# Blowback: The Effect of Sanctions on Democratic Elections\*

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September 2022

#### Abstract

Sanctions are meant to coerce political adversaries through economic measures. However, evidence for their effectiveness is scarce. In this paper we assess the impact of sanctions on a democracy — France — by studying the electoral consequences of the sanctions and countersanctions imposed between Russia and Western countries. Contrary to most of the existing literature we find clear evidence for exposure to the sanctions to cause an increase in the vote share for pro-Russian (and far-right) candidates during the French 2017 presidential election. Locally, the impact on voting is substantial. Back-of-the-envelope calculations indicate that about 16,300 votes for the main far-right candidate can be directly attributed to the sanctions' impact. This is the total number of votes cast in a medium-sized French city. It is however not nearly enough to have affected the outcome of the election at the national level.

**Keywords:** Sanctions, Elections, Embargo, Russia **JEL Classification:** F13, F51, D72, D74.

<sup>\*</sup>We are grateful to Pamina Koenig for her kind help in collecting the election data and to Michele Valsecchi for helpful discussions during the early stages of the project.

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## 1 Introduction

Do sanctions work? The answer to this question depends largely on the precise definition of the expected and credibly achievable objectives of sanctions. Even if effectiveness is narrowly defined as the ability to erode popular support for the targeted country's leaders and induce policy changes, the debate in political science and economics is lively and most evidence is inconclusive.<sup>1</sup> There is some evidence that sanctions can lead to a — counterproductive — strengthening of popular support of the targeted political power,<sup>2</sup> especially in illiberal regimes.<sup>3</sup> Sanctions by Western democracies could hence be less effective in adversarial illiberal regimes, while paradoxically leaving them more exposed to political "blowback" in case of countersanctions. Assessing the sensitivity of democracies to (counter)sanctions is therefore critical to measuring the effectiveness of this instrument, and to better prepare democracies for potential responses.

In this paper, we investigate this question by studying the political impact of the imposition of an embargo of a number of specific products in a large democratic target country. Specifically, we study the case of France, which, along with 37 other countries, was target of an embargo on select food and agricultural products in response to own sanctions against the Russian Federation over its invasion and annexation of parts of Ukraine in 2014. The policy measures from both sides, Western sanctions and the Russian embargo, had non-negligible economic costs in France, as exports to the Russian Federation became more costly, and in some cases impossible (Crozet and Hinz, 2020). Politically, relations between France and Russia therefore remained a hot topic: In the presidential election in 2017, a number of contenders explicitly campaigned against the sanctions and aligned themselves with Russia. The most extreme candidate — and politically most successful — was Marine Le Pen from the far-right party Front National. She went so far as to visit Russian President Putin, just one month before the election, in a highly visible media stunt (see Figure 1).

The question we are addressing in this paper is whether exposure to the embargo had a measurable causal impact on the outcome of the 2017 French presidential elections. We do so by combining georeferenced French customs data and highly-detailed election data. The former dataset contains of firm-level information on exported products and their destinations, thus providing a local measure of exposure to the Russian embargo. The latter dataset then provides highly disaggregated data on election outcomes, which saw major far-left and far-right politicians questioning the incumbent government's political

<sup>&</sup>lt;sup>1</sup>See, e.g., Allen (2005), Lektzian and Souva (2007), Escribà-Folch and Wright (2010), Bapat et al. (2013), and Felbermayr et al. (2020) for comprehensive reviews of empirical findings and original results.

<sup>&</sup>lt;sup>2</sup>See Peksen and Drury (2010), Grossman et al. (2018) and Alexseev and Hale (2020) for evidence of this kind of "backfiring" effects.

<sup>&</sup>lt;sup>3</sup>E.g., Escribà-Folch and Wright (2010) and Bapat et al. (2013). This does not mean that there is no "backfiring" in democracies (Grossman et al., 2018).

**Figure 1:** Marine Le Pen and Vladimir Putin during the French election campaign (March 24, 2017).



Source: Michael Klimentyev/Sputnik/Kremlin/EPA.

line of seeing and treating Russia as an adversary. In a difference-in-differences setup we assess whether changes in the political outcomes can be attributed to the local exposure to the Russian embargo, exploiting rich spatial heterogeneity in the data.

As such, our paper is closely related to a lively literature that analyzes the connection between trade and electoral outcomes. Dippel et al. (2022), e.g., find that exposure to imports from low-wage origin countries helps nationalist parties, whereas export exposure shows the opposite impact. Malgouyres (2017) supports this finding, analyzing fine-grained French election data — the same we employ in this paper.<sup>4</sup> These results are complemented by findings of Colantone and Stanig (2018), who show for 15 Western European countries that districts with greater exposure to import competition from China increased political support to isolationist parties — primarily through a general shift to the right of the electorate. In a similar vein, Che et al. (2021) find that China's integration into the world trading system helped US democrats — then seen as rather protectionist. In a context closely related to sanctions, Blanchard et al. (2019) show that Republican candidates in US electoral districts that were targeted in response to the Trump administration's trade war fared comparatively worse.

Most related to this present research endeavor are two papers studying the impact of sanctions in a illiberal target country — in both cases Russia. Gold et al. (2022) study the impact of the 2014 sanctions on parliamentary and presidential elections in Russia. Using polling station-level data and a structurally estimated local sanctions shock, they show that the regime's support *increased* in those districts experiencing higher exposure to sanctions. Peeva (2018) also studies this sanctions case, looking at geographic proximity between sanctioned firms and polling stations in Russia. She finds similar results, highlighting the

<sup>&</sup>lt;sup>4</sup>Another paper employing this local-level election data from France is Schneider-Strawczynsk (2021), who studies the impact of the presence of migration centers for far-right support.

role of the state media in mediating the effect.

