 8,803$ decrease in their wealth tax ($\leq 10,598$ in the control group, $\leq 7,918$ in the treated group). In the remainder of the analysis, we focus on the subgroup of households who enjoy a wealth tax gain of between ≤ 0 and $\leq 15,000^{44}$, i.e. 282, 999 households out of the 351,229 households who were liable to the wealth tax in 2016.

Table C.2 presents descriptive statistics for these households in 2016. On average, they have an annual income⁴⁵ equal to €111,981, and a total taxable wealth of €2,254,074. The average amount of charitable donations declared by these households on their income tax form is €645.4, compared to €437 for their wealth tax donations. 48% of the households liable to the wealth tax in 2016 declared a charitable donation, a share much higher than when we consider the overall population. While the share of political donors – 4.6% – may seem small, it is similarly much higher than for the overall population (less than 1%).

3.4.2 Estimation strategy

We estimate the following two equations:

$$ln (1 - \tau)_{i,t} = \pi_0 + \pi_1 \text{Treatment}_i * Post_t + \mathbf{X}'_{i,t} \boldsymbol{\pi}_2 + \eta_i + \gamma_t + u_{it}$$
(2)

⁴¹Both treated and control households may have enjoyed a positive income shock thanks to the change in the taxable base, given control households no longer pay the wealth tax on their financial assets.

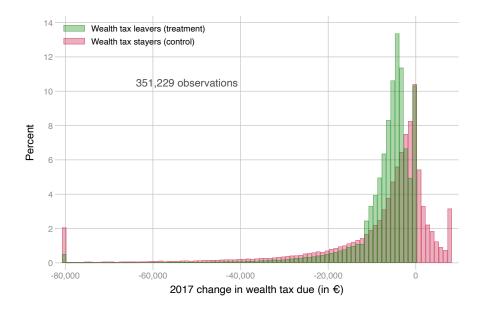
⁴²Note, however, that such an effect would lead us to underestimate the impact of the tax reform (which acts as a negative shock on the price of giving).

 $^{^{43}}$ Ideally, we would like to use the asset distribution of each household in 2016 – i.e. before the reform – between financial and real-estate assets, so as to compute the tax gain we would have observed if the reform had happened one year before. One may indeed be concerned by the fact that households might have partly consumed their wealth – or increased their propensity to avoid tax – following the reform (note however that this is very unlikely, given the reform only decreased the taxable base, with no change in the tax schedule). The difficulty comes from the fact that the asset composition is only known for the subset of the households who own more than €2.5 million (i.e. around 25% of the households). Households who own between €1.3 and €2.57 million indeed only have to report their overall wealth. Reassuringly, in the online Appendix Figure B.12, we show that for the subset of the households for which we have information on the asset distribution, these two figures are strongly correlated.

⁴⁴In Section 4.5 below, we show that our results are robust to the use of different windows.

⁴⁵We use a broad income concept here, summing up all the household income components from labor and capital, before taking into account any deduction of the tax base (the so-called "revenu brut global"). See online Appendix Section A for details on the dataset construction.

Figure 4: Distribution of the changes in the amount of the wealth tax due at the time of the wealth tax reform



Notes: The figure plots the distribution (winsorized at 1% for the sake of readability) of the change in the wealth tax liability at the household level at the time of the wealth tax reform (2017 vs. 2016 wealth tax) for all households liable to the wealth tax on their 2016 wealth. Households still liable to the wealth tax in 2017 are in red while the ones who are no longer liable are in green. A negative number means that the amount of tax due decreased following the reform.

political giving_{i,t} =
$$\beta_0 + \beta_1 \ln \widehat{(1-\tau)}_{i,t} + \mathbf{X}'_{i,t} \boldsymbol{\beta_2} + \eta_i + \gamma_t + u_{it}$$
 (3)

where, as before, i indexes the households and t the years. $\mathbf{X}'_{i,t}$ is a vector of household-level controls, including the number of fiscal shares, the marital status, a categorical variable for the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016.

We control for household and year fixed effects (respectively η_i and γ_t), i.e. we rely for identification on within-household variations, and cluster the standard errors at the household level.

First stage In the first stage (equation (2)), the dependent variable, $ln(1-\tau)_{i,t}$, is the marginal tax price of charitable giving. ⁴⁶ Our main explanatory variable of interest, Treatment_i* $Post_t$, is the interaction between Treatment_i, an indicator variable equal to one for the households liable to the wealth tax in 2016 but who no longer pay the wealth tax in 2017, and to zero for the households liable to the wealth tax in 2016 and who pay the new tax on housing assets in 2017; and $Post_t$, an indicator variable equal to one for the years following the reform

⁴⁶In line with the existing literature, in our preferred specification, we consider this marginal tax price. In the robustness Section, we show that our findings are unchanged if we instead use the first-euro price.

(2017-2021) and to zero for the pre-reform period (2013-2016).

Hence, our treated group comprises the households who left the wealth tax returns following the reform – and who can thus no longer benefit from the 75% wealth tax deduction from 2017 onward – while our control group is composed of the households who are liable to the new wealth tax (whose tax schedule is unchanged), and who can still benefit from the 75% wealth tax deduction (Figure 1). Online Appendix Table C.3 compares the characteristics of these two groups before the reform. The control group consists of richer households, who also declare higher givings than the treated group on average. In all our specifications, we control for these observables (measured before the reform).

Second stage In the second stage (equation (3)), we investigate how the instrumented price of charitable giving $(\ln \widehat{(1-\tau)}_{i,t})$ affects political giving (political giving_{i,t}).⁴⁷

Our identification assumption is the following: for the subset of the households that face similar wealth tax gains, the 2017 wealth tax reform only affected political donations through its effect on the marginal tax price of charitable giving. This assumption sounds reasonable given political giving was not eligible for wealth tax deductions, and so was not directly affected by the reform. We show below that the two groups were following parallel trends with respect to both charitable and political giving before the reform, and perform a placebo test using trade union subscriptions that further ensure the validity of our identification assumption. Indeed, trade union subscriptions are eligible for a tax deduction that is similar to that of political donations in terms of its price, but this deduction is a priori governed by completely different motives.

Discussion Given that we are ultimately willing to estimate the relationship between charitable and political giving (as in equation (1)), it may seem surprising that in the second stage we instrument the tax price of charitable donations $(\ln(1-\tau)_{i,t})$ rather than the charitable donations themselves, as in Yörük (2015). We decided to do so for the following reason: if we were to instrument charitable donations, we would need to assume that the tax price of giving is uncorrelated with the unobservable covariates which might affect political giving. While this assumption sounds reasonable in the US context considered by Yörük (2015), it does not

⁴⁷As highlighted above, given political donations are equal to zero for a number of households, we use the inverse hyperbolic sine transformation of the dependent variable in our preferred specification, and show in the robustness Section 4.5 that our results are robust to instead using the logarithm of the dependent variable plus one.

⁴⁸Note that a possible concern may come from the fact that the social acceptance may not be the same for the wealth tax and for the income tax (Fack et al., 2021). Hence, households might decide to make charitable donations to avoid paying the wealth tax, but do not do so when they are only liable to the income tax. If this were to be the case, the wealth tax reform may have led to a drop in charitable donations independently of the change in their tax price, and our IV estimates will only partly capture the overall effect of the reform. In other words, our estimates should be considered as lower-bound effects.

hold in the French context given that political donations also benefit from tax deductions.⁴⁹

The identification assumption needed here is much weaker given that we only need to assume that – conditional on similar wealth tax gains – the wealth tax reform only affected political donations through its effect on the marginal tax price of charitable giving. But the mechanism we have in mind is similar to the one in Yörük (2015): the change in the marginal tax price of charitable giving led to a change in the amount of charitable contributions which might have affected the amount of political donations. Figure 5 plots the evolution of the average amount of charitable donations separately for the control households who continue paying the real-estate tax following the wealth tax reform – and thus continue to benefit from the 75% wealth tax deduction – and the treated households who are no longer liable to the wealth tax in 2017 – or, therefore, to the 75% deduction. While the amount given by these two groups were following similar trends until 2016, the reform led to a striking drop in the amount given by the treated households compared to the control group.

4 Empirical results

In this section, we report the results of our IV estimations. We first present the first- and second-stage estimates, before discussing the heterogeneity of our effects. We then investigate whether they mostly happen at the intensive or at the extensive margin.

4.1 First-stage estimates

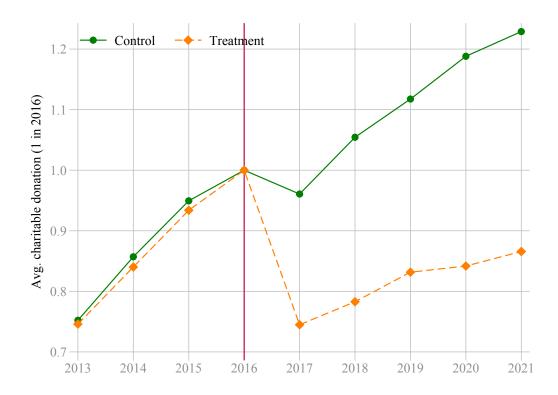
Table 2 reports the results of the first stage. Column (1) only controls for year fixed effects, in Column (2) we add the household fixed effects, and the full set of controls in Column (3). We show that the tax reform led to an increase in the marginal price of charitable giving for the treated group by around 26%, and that the magnitude of the result is robust to the use of different specifications.

This result is not surprising given that the wealth tax reform implied a change in the price of charitable giving for the households who leave the wealth tax following the reform and who can thus no longer benefit from the 75% tax deduction. Note, however, that the magnitude of the drop in the price of giving varies depending on the households, as illustrated in the online Appendix Figure B.13.⁵⁰ First, a number of households liable for the wealth tax in 2016 were not liable in 2013-2015 and so only benefited from a 66% income tax deduction before. Second, among the households who were liable for the wealth tax, some were facing

⁴⁹We nonetheless implement this approach (cf. Appendix Table C.6), which leads to results similar in magnitude to our baseline estimation. We find that a 1% in charitable donation leads to 0.1% decrease in political giving, a result consistent with the substitutability observed in the baseline result.

 $^{^{50}}$ The figure is similar to Figure 1 but only for the sub-sample of households who face a wealth tax gain between €0 and €15,000 following the wealth tax reform.

Figure 5: Impact of the wealth tax reform on charitable giving



Notes: The Figure plots the average amount of charitable donations (normalized to one in 2016) separately for the "control" households ("stay IFI" – green line with dots) who continue paying the real-estate tax following the 2017 wealth tax reform and the "treated" households ("leave IFI" – orange line with triangles) who are no longer liable to the wealth tax in 2017. Our sample of analysis include all the households subject to the wealth tax in 2016 who face wealth tax gain between €0 and €15,000 following the reform. Charitable giving includes all the charitable donations declared on both the income tax and the wealth tax returns.

Table 2: First-stage and reduced-form estimations

	First stage $((1-\tau))$			Reduced for	orm (political donations)		
	(1)	(2)	(3)	(4)	(5)	(6)	
Treated \times Post	0.243***	0.243***	0.242***	0.033***	0.031***	0.031***	
	(0.000)	(0.000)	(0.000)	(0.004)	(0.004)	(0.004)	
Year FE	✓	✓	✓	√	√	✓	
Household FE		\checkmark	\checkmark		\checkmark	\checkmark	
Controls			\checkmark			\checkmark	
Observations	2,361,391	2,360,888	2,360,786	2,361,391	2,360,888	2,360,786	
Cluster(households)	282,999	282,496	282,491	282,999	282,496	282,491	
Mean Dep Var	-1.246	-1.246	-1.246	0.227	0.227	0.227	
Sd Dep Var	0.164	0.164	0.164	1.143	1.143	1.143	

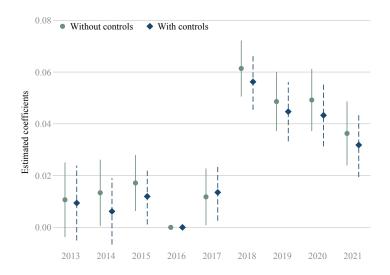
Notes: * p<0.10, *** p<0.05, **** p<0.01. The time period is 2013-2021. Models are estimated using an OLS (standard errors clustered at the household level between parentheses). An observation is a household-year. Our sample of analysis include all the households subject to the wealth tax in 2016 who face wealth tax gain between ≤ 0 and $\leq 15,000$ following the reform. The dependent variable is the logarithm of the marginal tax price of charitable donations in Columns (1) to (3) ("First stage") and the IHS transformation of political giving in Columns (4) to (6) ("Reduced form"). The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year fixed effects, and Columns (2), (3), (5) and (6) also include household fixed effects. More details are provided in the text.

the ceiling on wealth tax deductions, whose amount cannot exceed $\leq 50,000$ per year. For those households, the marginal tax price of charitable giving was already equal to 34% of the amount of the gift before the reform if they were able to take advantage of the income tax deduction, or to 100% if they were also facing the ceiling on the income tax deduction (which cannot exceed 20% of the taxable income).

Reduced-form estimates Before turning to the second stage, we report the reduced-form estimations in Table 2. The dependent variable is the (inverse hyperbolic sine transformation of the) total amount of political donations made by household i in year t. As before, we include year fixed effects in Column (4), add the household fixed effects in Column (5) and finally the full set of controls in Column (6). We obtain a 3.1 to 3.3% increase in political donations for the treated group compared to the control group following the reform. This impact is statistically significant at the one-percent level and robust to the use of different specifications.

These reduced-form estimates point toward a substitution effect between charitable and political giving. However, there could be some concern that our results might be biased if the treated and control households were characterized by different giving behaviors *before* the reform. Figure 5 allays this concern, given that it clearly shows that the two groups were following parallel trends with respect to charitable giving between 2013 and 2016. Online Appendix Figure B.14 provides similar evidence regarding political donations. Further, in Figure

Figure 6: Reduced-form estimation: The impact of the 2017 wealth tax reform on political donations, Controlling for parallel trends



Notes: The Figure shows the coefficients from the following estimation: political giving_{i,t} = α_0 + $\sum_{t=2013}^{2021} \alpha_t (\lambda_t * \text{Treatment}_i) + \mathbf{X}'_{i,t} \beta_2 + \eta_i + \gamma_t + u_{it}$. 2016 is the baseline year. Standard errors are clustered at the household level. Statistical significance is measured at the five-percent level. Our sample of analysis include all the households subject to the wealth tax in 2016 who face wealth tax gain between $\in 0$ and $\in 15,000$ following the reform. More details are provided in the text.

6, we plot the coefficients we obtain when estimating the reduced-form model with indicator variables for each year interacted with the treatment effect rather than the $Post_t$ indicator variable. It appears clearly that the treatment status has no impact on the political giving behavior before the wealth tax reform, while we observe a jump in the amount contributed by the treated households compared to the control ones after 2017.

4.2 Second-stage estimates

We then turn to the second-stage estimates that are reported in Table 3. In the first three columns, for the sake of comparison, we report the OLS estimates; the second-stage coefficients are presented in Columns (4) to (6). We find that a one-percent increase in the price of charitable giving leads to a 0.13% increase in political donations; these estimates are statistically significant at the one-percent level and are robust to our different specifications. In other words, political and charitable donations seem to be substitute.

In terms of magnitude, our estimates imply that a 36% increase in the tax price of charitable giving (from 25 to 34%) is associated with a 4.7% increase in political donations. To perform a simple back-of-the-envelope calculation, we estimate the effect of the rise in the price of charitable giving on charitable donations: we find that a one-percent increase in the price of charitable giving leads to a 0.99% decrease in charitable donations (online Appendix

Table 3: Second-stage estimation: The impact of the instrumented price of charitable donations on political donations

		OLS			2SLS	
	(1)	(2)	(3)	(4)	(5)	(6)
$ln(1-\tau)$	-0.000	0.016**	0.015**	0.127***	0.128***	0.128***
	(0.007)	(0.007)	(0.008)	(0.016)	(0.016)	(0.016)
Year FE	✓	√	✓	✓	✓	√
Household FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Controls		\checkmark	\checkmark		\checkmark	\checkmark
Wealth-tax gain			\checkmark			\checkmark
F-Stat				63	37	36
Observations	2,360,888	2,360,786	2,360,786	2,360,888	2,360,786	2,360,786
Cluster(households)	$282,\!496$	$282,\!491$	282,491	282,496	282,491	282,491
Mean Dep Var	0.227	0.227	0.227	0.227	0.227	0.227
Sd Dep Var	1.143	1.143	1.143	1.143	1.143	1.143

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using OLS in Columns (1) to (3) and 2SLS in Columns (4) to (6) (standard errors clustered at the household level between parentheses). In Columns (4) to (6), the price of charitable giving is instrumented by the interaction between Treatment_i and $Post_t$ (see equation (2)). Our sample of analysis include all the households subject to the wealth tax in 2016 who face a wealth tax gain between ≤ 0 and $\leq 15,000$ following the reform. An observation is a household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table C.5). Therefore the 36% increase in the tax price of charitable giving leads to a 35.6% decrease in charitable donations. Hence, at average charitable giving (€1,087.1) and political donations (€22) (online Appendix Table C.2), a €352.2 decrease in charitable giving is associated with a €1 increase in political donations. Between 2016 and 2017, wealth tax charitable donations decreased by €267.0 million; according to our estimates, this can be associated with a €630,758.3 increase in political donations, which corresponds to 9.8% of the total political donations made by wealth tax donors in 2017. This can also be related to the €593,396 in total donations received by the Parti socialiste this year. Hence, our estimated effects are both statistically but also economically significant.

In terms of magnitude, the IV estimates are higher than the OLS ones. Where does this difference come from? While the OLS estimates capture the correlation between the price of charitable giving and political donations – in a context where, for a large share of the households, the price of charitable and of political giving is similar (34% of the amount of the gift) and does not vary over time – the IV estimates capture the local impact of a large change only in the price of charitable giving (its increase from 25 to 34% following the wealth tax reform).

To put it another way, the OLS estimates provide us with the Average Treatment Effect (ATE) of the price of charitable giving on political giving on the whole population, including

two thirds of the households for which this price did not change during our period of interest (and for whom there is thus no variation that we can exploit). In constrast, the IV estimates measure the Local Average Treatment Effect (LATE) of the price of charitable giving, i.e. its effect on the sub-sample of compliers – in our empirical framework, this is nearly all the households who are no longer liable to the wealth tax following the tax reform and who were not facing the ceiling on tax deductions before (see online Appendix Figure B.13). Hence, it is not surprising that the IV estimates are larger than the OLS ones.