Our contribution hence lies in the identification and quantification of the effectiveness of international sanctions against a democracy. We document and econometrically show that electoral districts in France that were exposed to Russian countersanctions saw a shift to the electoral right — an increase in support for parties being perceived or openly stating as being "pro-Russian". For the first round of the 2017 presidential election, we can ascribe about 16,300 additional votes in favor of Marine Le Pen to the Russian embargo. This is both a lot and a little: On the one hand, the absolute number is far too small to have significantly influenced the results of a national election. In the first round of the 2017 presidential election nearly one million votes separated Macron from Le Pen, and the latter qualified for the second round with a lead of more than 460,000 votes over the third-placed candidate. On the other hand, however, it is certainly not a insignificant amount, as it is equivalent to the total number of votes cast in a medium-sized French city, like Biarritz. Moreover, this back-of-the-envelope quantification is the result of a difference-in-differences estimation that is, by its nature, a lower bound estimate of the overall effect. Indeed, we only measure the "over-reaction" of the treated cities, but cannot rule out (or even test) an overall effect on the whole population. Finally, it is important to notice that the average treatment effect on the treated units is quite large. If the total impact is small, it is due to the treatment being limited in scope: The number of treated municipalities is quite small (172), which additionally, are, on average, relatively small in terms of population. We obviously cannot know what the impact would have been in case of sanctions affecting activities accounting for a larger fraction of the working population and cities of France.<sup>5</sup> Yet, as our results show, at the very least, it is possible for sanctions to influence electoral outcomes in a large democracy. Our analysis highlights a vulnerability that democracies should not ignore if they are to prepare for the possibility of more severe sanctions.

The remainder of this paper is structured as follows: In section 3 we describe the context of the elections, as well as parties and candidates. We then provide details on the exposure measure, the treatment, in section 4, before conducting the empirical analysis in section 5. In sections 6, 7 and 8 we discuss the results and conduct a serious of robustness checks. Section 9 concludes.

## 2 The Russia sanctions and countersanctions

The Euromaidan protests that erupted in Ukraine in the winter of 2013–2014 had multiple and tragic consequences. The chain of events led to the violent war against Ukraine, launched by Russia in 2022. But in this article, the events that we are interested in are

<sup>&</sup>lt;sup>5</sup>See List (2022) on the risk of extrapolating the consequences of scaling up an experiment.

those of the first years of the conflict.

In late 2013, in response to the overthrow of the pro-Russian government of Yanukovych, Russia increased its political pressure on Ukraine, which soon devolved into an armed conflict in eastern and southeastern Ukraine. In March 2014, an internationally non-recognized referendum endorsed the annexation of the Ukrainian province of Crimea to the Russian Federation. In response, 37 countries (including all EU countries) put in place a series of economic and diplomatic sanctions against Russia.

These sanctions consisted primarily of travel bans and individual asset freezes, targeting dignitaries with ties to power or the military. In July 2014, Western sanctions were significantly strengthened. Major Russian financial institutions and large defence and energy companies were banned from refinancing in the sanctioning countries' markets. Russia retaliated with a simple and clear action: An embargo on imports of select food and agricultural products from sanctioning countries.<sup>6</sup> Exports of the targeted products, especially those from the European Union and France, were stopped suddenly and almost completely (see, e.g., Cheptea and Gaigné, 2020; Hinz and Monastyrenko, 2022).

Our empirical strategy is based on the fact that this embargo is both very precisely targeted on a limited list of products and very effective in its implementation. This allows us to identify those French municipalities that have been directly affected by the measures taken by the Russian Federation.

## 3 Context: French elections after the imposition of sanctions

The empirical analysis is based on electoral results at the level of a French municipality. The French territory and populations are divided into a large number of municipalities (*"communes*" in French administrative terminology). The number of municipalities changes slightly every year since some merge or split. In 2017, there were 35,287 municipalities. We exclude from the analysis all overseas territories and Corsica and focus on continental, metropolitan territory only. We are left with 30,912 municipalities.

We exploit the results of four national ballots: the 2012 and 2017 presidential election (won by François Hollande and Emmanuel Macron respectively), and the 2010 and 2015 regional elections.

## 3.1 French presidential elections

French presidents are elected every 5 years by a direct, universal popular vote. To be eligible to run, candidates must first obtain the approval of 500 elected officials. Then, the

<sup>&</sup>lt;sup>6</sup>For a description of the sanction scheme and the detailed list of products embargoed by Russia, see Crozet and Hinz (2020).

election takes place in two rounds. In case no candidate can secure an absolute majority the first vote, the two candidates who come first and second are competing once again in the second round. Its winner then becomes the new French president.

An interesting feature of the 2012 and 2017 elections is that the three main populist, "pro-Russia" candidates who participated in 2017 (Marine Le Pen, Nicolas Dupont-Aignan and Jean-Luc Mélenchon) were also candidates in 2012. This allows us to apply a clean difference-in-difference identification strategy by comparing their performance in the first round from one election to the next.<sup>7</sup>

## 3.2 Regional elections

We also exploit the results of the 2010 and 2015 regional elections. Due to their very nature, it is possible that foreign policy issues had little influence in the campaign and on voters' choices. However, the 2015 election was the first ballot just after the escalation of the tensions in Ukraine and the implementation of the Russian embargo. Additionally, even if the actual issues at stake in these elections are mostly local ones, regional elections are seen as an opinion poll of sorts regarding national issues.

In 2015, metropolitan France was divided into 12 regions (plus Corsica, which is excluded from our analysis). In each region, a direct universal two-round election was held to elect the regional assemblies. Some lists whose partisan leanings are clearly mentioned and easily identifiable, allow a comparison of results between regions over space and time. This is notably the case for the Front National, the party of Marine Le Pen, which ran under its national name in all regions in both elections, allowing for the same difference-in-differences framework as employed in regressions for the presidential elections.

# 3.3 Key candidates in the 2017 presidential elections and party leanings vis-a-vis the diplomatic relationships with Russia

Since the beginning of diplomatic tensions and the imposition of sanctions and countersanctions, positions by single candidates and parties in general have been remarkably stable over time.

During the 2017 campaign, there were heated debates on the position of French diplomacy towards Russia. The main French newspaper, *Le Monde*, offered on its web edition a comparison of candidates' programmes on a range of key topics. The issue of relationships with Russia was one of them. We reproduce the classification of candidates proposed by the *Le Monde* in table 1.

According to this classification proposed by *Le Monde*, most candidates in the 2017 election were more or less in favor of a reconciliatory attitude towards Russia. However, there are

<sup>&</sup>lt;sup>7</sup>See table 1 shows the list of candidates for the 2017 election.

Name	Party	Political orientation	Pro-Russia	Rest	ılts
				National	Treated
Emmanuel Macron	En Marche!	Center	-	24.0 %	30.1 %
Marine Le Pen	Front National	Far-right	++	21.3~%	11.1~%
François Fillon	Les républicains	Conservative	+	20.1~%	21.9 %
Jean-Luc Mélenchon	La France insoumise	Far-Left	+	19.6 %	21.7 %
Benoît Hamon	Parti Socialiste	Social democrat	_	6.4 %	9.2 %
Nicolas Dupont-Aignan	Debout la France	Conservative/Far-right	++	4.7 %	2.8 %
Jean Lassale	Résistons!	Independent	n.a.	1.2~%	0.7 %
Philippe Poutou	Nouveau parti anticapitaliste	Trotskyist	n.a.	$1.1 \ \%$	0.9 %
François Asselineau	Union Populaire Républicaine	Independent	+	0.9 %	0.9 %
Nathalie Arthaud	Lutte Ouvrière	Trotskyist	n.a.	0.6 %	0.4 %
Jacques Cheminade	Solidarité et progrès	Independent	+	0.2 %	0.2 %

Table 1: Candidates to the 2017	presidential elec	ction and first round	l results
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great differences between these "pro-Russian" candidates. Russia's two main supporters were undoubtedly Marine Le Pen ("Front national" — FN) and Nicolas Dupont-Aignan ("Debout la France" — DLF). Overall, the two candidates were politically close to each other. They are both far-right/populist candidates and they formed an alliance in the second round of the 2017 election, where Dupont-Aignan having openly campaigned for Le Pen. During the campaign, Dupont-Aignan called for a deep partnership with Russia and openly called for lifting the sanctions.<sup>8</sup>

Marine Le Pen also repeatedly expressed her admiration for Vladimir Putin and called for closer relations with Russia.<sup>9</sup> The Front National also obtained several loans granted by Russian banks for various campaign funds in the last decade. Moreover, Marine Le Pen had a widely publicized official meeting with Vladimir Putin in the Kremlin in March 2017, which was a significant campaign event (see figure 1).<sup>10</sup>

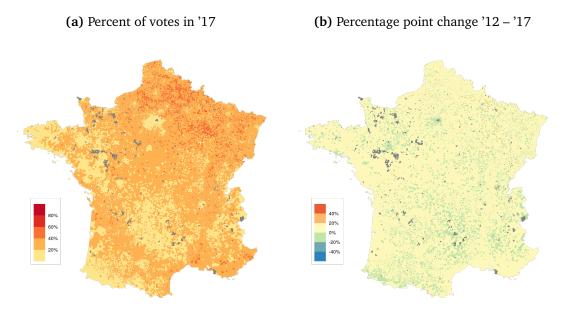
François Fillon ("Les républicains" — LR) also had a pro-Russian stand. Even if this position was very probably sincere, it was less marked than for Dupont-Aignan and Le Pen. Fillon was the candidate of the mainstream conservative political party, which is significantly different from the very far-right, illiberal and anti-EU line of FN and DLF. Fillon's personal views of Russia were not widely supported within his party and neither were an official stance of the party. This made it very unlikely that he would risk his electoral base and create conflicts with several of France's EU partners.<sup>11</sup>

<sup>&</sup>lt;sup>&</sup> Unilaterally exit the sanctions regime against Russia" is point 6 of the "Foreign Affairs" chapter of Dupont-Aignan's 2017 programme.

<sup>&</sup>lt;sup>9</sup>Marine Le Pen, for example, claimed that the annexation of Crimea in 2014 was not illegal, suggesting that sanctions against Russia were not justified: "I absolutely do not believe that there was an illegal annexation: There was a referendum, the people of Crimea wanted to join Russia." (BFM TV - Jan. 3, 2017).

<sup>&</sup>lt;sup>10</sup>For a thorough analysis of the links between Putin's Russia and the French far-right, along with the pro-Russian leanings of the Front National, see (Shekhovtsov, 2017).

<sup>&</sup>lt;sup>11</sup>The candidate's official program states: "I wish to re-establish dialogue and relations of trust with Russia, which must once again become a major partner. I will engage in discussions with our European partners, in compliance with the Minsk agreements, in order to achieve the lifting of sanctions against Russia, which unjustly penalise our farmers and businesses." It appears clearly here that this is not a proposal to depart unilaterally from European foreign policy, but rather a desire to influence overall policy.



#### Figure 2: Vote share for Le Pen

*Note:* The figures above display the percent of votes cast in 2017 for presidential candidate Marine Le Pen (a) and the difference in percentage points to the previous election in 2012 (b).

Jean-Luc Mélenchon ("La France insoumise" — LFI) is the only left candidate who showed some pro-Russia stance. However, his opinion was not a definitive and strong support for Russia. Rather, it was mainly motivated by two elements. First, a vision of international relations marked, in Mélenchon's case, by Marxism and structuralism, which tends to lead to anti-Americanism and an opposition to interventionism by Western powers. Second, a populist bias leading to a focus on French people's expectations and a disinterest in diplomatic issues. Mélenchon's pro-Russian position is more a form of neutrality or indifference than a strong anti-sanctions stance.<sup>12</sup> As most of far-left/marxist parties, LFI's main electoral base is the urban working class. Mélenchon has little support from the rural population. It seems quite unlikely that a large proportion of farmers, hurt by the sanctions, would have seen Mélenchon as a potential solution to their problems.<sup>13</sup>.

Finally, François Asselineau and Jacques Cheminade were two minor fringe candidates

<sup>&</sup>lt;sup>12</sup>Mélenchon is thus in line with a tradition of non-alignment of French diplomacy, reinforced by a deep distrust of the United States and a sympathy with (ex)-communist countries inherited from the Cold War. For instance, Mélenchon wrote: "The Russians are partners. De Gaulle himself recognized the Russia of Stalin and the China of Mao Zedong." (Twitter, Feb. 23, 2017), but also "I am not related in any way to Mr. Putin. I absolutely fight against his policy. And if I were Russian, I would not vote for him." (Twitter, March 29, 2017).

<sup>&</sup>lt;sup>13</sup>Moreover, a poll conducted in France in May 2017, just a few days after the presidential election, confirms that the left-wing electorate shows very little pro-Russian or pro-Putin leanings. To the question "Do you have a very good, rather good, rather bad or very bad image of Russia", only 24% of the left-wing sympathizers answer "good" or "very good". The contrast is very clear compared to supporters of the Front National. In the same survey, 65% of them declared having a positive image of Russia. The contrast is even sharper when it comes to opinions about Vladimir Putin. A majority of Front National supporters (53%) say they have a positive or very positive opinion of Putin, while only 13% of left-wing voters do so (ODOXA and IRIS, 2017)

who both expressed sympathy for Putin's Russia. However, taken together, they barely received 1% of the vote and had a negligible influence on the election.