Own-price response of charitable giving We can also use our setting to benchmark previous estimates of the tax price elasticity of charitable contributions. Compared to the existing literature, we find a rather large elasticity of -0.99% (online Appendix Table C.5), which lies at the high end of the existing estimates (from -0.3 in the UK according to Almunia et al. (2020) to more than -1 in the US according to Bakija and Heim (2011)). Despite its high value, our estimated elasticity sounds plausible considering the fact that we focus on the households in the top 1% of the income distribution. 51

4.3 Heterogeneity of the effects

Until now, we have shown that there is substitutability between charitable and political donations, with a 0.13% increase in political donations following a one-percent increase in the price of charitable giving. In this section, we consider a number of dimensions of heterogeneity that we present in turn. For each dimension, we report the point estimates corresponding to our most demanding 2SLS specification (with year and household fixed effects and the full set of controls, as in Column (6) of Table 3).

Figure 7 reports the results. First, we investigate whether the magnitude of the effects varies depending on the wealth of the households (sub-Figure 7a). To do so, we split our sample of households into five quintiles depending on their 2016 wealth (before the reform). We find that the magnitude of the effect is higher for the households in the upper wealth quintile compared to the households in the first four quintiles for which it is relatively similar (further, the effect is not statistically significant at the 5% level for the households in the first and third wealth quintiles). However, the difference is not statistically significant. Consistently with this finding, we show in Figure 7b that the magnitude of the effect is larger for the households who benefited from a wealth tax deduction in 2016 than for those who did not, but that the difference is not statistically significant at the five-percent level.

In Figure 7c, we perform the estimation separately depending on the 2016 income. Just as we did for wealth, we separate the households into five income quintiles. We find that

 $^{^{51}}$ In the French context, Fack and Landais (2010) find an elasticity of -0.6 at most, but their estimated elasticity increases with income.

the magnitude of the effect is statistically significantly higher for the households in the fifth income quintile compared to the households in the first four quintiles. This is not surprising given that, on average, households whose income is higher tend to contribute more. (Online Appendix Figure B.15 plots the share of donors and the average amount of the charitable donations depending on the position of the household in the income distribution. While there are less than 10% of donors in the first six deciles, this share is equal to nearly 60% for the top 0.001% of the income distribution. Similarly, the average value of the donations made is much higher at the top than at the bottom of the income distribution.)

Last, we use the pre-2010 information on wealth composition to estimate the elasticity depending on the share of housing wealth in total wealth in Figure 7d.⁵² Decomposing our sample into quartiles of housing wealth, we find that the elasticity decreases with the share of housing wealth. While the difference between the first three quartiles is not statistically significant, the fourth quartile stands out and the elasticity becomes marginally insignificantly different from zero in the sample. This last point suggests that the elasticity is driven by households owning some financial assets (and so who were more affected by the reform).

4.4 Disentangling between the extensive and the intensive margin

Heretofore, we have considered the overall relationship between political giving and the marginal price of charitable donations, and documented a positive cross relationship. Our effect may happen at the extensive margin – through an increase in the number of households who make a political donation – and/or at the intensive margin – through an increase in the average value of the political donations. We consider these two margins separately in this section.

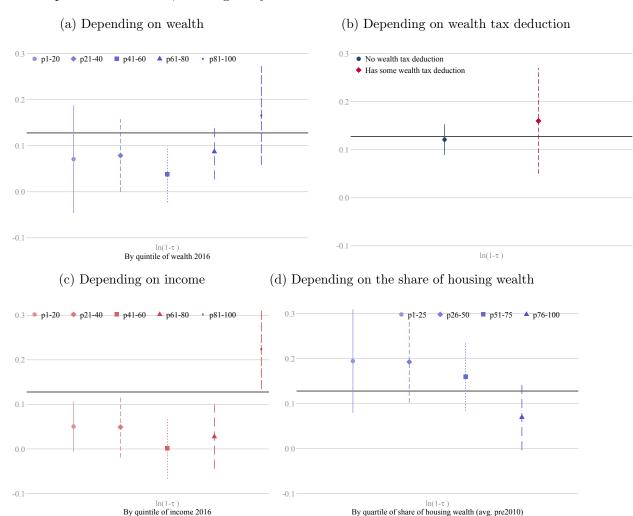
The probability of giving First, we investigate whether a change in the marginal price of charitable donations affects the probability of making a political donation. To do so, we estimate a linear probability model using a similar approach to the one presented in equation (3), but where the dependent variable political giving $_{i,t}$ is now a binary variable equal to one if households i made a political donation in year t and to zero otherwise.

First, we report the results of the reduced-form estimation. Online Appendix Table C.7 shows the results: compared to the households who are still liable to the wealth tax in 2017, the households who left the wealth tax and are no longer eligible for the 75% tax credit have a probability of making a political donation that is 0.5 percentage points higher following the reform.

Table 4a reports the results of the second-stage estimates. As before, in the first three columns, we report the OLS estimates for the sake of comparison; the second-stage coefficients

 $^{^{52}}$ Before 2010, all the households liable to the wealth tax indeed had to provide on their wealth tax form their detailed wealth composition. Since the 2011 wealth tax reform (and until 2018), only the households whose wealth is above €2,507,000 have to do so.

Figure 7: Second-stage estimation: The impact of the instrumented price of charitable donations on political donations, Heterogeneity of the effects



Notes: The Figure reports the coefficient and 95% confidence interval we obtain when estimating equation (3) with year and household fixed effects as well as the full set of controls (specification similar to the one reported in Column (6) of Table 3). Panel (a) shows the estimation of this coefficient separately for the households in our sample depending on their quintile of wealth in 2016. In Panel (b), we perform the estimation separately depending on whether the households benefited from a wealth tax deduction for charitable givings in 2016. In Panel (c), we estimate the effect separately for the households in our sample depending on their quintile of income in 2016. Finally, in Panel (d), we estimate the effect separately for the households in our sample depending on their quintile of housing wealth computed using the pre-2010 information.

are presented in Columns (4) to (6). We find that a one-percent increase in the price of charitable giving leads to a 0.018 to 0.019% increase in the probability of making a political donation (Columns (4) to (6)); these estimates are statistically significant at the one-percent level. Hence, there is substitutability happening at the extensive margin of the giving behavior.

The intensive margin Next, we focus on the subset of donors, i.e. only consider the households who make at least one political donation between 2013 and 2016 (i.e. before the reform), and investigate how this amount varies with the (instrumented) price of charitable giving.⁵³ Doing so obviously reduces the size of our sample, which now includes 40,721 households.

Table 4b provides the results. We find that, for the subset of political donors, a one-percent increase in the price of charitable giving increases the amount of their political donations by 0.22%. This effect is both economically and statistically significant at the one-percent level. Overall, both margins are thus at play in the substitutability between charitable and political donations.

4.5 Robustness checks

We perform several robustness checks. This section briefly describes them; the detailed results for these tests are available in the online Appendix Section D.

Placebo In the spirit of a placebo test, we examine how our empirical strategy performs on trade union subscriptions. In France, trade union subscriptions are eligible for a refundable tax credit equal to 66% of the amount of the subscription, and are thus also reported on the tax form. However, contrarily to political donations, we do not expect them to be affected by a change in charitable giving. The literature on the determinants of trade union membership indeed highlights the role played by reputation concerns and the existence of excludable benefits, as well as individual-level factors such as age, education or the type of job contract (see e.g. Guillot et al., 2019; Blanchflower and Bryson, 2020; Murphy, 2020), but does not relate trade union subscriptions to mechanisms that drive charitable giving, such as altruism or awareness of need. Online Appendix Table C.4 provides the results. As we had expected, we find no impact of the wealth tax reform on the amount of these subscriptions.

First-euro price Until now, we have considered the marginal tax price of donations. A number of papers in the literature rather rely on the first-euro price approach given that the

⁵³We decided to rely here on the sample of households who make at least one political donation in the pre-reform period rather than redefining in each year the set of households who make a political donation, as with the latter method it would not have been possible to fully exploit the panel dimension of our data (with households entering and exiting the sample from one year to the next).

Table 4: Second-stage estimation: Disentangling between the extensive and the intensive margins

(a) Extensive margin

	OLS			2SLS			
	(1)	(2)	(3)	(4)	(5)	(6)	
$ln(1-\tau)$	-0.000	0.002*	0.002	0.018***	0.019***	0.019***	
	(0.001)	(0.001)	(0.001)	(0.003)	(0.003)	(0.003)	
Year FE	✓	✓	✓	✓	✓	✓	
Households FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Controls		\checkmark	\checkmark		\checkmark	\checkmark	
Wealth-tax gain			\checkmark			\checkmark	
Observations	2,360,888	2,360,786	2,360,786	2,360,888	2,360,786	2,360,786	
Cluster(households)	282,496	282,491	282,491	282,496	282,491	282,491	
Mean Dep Var	0.040	0.040	0.040	0.040	0.040	0.040	
Sd Dep Var	0.196	0.196	0.196	0.196	0.196	0.196	

(b) Intensive margin

		OLS			2SLS	
	(1)	(2)	(3)	(4)	(5)	(6)
$ln(1-\tau)$	-0.057	0.029	0.029	0.199***	0.221***	0.218***
	(0.040)	(0.040)	(0.040)	(0.074)	(0.076)	(0.075)
Year FE	√	√	√	✓	✓	√
Household FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat		•		7	27	26
Controls		\checkmark	\checkmark		\checkmark	\checkmark
Wealth-tax gain			\checkmark			\checkmark
Observations	344,926	344,926	344,926	344,926	344,926	344,926
Cluster(households)	40,658	40,658	40,658	40,658	40,658	40,658
Mean Dep Var	1.845	1.845	1.845	1.845	1.845	1.845
Sd Dep Var	2.817	2.817	2.817	2.817	2.817	2.817

Notes: * p<0.10, *** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using OLS in Columns (1) to (3) and 2SLS in Columns (4) to (6) (standard errors clustered at the household level between parentheses). In the upper Table 4a, the dependent variable is an indicator variable equal to one if the household declares a non-zero political donation, and to zero otherwise. An observation is a household-year, and all the households subject to the wealth tax in 2016 who face a wealth tax gain between €0 and €15,000 following the reform are included. In the bottom Table 4b, an observation is also a household year, but among the previously defined households, only those that make at least one political donation between 2013 and 2016 are included. The dependent variable is the (IHS transformation of the) amount of their political donations. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

amount contributed affects the tax price – which is also the case here for donors facing the tax credit cap(s). Hence, Table D.4 shows that our results are robust to rather using the first-euro price.⁵⁴ The estimated coefficients are both qualitatively and quantitatively similar.⁵⁵

Donations reported over several years of tax returns The possibility for households to report charitable donations over several years in case they exceed the maximum amount of donation deductible (20% of taxable income) justifies another variation in the price of charitable giving. So far, we excluded these donations from our analysis, as the timing of the fiscal incentive differs from that of the effective marginal price. Including these reported donations in the computation of the marginal tax price of charitable donations does not modify our conclusion, as shown in Appendix Table D.5.

Specification and censoring An important specification issue that we have to investigate relates to the censoring of our dependent variable. Indeed, political donations are both bottom-censored at 0 and top-censored (at \in 7,500 or \in 15,000 depending on the household composition). This can lead to misspecification issues. Given political donations are equal to zero for a number of households, we use the inverse hyperbolic sine transformation of the dependent variable in our preferred specification, but we propose several robustness checks to test the validity of our results.

First, we propose variations in our specification form. We show that our results are robust to using the logarithm of the donations plus 1 (online Appendix Table D.6). We also propose an alternative specification that does not rely on a logarithm or an inverse hyperbolic sine form, where we estimate our model in levels and scale political donations by the pre-policy mean for the control group (online Appendix Table D.7). When we do so, we obtain results that are consistent with our main specification.

Second, regarding censoring, we are mainly concerned with bottom censoring since the share of households reaching the donation cap is very low (see online Appendix Figure B.17). If anything, the mass of 0 in political donations should bias downward our estimates. However, to take into account this issue, we use a McDonald and Moffitt decomposition (McDonald and Moffitt, 1980) based on the intensive and extensive margin results. Combining the estimates of Table 4 (Column 6), we obtain a marginal effect on the unconditional mean of political giving of about 0.4 [$0.18 \times 2.066 + 0.218 \times 0.043$], much larger than the 0.13 estimated in Table 3.

⁵⁴Bakija and Heim (2011) use the first-dollar price as an instrument for the actual price of a donation; see also Fack and Landais (2010).

⁵⁵Note however that we cannot implement our baseline strategy in this case since the first-euro price is defined theoretically, which makes it collinear with the instrument. We thus restrict our estimation to the OLS strategy.

Sample Next, we show that our results are robust to a number of sample changes. First, we show that they do not vary if we consider a balanced panel, i.e. only include the households that we observe for each year during our entire time period (online Appendix Table D.8). Second, we show that our results are robust to dropping 2017; 2017 was indeed an electoral year in France (with both the presidential and the legislative elections), and so might be specific in terms of political donations (online Appendix Table D.9). Further, there might be a concern that 2017 was also the year in which the wealth tax reform was announced (in December 2017).

Third, given that candidates fundraise a number of months in advance of the election and that we observe a large increase in political donations in 2016 for top-income earners (Cagé, 2018), we show that our findings do not vary if we drop the year 2016 and instead use 2015 as a reference point (online Appendix Table D.10). Moreover, as discussed in Section 2, in 2013 and 2014, more donations to political parties are declared in the income tax forms than reported in the political party accounts. Online Appendix Table D.11 shows that our results are robust to dropping these two years.

Fourth, we show that our baseline results are not driven by a mean reversion phenomenon by reducing the sample to households whose wealth tax liability status does not change in the post-treatment period (i.e by only keeping the households who remain liable to the wealth tax after 2017 if in the control group, and the households who remain not liable if in the treated group) (online Appendix Table D.12).

Last, we show that the results are robust to dropping the top 5% of wealth owners (online Appendix Table D.13). Indeed, there might be a concern that the households owning very high wealth demonstrate extreme giving behavior.

Tax credit for Coluche giving In 1989, a specific rate was created for donations to charities that help people in need – the so-called "Coluche giving". These donations – which have to be below a certain threshold (€546 in 2019) – benefit from a nonrefundable income tax credit of 75% percent. ⁵⁷

Until now, we have not included "Coluche giving" in our measures of charitable donations given the specifics of these donations (in terms of both ceiling and deduction rate). In the online Appendix Table D.14, we perform the same estimations as before but on "Coluche giving" rather than on non-Coluche charitable giving (which we have considered so far).⁵⁸ It

⁵⁶Coluche is a French stage comedian and cinema actor who launched the charity "Les Restaurants du Coeur" in 1985. This nonprofit organization provides free meals and other products to people in need.

 $^{^{57}}$ This rate was equal to 50% at the time of its creation; it then increased from 50 to 60% in 2003 and from 60 to 75% in 2005.

 $^{^{58}}$ Note that Coluche donations only represent a very low share of the overall charitable donations. They represent around €400 million on average each year, compared to nearly €2.2 billions for non-Coluche charitable donations in 2019 (see online Appendix Figure B.16).

might be expected that Coluche giving would increase following the wealth tax reform, given that Coluche giving allows the treated households to continue making a charitable donation at a price of 25%. This is indeed what we find, with a price elasticity that is three to four times larger than for political donations (Columns (4) to (6)). Note however that this result should be taken with a grain of salt given that Coluche giving is also eligible for the wealth tax deduction (contrary to political party donations).

Using a different threshold to define similar wealth tax gains In addition, we show that our results are robust to using a different threshold to identify the sample of households who face a similar wealth tax gain following the wealth tax reform. Until now, based on the wealth tax gain distribution plotted in Figure 4, we have taken into account all the households whose gain is between ≤ 0 and $\leq 15,000$. Online Appendix Tables D.15 and D.16 show that the results are unchanged if we instead use a smaller window (between ≤ 0 and $\leq 10,000$) or a larger one (between ≤ 0 and $\leq 20,000$) to define these gains.

Matching Finally, we show that our results are robust to the use of a matching strategy. We match households who leave the wealth tax in 2017 to "similar" households who pay the new tax on housing assets in 2017, based on a number of observable variables measured in 2016 (i.e. before the reform): the (logarithm of the winsorized) income and wealth (current, one lag, two lags), the winsorized amount of charitable donations declared on the wealth tax forms, the winsorized amount of political donations, the wealth tax gain, the number of fiscal shares, the marital status, a categorical variable for age, the percentile of income and wealth tax gain. More precisely, we rely on propensity score matching to adjust for the pre-treatment observable differences between the group of households who leave the wealth tax and the group of those who are still liable.⁵⁹ The result is a group of 179,616 treated households with features that closely mirror those of the control households.

First, we provide evidence of the fact that the observables have a better balance between the two groups than in our baseline analysis. Online Appendix Table D.1 shows the characteristics of the reweighed groups by treatment status. Then, Figure D.1 reports the propensity score histogram by treatment status, showing that the common support condition is satisfied.

Overall, the comparison of treated and matched households shows no significant differences between the two groups in any of the household covariates. We can thus be confident as to the validity of our matching approach.

Next, in online Appendix Table D.2, we estimate the price elasticity of political donations using the matching weights, and obtain qualitatively similar results to that of the baseline two-stage least-squares approach (Table 3). Finally, we can use the matching sample to propose

⁵⁹We rely on a nearest neighbour matching estimator (with five neighbours), and estimate the propensity score using a logit model. To do so, we rely on the Stata command *psmatch2*. See Leuven and Sianesi (2003).

an estimation of the cross-elasticity of political to charitable giving (equation (1)). Online Appendix Table D.3 provides the results, which are very similar to those presented in Table C.1 on the main sample, with a negative elasticity of -2.3%.

Overall, our results point toward substitutability between charitable and political donations. This substitutability happens both at the extensive and at the intensive margins, is statistically and economically significant, and is robust to a number of different specifications.

5 Discussion: Politically motivated donations to charities

In this article, we have shown evidence of substitutability between charitable and political donations: when there is an increase in the tax price of charitable giving – i.e. a decrease in the tax incentives for households to make charitable donations – we observe an increase in political donations. One possible interpretation for this substitutability between charitable and political giving is the fact that charitable donations may be at least partially driven by political motivations (see e.g. Bertrand et al., 2020a, for evidence on US corporate charitable giving).

In this section, we investigate this proposed explanation following two directions. First, we study the donations received by the five main political parties at the local level, to explore whether there is heterogeneity depending on the parties. Then, we analyze the evolution of the donations received by nonprofit organizations. By doing so, we aim to identify whether the change in the giving incentive impacted the nonprofit organizations differently depending on whether they are politically involved and on their political affiliation.

5.1 Who benefited from the rise in political donations? Evidence from commune-level variations

Who benefited from the increase in political donations? To answer this question, we use information on commune-level donations received by each political party (described in Section 3.3), merged with treatment intensity by commune. The intensity of the treatment is defined at the commune level as follows:

$$\left(\frac{\# \text{ hh leaving wealth tax returns}}{\# \text{ hh leaving wealth tax returns} + \# \text{ hh liable to new wealth tax}}\right)*100$$

In other words, it is equal to the share of the households liable for the wealth tax in 2016 but not in 2017 (# hh leaving wealth tax returns) normalized by the total number of households liable for the wealth tax in 2016 (# hh leaving wealth tax returns + # hh liable to new wealth tax). 60

 $^{^{60}}$ Note that this intensity does not include the households that were not liable to the wealth tax in 2016 but became liable in 2017 or later.

Because of statistical secrecy, the information on treatment intensity is "only" available for 22,076 communes. These unique data were produced by the General Directorate of Public Finance (DGFIP), which provided us with a communal-level aggregation of some of our most important variables (the household's commune is indeed highly sensitive information that researchers cannot directly access with the household panel data). Online Appendix Figure B.18 plots the treatment intensity at the commune level.

We then estimate the following model:

political donations_{p,c,t} =
$$\alpha + \beta_1$$
Treatment intensity_c * $Post_t + \mathbf{X}'_{c,t}\boldsymbol{\beta_2} + \eta_c + \gamma_t + \mu_{pct}$ (4)

where c index the communes, t the years (from 2016 to 2019⁶¹), and p the political parties. Treatment intensity_c is a binary variable equal to one if the intensity of the treatment is equal to 100, and to zero otherwise. We use 100 as a threshold to define the treatment given that it corresponds to the median value of the treatment intensity variable (see online Appendix Figure B.19 for its distribution).⁶²

We focus on the five main political parties that presented a candidate during the 2017 French presidential elections (LFI, PS, LREM, LR and RN), and estimate equation (4) for each political party p. The dependent variable political donations $_{p,c,t}$ is the (IHS transformation of the) total amount of donations received by party p in commune c and year t. Political donations are normalized by the number of fiscal households in the commune. $\mathbf{X}'_{\mathbf{c},\mathbf{t}}$ is a vector of time-varying commune-level controls, including the (log of) the number of income tax households, the reference tax income, the total net tax, the number of retirees, and the total pensions. We also control for commune and year fixed effects, and standard errors are clustered at the commune level.⁶³

Table 5 presents the results separately for each of the political parties, ranked from the left (LFI, Columns (3) and (4)) to the right (RN, Columns (11) and (12)). For the sake of comparison, we first report in Columns (1) and (2) the estimated coefficients we obtain when we use as our left-hand side variable the total amount of donations received by these five parties pulled together. We show that, following the wealth tax reform, there is a 1.3 to

⁶¹The commune-level data on the treatment intensity provided to us by the DGFIP is only available until 2019; hence, in this part, we cannot include information for 2020 and 2021.

⁶²We show below that our results are robust to the use of different thresholds. Of course, "treated" and "control" communes are not similar from a number of points of view, as reflected in the online Appendix Table C.8. In particular, "treated" communes tend to be smaller on average, and the reference tax income of their households is also much smaller than that of the "control" communes. For this reason, all the results presented in this section should be taken with a grain of salt and considered more as suggestive evidence of the political dimension of donations than as a causal estimation; indeed we cannot identify causal effects at the commune level as properly as we do with individual-level information in Section 4.

⁶³Unfortunately, as highlighted in Section 3.3, we only have these commune-level donations by party data since 2016; hence, we cannot perform here a pre-trend analysis as in the rest of the article.

1.5% increase in the overall political donations (normalized by the number of tax households) made in the "treated" communes compared to the "control" communes. Overall in 2016, these 5 parties received $\leq 12,355,671$ in political donations in the 21,182 communes for which we have information on treatment intensity; hence this change corresponds to a $\leq 160,624$ increase in donations. This is an economically meaningful effect given that it corresponds to 3.1% of the donations received by the five parties in 2017, or is equivalent to 13.1% of the donations received in 2017 by LREM alone.

Importantly, if we compare the magnitude of these results to the one we obtain when doing the reduced-form estimation using the tax data in Section 4.1, we see that they are roughly consistent (the coefficients reported in Table 2 correspond to an increase of around 3% in political donations), despite the fact that we are not using the same specification here. Furthermore, they are robust to using an alternative definition of the Treatment intensity c indicator variable, where we put as missing the communes whose treatment intensity is between 66.6% and 100% (to make sure that the treated communes are really different from the control ones; online Appendix Table C.9), and to dropping the (electoral) year 2017 (Table C.10).

Interestingly, if we investigate whether this increase in donations benefited all the political parties in a similar way, we see that this is far from being the case. From Table 5, we document that the tax reform mostly benefited the right-wing / pro-business Les Républicains (LR) party whose donations in treated communes increase by 2.3 to 2.5% following the reform compared to the control ones (Columns (9) and (10)). Note that this increase in LR donations can hardly be explained by an increase in the popularity or political support for this party since 2017, given that, on the contrary, the electoral results of the party collapse by more than 15 percentage points between the first round of the 2017 presidential elections (François Fillon, 20.01%) and the first round of the 2022 presidential ones (Valérie Pécresse, 4.78%). If anything, the treated communes vote even less for LR than the control ones since the wealth tax reform, as illustrated in online Appendix Table C.11 where we perform an analysis similar to the one in Table 5, but where our outcome of interest is the vote share obtained by the different political parties. On the contrary, our findings regarding the increase in the political donations received by LR is consistent with the observed drop in the charitable donations received by politically-involved nonprofit organizations (see Section 5.2 below for evidence), such as the right-wing iFRAP foundation.

Besides, we observe a small decrease in the donations received by the left-wing parties (Columns (3) to (6)), particularly strong for the Parti socialiste (PS). Donations to the presidential party LREM (as well as to the RN but from a smaller baseline) do not seem to be affected. This no-result for LREM is reassuring with respect to the fact that our findings do not seem to be driven by a "return of favor". Indeed, we do not observe a larger increase in donations to the presidential party in places that benefited the most from the wealth tax reform

implemented by Emmanuel Macron. These findings are robust to introducing time-varying commune-level controls.

Overall, these results suggest that the rise in political donations driven by the increase in the price of charitable giving mostly benefited the right-wing parties. If anything, we observe a drop in the donations received by the parties on the left of the political spectrum. This increase reflects a substitution between charitable and political giving; it is thus of interest to also consider the other side of the coin and determine the characteristics of the nonprofit organizations that suffer the most from the drop in giving.

5.2 Who suffers from the drop in charitable donations? Evidence from nonprofit organizations

In France, as highlighted in the background section 2.1.2, only the nonprofit organizations recognized as "being of public utility" (the so-called FRUPs) and the nonprofit research, higher education or artistic institutions of general interest can benefit from the wealth tax deductions (while all the nonprofit associations can benefit from the income tax deductions). This category includes politically-involved think-tanks such as the *Fondation Jean Jaurès* on the left and the *Fondation pour la recherche sur les administrations et les politiques publiques* (iFRAP) on the right, i.e. nonprofit organizations whose purpose is clearly at least partly political, but also organizations whose purpose is not – at least directly – political (e.g. "ATD Quart Monde" which works toward the eradication of chronic poverty).

Data and methodology To estimate the relative importance of politically motivated donations, we have collected the list of all the FRUPs in France during our period of interest. For each of these FRUPs, we have their name as well as their declared purpose ⁶⁴, e.g. for the iFRAP: "the purpose of the iFRAP Foundation is to carry out scientific studies and research on the effectiveness of public policies, particularly those aimed at achieving full employment and economic development, to make the results of these studies known to public opinion, to propose measures for improvement and to carry out all actions with a view to the implementation of the proposed measures by the Government and Parliament". We complement this description with the longer purpose provided by the organizations on their website (when available).

Next, for all the FRUPs for which this information is available ⁶⁶, we rely on their financial

⁶⁴By law, all FRUPs, at the time of their creation (and with the aim of obtaining their specific tax status) have to send to the Ministry of the Interior a statement of the organization's origin, public purpose and means of action. This statement is then public information.

^{65 &}quot;La Fondation iFRAP a pour but d'effectuer des études et des recherches scientifiques sur l'efficacité des politiques publiques, notamment celles visant la recherche du plein emploi et le développement économique, de faire connaître le fruit de ces études à l'opinion publique, de proposer des mesures d'amélioration et de mener toutes les actions en vue de la mise en œuvre par le Gouvernement et le Parlement des mesures proposées."

⁶⁶By law, the completed financial accounts and audit reports of the FRUPs must be published in the *Journal*

Table 5: Commune-level estimation: The impact of the 2017 wealth tax reform on political donations, depending on the political parties

	Overal	rall		FI	4	PS	LR	REM	T	R	R	RN
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)		(10)	(11)	(12)
Treated x Post	0.015***	0.013***	-0.001	-0.002*	-0.011***	-0.012***	0.002	0.001	0.025***	0.023***	0.002	0.001
	(0.004)	(0.004) (0.004)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)		(0.003)	(0.001)	(0.001)
Year FEs	>	>	>	>	>	>	>	>	>	>	>	>
Commune FEs	>	>	>	>	>	>	>	>	>	>	>	>
Commune-level controls		>		>		>		>		>		>
Observations	105,633	105,190	105,633		105,633	105,190	105,633	105,190	105,633	105,190	105,633	105,190
Clusters (communes)	21,182	21,133	21,182	21,133	21,182	21,133	21,182	21,133	21,182	21,133	21,182	21,133
Mean DepVar	0.140	0.140	0.013		0.010	0.010	0.030	0.031	0.076	0.076	0.014	0.014
Sd DepVar	0.303	0.303	0.080		0.087	0.087	0.139	0.139	0.226	0.225	0.092	0.092

between parentheses). An observation is a commune-year. The dependent variable is the inverse hyperbolic sine transformation of the total amount of political donations normalized by the number of fiscal households. The vector of commune-level controls includes the (log of) the number of income tax households, the reference tax income, the total net tax, the number of retirees, and the total pensions. All specifications control for year and commune fixed effects. More details are provided in the text. Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2016-2020. Models are estimated using an OLS (standard errors clustered at the commune level

accounts to study the evolution of the donations they receive between 2013 and 2020 (we also collect information on their operating expenses and revenues). Online Appendix Figure B.20 plots the evolution of the overall donations received by these FRUPs. In the financial accounts, the information on the "donations" received include donations by both legal and moral persons (unfortunately, the existing data do not allow us to isolate donations by individuals). Bequests are reported separately and, given that they do not respond to the same incentives (and they are furthermore one-time shocks), we decided not to include them as part of the donations figures.

We then categorize these foundations according to their stated purpose. To do so, we manually assign the foundations to the following 11 categories built from Reich (2018): (i) Education, (ii) Religion, (iii) Health, (iv) Politics, (v) Environment, (vi) Animals, (vii) Arts and culture, (viii) Solidarity, (ix) Research, (x) Humanitarian, and (xi) Other. Online Appendix Figure B.21 reports the share of the FRUPs in each category: around one third of the foundations are in the "solidarity" category (e.g. la Fondation Abbé Pierre), 16.8% are related to "arts and culture" (e.g. la Fondation des Ecoles d'art américaines de Fontainebleau"), and foundations classified in the "politics" category represent 6.1% of the FRUPs (e.g. la Fondation de l'écologie politique). For some FRUPs, we also determine a sub-category: 4 foundations are classified in the "politics" sub-category.⁶⁷

This classification allows us study the overall amount of charitable donations received by the FRUPs between 2013 and 2020 depending on their purpose. (For the sake of simplicity, we use alternatively the terminology "politically involved FRUPs" or "political FRUPs" to designate the FRUPs that are classified in the "politics" category.)

Empirical approach We investigate whether – at the aggregate level – the politically involved FRUPs received more donations following the wealth tax reform compared to the non-politically involved ones, by estimating the following empirical model:

$$donations_{f,t} = \alpha + \zeta_1 \text{Political FRUP}_f * Post_t + \mathbf{Y}'_{f,t} \zeta_2 + \eta_f + \gamma_t + u_{ft}$$
 (5)

where, as before, t index the years (2013-2020) and f index the foundations. The dependent variable, $donations_{f,t}$, is (the IHS transformation of) the amount of donations received by the foundation f in year t.

Political $FRUP_f$ is an indicator variable equal to one for the political FRUPs and to zero

Officiel des Associations et Fondations d'Entreprises (JOAFE) if the total of the donations or subsidies received that year exceeds €153,000. For the FRUPs that do not file their financial accounts on the "Journal Officiel" website, we draw when accessible on alternative data sources, including the website pappers.fr and the FRUPs' own websites; we also directly contacted the organizations but only received a few answers.

⁶⁷E.g. the IDDRI (*Institut du développement durable et des relations internationales* – Institute for Sustainable Development and International Relations) whose main classification is "environment" and sub-classification is "politics".

otherwise. $Post_t$ is, as before, an indicator variable equal to one for the years following the reform (2017-2020) and to zero for the pre-reform period (2013-2016), and $\mathbf{Y}'_{\mathbf{f},\mathbf{t}}$ is a vector of time-varying foundation-level controls, including the (logarithm of the) operating costs and an indicator variable equal to one if the foundation is based in Paris interacted with year dummies. We also control for foundation (η_f) and year (γ_t) fixed effects, and cluster the standard errors at the level of the foundation.

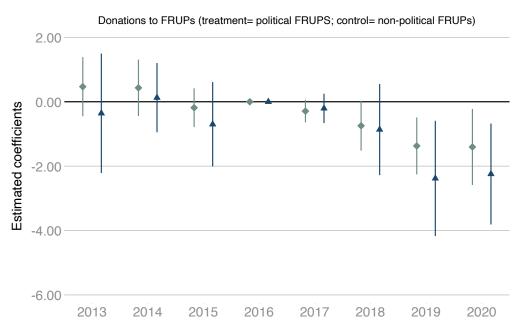
Figure 8 presents the results. If we first consider the grey lines with diamonds, we see a decline in the donations received by the political FRUPs compared to the non-political ones following the wealth tax reform that is statistically significant at the 5% level (reassuringly, there is no trend before the shock). Regarding the magnitude of the effect, in 2017, the estimated coefficient is equal to -0.257; in other words, we estimate a 29% drop in donations to political charities compared to non-political ones following the reform.

It might be hard to distinguish between political and non-political FRUPs, in particular because some foundations, e.g. related to the protection of the environment, can also have political motivations. Hence, to be sure not to have politically involved organizations in the control group, we also report the estimations when we only include in the non-political FRUPs category the foundations classified as "humanitarian" or "solidarity" (and drop the remaining foundations from the estimation). This corresponds to the blue lines with triangles on the figure. If anything, doing so increases the magnitude of our estimated effects.

Anecdotally, the example of the previously described pro-business iFRAP foundation is striking. While the donations received by the organization slightly increased between 2013 and 2016, they began a decline from 2017, which accelerated sharply in 2020 (online Appendix Figure B.22). Obviously, we cannot determine with certainty that some former iFRAP contributors decided to substitute their charitable donation with a political donation made directly to Les Républicains party (which benefited – as documented above – from the relative rise in political donations). But the anecdotal evidence we just presented on both parties and foundations points in this direction.

To reinforce this suggestive evidence, we finally go one step further and classify the FRUPs on a left-right axis. To do so, we collect the Twitter handle of each foundation – out of the 655 FRUPs, 252 have a Twitter account – and of members of the French parliaments (see Hervé, 2021, for details). Using simple retweets, we situate each foundation in the French political space (for a similar approach, see Cagé et al., 2021a). In the online Appendix Figure B.23, we report the results of the estimation of equation (5) but where we only include in the treated group the foundations that are classified on the left (pink lines with squares) or on the right (blue lines with circles) of the political spectrum. Both kinds of foundations are affected by the wealth tax reform, but the figures point toward a larger drop for the right-wing foundations in the long run.

Figure 8: Donations to FRUPs, Depending on whether political



- All non-political FRUPs included in the control group.
- ▲ Non-political FRUPs only include solidarity and humanitarian nonprofits.

Notes: The figure reports the coefficients and 95% confidence interval we obtain when estimating equation (5). The time period is 2013-2020. Models are estimated using an OLS (standard errors are clustered at the foundation level). An observation is a foundation-year. The dependent variable is (the IHS transformation of) the amount of the political donations received by the foundations. The vector of controls include the (logarithm of the) operating costs and an indicator variable equal to one if the foundation is based in Paris interacted with year fixed effects. All specifications control for year and foundation fixed effects. More details are provided in the text.

5.3 Discussion

Obviously, these results have to be interpreted with a pinch of salt given that we are simply relying on foundation-level variations over time; overall, we think that they give interesting suggestive evidence of the fact that, following the wealth tax reform, the substitution between charitable and political giving mostly comes at the expense of politically related charitable organizations. Combined with the above evidence on the heterogeneity of the effects depending on the political parties, they suggest that the substitution between charitable and political giving documented in Section 4 may be at least partly driven by political motivations behind charitable donations.