## 4 Exposure to sanctions

Our identification strategy is based on the observation of votes in cities directly exposed to the Russian embargo on food and agricultural imports. For information on the exposure to theses sanctions, we turn to data on French exports.

The French customs database provides all French export declarations, by firm, 8-digit product, destination and year. For non-EU destinations, the database covers the universe of export flows. It has more than 2.6 millions observations per year. We use the product codes to identify precisely exports of products embargoed by Russia.<sup>14</sup> In this database, each firm is identified by an official identifier code. This allows us to merge the customs data with the SIRENE database. This data source provides us with information on the location of the firm's head offices and its various establishments, as well as an indication of the number of employees in each establishment. For exporters located in several municipalities, we allocate the trade flows in proportion to the local employment of the firm. In this way, we compute the structure of exports, by product and destination country, of each of the French municipalities.

Our treatment variable characterizes municipalities exposed to the Russian sanctions: They are those hosting one or several firms (or establishments of firms) that exported embargoed products to Russia in either 2013 or 2014.<sup>15</sup>

There are two potential problems with the choice of this treatment. The first is that the treatment variable may include municipalities for which the export of embargoed products — and, even more, the export of embargoed products to Russia — is hardly relevant. It will be the case, for instance, of all large municipalities that host a large and highly diversified set of exporters. Smaller municipalities may be also concerned if they host one establishment of a big company with a large export portfolio (e.g. wholesale or retail firms). In these cases, the exposure to the Russian embargo is so diluted that we cannot expect that voters will perceive it. We therefore enforce a (very small) threshold on the importance of these exposed exports. The treated municipalities are the ones for which

<sup>&</sup>lt;sup>14</sup>The list of embargoed products is of course public. It consists of a series of 4-digit products of the Harmonized system classification. Nevertheless, for some of these products, the Russian decree provides for exemptions that do not correspond to a product classification (e.g. powdered milk is under embargo, except for infant milk). This explains why very low volumes of exports of targeted goods to Russia have persisted.

<sup>&</sup>lt;sup>15</sup>Including only municipalities that exported these products to Russia in 2014 alone would be very restrictive. Since the embargo was enacted in August 2014, this would exclude from the treatment group municipalities that host firms that had planned to export only in the fall. This might be problematic in our case. Because agricultural products are naturally subject to high seasonality, retaining information on 2014 exports only would exclude municipalities that export, e.g. apples, beets, grapes, or tangerines that ripen in late summer.

exports of embargoed products to Russia account for more than 0.01% of the total exports assigned to this city. This excludes 50 cities from the treatment group.

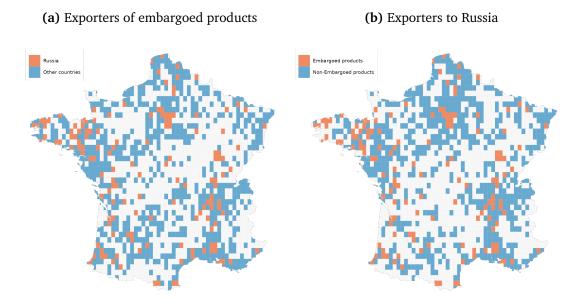
Second, one may be concerned that our treatment is defined by the location of the firms affected by the embargo, and not by location in which the employees or the owners of these companies vote. It is possible, in fact, that the people who have suffered from the embargo do not live — and vote — in the municipality where they work. There is no right way to deal with this problem as we do not have information about where people working in the affected firms live and vote. Nevertheless, it is not clear that this should be a concern after all. On the contrary, we consider that this treatment is actually the most relevant. If local companies have suffered from the embargo, it is not only a blow for its employees and owners, but potentially also for the suppliers or banks of these companies and, even more widely, for the relatives and friends of the workers and for all the surrounding businesses. The impact of the embargo can therefore extend over larger areas, the limits thereof are hard to define. Firms that are large enough to export often play an important role in municipalities' life, especially in small, rural towns. They sometimes make a significant contribution to the town's budget, and their workers share their moods with the inhabitants by attending social gatherings. City hall staff, shopkeepers or, say, members of the city's sports associations can be just as affected by a negative shock affecting an important company in the city, even if they do not work there. Assigning the shock resulting from the embargo to the cities that host the affected firms therefore does not seem to be a risky approximation. In a robustness test, we extend the treatment to all employment areas where affected firms are located.<sup>16</sup> The results show no significant effect of an employment area's exposure to the embargo on voting, which suggests that the perception of the economic consequences of the sanctions remain spatially limited within the cities.

Our treatment group contains 172 cities exposed to sanctions, mainly located in the West and South of the country. They are shown on the maps 3a and 3b, along with those that export embargoed goods to other destinations or other, non-embargoed products to Russia.<sup>17</sup>

Table 7 and figure 5 in appendix A show various economic characteristics of cities by the type of exporting firms they host in their territory. The vast majority of French municipalities are small villages. Consequently, it is not surprising that nearly 70% of them do not have *any* exporting firms. The average population in municipalities without exporters is less than 600. It is more than 5,000 for those with exporters (all products

<sup>&</sup>lt;sup>16</sup>The French statistical office divides the national territory into approximately 300 employment zones which are defined as geographical areas where most of the active population resides and works.

<sup>&</sup>lt;sup>17</sup>To preserve the confidentiality of the data shown in these maps, we group the municipalities to ensure that each cell hosts more than 5 firms. However, our empirical analysis is based on the more detailed spatial breakdown visible on maps 2a and 2b.



#### Figure 3: Exporters by destination and product type

*Notes:* The two figures depict groups of municipalities that are home to firms exporting embargoed products — to Russia or elsewhere (a), as well as groups of municipalities hosting exporting firms who trade with Russia (b) — whether in embargoed or non-embargoed goods. Municipalities are grouped by aggregating such that no less than 5 firms are marked per cell.

and destinations). Maybe more surprisingly, the municipalities that export embargoed products (to any destination) are quite large on average: 16,000 inhabitants. Similarly, those that host firms capable of exporting to hard-to-reach destinations such as Russia are significantly larger than others. In the end, exporters of embargoed products to Russia are mainly located in relatively large cities (about 35,500 inhabitant on average, but with a quite large dispersion). As shown in figure 5, this difference in city size is the only characteristic that clearly differentiates cities exposed to sanctions from others.