Furthermore, note that even donations to non-political charities can be driven by political considerations.⁶⁸ E.g. if donations are used by large donors as a way to substitute for the State, for instance if one believes that successful entrepreneurs are more efficient than the State at allocating resources for public goods such as health or education. As of today in France, the main contemporary art collections are exhibited in museums owned by billionaires such a François Pinault or Bernard Arnault.⁶⁹ While these museums enter in direct competition with public institutions⁷⁰ – and, in the case of Arnault, benefit from very large tax deductions – they can be used by the donors as a way to promote their companies. Bernard Arnault's museum, the Louis Vuitton Foundation, is named after the billionaire's main brand; as highlighted by the Cour des Comptes, this museum "constitutes a case, exceptional in its scope, of using the possibilities offered by the tax legislation in terms of patronage in order to develop an ambitious cultural project while ensuring the promotion of the main brand of a group, in a logic of corporate communication that articulates contemporary art, fashion and luxury."71 Similarly, the President of the Centre Georges-Pompidou museum, Serge Lasvignes, said in 2017 about the Pinault foundation: "it is about showing contemporary art from the collection of François Pinault. Some will say that there will be an echo between his way of exhibiting and his commercial activities". An increasing number of observers similarly question the growing

⁶⁸Using French data on public subsidies to nonprofits, Urvoy (2020) has shown that politicians partly allocate governmental transfers to nonprofit organizations to improve their electoral prospects.

⁶⁹In 2021, François Pinault – whose wealth is estimated at \$53.6 billion – opened a 10,500 square meter private museum in a former 18th-century grain exchange near Les Halles, the "Bourse de Commerce-Pinault Collection". The collection contains around 10,000 works by nearly 400 artists. Bernard Arnault opened the Louis Vuitton Foundation in 2017.

⁷⁰Some argue that public institutions are weakened by this competition. E.g. according to the "Art Newspaper", the rise of these private museums partly occurred "to the detriment of [public] museums such as the Grand Palais, Orsay, the Louvre and Pompidou."

^{71 &}quot;Constitue un cas, exceptionnel par son ampleur, d'utilisation des possibilités offertes par la législation fiscale en matière de mécénat afin de développer un projet culturel ambitieux tout en assurant la promotion de la marque principale d'un groupe, dans une logique de communication d'entreprise qui articule art contemporain, mode et luxe" (cited in Cagé, 2020). The Cour des Comptes – Court of Accounts – is the government institution that performs financial audit on the executive branch of power.

 $^{^{72}}$ "Il s'agit de montrer l'art contemporain à partir de la collection de François Pinault. Certains diront qu'il y aura écho entre sa façon d'exposer et ses activités commerciales." (https://www.parismatch.com/Culture/Art/Le-centre-Pompidou-a-40-ans-Son-ADN-c-est-la-thematique-

funding of higher education by philanthropy in France (see e.g. Chambard, 2020).⁷³

Furthermore, charitable donations can be a way for large donors to open a few doors. E.g. for a donor, sitting on the board of directors of a foundation and/or participating in the various events organized by this foundation, can allow her to expand her social capital (see e.g. Depecker et al. (2018) and Monier (2019) for recent work, and Ostrower (1997) for a seminal study). In other words, it can be seen as an "investment"⁷⁴; to paraphrase McGoey (2015) whose focus is on the Gates foundation, there is "no such thing as a free gift".

Welfare implications and policy relevance Finally, we discuss the policy implications of our findings, with respect to the tax treatment of giving and to the regulation of political and charitable donations. In many countries, tax deductions for charitable giving have been introduced with the justification that charitable organizations may provide valuable societal services while being more responsive than the government (see e.g. Meer and Priday, 2020). Our findings pointing to political motivations behind charitable giving partly challenge such a choice; in particular, one might wonder whether the existing set of foundations that can benefit from such tax deductions should not be more precisely defined, at least in countries where there are no tax deductions for political donations.⁷⁵ Further, it also questions the relevance of having tax policies for charitable giving that are much more generous than for political donations (which is the case in a large number of countries).

Note also that our findings implying that charitable donations by wealthy households are at least partly driven by political considerations call into question the relevance of having tax subsidies for charitable giving that favor wealth-tax payers – compared to the rest of the households – in two ways. First, wealthy households benefit from a more generous tax treatment, in the form of the 75% tax deduction rate in France or of tax subsidies that vary with the rate at which donors are taxed in the US. This implies that their political preferences are favored. In the case of France, a simple reform would be to align the rates for income and wealth tax deductions. To go further, one might also be willing to make the tax credit refundable.

Second, through charitable donations, wealthy taxpayers may benefit from an unlimited way to exert political influence. Indeed, while in many Western democracies (Belgium, France, Italy, Spain, etc.) campaign finance laws place limits on political donations, to the extent of our knowledge, no country has introduced a cap on charitable giving. Yet, our findings question this absence of regulation. Indeed, for a politically motivated donor who faces a cap on her

^{1175552).} On the disproportionate power of François Pinault on the art market and the benefits he can get from it through the auction house *Christie's*, which he owns, see also Vivant (2009).

⁷³Note, however, that this is not a new phenomenon. See e.g. Durand (2016).

⁷⁴See also Bertrand et al. (2020b) on political giving as a way for donors to invest in influence.

⁷⁵The US for example, unlike France, Germany, Italy and Spain (as well as Belgium between 1985 and 1993), do not have tax deductions for political donations (see e.g. Cagé, 2018).

political donations, giving to a think tank can be a relatively easy alternative.

Finally, note that if charitable and political giving are substitute, it implies that regulating political donations might have consequences for charitable giving (a point already raised by Yildirim et al., 2021). However, the charitable sector is a major contributor to the economy. In a country like the US, philanthropy accounts for about two percent of income.

External validity Last, note that while the size of the philanthropic sector is much smaller in France than in the US – on which the majority of the research on charitable giving has focused – it resembles what we observe in most OECD countries; our results may thus inform the optimal policies to implement in these countries. If one considers for example the size of the philanthropic sector as measured by the level of donations to philanthropic entities, with \$90 per inhabitant, France is in line with the OECD average (\$98), and is much more comparable to Germany (\$71), Austria (\$80), and New Zealand (\$118), than the US is (\$1,056). 2016 data generated by the Charities Aid Foundation show similarly that with 0.11% of giving as a share of GDP, France is in the same range as countries such as Switzerland, Japan, Norway and Finland (between 0.09 and 0.13), while with 1.4% the US is the exception (Peter and Huber, 2021). Note furthermore that philanthropy in France has seen rapid development over the past 20 years.

Further, our main result regarding the political motivations behind charitable giving is very likely to be found in other contexts. On the one hand, it is consistent with the findings of Yildirim et al. (2021) using microdata for the US. On the other hand, the French charitable sector is following trends similar to those observed in many countries: an increasing number of large donations by a decreasing number of donors (Cagé et al., 2023), and a higher propensity to donate among the wealthiest. Only a few countries levy a wealth tax – and the wealth-tax reform is what allows us to isolate the causal effect of an increase in the price of charitable giving – but there is no reason to think that a similar increase in the price of giving even in a different context will not have similar consequences.

Finally, not that even if the French wealth-tax reform is not intrinsically of interest per se (even if we think it is), it provides a unique naturally occurring setting that allows us to study the substituability between charitable and political donations among households at the top of the wealth distribution using observational data. To the extent of our knowledge, no other setting would allow us to achieve that level of relevance to tackle this issue. According to List (2020), this should relax the concerns related to the external validity of our results.

To go further, we use List (2020)'s SANS conditions to understand the generalizability of

⁷⁶For early comparative evidence on the state of the charitable sector around the world, see List and Price (2011)

⁷⁷The data is for 2018-2019 and cover the 22 countries that provided data as part of the OECD report on Taxation and Philanthropy (2020).

our results (see also Holz et al., 2023). First, our sample includes all the households eligible to the wealth-tax in France. In terms of attrition, our compliance rate is thus 100%, as we have records of the amounts of donations paid for everyone in our sample. Second, considering the naturalness of the choice task setting and time frame, we use a natural experiment; thus, our setting is one in which households are engaged in a natural task. Finally, in terms of scaling our insights, the universe of wealth-tax payers is already included in our sample. Since we view our results as a WAVE1 insight, in the nomenclature of List (2020), replications need to be completed in order to understand if our results apply to taxpayers in other countries.

Other mechanisms Note, however, that while our preferred explanation for the substitutability between charitable and political donations is the fact that charitable giving is partly driven by political motivations, we obviously do not claim here that political motivations are the only motivations behind giving (many other motivations have indeed been carefully documented in the literature, from warm glow to fairness and social pressure⁷⁸). Further, one may argue that other mechanisms could drive our findings. First, if citizens have an "altruism budget" – i.e. if people have a fixed budget of altruistic acts – then when donations increase to one recipient, they may decrease for others (see Gee and Meer, 2019, for a review of the state of the research). Nevertheless, for such an argument to drive our findings, it would imply that political donations are considered "altruistic". However, according to the existing literature, political donations could be viewed either as a strategic investment or as a consumption good (see e.g. Gordon et al., 2007), but not as reflecting the generosity of the donors.

Second, the observed substitutability between political and charitable giving could reflect the fact that donors love variety – i.e. they prefer to make a donation to a foundation and a donation to a party rather than two donations to a foundation. It may also be driven by a decreasing marginal utility from donating to a given organization. However, if this were to be the case absent any political motivation for giving, we should not observe that the political foundations suffered more than the non-political ones from the increase in the tax price of giving.

Last, following the reform, citizens might have faced different levels of solicitation and opportunities to give to political parties and charities. Both charities and parties may indeed have an active role to play in extracting donations from potential givers (Andreoni, 2006). While this may indeed partly drive our results – and we cannot control for it – it does not imply that these solicitations do not involve the political dimension of charitable donations.

⁷⁸See e.g. Andreoni (2006).

6 Conclusion

Why do people make charitable donations?

This paper uses a reform of the wealth tax that decreased the tax price for charitable contributions in France to evidence the substitutability of these contributions with political donations. More precisely, the reform restricted the definition of the wealth tax base to real-estate assets excluding the financial assets which were previously included. We rely on a new panel dataset including all the households filing their income tax and/or their wealth tax returns in France between 2006 and 2021. We focus on the sample of households liable to the wealth tax in 2016 and use the panel dimension of the data to follow these households over time and across taxes.

Using a number of different empirical strategies, we show that political and charitable giving are substitute. A one-percent increase in the price of charitable giving leads to a 0.13% increase in political donations. We also study the heterogeneity of this cross-tax price elasticity among the distribution of wealth and income. The magnitude of the effect is particularly strong among the top 20% of income taxpayers.

Our findings – which rely on donations by the very wealthy that have been mostly over-looked in the existing literature – suggest that philanthropy may be at least partly politically motivated. This idea is supported by novel foundation-level data: for all the nonprofit organizations that are recognized as "being of public utility" and that can benefit from the wealth tax deduction, we collect information on the donations they receive and classify them depending on their purpose, separating in particular foundations that are politically involved from those that are not. Further, we provide additional evidence based on political party donations, and document in particular that the drop in charitable donations mostly benefited the pro-business political movements. Our findings have important implications for the optimal regulation of tax incentives.

References

- Aghion, P., Ciornohuz, V., Gravoueille, M., and Stantcheva, S. (2019). Reforms and Dynamics of Income Evidence Using New Panel Data. Working paper.
- Almunia, M., Guceri, I., Lockwood, B., and Scharf, K. (2020). More giving or more givers? The effects of tax incentives on charitable donations in the UK. *Journal of Public Economics*, 183:104114.
- Andreoni, J. (1989). Giving with Impure Altruism: Applications to Charity and Ricardian Equivalence. *Journal of Political Economy*, 97(6):pp. 1447–1458.
- Andreoni, J. (1990). Impure Altruism and Donations to Public Goods: A Theory of Warm-Glow Giving. *The Economic Journal*, 100(401):pp. 464–477.
- Andreoni, J. (2006). Philanthropy. In Kolm, S. and Ythier, J. M., editors, *Handbook of the Economics of Giving, Altruism and Reciprocity*, volume 1 of *Handbook on the Economics of Giving, Reciprocity and Altruism*, chapter 18, pages 1201–1269. Elsevier.
- Andreoni, J. and Payne, A. A. (2013). Charitable Giving. In Auerbach, A. J., Chetty, R., Feldstein, M., and Saez, E., editors, *Handbook of Public Economics*, volume 5 of *Handbook of Public Economics*, pages 1–50. Elsevier.
- Ansolabehere, S., de Figueiredo, J. M., and Snyder, J. M. J. (2003). Why is There so Little Money in U.S. Politics? *Journal of Economic Perspectives*, 17(1):105–130.
- Backus, P. and Grant, N. (2016). Consistent Estimation of the Tax-Price Elasticity of Charitable Giving with Survey Data. Technical report.
- Bakija, J. (2013). Tax Policy and Philanthropy: A Primer on the Empirical Evidence for the United States and Its Implications. *Social Research*, 80(2):557–584.
- Bakija, J. and Heim, B. T. (2011). How Does Charitable Giving Respond to Incentives and Income? New Estimates From Panel Data. *National Tax Journal*, 64(2):615–650.
- Barber, M. J. (2016). Ideological Donors, Contribution Limits, and the Polarization of American Legislatures. *The Journal of Politics*, 78(1):296–310.
- Bekkouche, Y., Cagé, J., and Dewitte, E. (2022). The heterogeneous price of a vote: Evidence from multiparty systems, 1993-2017. *Journal of Public Economics*, 206:104559.
- Bertrand, M., Bombardini, M., Fisman, R., and Trebbi, F. (2020a). Tax-Exempt Lobbying: Corporate Philanthropy as a Tool for Political Influence. *American Economic Review*, 110(7):2065–2102.
- Bertrand, M., Bombardini, M., Fisman, R., Trebbi, F., and Yegen, E. (2020b). Investing in influence: Investors, portfolio firms, and political giving. Working paper.
- Blanchflower, D. G. and Bryson, A. (2020). Now Unions Increase Job Satisfaction and Wellbeing. Working Paper 27720, National Bureau of Economic Research.
- Bouton, L., Cagé, J., Dewitte, E., and Pons, V. (2022). Small Campaign Donors. Working Paper 30050, National Bureau of Economic Research.

- Brown, E. and Lankford, H. (1992). Gifts of money and gifts of time estimating the effects of tax prices and available time. *Journal of Public Economics*, 47(3):321–341.
- Brown, S. and Taylor, K. (2019). Charitable Behaviour and Political Ideology: Evidence for the UK. Working Papers 2019002, The University of Sheffield, Department of Economics.
- Brülhart, M., Gruber, J., Krapf, M., and Schmidheiny, K. (2016). Taxing Wealth: Evidence from Switzerland. Working Paper 22376, National Bureau of Economic Research.
- Cagé, J. (2018). Le prix de la démocratie. Fayard (English version: The Price of Democracy, Harvard University Press, 2020).
- Cagé, J. (2020). Libres et égaux en voix. Fayard.
- Cagé, J., Hengel, M., Hervé, N., and Urvoy, C. (2021a). Hosting Media Bias: Evidence from the Universe of French Broadcasts, 2002-2020. Working paper.
- Cagé, J., Hengel, M., and Huang, Y. (2023). The Far-Right Donation Gap. techreport.
- Cagé, J., Le Pennec, C., and Mougin, E. (2021b). Corporate Donations and Political Rhetoric: Evidence from a National Ban. CEPR Discussion Papers 16774, C.E.P.R. Discussion Papers.
- Chambard, O. (2020). Business Model: l'université, nouveau laboratoire de l'idéologie entrepreneuriale. Collection Laboratoire des sciences sociales. La Découverte.
- Chamon, M. and Kaplan, E. (2013). The Iceberg Theory of Campaign Contributions: Political Threats and Interest Group Behavior. *American Economic Journal: Economic Policy*, 5(1):1–31.
- Dawood, Y. (2015). Campaign Finance and American Democracy. *Annual Review of Political Science*, 18(1):329–348.
- Depecker, T., Déplaude, M.-O., and Larchet, N. (2018). La philanthropie comme investissement. Contribution à l'étude des stratégies de reproduction et de légitimation des élites économiques. *Politix*, 121(1):9–27.
- Doerrenberg, P., Peichl, A., and Siegloch, S. (2017). The elasticity of taxable income in the presence of deduction possibilities. *Journal of Public Economics*, 151:41–55.
- Duquette, N. J. (2016). Do tax incentives affect charitable contributions? Evidence from public charities' reported revenues. *Journal of Public Economics*, 137:51–69.
- Durand, A. (2016). L'odeur de l'argent. Dons et legs dans le financement de l'Université de Paris (1885-années 1930). Revue d'histoire moderne & contemporaine, 63-3(3):64-87.
- Fack, G., Garbinti, B., and Goupille, J. (2021). The Effect of Tax Incentives for Charitable Giving: Does the Social Acceptance of Taxes Matter? Mimeo.
- Fack, G. and Landais, C. (2010). Are Tax Incentives for Charitable Giving Efficient? Evidence from France. American Economic Journal: Economic Policy, 2(2):117–141.
- Fack, G. and Landais, C., editors (2016a). Charitable Giving and Tax Policy: A Historical and Comparative Perspective. Number 9780198723660 in OUP Catalogue. Oxford University Press.