## 5 Econometric specification

Our econometric analysis relates the municipalities' exposure to the Russian embargo to the votes for the populists "Pro-Russia" candidates or parties. Our benchmark analysis focuses on 2017 presidential election but, in order to control for unobservable invariant or historical characteristics of the municipalities, we estimate a first difference specification, using the results of presidential elections of both 2012 and 2017:

$$[Vote_{c,i,2017} - Vote_{c,i,2012}] = Treatment_i + [X_{i,2016} - X_{i,2011}] + \theta_{i \in z} + \mu_{c,i},$$
(1)

where *i* denotes a municipality. The dependent variable  $[Vote_{c,i,2017} - Vote_{c,i,2012}]$  is the

change between 2012 to 2017 in the share of votes cast for candidate c in municipality i.  $X_{i,2011}$  and  $X_{i,2016}$  are a vector of municipality characteristics the year before the two presidential elections and  $\theta_{i \in z}$  an employment zone fixed effect.  $\mu_{c,i}$  is the error term. Finally,  $Treatment_i$  is the treatment variable characterizing the trade profile and the exposure of municipality i to the Russian Embargo.

We are particularly interested in the candidates who most advocated a "pro-Russian" leaning during the 2017 campaign: Marine Le Pen, Nicolas Dupont-Aignan and, to a lesser extent, Jean-Luc Mélenchon. The fact that these politicians were candidates in both elections makes the specification (1) an exact diff-in-diff. For other candidates we had to match the 2017 line-up to the 2012 one using the party affiliations.<sup>18</sup>

The vector of control variables  $[X_{i,2016} - X_{i,2011}]$  intends to capture the changing demographic and economic characteristics of municipalities that may influence voting. It includes the log of population; the log of median income per household consumption unit; the unemployment rate; the share in active population of the city of agricultural, blue and white-collar workers;<sup>19</sup> the share of resident above 65; the share of resident below 25;exports per capita and the share of foreign-born population. All these data are provides by the French statistical institute, INSEE. We also include the log of total exports by the firms located in the municipality, computed from the French custom data.

The employment zone fixed effect  $\theta_{i \in z}$  ensures that the electoral outcomes in a municipality are compared to the ones in neighboring cities.<sup>20</sup> We are therefore controlling for all time-invariant local — cultural or economic — particularities, but also for local public policies (carried out at the level of departments or regions) and the involvement of political activists (political parties are generally structured at either the regional or country level).

The vector  $Treatment_i$  contains a series of dummies that characterizes the involvement of the municipalities in exporting activities. Identifying the cities affected by the embargo is not sufficient to properly estimate the impact of the sanctions because this treatment overlaps with other city characteristics that may be associated with voting behavior. Therefore,  $Treatment_i$  consists of four dummy variables taking respectively the value 1 if municipality *i* hosted firms that (*i*) exported in 2013 and/or 2014; (*ii*) exported any product to Russia in 2013 and/or 2014; (*iii*) exported embargoed products in 2013 and/or

<sup>&</sup>lt;sup>18</sup>We match Emmanuel Macron (2017) to the centrist candidate François Bayrou (2012); François Fillon (2017) to Nicolas Sarkozy (2012), both belonging to the same party; Benoît Hamon (2017) to an aggregate made of the 2012 candidates François Hollande (from Socialist party, as Benoît Hamon) and Eva Joly from the Green party, whose candidate officially withdrew in favor of Benoît Hamon in 2017. The two Trotskyist candidates in 2017 were also present in 2012.

<sup>&</sup>lt;sup>19</sup>White collar workers are managerial and professional occupations, and blue collar workers are small employers, technical and routine occupations.

<sup>&</sup>lt;sup>20</sup>Employment zones are quite small areas, containing 10,000 to 4 million jobs. The French metropolitan territory is divided into more than 280 employment zones, which are much smaller than the regions and départements (i.e. NUTS2 and NUTS3 respectively in the Eurostat classification), which are the official administrative divisions.

2014; and finally (iv) exported embargoed products to Russia in 2013 and/or 2014. The latter dummy is our variable of interest.

## 6 Benchmark results

Table 2 shows the estimates of equation (1) for the two main pro-Russian candidates (Le Pen, column 1, and Dupont-Aignon, column 2) along with the radical-left candidate (Mélenchon, column 3). Finally, column (4) reports the results for the abstention rate, which might be interpreted as a protest vote and the expression of the rejection of the policies implemented by the mainstream parties.

The control variables provide a picture of the socio-economic segments of the population on which the three anti-establishment candidates prosper. Qualitative political science analyses and econometric cross-section studies show that the Front National's electoral base is essentially found among lower-middle class voters, living outside the big cities, in regions in economic decline, affected by a high level of unemployment. The Front National (at least until the 2017 election) is relatively weak among the French elderly who are more sensitive to the ideological barriers raised against the far-right after the second world war, and less favorable to the disruptive projects (such as the exit from the Euro, which was a central element of Le Pen's 2017 program).<sup>21</sup> Our first difference analysis hides the structural — mainly invariant — determinants of the votes. Nevertheless, we see a very strong influence of the variation of the unemployment rate on the vote for Le Pen. The demographic variables also stand out clearly and show in which segments of the population the Front National has made the most progress during the 2010s: Among the young voters.

Dupont-Aignan's base is more or less in the same political segment. However, he is a politician raised within standard conservative parties and targets more well-off voters than Le Pen. Compared to the latter, his performances are better in cities with wealthier, less unemployed and more educated population. Although he shares some of the views of far-right candidates (e.g. populist/anti-establishment approach, rejection of European integration, etc.), Mélenchon builds on a very different electoral base. His main successes are in the large urban centers. He also attracts a more educated electorate that is less sensitive to labour market shocks (see, e.g. Algan et al., 2018; Ivaldi, 2018). The most striking difference comes from the (change in) proportion of immigrants in the municipalities' population. It is clearly linked negatively to the far-right vote. This corresponds to the fact that immigrants (as well as their relatives and friends) vote little for the extreme right, but it also reflects the strong segmentation of the French population where those who are most critical of immigrants want to stay away from them (and vice-versa). The dummy

<sup>&</sup>lt;sup>21</sup>For a detailed analysis of the main French far-right party and the motivations of its electorate see Mayer (2018).