- Fack, G. and Landais, C. (2016b). The effect of tax enforcement on tax elasticities: Evidence from charitable contributions in France. *Journal of Public Economics*, 133:23–40.
- Feldstein, M. and Taylor, A. (1976). The Income Tax and Charitable Contributions. *Econometrica*, 44(6):1201–1222.
- Gee, L. K. and Meer, J. (2019). The Altruism Budget: Measuring and Encouraging Charitable Giving. Working Paper 25938, National Bureau of Economic Research.
- Gimpel, J. G., Lee, F. E., and Pearson-Merkowitz, S. (2008). The Check Is in the Mail: Interdistrict Funding Flows in Congressional Elections. American Journal of Political Science, 52(2):373–394.
- Gordon, S. C., Hafer, C., and Landa, D. (2007). Consumption or Investment? On Motivations for Political Giving. *The Journal of Politics*, 69(4):1057–1072.
- Green, D. P., Krasno, J. S., Panagopoulos, C., Farrer, B., and Schwam-Baird, M. (2015). Encouraging Small Donor Contributions: A Field Experiment Testing the Effects of Non-partisan Messages. *Journal of Experimental Political Science*, 2(2):183–191.
- Grossman, G. M. and Helpman, E. (1994). Protection for Sale. American Economic Review, 84(4):833–850.
- Grossman, G. M. and Helpman, E. (1996). Electoral Competition and Special Interest Politics. The Review of Economic Studies, 63(2):265–286.
- Guillot, M. (2019). Who Paid the 75and Incidence in France. Working paper.
- Guillot, O., Jaoul-Grammare, M., and Terraz, I. (2019). Union Membership in France: An Empirical Study. Technical report.
- Hervé, N. (2021). Quelle modélisation de l'espace politique français sur Twitter. Revue des Nouvelles Technologies de l'Information, Extraction:503–504.
- Holz, J. E., List, J. A., Zentner, A., Cardoza, M., and Zentner, J. E. (2023). The \$100 million nudge: Increasing tax compliance of firms using a natural field experiment. *Journal of Public Economics*, 218:104779.
- Hungerman, D., Rinz, K., Weninger, T., and Yoon, C. (2018). Political campaigns and church contributions. *Journal of Economic Behavior and Organization*, 155:403–426.
- Jakobsen, K., Jakobsen, K., Kleven, H., and Zucman, G. (2019). Wealth Taxation and Wealth Accumulation: Theory and Evidence From Denmark. The Quarterly Journal of Economics, 135(1):329–388.
- Karlan, D. and List, J. A. (2007). Does Price Matter in Charitable Giving? Evidence from a Large-Scale Natural Field Experiment. *American Economic Review*, 97(5):1774–1793.
- Landry, C. E., Lange, A., List, J. A., Price, M. K., and Rupp, N. G. (2006). Toward an Understanding of the Economics of Charity: Evidence from a Field Experiment. The Quarterly Journal of Economics, 121(2):747–782.
- Leuven, E. and Sianesi, B. (2003). PSMATCH2: Stata module to perform full Mahalanobis

- and propensity score matching, common support graphing, and covariate imbalance testing. Statistical Software Components, Boston College Department of Economics.
- List, J. A. (2011). The Market for Charitable Giving. *Journal of Economic Perspectives*, 25(2):157–180.
- List, J. A. (2020). Non est Disputandum de Generalizability? A Glimpse into The External Validity Trial. Working Paper 27535, National Bureau of Economic Research.
- List, J. A. and Price, M. K. (2011). Charitable Giving Around the World: Thoughts on How to Expand the Pie. *CESifo Economic Studies*, 58(1):1–30.
- McDonald, J. F. and Moffitt, R. A. (1980). The Uses of Tobit Analysis. *The Review of Economics and Statistics*, 62(2):318–321.
- McGoey, L. (2015). No Such Thing as a Free Gift: The Gates Foundation and the Price of Philanthropy. Verso Books.
- Meer, J. and Priday, B. A. (2020). Tax Prices and Charitable Giving: Projected Changes in Donations under the 2017 Tax Cuts and Jobs Act. *Tax Policy and the Economy*, 34:113–138.
- Monier, A. (2019). Nos chers "Amis américains". Hors collection. Presses Universitaires de France.
- Murphy, R. (2020). Why Unions Survive: Understanding How Unions Overcome the Free-Rider Problem. *Journal of Labor Economics*, 38(4):1141–1188.
- Ostrower, F. (1997). Why the Wealthy Give: The Culture of Elite Philanthropy. Princeton University Press.
- Perroni, C., Scharf, K., Talavera, O., and Vi, L. (2022). Does online salience predict charitable giving? Evidence from SMS text donations. *Journal of Economic Behavior and Organization Organization*, 197:134–149.
- Peter, H. and Huber, G. L. (2021). The Routledge Handbook of Taxation and Philanthropy. Routledge handbooks. Routledge.
- Poole, K. T. and Romer, T. (1985). Patterns of political action committee contributions to the 1980 campaigns for the United States House of Representatives. *Public Choice*, 47(1):63–111.
- Randolph, W. C. (1995). Dynamic Income, Progressive Taxes, and the Timing of Charitable Contributions. *Journal of Political Economy*, 103(4):709–738.
- Reich, R. (2018). Just Giving: Why Philanthropy Is Failing Democracy and How It Can Do Better. Princeton University Press.
- Ring, M. A. K. and Thoresen, T. O. (2022). Wealth Taxation and Charitable Giving. Technical report.
- Scharf, K. and Smith, S. (2015). The Price Elasticity of Charitable Giving: Does the Form of Tax Relief Matter? *International Tax and Public Finance*, 22(2):330–352.
- Seim, D. (2017). Behavioral Responses to Wealth Taxes: Evidence from Sweden. *American Economic Journal: Economic Policy*, 9(4):395–421.

- Urvoy, C. (2020). Political Profit from Nonprofits? Evidence from Governmental Transfers. Working paper.
- Vivant, E. (2009). Inconstance du collectionneur ou calcul de l'entrepreneur ?L'échec du projet de fondation François Pinault, révélateur des évolutions des mondes de l'art et de la production urbaine. *Politix*, 88(4):187–207.
- Wand, J. (2007). The Allocation of Campaign Contributions by Interest Groups and the Rise of Elite Polarization.
- Yildirim, P., Simonov, A., Petrova, M., and Perez-Truglia, R. (2021). Are Political and Charitable Giving Substitutes? Evidence from the United States. *Management Science*, Forthcomin.
- Yörük, B. K. (2015). Do Charitable Subsidies Crowd Out Political Giving? The Missing Link between Charitable and Political Contributions. *The B.E. Journal of Economic Analysis & Policy*, 15(1):1–29.

Online Appendix to the paper:

Is Charitable Giving Political? Evidence from Wealth and Income Tax Returns

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Contents

A	Details on data construction	2
В	Additional figures	6
\mathbf{C}	Additional tables	29
D	Robustness checks	40

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A Details on data construction

In this section, we provide details on the different steps we use for the data construction. Section A.1 details the step involving the income tax returns data, and Section A.2 concentrates on the wealth-tax returns data. Section A.3 explains how we merge the previous two datasets and construct our variables of interest. Finally, Section A.4 describes the data steps we go through for the commune-level political donations analysis.

A.1 Income tax returns

Cleaning Before performing our main analysis, we go through a cleaning step, required by the administrative nature of the data. First, we aggregate the information to deal with the multiple declarations that households can file in case of divorce or death of one spouse during the fiscal year. Second, we clean the charitable giving declarations by removing the extreme values (above ≤ 1 million), which are due to misdeclaration¹

Variables definition The main variables used for the analysis come from the income tax declarations. Some variables are computed by the tax administration based on the information declared.

- Charitable giving is declared in cell 7UF for "general" charitable donations (with the 66% rebate), and in cell 7UD for donations to charities helping people in need (with the 75% rebate) (see Figure B.1). We consider the two categories separately, as they benefit from different rebate rates, and donations to charities that help people in need are capped at €546. Our main analysis concentrates on the general 7UF donations.
- Gross taxable income aggregates all income declared, before any rebates, and corresponds to the rbg variable.
- Marital status is directly given by the tax declaration and contains five categories: married, divorced, civil union, single, and widowed.
- The *number of fiscal shares* is computed by the administration based on the household composition and is used to scale the income and the tax due. We use it as an indication of the size of the household.
- The *net income tax* is computed by the administration (DGFiP). It corresponds to the mnirp8 variable before 2016, and to the nirp8 variable since 2017.

¹According to the tax administration, households typically include more information than just the amount given in the form (year of the declaration, for instance). We clean these obvious cases, but some (less than 10 observations a year) remain unclear so we drop them.

- The *net taxable income* is the income tax base (after deducting numerous rebates) and corresponds to the rimp variable.
- Political giving is declared in the 7UH box (see Figure B.1) starting in 2013.
- Union contributions are declared in boxes 7AC for the main taxpayers, 7AE for the partner, and 7AG for the dependents. We sum these three boxes at the household level to obtain the total union contribution of the household.

A.2 Wealth tax returns

Cleaning Similarly to what we do for the income tax returns data, we go through a cleaning step for the wealth tax returns.

• We drop the households for which data on wealth is top coded at €200 million (14 in 2016). Indeed, the fiscal administration does not disclose the precise information for the very top of the wealth distribution. Considering that very few households are affected, we prefer to drop them, since we only can access partial fiscal information.

Variables definitions

- Gross and net wealth are given in boxes FG and HI, respectively.
- Charitable giving is declared in boxes NC and NG. The two boxes are intended to disentangle the donations going to French foundations from the ones going to European foundations². Since both types of donation benefit from the same reduction and cap, we add them up to obtain our charitable giving to the wealth tax variable.
- We compute the *share of housing wealth* in total wealth using information from the 2010 wealth tax returns, as this is the last year when households had to declare the detailed composition of their wealth. The housing wealth corresponds to the sum of all the boxes related to housing: AB + AC + BD + BF + BG + BI + BJ + BK. We then scale this sum by the gross wealth (FG) to obtain the share of housing wealth. This information is also available after 2010 for households with a gross wealth larger than ≤ 2.57 million, but this only concerns a share of our sample.
- Wealth tax gain: we define the gain from the wealth tax reform by computing the observed change in the wealth tax due between 2017 and 2016. If no wealth tax is due in 2017, we set the value of the wealth tax to 0. A negative wealth tax gain means that the wealth tax due in 2017 is lower than that due in 2016.

²Only 31 European Foundations are eligible for the tax reduction, see https://www.impots.gouv.fr/liste-des-organismes-europeens-agrees for a list.

• Predicted wealth tax gain: we also compute a predicted wealth tax gain, using the pre2010 information on the wealth composition for the households that we can find in that
period. We approach the new tax base, restricted to housing assets, by multiplying the
last wealth tax base with the average share of housing assets observed before 2010. We
then apply the wealth tax schedule to compute a predicted tax on housing assets. The
predicted wealth tax gain corresponds to the change between the predicted wealth tax
for 2017 and the observed wealth tax in 2016.

A.3 Merging the income- and wealth tax returns

We merge the income and the wealth tax returns data using the unique household identifier for each year. We construct our main sample by keeping all the households that declare their wealth in 2016, the year when we define the treatment and control groups (we relax this assumption in our robustness tests). Second, we drop the households who file a wealth tax return (based on some assets owned in France) but do not file any income tax return. Indeed, we cannot study the political donations for these households (note however that they only represent a very minor part of the sample).

Variables definitions We describe here how we construct the household-level variables that depend on both sources of data.

- We compute the price of charitable giving by applying the tax rules to the information declared. If the household is liable to the wealth tax and declares a donation inferior to the threshold (€50,000) and to the gross tax due, it benefits from a 75% reduction rate. If the household is not eligibile to a 75% rate, it can benefit from a 66% rebate through the income tax reduction. We attribute the rate of 66% if the household has not already reached its cap (20% of taxable income) with the donations declared. In this case, the reduction rate is equal to 0. The price finally corresponds to 1 minus the reduction rate.
- The total charitable giving is the sum of the charitable giving declared in the income (7UF) and the wealth tax returns (NC and NG).

A.4 Commune-level political donations

We collect annual information on the donations received by the political parties at the city level from the Commission Nationale des Comptes de Campagne et des Financements Politiques (CNCCFP), which anonymized the donation data before transmitting them to us as part of a research agreement. We recover the data for the five parties that obtain more than 5% of the votes in the first round of the 2017 elections: La France Insoumise (LFI), the Parti socialiste

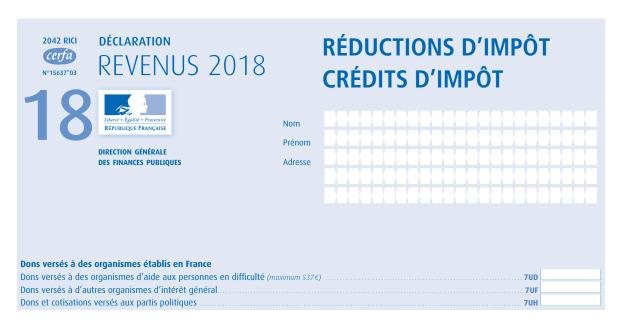
(PS), La République en marche (LREM), Les Républicains (LR), and the Rassemblement National.

Donations include (i) donations from individual donors, (ii) membership dues, and (iii) contributions from elected representatives. These three categories are reported separately – which allows us to focus on individual donations – except for the Socialist Party (PS) in 2016 (unfortunately, we cannot gain access to the original data because it has been destroyed by the CNCCFP). For this party/year, we approximate the three categories from the total donations received by the PS by using, for each city, the observed share represented by each category in 2017 that we apply to 2016.

Note that, for the sake of comparison over time, data on donations for La France Insoumise also include the donations received by the Parti de Gauche in 2016, and data for Les Républicains also include information for La Force Républicaine in 2017.

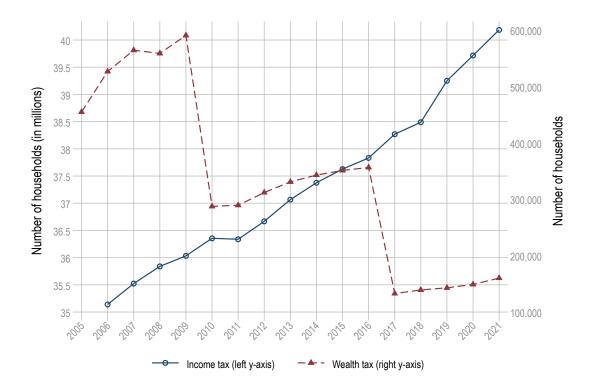
B Additional figures

Figure B.1: Illustration of the income tax form



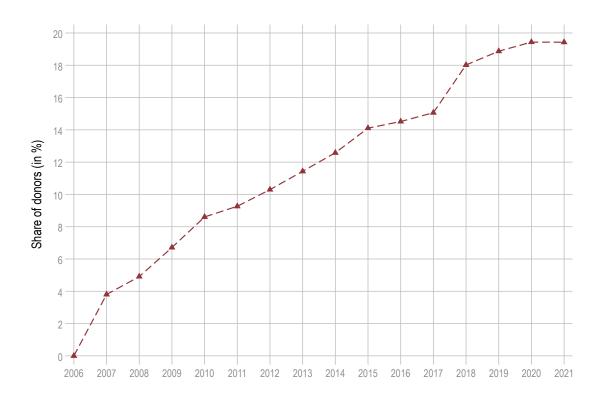
Notes: The Figure reports a screen shot of the income tax form for 2018. Taxpayers report their charitable donations in row 7UF ("dons versés à d'autres organismes d'intérêt général") and their political donations in row 7UH ("dons et cotisations versés aux partis politiques"). (In 1989, a specific rate was created for the donations to charities that help people in need; these donations are reported in row 7UD – "Dons versés à des organismes d'aide aux personnes en difficulté". See Section 4.5 for details.)

Figure B.2: Total number of households liable to income tax and / or to wealth tax



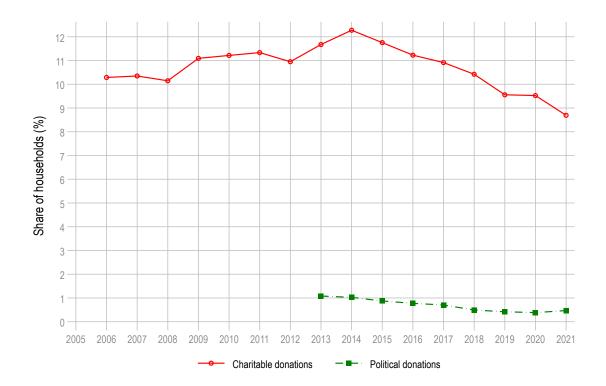
Notes: The Figure plots the evolution of the number of households who file an income tax and a wealth tax declaration per year. The time period covered is 2006-2021. The number of households liable to the income tax is reported on the left y-axis (blue line with dots) and the number of households liable to the wealth tax on the right y-axis (dashed red line with triangle). The drop in the number of wealth tax payers observed in 2010 is due to the 2011 wealth tax reform: the amount of net property assets above which individuals are liable for the wealth tax was increased from €0.8 to €1.3 million. The drop in the number of wealth tax payers observed in 2017 is due to the 2017 wealth tax reform described in Section 2.2.

Figure B.3: Wealth tax donations: Evolution of the share of the households who declare a charitable donation on their wealth tax return, 2006-2021



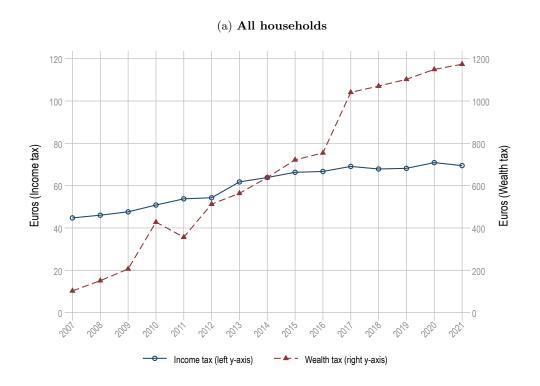
Notes: The Figure plots the evolution of the share of the households liable to the wealth tax who declare a charitable donation on their wealth tax form per year. The time period covered is 2006-2021.

Figure B.4: Income tax donations: Evolution of the share of the households who declare a charitable donation and of the share of the households who declare a political donation on their income tax return, 2006-2021



Notes: The figure plots the evolution of the share of the households liable to the income tax who declare a donation on their income tax form per year. The time period covered is 2006-2021. The red line with dots plots this share for the charitable donations and the dash-dot green line with squares for the political donations. Political donations have been reported separately on the income tax form only since 2013.