	Le Pen	Dupont	Mélenchon	Abstention
	(1)	Aignan (2)	(3)	(4)
Exported Embargoed	0.571a	0.172c	-0.389	0.117
Products to Russia	(0.200)	(0.094)	(0.270)	(0.170)
Exported Embargoed	-0.503a	-0.216a	0.516a	-0.177b
Products	(0.076)	(0.043)	(0.117)	(0.076)
Exported to Russia	-0.506a	-0.316a	0.797a	-0.329a
	(0.078)	(0.042)	(0.093)	(0.079)
Exported anywhere	-0.302a	-0.111a	0.324a	-0.221a
	(0.067)	(0.030)	(0.056)	(0.056)
ln Population	0.647c	0.590a	1.227a	0.560c
	(0.357)	(0.186)	(0.293)	(0.335)
ln Income	-0.856	0.211	-1.280c	-0.503
	(0.747)	(0.328)	(0.651)	(0.661)
Unemployment rate	1.852b	-1.166b	1.049	-1.566b
	(0.835)	(0.454)	(0.770)	(0.684)
Share of farmers	0.113	-0.560b	0.375	-0.330
	(0.500)	(0.241)	(0.427)	(0.431)
Share of blue-collar	-0.577a	0.354a	-0.487a	0.255
	(0.221)	(0.125)	(0.186)	(0.202)
Share of white-collar	-1.481a (0.491)	0.333 (0.229)	-0.111 (0.436)	-0.572 (0.407)
Share of pop. above 65	-12.121a	-2.321a	-7.019a	-2.257c
	(1.417)	(0.708)	(1.058)	(1.239)
Share of pop. below 25	4.449a	-0.551	-3.394a	-0.161
	(1.533)	(0.736)	(1.307)	(1.350)
Exports per capita	-0.009c	0.006b	0.000	0.012b
	(0.005)	(0.003)	(0.005)	(0.006)
Share of immigrants	-7.874a	-1.906	3.464	-3.050
	(2.568)	(1.175)	(2.360)	(2.038)
Observations $R^2$	30912	30912	30912	30912
	0.016	0.007	0.013	0.003

Table 2: Exposure to embargo and votes for Pro-Russian candidates and abstention rate

*Notes:* All variables except for treatment dummies are in first-differences. Employment zone fixed effects. Heteroskedasticity-robust standard errors clustered at the employment zone level appear in parentheses. <sup>*a*</sup>, <sup>*b*</sup> and <sup>*c*</sup> indicate significance at the 1%, 5% and 10% confidence level respectively.

variables characterizing the city-level exposure to trade are also informative. They indicate that the far-right has grown less in cities that host exporting firms, and even less when these firms exported to Russia in 2013 or 2014. Insofar as large firms (therefore, exporters, and in particular exporters large and competitive enough to reach distant countries) tend to locate in relatively big and economically attractive cities, this confirms the fact that the electorate of the far-right has grown mainly in peripheral and less dynamic localities. In this respect, too, the contrast with the results obtained for Mélenchon is striking.

Turning to our variable of interest, we see that the Russian embargo has had a significant impact on the vote: Cities that host firms directly hurt by the Russian embargo significantly increased their vote share for Le Pen and Dupont-Aignan, the two major candidates who

	Conservative	Centrist	Social dem.	Extreme Left
	(Fillon-Sarkozy)	(Macron-Bayrou)	(Hamon-Hollande)	(Poutou+Arthaud)
	(1)	(2)	(3)	(4)
Exported Embargoed	-0.271	-0.511	0.592	-0.048
Products to Russia	(0.197)	(0.311)	(0.364)	(0.055)
Exported Embargoed	-0.506a	-0.316a	0.797a	-0.329a
Products	(0.078)	(0.042)	(0.093)	(0.079)
Exported to Russia	0.304a	1.337a	-1.582a	0.023
	(0.075)	(0.104)	(0.133)	(0.018)
Exported anywhere	-0.038	1.456a	-0.954a	0.016
	(0.057)	(0.085)	(0.094)	(0.015)
Observations $R^2$	30912	30912	30912	30912
	0.011	0.048	0.024	0.001

Table 3: Exposure to the embargo and votes for non-Pro-Russian candidates

*Notes:* Heteroskedasticity-robust standard errors clustered at the employment zone level appear in parentheses. a, b and c indicate significance at the 1confidence level respectively. In column (4) the dependent variable is the first-difference of the sum of the votes cast for the two Trotskyists candidates (Nathalie Arthaud and Philippe Poutou, who both ran in 2012 and 2017). Fillon, Macron and Hamon were not candidate in 2017. We compute the first difference by assigning them the results obtained by the candidates of their parties in 2012: Sarkozy for Fillon, Bayrou for Macron, and the sum of Hollande (Socialist party) and Joly (Green) for Hamon. Coefficients on municipality-level control variables are not reported.

showed explicit support for the Russian government and called for an end to the sanctions against Russia, and the consequent end of the Russian countersanctions.

This impact is statistically significant. Politically, the order of magnitude of the estimated impact is also meaningful. We estimate that the increase in percentage points of votes cast for Le Pen was 0.557 percentage points higher in the exposed municipalities than elsewhere. On average across all French metropolitan cities, the percentage of votes for Le Pen increased by 4.57 percentage points between the presidential elections of 2012 and 2017. Therefore, exposure to the embargo boosted Le Pen's performance by more than 12%. The impact at the local-level is even larger, as votes for Le Pen (in %) improved slightly less in municipalities exposed to the embargo than elsewhere. There, the share of Le Pen increased by only 3.12 percentage points from one presidential election to the next. Hence, the estimated coefficient suggest that no less than 17.8% of this increase in the vote share can be attributed to the embargo. Another way to assess the power of the impact is to compare its magnitude to the influence of the control variables. One of the most important variables in the vote for Le Pen is the unemployment rate, which reports a coefficient of 1.852 in column (1). Therefore, a comparable increase in the unemployment rate needed to boost votes for the Le Pen by as much as the embargo did is slightly over 30 percentage points.

Locally, the impact is strong, but it is illusory to imagine that it could have significantly influenced the results at the national level. There are only 172 treated municipals, which account for 3.7 million voters all together, among which only 2.9 million cast a vote in 2017, or about 8.1% of the total number of French voters in 2017. A back-of-the-envelop

calculation leads to the estimate that the Russian embargo gave 16,348 additional votes in favor of Le Pen, a non-negligible number, equivalent to the total votes cast in 2017 in a medium-sized city like Biarritz. However, this number still constitutes only 0.21% of the total votes cast at the national level for Le Pen. Put differently, the number is only about 1.67% of the difference in the number of votes between Macron and Le Pen in the first round of the election (977.855).