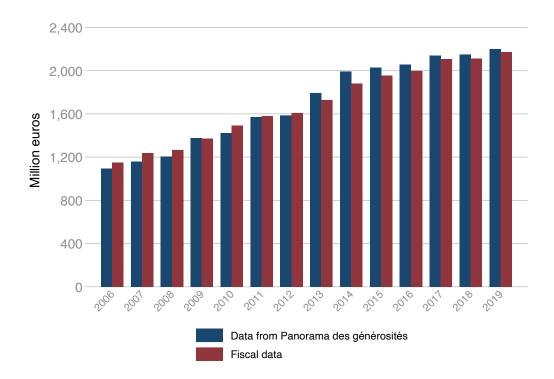
Figure B.5: Evolution of the average amount of the charitable donations declared on the income and the wealth tax forms, 2006-2021





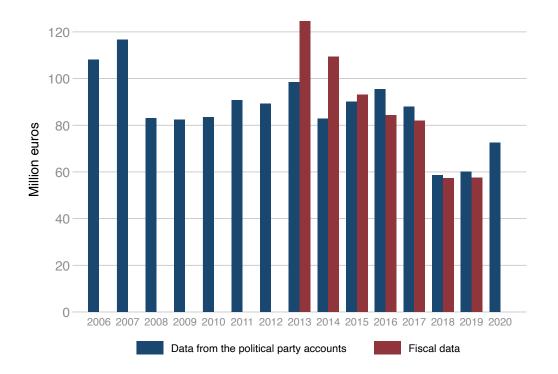
Notes: The Figure reports the evolution of the average amount of the charitable donations reported on the income tax and wealth tax forms. The time period covered is 2006-2021. The income tax donations are reported on the left y-axis (blue line with dots) and the wealth tax donations on the right y-axis (dashed red line with triangle). The upper Figure B.5a plots the average amount given when all the households are included (i.e. including the households who declare no donation and for which the amount of charitable donations is set to 0). The bottom Figure B.5b plots the average amount given by donors.

Figure B.6: Evolution of the total amount of donations made to general interest organizations vs. the total amount declared on the income tax: data from the $Panorama~des~g\'{e}n\'{e}rosit\'{e}s$ 2020 vs. fiscal data, 2006-2019



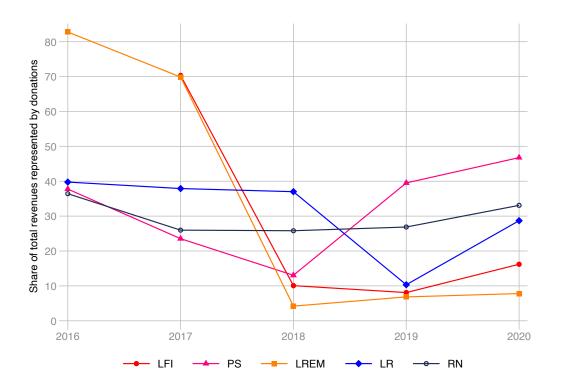
Notes: The Figure plots the annual evolution of the aggregate donations received by the general interest organizations as reported by the "Panorama des Générosités" (blue bars) and the aggregate amount of charitable donations as reported on the household income tax forms (red bars). The time period covered is 2006-2019.

Figure B.7: Evolution of the total amount of donations received by the political parties: data from the political party accounts vs. fiscal data, 2006-2020



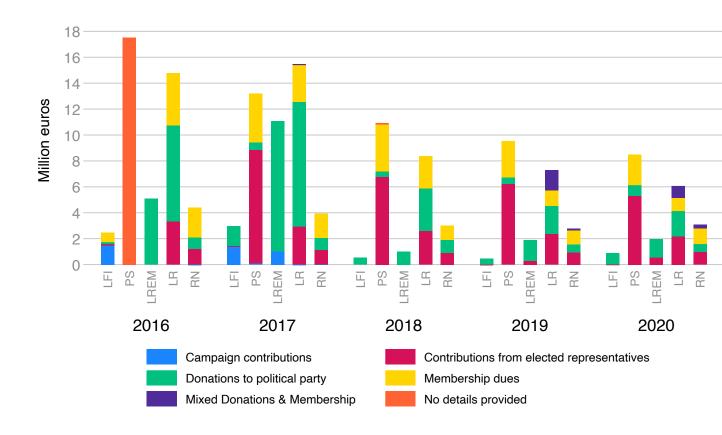
Notes: The Figure plots the evolution of the total amount of the donations received by the political parties depending on whether we consider the political parties' accounts (blue bars) or the overall amount of political giving declared on the income tax returns (red bars). The time period covered is 2006-2020. Total donations include the donations from individuals, as well as the party membership fees and the contributions from elected officials that benefit from the same tax treatment (tax rebate equal to 66% of the amount of the donation).

Figure B.8: Political donations: Share of political parties' total revenues accounted for by private donations, 2016-2020



Notes: The figure plots the evolution of the share of the political parties' total revenues accounted for by donations made by private households. The time period covered is 2016-2020.

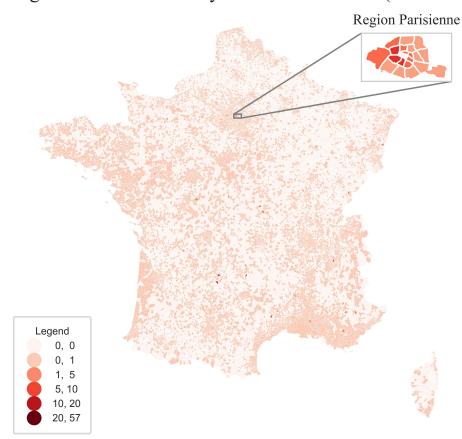
Figure B.9: Total amount of donations received by the political parties: Main political parties, 2016-2020



Notes: The Figure plots the total amount of donations – including donations from individual donors, membership dues, and contributions from elected representatives – received by the five political parties whose candidate obtained more than 5% of the votes during the first round of the 2017 presidential elections. The data come from the CNCCFP.

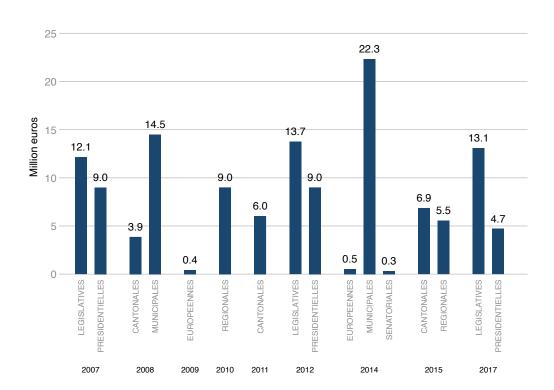
Figure B.10: Geography of the political donations received by the parties: La République en Marche (LREM)

Average annual donations by hh made to LREM (2016-2020)



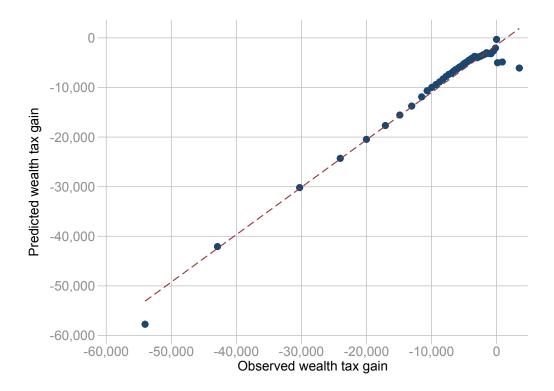
Notes: The map reports, for each commune, the average amount of the annual donations made by the households to "La République en Marche" between 2016 and 2020. For the sake of readability, we report separately the different "arrondissements" for Paris.

Figure B.11: Total amount of donations received by the electoral campaigns



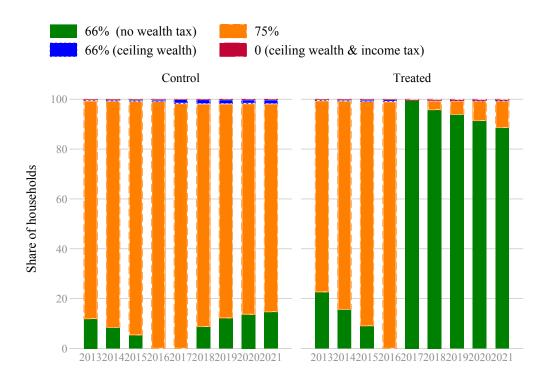
Notes: The Figure plots the evolution of the total amount of donations received by the electoral campaigns. Data are from Cagé (2018) for 2007-2015 and from the CNCCFP reports for recent years.

Figure B.12: Predicted vs. observed wealth tax gain



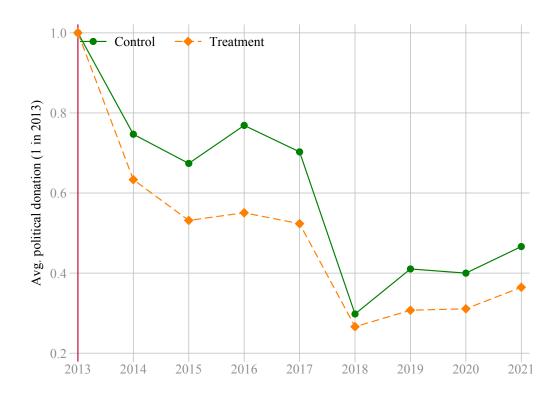
Notes: The Figure represents the observed wealth tax gain (= tax on housing assets for 2017 – wealth tax for 2016) on the x-axis (50 bins) against a prediction of the wealth tax gain, based on the observed pre-2010 wealth composition. To do so, we compute a predicted tax base for the tax on housing asset by applying the observed pre-2010 wealth composition to the last pre-reform wealth tax schedule. We then apply the tax schedule (including the reductions observed for 2016) to the predicted tax base to compute the predicted tax on housing assets. Finally, the predicted wealth tax gain is defined by the difference between the predicted tax on housing assets and the observed 2016 wealth tax.

Figure B.13: Change in the price of charitable giving following the 2017 wealth tax reform, Households who face a wealth tax gain between ≤ 0 and $\leq 15,000$ following the wealth tax reform



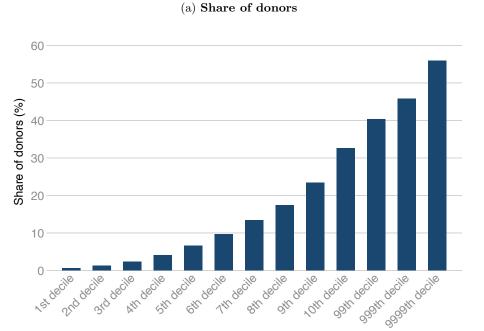
Notes: The Figure plots the change in the price of charitable giving separately for the "control" households who continue paying the real-estate tax following the 2017 wealth tax reform and the "treated" households who are no longer liable to the wealth tax in 2017. Our sample contains the 282,999 households of the "similar wealth tax gain" sample.

Figure B.14: Impact of the wealth tax reform on political giving



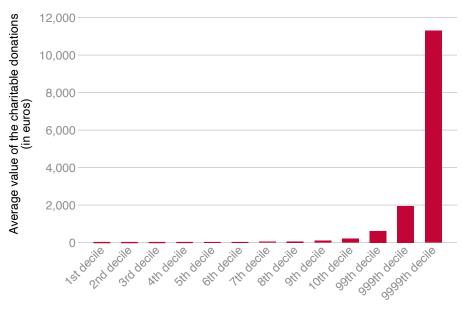
Notes: The Figure plots the average amount of political donations (normalized to one in 2013) separately for the "control" households ("stay IFI" – green line with dots) who continue paying the real-estate tax following the 2017 wealth tax reform and the "treated" households ("leave IFI" – orange line with squares) who are no longer liable to the wealth tax in 2017. Our sample of analysis include all the households subject to the wealth tax in 2016 who face wealth tax gain between €0 and €15,000 following the reform.

Figure B.15: Probability to contribute (charitable giving) depending on the income percentile



Percentiles of income

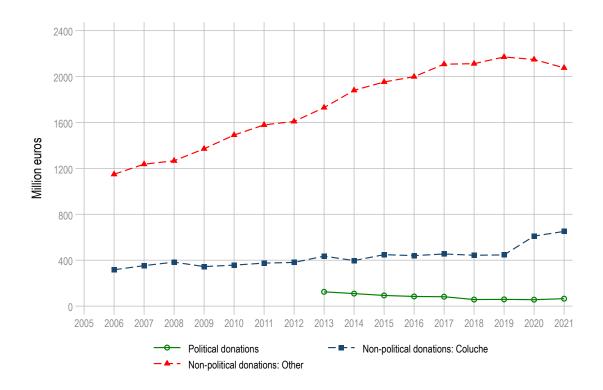
(b) Average amount of the donations



Percentiles of income

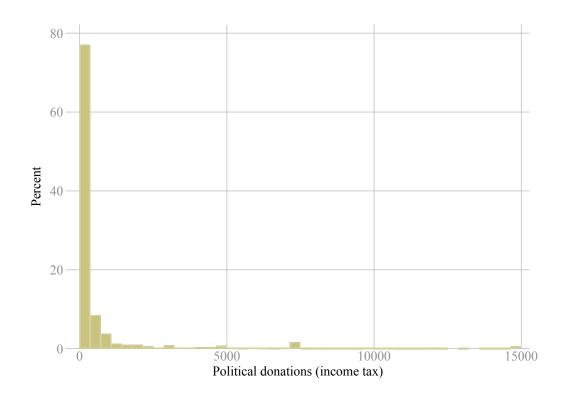
Notes: The upper Figure B.15a plots the share of donors in 2016 depending on the income percentile. The bottom Figure B.15b plots the average amount of the donations depending on the income percentile.

Figure B.16: Evolution of the total amount of income tax donations: political donations, non-Coluche charitable donations, Coluche charitable donations



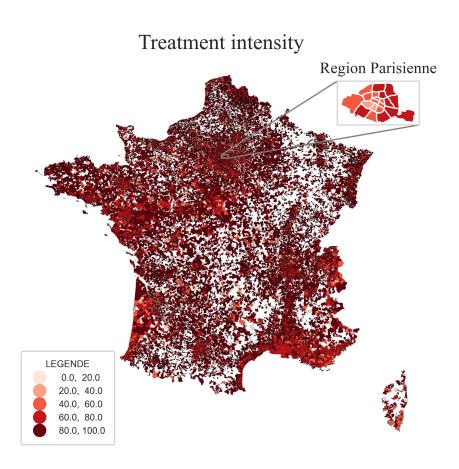
Notes: The Figure plots the evolution of the total amount of income tax donations. The time period covered is 2006-2021. The dashed red line with triangles reports the evolution of the non-Coluche charitable donations; the dash blue line with squares, the Coluche charitable donations (i.e. the donations to charities that help people in need that benefit from a 75% tax credit); and the continuous green line with dots the political donations. Political donations have been reported separately on the income tax form only since 2013.

Figure B.17: Distribution of political donations (2016)



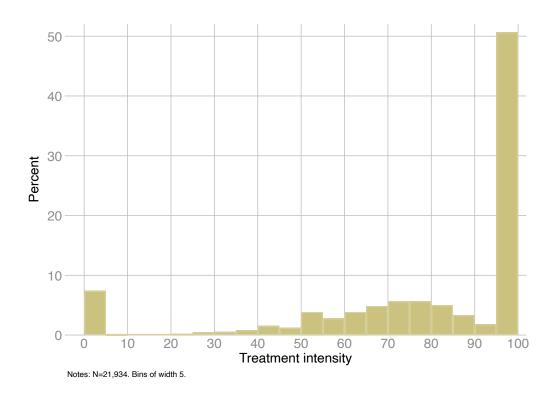
Notes: The Figure shows the distribution of strictly positive political donations, winsorised at $\in 15,000$.

Figure B.18: Treatment intensity by commune



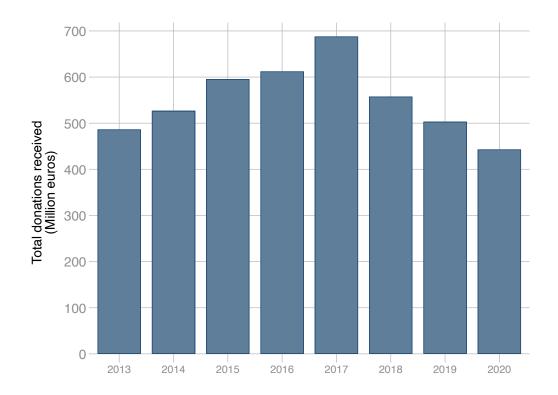
Notes: The Figure plots the intensity of the wealth tax reform treatment at the level of the commune. The intensity of the treatment is defined as follows: $\left(\frac{\# \text{ hh leaving wealth tax returns}}{\# \text{ hh leaving wealth tax returns} + \# \text{ hh liable to new wealth tax}}\right) * 100$ (see Section 5.1), and varies between 0 and 100. Because of statistical secrecy, the intensity of the treatment is only available for 22,076 communes (hence the blanks on the map for the remaining communes).

Figure B.19: Distribution of the treatment intensity variable



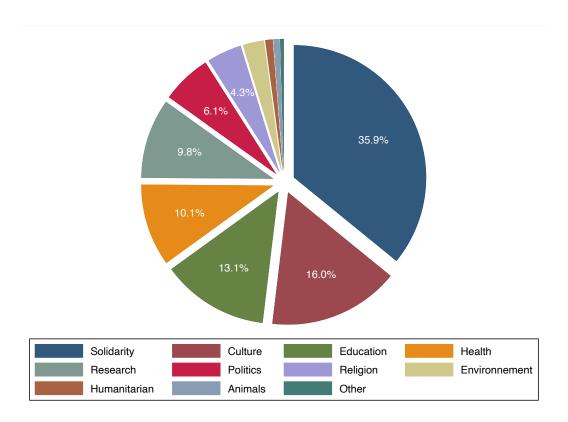
 $\textbf{Notes:} \ \ \text{The Figure plots the distribution of the intensity of the wealth tax treatment. See notes of Figure B.18.$

Figure B.20: Total amount of donations received by the FRUPs



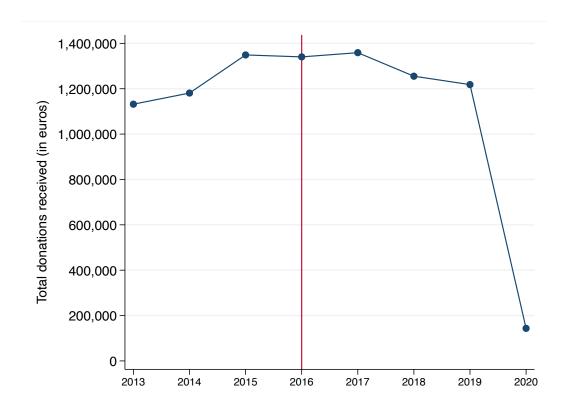
Notes: The Figure plots the evolution of the total amount of donations received by the FRUPs. The time period covered is 2013-2020. Data are from the foundations' reports.