We also find a positive impact of the embargo on the votes cast for Dupont-Aignan, while much lower in magnitude and less precisely estimated. Interestingly we do not have a significant effect on the votes for Mélenchon or for the share of abstentions. This suggests that what we observe for the two main pro-Russian candidates is not the result of a simple rejection of politics or mainstream parties.

A further look at the impact of the embargo on other candidates provides a better understanding of voter behavior. Table 3 displays the results for Macron (Centrist), Fillon (Conservative), Hamon (Social democrat), and the aggregate of the two extreme left (Trotskyite) candidates. As mentioned above, none of these candidates explicitly called for the lifting of sanctions against Russia. Only François Fillon has expressed some pro-Russian tendencies, moderated by the adherence of his party to Atlanticist and pro-European principles. The estimates reported in table 3 for these candidates are negative but not statistically significant. This suggest that the electoral gain for pro-Russian candidates is — on average — drawn from the entire political spectrum rather than from specific candidates.<sup>22</sup>

## 7 Additional results and robustness analyses

Table 4 shows a series of robustness checks. We focus here on the performances of the two far-right candidates.

In columns (1) and (2), we replace the employment zone fixed effects by départements ones. Indeed, there is a concern that the employment zones may cover too small areas, and are thus too centered on a city that acts as the economic center for the surrounding periphery, to allow for accurate identification.<sup>23</sup> The results remain the very similar to the ones in table 2.

Columns (3) and (4) present the results obtained with a more rigorous specification, where the control group is restricted to cities that also export embargoed products. This is a more restrictive specification as each treated city is now compared to cities that have — hopefully — even more similar characteristics. With this very limited control group our

<sup>&</sup>lt;sup>22</sup>We dissect the electoral bases further in 5, which shows that at least a fraction of the new-found support for Le Pen stems from Macron and Mélenchon in severely affected cities.

<sup>&</sup>lt;sup>23</sup>We remain nevertheless at a very narrow geographical scale since metropolitan French territory (excluding Corsica) is divided into 94 départements.

	Le Pen	Dupont	Le Pen	Dupont	Le Pen	Dupont	Le Pen	Dupont
		Aignan		Aignan		Aignan		Aignan
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Exported Embargoed	0.552a	0.195c	0.540a	0.150	0.425b	0.119	0.277c	0.005
Products to Russia	(0.202)	(0.107)	(0.205)	(0.110)	(0.174)	(0.075)	(0.157)	(0.079)
Exported Embargoed	-0.547a	-0.223a			-0.322a	-0.121a		
Products	(0.086)	(0.044)			(0.063)	(0.039)		
Exported to Russia	-0.551a	-0.338a	-0.580a	-0.290a	-0.317a	-0.117a	-0.146	-0.042
	(0.083)	(0.043)	(0.073)	(0.040)	(0.073)	(0.040)	(0.128)	(0.071)
Exported anywhere	-0.330a	-0.110a			-0.130a	-0.032		
	(0.076)	(0.035)			(0.047)	(0.027)		
Specification		First Di	fference			Lev	rels	
Sample	А	.11	Embarg	oed exp.	А	.11	Embarg	oed exp.
Fixed Effects	Départ	tement	Dépar	tement	Employn	nent zone	Dépar	tement
Obs.	30912	30912	1646	1646	28263	28263	1592	1592
$R^2$	0.016	0.007	0.043	0.064	0.727	0.147	0.909	0.474

Table 4: Alternative specifications

*Notes*: Non-reported coefficients in columns (1)-(4): Municipality characteristics, first difference 2016-2012. Non-reported coefficients in columns (5)-(8): Municipality characteristics, in levels for 2016, and all electoral results (% of votes cast for each candidate and abstention rate) of 2015 regional elections and 2012 presidential elections. Heteroskedasticity-robust standard errors clustered at the employment zone level (department level in columns 1 and 2) appear in parentheses. <sup>*a*</sup>, <sup>*b*</sup> and <sup>*c*</sup> indicate significance at the 1%, 5% and 10% confidence level respectively.

coefficient of interest is slightly less precisely estimated and we are loosing significance for Dupont-Aignan's electoral performances.<sup>24</sup> Columns (3) and (4) report estimates for a lagged dependant variable (LDV) model instead of the first difference specification. Here, the dependent variable is the electoral result observed in 2017 and the right-hand-side variables are of three types: (i) the export dummies forming the vector  $Treatment_i$  as in equation (1); (ii) the municipality characteristics (population, income, etc) but, unlike in equation (1), only the 2016 levels are retained here, not the difference between 2014 and 2016; (iii) all the electoral results of the 2012 presidential election and the 2015 regional elections in the municipality (presented as percentages of the total number of votes cast, for each candidate). This set of variables captures the unobservable characteristics of cities that may affect election outcomes. Contrary to a first difference specification, this model allows to take into account the fact that some unobserved characteristics do not have a time-invariant influence. Columns (7) and (8) present the result obtained with the same LDV specification but on the sample of municipalities hosting exporters of embargoed products. Irrespective of the control group, this specification gives results very close to those obtained with the first difference model.<sup>25</sup>

Another robustness check is shown in figure 4, which presents a series of placebo tests.

<sup>&</sup>lt;sup>24</sup>The estimates reported in the table are obtained with département fixed effects, in order to maintain a sufficient number of observations in the control groups. When limiting the control group to municipalities in the same employment zone that export embargoed products, 8 treated cities have no control group anymore, and 12 are left with one matched municipality only. Note that the result, though not reported here, remains significant with employment zone fixed effects.

<sup>&</sup>lt;sup>25</sup>The coefficient reported in column (6), 0.119, is very close to significance at the 10% confidence level.