Figure B.21: Share of the FRUPs in our sample depending on their "category"



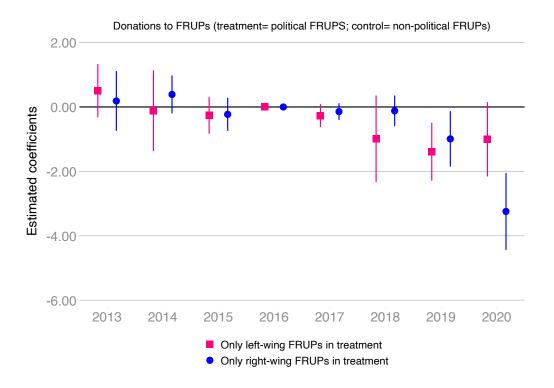
Notes: Authors' own manual classification based on the FRUPs' stated purpose (categories defined according to Reich (2018)).

Figure B.22: Drop in the donations received by right-wing politically-involved FRUPS: An ecdotal evidence from the iFRAP Foundation



Notes: The Figure plots the evolution of the annual donations received by the iFRAP Foundation.

Figure B.23: Donations to FRUPs, Depending on whether political – Heterogeneity depending on whether the FRUP is on the Left or on the Right of the political spectrum



Notes: The figure reports the coefficients and 95% confidence interval we obtain when estimating equation (5). The time period is 2013-2020. Models are estimated using an OLS (standard errors are clustered at the foundation level). An observation is a foundation-year. The dependent variable is (the IHS transformation of) the amount of the political donations received by the foundations. The pink lines with square report the estimated coefficients when only the left-wing FRUPs (defined following Hervé (2021)) are included in the treated group; the blue lines with circles similarly report the estimated coefficients when only the right-wing FRUPs are included in the treated group. The vector of controls include the (logarithm of the) operating costs and an indicator variable equal to one if the foundation is based in Paris interacted with year dummies. All specifications control for year and foundation fixed effects. More details are provided in the text.

C Additional tables

Table C.1: Political giving and charitable giving: Correlation

	ihs p	olitical dona	ations
	(1)	(2)	(3)
ihs charitable giving	-0.014***	-0.015***	-0.015***
	(0.000)	(0.000)	(0.000)
Year FE	✓	✓	✓
Household FE	\checkmark	\checkmark	\checkmark
Controls		\checkmark	\checkmark
Wealth-tax gain			\checkmark
Observations	2,360,888	2,360,786	2,360,786
Cluster(households)	282,496	282,491	282,491
Mean Dep Var	0.227	0.227	0.227
Sd Dep Var	1.143	1.143	1.143

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using OLS. Standard errors clustered at the household level are reported between parentheses. An observation is a household-year. All specifications include household and year fixed effects. Columns (2) and (3) also control for household-level observables, and Column (3) for the wealth tax gain. More details are provided in the text.

Table C.2: Descriptive statistics: Households liable to the wealth tax in 2016 with similar wealth tax gain

	Mean	Std. Dev.	p25	p50	p75	Frac. > 0
Gross Taxable Income	111,981	134,839	49,533	79,981	128,622	0.99
Number of fiscal dependents	1.9	0.9	1.0	2.0	2.0	0.18
Age (individual 1)	68	13	60	68	77	1.00
Total donations (income tax)	747.1	$4,\!589.1$	0.0	50.0	530.0	0.55
Political donations (income tax)	22.0	329.0	0.0	0.0	0.0	0.046
Charitable donations (income tax)	645.4	4,537.6	0.0	0.0	380.0	0.48
Coluche donations (income tax)	79.7	244.2	0.0	0.0	0.0	0.23
Total gross wealth	$2,\!254,\!074$	1,815,677	1,628,515	1,967,794	2,484,079	0.99
Total donation (wealth tax)	442.0	$2,\!578.0$	0.0	0.0	0.0	0.14
Charitable donation (wealth tax)	437.0	$2,\!552.9$	0.0	0.0	0.0	0.14
Charitable donation in E.U (wealth tax)	5.0	358.6	0.0	0.0	0.0	0.0019
Charitable giving (income & wealth tax)	1,087.4	5,610.7	0.0	46.0	570.0	0.53

Observations 282,999

Notes: The table shows descriptive statistics of the main variables used in the analysis for 2016. The sample consists of all the households liable to the wealth tax on their 2016 wealth and who face a wealth tax gain between ≤ 0 and $\le 15,000$ following the 2017 wealth tax reform. With the exception of the "Nb. of fiscal shares" and the "Age" variables, all the variables are in euros. We call "Coluche donations" the donations to charities that help people in need (see Section 4.5).

Table C.3: Descriptive statistics: Characteristics of the treated and of the control households in 2016

	Control	Treatment	Diff/se
Age (individual 1)	68	68	-1***
			(0)
Households characteristics			
Single	0.06	0.09	-0.03***
			(0.00)
Divorced	0.08	0.07	0.00***
			(0.00)
Married	0.69	0.64	0.05^{***}
			(0.00)
Civil agreement	0.02	0.02	0.00
			(0.00)
Widowed	0.15	0.17	-0.02***
			(0.00)
Number of fiscal shares	2.1	2.0	0.1***
			(0.0)
Income and wealth	1 10 000	00 - 10	A O O O A shallalla
Gross Taxable Income	149,633	99,742	49,891***
m 11 141	0.770.774	1 001 045	(582)
Taxable wealth	2,772,574	1,901,945	870,629***
	0.50	0.40	(6,779)
Share of housing wealth	0.59	0.42	0.18***
D.12211124.1122			(0.00)
Political and charitable givings	050	570	271***
Charitable donations (income tax)	850	579	*
Total denotion (wealth tow)	653	373	(20) 280***
Total donation (wealth tax)	099	919	
Charitable giving (income & wealth tax)	1 509	052	(11) 551***
Charitable giving (income & wealth tax)	1,503	952	(24)
Political donations (income tax)	38	17	21***
1 officer doffations (meome tax)	3 6	11	(1)
Tax policy variables			(1)
Price of giving	0.25	0.25	-0.00*
1 1100 01 6111116	0.20	0.20	(0.00)
Wealth tax change	-4,741	-5,051	310***
	-,	3,001	(15)
01	000 000		(-0)
Observations	282,999		

Notes: The table shows descriptive statistics for the main variables used in the analysis for 2016 for the two groups. The sample consists of all the households liable to the wealth tax on their 2016 wealth who face wealth tax gain between ≤ 0 and $\leq 15,000$ following the reform. The control group (Column (1)) corresponds to the households who are still liable to the wealth tax in 2017, while the households included in the treated group (Column (2)) are not.

Table C.4: Second-stage estimation for trade union subscriptions

		OLS			2SLS	
	(1)	(2)	(3)	$\phantom{aaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa$	(5)	(6)
$ln(1-\tau)$	-0.005	0.003	0.004	-0.019*	-0.012	-0.013
	(0.005)	(0.005)	(0.005)	(0.011)	(0.011)	(0.011)
Year FE	√	√	√	✓	√	✓
Household FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat				3	19	19
Controls		\checkmark	\checkmark		\checkmark	\checkmark
Wealth-tax gain			\checkmark			\checkmark
Observations	2,360,888	2,360,786	2,360,786	2,360,888	2,360,786	2,360,786
Cluster(households)	$282,\!496$	$282,\!491$	282,491	282,496	$282,\!491$	$282,\!491$
Mean Dep Var	0.184	0.184	0.184	0.184	0.184	0.184
Sd Dep Var	1.013	1.013	1.013	1.013	1.013	1.013

Notes: The time period is 2013-2021. Models are estimated using an OLS (standard errors clustered at the household level between parentheses). Our sample of analysis includes all the households subject to the wealth tax in 2016 who face a wealth tax gain between ≤ 0 and $\le 15,000$ following the reform. An observation is an household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table C.5: Second-stage estimation: The impact of the instrumented price of charitable donations on charitable donations

		OLS			2SLS	
	(1)	(2)	(3)	(4)	(5)	(6)
ln(1- au)	-0.459***	-0.275***	-0.269***	-1.025***	-0.987***	-0.986***
	(0.020)	(0.020)	(0.020)	(0.036)	(0.036)	(0.035)
Year FE	✓	✓	√	✓	√	√
Household FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat				828	563	551
Controls		\checkmark	\checkmark		\checkmark	\checkmark
Wealth-tax gain			\checkmark			\checkmark
Observations	2,360,888	2,360,786	2,360,786	2,360,888	2,360,786	2,360,786
Cluster(households)	$282,\!496$	282,491	282,491	282,496	282,491	282,491
Mean Dep Var	3.576	3.576	3.576	3.576	3.576	3.576
Sd Dep Var	3.648	3.648	3.648	3.648	3.648	3.648

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using OLS in Columns (1) to (3) and 2SLS in Columns (4) to (6) (standard errors clustered at the household level between parentheses). In Columns (4) to (6), the price of charitable giving is instrumented by the interaction between Treatment_i and $Post_t$ (see equation 2). Our sample of analysis includes all the households subject to the wealth tax in 2016 who face a wealth tax gain between ≤ 0 and $\leq 15,000$ following the reform. An observation is an household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table C.6: Second-stage estimation: The impact of the instrumented charitable donations on political donations

		OLS			2SLS	
	(1)	(2)	(3)	$\overline{(4)}$	(5)	(6)
IHS(Charitable giving)	-0.014***	-0.015***	-0.015***	-0.124***	-0.129***	-0.130***
	(0.000)	(0.000)	(0.000)	(0.016)	(0.017)	(0.017)
Year FE	✓	√	√	√	✓	√
Household FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat	•	•	•	58	34	33
Controls		\checkmark	\checkmark		\checkmark	\checkmark
Wealth-tax gain			\checkmark			\checkmark
Observations	2,360,888	2,360,786	2,360,786	2,360,888	2,360,786	2,360,786
Cluster(households)	$282,\!496$	282,491	282,491	282,496	$282,\!491$	282,491
Mean Dep Var	0.227	0.227	0.227	0.227	0.227	0.227
Sd Dep Var	1.143	1.143	1.143	1.143	1.143	1.143

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using OLS in Columns (1) to (3) and 2SLS in Columns (4) to (6) (standard errors clustered at the household level between parentheses). In Columns (4) to (6), the price of charitable giving is instrumented by the interaction between Treatment_i and $Post_t$ (see equation 2). Our sample of analysis includes all the households subject to the wealth tax in 2016 who face a wealth tax gain between ≤ 0 and $\leq 15,000$ following the reform. An observation is an household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table C.7: Reduced-form estimation: The impact of the 2017 wealth tax reform on the probability to make a political donation – Extensive margin

	1 if po	litical donat	zion> 0
	(1)	(2)	(3)
× Post	0.005***	0.004***	0.005***
	(0.001)	(0.001)	(0.001)
Year FE	✓	✓	✓
Households FE		\checkmark	\checkmark
Controls			\checkmark
Observations	2,361,391	2,360,888	2,360,786
Cluster(households)	282,999	282,496	282,491
Mean Dep Var	0.040	0.040	0.040
Sd Dep Var	0.196	0.196	0.196

Notes: * p<0.10, *** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using an OLS (standard errors clustered at the household level between parentheses). The dependent variable is an indicator variable equal to one if the household declares a non-zero political donation, and to zero otherwise. An observation is a household-year. Our sample of analysis includes all the households subject to the wealth tax in 2016 who face a wealth tax gain between \in 0 and \in 15,000 following the reform. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year fixed effects.

Table C.8: Descriptive statistics: Characteristics of the communes depending on their treatment status

	~ .	_	7.00/
	Control	Treatment	Diff/se
Number of tax households	2,753	469	2,284***
			(84)
Reference tax income of tax households	75,648	11,438	64,210***
			(2,485)
Total net tax	5,447	489	4,958***
	,		(291)
# of retirees	944	183	761***
H			(25)
Total pensions	22,456	3,913	18,542***
1	,	,	(619)
Vote share LFI 2012 Pres. elections	10.3	10.6	-0.2***
			(0)
Vote share PS 2012 Pres. elections	25.1	24.6	0.5***
			(0)
Vote share Modem 2012 Pres. elections	9.6	9.4	0.1**
			(0)
Vote share LR 2012 Pres. elections	28.7	27.1	1.6***
			(0)
Vote share RN 2012 Pres. elections	20.0	21.8	-1.8***
			(0)
Observations	21,837		

Notes: The table provides descriptive statistics on the communes depending on their treatment status. "Control" communes are communes whose treatment intensity is below 100, and "treatment" communes are communes whose treatment intensity is equal to 100. The treatment intensity is defined as follows: $\left(\frac{\# \ hh \ leaving \ wealth \ tax \ returns}{\# \ hh \ leaving \ wealth \ tax \ returns} + \# \ hh \ liable \ to \ new \ wealth \ tax} \right) * 100 \ (see Section 5.1).$

Table C.9: Commune-level estimation: The impact of the 2017 wealth tax reform on political donations, depending on the political parties - Robustness to an alternative definition of the treatment indicator variable

	Overal	rall	LFI	FI	14	PS	LREM	EM	T	R	RN	7.
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)	(12)
Treated x Post	0.012***	0.010**	-0.001	-0.001	-0.015***	-0.015***	0.000	-0.000	0.025***	0.024***	0.002	0.001
	(0.004)	(0.004)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	(0.001)	(0.001)
Year FEs	>	>	>	>	>	>	>	>	>	>	>	>
Commune FEs	>	>	>	>	>	>	>	>	>	>	>	>
Commune-level controls		>		>		>		>		>		>
Observations	80,253	79,921	80,253	79,921	80,253	79,921	80,253	79,921	80,253	79,921	80,253	79,921
Clusters (communes)	16,090	16,053	16,090	16,053	16,090	16,053	16,090	16,053	16,090	16,053	16,090	16,053
Mean DepVar	0.133	0.133	0.013	0.013	0.010	0.010	0.028	0.028	0.071	0.072	0.014	0.014
Sd DepVar	0.288	0.288	0.076	0.076	0.085	0.085	0.126	0.126	0.215	0.214	0.092	0.092

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2016-2020. Models are estimated using an OLS (standard errors clustered at the commune level between parentheses). An observation is a commune-year. The dependent variable is the inverse hyperbolic sine transformation of the total amount of political donations normalized by the number of fiscal households. The vector of commune-level controls includes the (log of) the number of income tax households, the reference tax income, the total net tax, the number of retirees, and the total pensions. All specifications control for year and commune fixed effects. More details are provided in the text.

Table C.10: Commune-level estimation: The impact of the 2017 wealth tax reform on political donations, depending on the political parties - Robustness to dropping 2017

	Overal	rall	LFI	It	A	PS	LREW	EM	Τ	LR	RN	N
	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)	(12)
Treated x Post	0.035***	0.033***	-0.001	-0.001	-0.012***	-0.012***	0.010***	0.010***	0.038***	0.037***	0.002	0.001
	(0.004)	(0.004)	(0.001)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)	(0.001)	(0.001)
Year FEs	>	>	>	>	>	>	>	>	>	>	>	>
Commune FEs	>	>	>	>	>	>	>	>	>	>	>	>
Commune-level controls		>		>		>		>		>		>
Observations	84,451	84,059	84,451	84,059	84,451	84,059	84,451	84,059	84,451	84,059	84,451	84,059
Clusters (communes)	21,182	21,130	21,182	21,130	21,182	21,130	21,182	21,130	21,182	21,130	21,182	21,130
Mean DepVar	0.109	0.109	0.009	0.009	0.011	0.011	0.017	0.017	0.060	0.060	0.013	0.014
Sd DepVar	0.263	0.263	0.068	0.068	0.092	0.092	0.103	0.102	0.195	0.195	0.092	0.092

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2016-2020 but the year 2017 is excluded. Models are estimated using an OLS (standard errors clustered at the commune level between parentheses). An observation is a commune-year. The dependent variable is the inverse hyperbolic sine transformation of the total amount of political donations normalized by the number of fiscal households. The vector of commune-level controls includes the (log of) the number of income tax households, the reference tax income, the total net tax, the number of retirees, and the total pensions. All specifications control for year and commune fixed effects. More details are provided in the text.

Table C.11: Change in the political preferences of the communes as measured by the votes in the first round of the presidential elections (2012, 2017 and 2022), depending on their treatment status

(2) (3) * 0.012*** 0.011** () (0.003) (0.005) () (LI	LFI	PS	\mathbf{S}	LR	LREM	LR	R	RN	Z
62,831 61,581 62,831 6 0.012*** 0.012*** 0.011** (0.003) (0.005) (0.0		(1)	(2)	(3)	(4)	(2)	(9)	(7)	(8)	(6)	(10)
(0.003) (0.003) (0.005) (0.0		12***	0.012***	0.011**	0.010*	-0.033***	-0.033***	-0.012***	-0.014***	0.038***	0.039***
al controls $\begin{pmatrix} & & & & \\ & & & & \\ & & & & \\ & & & & $	(0.	(800)	(0.003)	(0.005)	(0.005)	(0.004)	(0.004)	(0.003)	(0.003)	(0.002)	(0.002)
al controls \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark \checkmark all controls $62,831$ $61,581$ $62,831$ $61,153$ $21,071$ $21,153$ $21,071$ $21,153$ $21,071$ $21,153$ $21,071$ $21,153$ $21,071$ $21,153$ $21,071$ $21,153$ $21,071$		>	>	>	>	>	>	>	>	>	>
controls \checkmark 62,831 61,581 62,831 61,153 21,071 21,153 2345 3.245	Es	>	>	>	>	>	>	>	>	>	>
nunes) 62,831 61,581 62,831 62,831 62,831 62,831 63,9345 63,45 63,45 63,85	vel controls		>		>		>		>		>
numes) $21,153$ $21,071$ $21,153$ 3 3 3 4 5 9 8 5 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		,831	61,581	62,831	61,581	62,831	61,581	62,831	61,581	62,831	61,581
960 G 376 6 376 6		,153	21,071	21,153	21,071	21,153	21,071	21,153	21,071	21,153	21,071
al 0.040 0.040 2.000		3.345	3.345	2.836	2.850	3.512	3.507	3.283	3.299	3.931	3.926
	0.	475	0.469	0.898	0.894	0.545	0.544	0.850	0.841	0.400	0.397

had a unique candidate in 2012 and 2017), the Greens with the Socialist Party in 2012 and 2022 (given they had a unique candidate in 2017) and Reconquete! (Eric Zemmour) with the Rassemblement National in 2022. In 2012, for the sake of simplicity, we call LREM the party of François Bayrou. The vector of commune-level Notes: *p<0.10, **p<0.05, ***p<0.01. Models are estimated using an OLS (standard errors clustered at the commune level between parentheses). An observation is a commune-election; the 2012, 2017 and 2022 presidential elections are included. The dependent variable is the inverse hyperbolic sine transformation of the share of the votes (normalized by the number of caste votes) obtained by La France Insoumise (LFI) (Columns (1) and (2)), the Socialist Party (PS) (Columns (3) and (4)), La République en Marche (LREM) (Columns (5) and (6)), Les Républicains (LR) (Columns (7) and (8)), and the Rassemblement National (RN) (Columns (10) in the commune in the presidential elections. For the sake of comparison over time, we include the Communist party with the LFI in 2022 (given they controls includes the (log of) the number of income tax households, the reference tax income, the total net tax, the number of retirees, and the total pensions. All specifications control for year and commune fixed effects. More details are provided in the text.

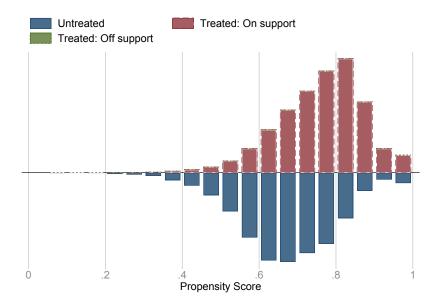
- D Robustness checks
- D.1 Matching strategy

Table D.1: Descriptive statistics: Characteristics of the treated and of the control groups in 2016 (Matching sample)

	Control	Treatment	Diff/se
Households characteristics			
Age (individual 1)	68.7	69.4	-0.8***
			(0.00)
Single	0.09	0.09	0.00
			(0.47)
Divorced	0.07	0.07	0.00
			(0.61)
Married	0.65	0.65	0.00
			(0.73)
Civil agreement	0.02	0.02	0.00**
			(0.02)
Widowed	0.16	0.17	-0.00**
			(0.03)
Number of fiscal shares	2.0	2.0	0.0***
			(0.00)
Income and wealth			,
Gross Taxable Income	99,749	96,132	3,617***
			(0.00)
Share of housing wealth	0.57	0.41	0.17***
_			(0.00)
Political and charitable givings			,
Charitable donations (income tax)	558	581	-23
,			(0.16)
Total donation (wealth tax)	373	398	-25**
,			(0.05)
Charitable giving (income & wealth tax)	931	979	-48**
,			(0.03)
Political donations (income tax)	25	17	9***
,			(0.00)
Tax policy variables			, ,
Price of giving	0.25	0.25	-0.00***
			(0.00)
Wealth tax change	-5,342	-5,214	-128***
<u> </u>	,	,	(0.00)
Observations	224 240		, ,
Observations	224,249		

Notes: The table shows descriptive statistics for the main variables used in the analysis for 2016 for the two groups using matching weights. The sample consists of all the households liable to the wealth tax on their 2016 wealth. The control group corresponds to the households who are still liable to the wealth tax in 2017, while the households included in the treated group are not.

Figure D.1: Propensity score histogram by treatment status



Notes: The Figure shows the distribution of the propensity scores in both treated and control groups using a propensity score matching with 5 neighbours based on 2016 households information.

Table D.2: Matching strategy: The impact of the price of charitable donations on political donations

		OLS			2SLS	
	(1)	(2)	(3)	$\overline{(4)}$	(5)	(6)
$ln(1-\tau)$	0.010	0.023*	0.022*	0.041**	0.049***	0.049***
	(0.012)	(0.013)	(0.013)	(0.018)	(0.018)	(0.018)
Year FE	✓	✓	✓	✓	✓	✓
Household FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Controls		\checkmark	\checkmark		\checkmark	\checkmark
Wealth-tax gain			\checkmark			\checkmark
Observations	1,526,095	1,526,079	1,526,079	1,526,095	1,526,079	1,526,079
Cluster(households)	224,249	224,249	224,249	224,249	224,249	224,249
Mean Dep Var	0.246	0.246	0.246	0.246	0.246	0.246
Sd Dep Var	1.186	1.186	1.186	1.186	1.186	1.186

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021 and the sample is the nearest neighbour matching sample. Models are estimated using OLS (standard errors clustered at the household level between parentheses) using matching weights. An observation is a household-year. The dependent variable is the inverse hyperbolic sine transformation of the total amount of political donations. The vector of controls includes the number fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year fixed effects, and Columns (2) and (3) also include household fixed effects.

Table D.3: Cross-elasticity: matching strategy

	ihs political donations				
	(1)	(2)	(3)		
ihs charitable giving	-0.022***	-0.023***	-0.023***		
	(0.001)	(0.001)	(0.001)		
Year FE	✓	✓	✓		
Household FE	\checkmark	\checkmark	\checkmark		
Controls		\checkmark	\checkmark		
Wealth-tax gain			\checkmark		
Observations	1,526,095	1,526,079	1,526,079		
Cluster(households)	224,249	224,249	224,249		
Mean Dep Var	0.246	0.246	0.246		
Sd Dep Var	1.186	1.186	1.186		

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021 and the sample is the 1-5 matching sample. Models are estimated using OLS (standard errors clustered at the household level between parentheses) with matching weights. An observation is a household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

D.2 Additional robustness checks

Table D.4: Second-stage estimation: Robustness check, Using the first-euro price of charitable donations

		OLS	
	(1)	(2)	(3)
$\ln(1\text{-first euro }\tau)$	0.100***	0.100***	0.102***
	(0.013)	(0.013)	(0.013)
Year FE	✓	✓	✓
Households FE	\checkmark	\checkmark	\checkmark
Controls		\checkmark	\checkmark
Wealth-tax gain			\checkmark
Observations	2,360,888	2,360,786	2,360,786
Cluster(households)	282,496	282,491	282,491
Mean Dep Var	0.227	0.227	0.227
Sd Dep Var	1.143	1.143	1.143

Notes: The marginal price takes into account the amounts of donations that households can report over a four-years period if they exceed the maximum allowed (20% of taxable income). The time period is 2013-2021. Models are estimated using OLS in Columns (1) to (3) and 2SLS in Columns (4) to (6) (standard errors clustered at the household level between parentheses). An observation is an household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table D.5: Second-stage estimation: Robustness check, Including reported donations

		OLS			2SLS		
	(1)	(2)	(3)	$\overline{(4)}$	(5)	(6)	
$\ln(1\text{-alternative }\tau)$	-0.011	0.005	0.003	0.129***	0.130***	0.130***	
	(0.008)	(0.008)	(0.008)	(0.016)	(0.016)	(0.016)	
Year FE	✓	✓	✓	√	✓	✓	
Households FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	
Controls		\checkmark	\checkmark		\checkmark	\checkmark	
Wealth-tax gain			\checkmark			\checkmark	
Observations	2,360,888	2,360,786	2,360,786	2,360,888	2,360,786	2,360,786	
Cluster(households)	282,496	282,491	282,491	282,496	282,491	282,491	
Mean Dep Var	0.227	0.227	0.227	0.227	0.227	0.227	
Sd Dep Var	1.143	1.143	1.143	1.143	1.143	1.143	

Notes: The first-euro price is used instead of the marginal price. The time period is 2013-2021. Models are estimated using OLS in Columns (1) and (2) and 2SLS in Columns (3) and (4) (standard errors clustered at the household level between parentheses). An observation is an household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table D.6: Second-stage estimation: Robustness check, Using the logarithm of (political donations +1)

	OLS		2S	LS
	$\overline{}$ (1)	(2)	$\overline{\qquad \qquad }(3)$	(4)
$ln(1-\tau)$	0.021***	0.031***	0.163***	0.146***
	(0.006)	(0.006)	(0.012)	(0.012)
Year FE	✓	✓	✓	✓
Household FE	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat	•		183	60
Controls		\checkmark		\checkmark
Observations	2,928,415	2,928,277	2,928,415	2,928,277
Cluster(households)	350,679	350,673	350,679	350,673
Mean Dep Var	0.215	0.215	0.215	0.215
Sd Dep Var	1.065	1.065	1.065	1.065

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using OLS in Columns (1) to (3) and 2SLS in Columns (4) to (6) (standard errors clustered at the household level between parentheses). An observation is a household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table D.7: Second-stage estimation: Robustness check, in Levels

	OLS		2SLS	
	(1)	(2)	$\overline{\qquad \qquad }(3)$	(4)
$\frac{1-\tau}{1-\tau_{-}t < 2016^{Untreated}}$	0.043	0.079	0.607***	0.541***
1 / 20 (2010	(0.053)	(0.053)	(0.101)	(0.100)
Year FE	\checkmark	\checkmark	\checkmark	\checkmark
Household FE	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat	•		36	11
Controls		\checkmark		\checkmark
Observations	2,360,888	2,360,786	2,360,888	2,360,786
Cluster(households)	$282,\!496$	282,491	282,496	$282,\!491$
Mean Dep Var	0.000	0.000	0.000	0.000
Sd Dep Var	0.000	0.000	0.000	0.000

Notes: * p<0.10, *** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using OLS in Columns (1) and (2) and 2SLS in Columns (3) and (4) (standard errors clustered at the household level between parentheses). The dependent variable corresponds to the household's political donation scaled by the 2013-2016 average for the control group. A similar operation is used to scale the variable of interest. An observation is a household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table D.8: Second-stage estimation: Robustness check, Balanced panel

	OLS		2SLS	
	$\overline{(1)}$	(2)	$\overline{\qquad \qquad }(3)$	(4)
$ln(1-\tau)$	0.009	0.022***	0.129***	0.126***
	(0.008)	(0.008)	(0.018)	(0.018)
Year FE	✓	✓	✓	√
Household FE	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat			53	27
Controls		\checkmark		\checkmark
Observations	1,940,319	1,940,265	1,940,319	1,940,265
Cluster(households)	$215,\!591$	$215,\!589$	$215,\!591$	$215,\!589$
Mean Dep Var	0.233	0.233	0.233	0.233
Sd Dep Var	1.156	1.156	1.156	1.156

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using an OLS in Columns (1) to (2) and 2SLS in Columns (3) to (4) (standard errors clustered at the household level between parentheses). An observation is a household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table D.9: Second-stage estimation: Robustness check, Dropping 2017

	OLS		2SLS	
	(1)	(2)	$\overline{\qquad \qquad }(3)$	(4)
$ln(1-\tau)$	0.003	0.020**	0.173***	0.167***
	(0.008)	(0.008)	(0.018)	(0.019)
Year FE	✓	✓	✓	√
Household FE	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat			89	27
Controls		\checkmark		\checkmark
Observations	2,084,401	2,084,308	2,084,401	2,084,308
Cluster(households)	282,025	282,020	282,025	282,020
Mean Dep Var	0.224	0.224	0.224	0.224
Sd Dep Var	1.135	1.135	1.135	1.135

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using OLS in Columns (1) to (2) and 2SLS in Columns (3) to (4) (standard errors clustered at the household level between parentheses). An observation is a household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table D.10: Second-stage estimation: Robustness check, Dropping 2016

	OLS		2SLS	
	(1)	(2)	$\overline{\qquad (3)}$	(4)
ln(1- au)	-0.014*	0.008	0.116***	0.122***
	(0.008)	(0.008)	(0.018)	(0.019)
Year FE	✓	✓	✓	✓
Household FE	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat	•		39	36
Controls		\checkmark		\checkmark
Observations	2,077,528	2,077,437	2,077,528	2,077,437
Cluster(households)	$281,\!632$	281,626	281,632	281,626
Mean Dep Var	0.222	0.222	0.222	0.222
Sd Dep Var	1.133	1.133	1.133	1.133

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using OLS in Columns (1) to (2) and 2SLS in Columns (3) to (4) (standard errors clustered at the household level between parentheses). An observation is an household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table D.11: Second-stage estimation: Robustness check, Dropping 2013-14

	OLS		2SLS	
	(1)	(2)	$\overline{\qquad (3)}$	(4)
ln(1- au)	0.030***	0.037***	0.127***	0.125***
	(0.008)	(0.008)	(0.016)	(0.016)
Year FE	✓	✓	✓	√
Household FE	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat	•	•	61	29
Controls		\checkmark		\checkmark
Observations	1,831,978	1,831,923	1,831,978	1,831,923
Cluster(households)	$282,\!450$	$282,\!446$	$282,\!450$	$282,\!446$
Mean Dep Var	0.198	0.198	0.198	0.198
Sd Dep Var	1.064	1.064	1.064	1.064

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using OLS in Columns (1) to (2) and 2SLS in Columns (3) to (4) (standard errors clustered at the household level between parentheses). An observation is an household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table D.12: Second-stage estimation: Robustness check, dropping households who change change wealth tax liability status after 2017

	OLS		2SLS	
	(1)	(2)	(3)	(4)
$ln(1-\tau)$	0.012	0.028***	0.086***	0.096***
	(0.009)	(0.009)	(0.016)	(0.016)
Year FE	✓	✓	✓	✓
Household FE	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat	•		30	30
Controls		\checkmark		\checkmark
Observations	1,989,910	1,989,829	1,989,910	1,989,829
Cluster(households)	237,636	237,632	237,636	$237,\!632$
Mean Dep Var	0.221	0.221	0.221	0.221
Sd Dep Var	1.126	1.126	1.126	1.126

Notes: $^{\circ}$ p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. The sample is restricted to households who do not change their wealth tax liability status after 2017. Models are estimated using OLS in Columns (1) to (2) and 2SLS in Columns (3) to (4) (standard errors clustered at the household level between parentheses). An observation is a household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table D.13: Second-stage estimation: Robustness check, Dropping the households in the top 5% of the wealth distribution

	0.	OLS		LS
	(1)	(2)	(3)	(4)
$ln(1-\tau)$	-0.000	0.029***	0.127***	0.138***
	(0.007)	(0.010)	(0.016)	(0.022)
Year FE	✓	✓	✓	√
Household FE	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat	•		63	24
Controls		\checkmark		\checkmark
Observations	2,360,888	1,644,390	2,360,888	1,644,390
Cluster(households)	$282,\!496$	$192,\!615$	$282,\!496$	$192,\!615$
Mean Dep Var	0.227	0.255	0.227	0.255
Sd Dep Var	1.143	1.209	1.143	1.209

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using OLS in Columns (1) to (2) and 2SLS in Columns (3) to (4) (standard errors clustered at the household level between parentheses). An observation is an household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects. The sample excludes households whose wealth is in the top 5% of our sample in 2016.

Table D.14: Second-stage estimation: Robustness check, Giving to Coluche

	OLS			2SLS		
	(1)	(2)	(3)	(4)	(5)	(6)
$ln(1-\tau)$	0.055***	0.159***	0.162***	0.436***	0.575***	0.568***
	(0.013)	(0.014)	(0.014)	(0.028)	(0.028)	(0.028)
Year FE	√	√	√	✓	✓	√
Household FE	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat				245	167	163
Controls		\checkmark	\checkmark		\checkmark	\checkmark
Wealth-tax gain			\checkmark			\checkmark
Observations	2,360,888	2,360,786	2,360,786	2,360,888	2,360,786	2,360,786
Cluster(households)	$282,\!496$	$282,\!491$	282,491	282,496	282,491	282,491
Mean Dep Var	1.504	1.504	1.504	1.504	1.504	1.504
Sd Dep Var	2.728	2.728	2.728	2.728	2.728	2.728

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using an OLS parentheses). An observation is an household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table D.15: Second-stage estimation: Robustness check, Similar wealth tax gain between €0 and €10,000

	OLS		2S	LS
	$\overline{}$ (1)	(2)	$\overline{\qquad \qquad }(3)$	(4)
$ln(1-\tau)$	-0.002	0.015*	0.111***	0.114***
	(0.008)	(0.008)	(0.017)	(0.017)
Year FE	✓	✓	✓	✓
Household FE	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat			43	33
Controls		\checkmark		\checkmark
Observations	2,128,181	$2,\!128,\!105$	$2,\!128,\!181$	$2,\!128,\!105$
Cluster(households)	$254,\!365$	$254,\!362$	$254,\!365$	$254,\!362$
Mean Dep Var	0.224	0.225	0.224	0.225
Sd Dep Var	1.134	1.134	1.134	1.134

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. Models are estimated using OLS in Columns (1) to (2) and 2SLS in Columns (3) to (4) (standard errors clustered at the household level between parentheses). An observation is an household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

Table D.16: Second-stage estimation: Robustness check, Similar wealth tax gain between €0 and €20,000

	OLS		2S	LS
	(1)	(2)	(3)	(4)
$ln(1-\tau)$	0.005	0.020***	0.142***	0.139***
	(0.007)	(0.007)	(0.016)	(0.016)
Year FE	✓	✓	✓	✓
Household FE	\checkmark	\checkmark	\checkmark	\checkmark
F-Stat			83	40
Controls		\checkmark		\checkmark
Observations	2,472,915	2,472,813	2,472,915	$2,\!472,\!813$
Cluster(households)	296,005	296,000	296,005	296,000
Mean Dep Var	0.230	0.230	0.230	0.230
Sd Dep Var	1.151	1.151	1.151	1.151

Notes: * p<0.10, ** p<0.05, *** p<0.01. The time period is 2013-2021. OLS in Columns (1) to (2) and 2SLS in Columns (3) to (4) (standard errors clustered at the household level between parentheses). An observation is an household-year. The vector of controls includes the number of fiscal shares, the age, 10-splines in income, the average gross wealth for 2013-2016, and the average wealth tax donations for 2013-2016. All specifications control for year and household fixed effects.

References

- Cagé, J. (2018). Le prix de la démocratie. Fayard (English version: The Price of Democracy, Harvard University Press, 2020).
- Hervé, N. (2021). Quelle modélisation de l'espace politique français sur Twitter. Revue des Nouvelles Technologies de l'Information, Extraction:503–504.
- Reich, R. (2018). Just Giving: Why Philanthropy Is Failing Democracy and How It Can Do Better. Princeton University Press.