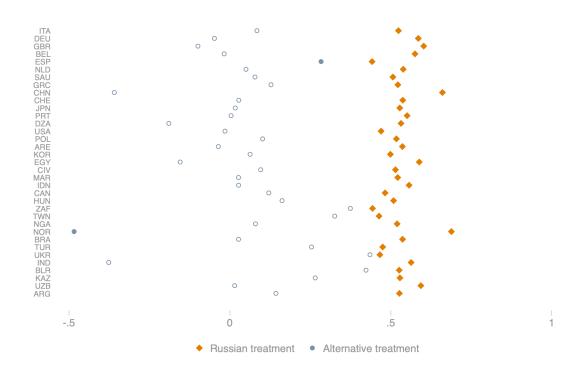


Figure 4: Placebo tests: Treatments using alternative countries

*Notes:* The figure reports our treatment variable (diamonds) and a comparable treatment characterizing cities exporting to an alternative country (circles). Hollow markers denote non-significant coefficients (10% confidence level). Countries are ranked according to the value of French exports of embargoed products.

Here, we add two dummy variables to our benchmark specification. They characterize municipalities exporting in 2013-2014 to another country than Russia, any products and embargoed products respectively. The figure reports the results for a selection of 35 alternative destinations, which are either major destinations for French exports (e.g. Italy, Germany, UK) or middle income countries more or less comparable to Russia in terms of geographical location, political alignments or economic structure (e.g. Ukraine, Belarus, Turkey). In all regressions, the dependant variable is the change of votes (in percentage points) received by Le Pen between 2012 and 2017. Two conclusion emerge from this exercise. First, the introduction of these placebo treatment dummies does not change the results on our variable of interest. All the coefficients are very stable in magnitude (around 0.5) and significant. This suggest that the link we observe between the votes and the exposition to the Russian embargo is not driven by a correlation between the geographical distribution of exports to Russia and that of other countries. Second, for almost all alternative destinations, the placebo treatment is small and not statistically significant. For no other country we observe an effect on the electoral results comparable to that observed for Russia. There are only two countries for which the treatment is significant. For some unexplained reason, municipalities that export agricultural goods

to Norway tended to vote less for Le Pen.<sup>26</sup> For Spain, we obtain a positive coefficient. It is however smaller and less precisely estimated than the one for Russia. One could explain this result by the strong tensions that exist between farmers on both sides of the Pyrenees, which fuel, in France, an anti-European and protectionist sentiment among the most exposed farmers.<sup>27</sup>

We can go further than our benchmark results based on simple treatment dummies and investigate whether the intensity of the treatment is heterogeneous across treated municipalities. Logically, it should depend on the importance of exports of embargoed products to Russia for the local economy. This what is explored in table 5. In this table, we divide the treated group into municipalities that are likely to be strongly exposed to the embargo and those that are less exposed. We use the two treated subgroups alternately in separate regressions. The control group is unchanged. It is the set of municipalities that did not export embargoed products to Russia in 2013 and 2014. We have four indicators of intensity of the treatment: The presence of farmers in the active population;<sup>28</sup> the share of embargoed products exported to Russia in total municipality's exports in 2013/14; the value per inhabitant of embargoed products exported to Russia exported in 2013/14; The change in world exports of embargoed products between 2013/14 and 2015/16. The latter indicator aims at taking into account the fact that the embargo was not totally binding. As said above, some HS4 categories of banned products cover goods whose export to Russia is still possible. Some firms were able, for instance, to circumvent the embargo and preserve their exports to Russia by switching from the production of powdered milk (prohibited) to infant milk (not prohibited). Moreover, some firm may have been able to get by comfortably if they found other markets to sell their products previously destined for Russia. For the last three indicators, we simply divided the treated group according to whether the value is above or below the median.

In the case of the results for Le Pen, the results match nicely with expectations. The political impact of the embargo is very strong in the 130 cities that host a at least some farmers. The coefficient we have for these "rural" cities is now 0.8. Repeating the calibration exercise above, we obtain that the embargo generated a boost for Le Pen equivalent to an 44 percentage points increase in unemployment.<sup>29</sup>

For Dupont-Aignan, the results point in the same direction. Except when the intensity

<sup>&</sup>lt;sup>26</sup>Note that we have a small sample here: The specification for Norway contains only 95 "treated" cities.

<sup>&</sup>lt;sup>27</sup>The Spanish fishing, fruit and vegetable production and wine industry are very tough competition, which often generates demonstrations of protest from French farmers. This was particularly the case in 2016 and 2017, when there were demonstrations by French wine makers against Spanish imports (e.g. Willsher and Dawber, 2016). Interestingly, the coefficient observed for Spain is much lower when we eliminate from the sample the French departments close to Spain in the western Mediterranean, whose agricultural production of wines and fruits is in direct competition with Spanish production.

<sup>&</sup>lt;sup>28</sup>Since very large cities are home of all possible occupations, a threshold of 0.1% is used. Only 40 treated municipalities (among 172) have a proportion of farmers in active population below 0.1%.

<sup>&</sup>lt;sup>29</sup>The coefficient on the employment rate in this regression is 1.85.

Candidate	Intensity measure	Intensity	Treatment coef.	s.e.	$\mathbb{R}^2$	Nb. obs.
	Presence of agricultural workers		0.807a	(0.212)	0.016	30872
	Share of embargoed exports	High	0.606b	(0.271)	0.016	30826
	Share of embargoed exports	Low	0.537b	(0.245)	0.016	30826
Le De I	Value of embargoed exports p.c.	High	1.009a	(0.261)	0.016	30826
re'	value of embargoed exports p.e.	Low	0.132	(0.251)	0.016	30826
	Change in agr. exports	High	0.751a	(0.249)	0.016	30826
	enange magn enperts	Low	0.385	(0.244)	0.016	30826
	Presence of agricultural workers		0.337a	(0.106)	0.007	30872
Dupon Alenan	Share of embargoed exports	High	0.305b	(0.123)	0.007	30826
all's		Low	0.042	(0.140)	0.007	30826
,F <sup>30</sup>	Value of embargoed exports p.c.	High	0.314a	(0.110)	0.007	30826
NTO NO		Low	0.030	(0.150)	0.007	30826
C. D.	Change in agr. exports	High	0.079	(0.131)	0.007	30826
~		Low	0.268b	(0.125)	0.007	30826
	Presence of agricultural workers		-1.431a	(0.343)	0.012	30872
	Share of embargoed exports	High	-0.620	(0.346)	0.012	30826
S.	Share of embargoed exports	Low	-0.167	(0.376)	0.012	30826
Melenchon	Value of embargoed exports p.c.	High	-0.723b	(0.340)	0.012	30826
e,		Low	-0.058	(0.380)	0.013	30826
L.	Change in agr. exports	High	-0.454	(0.387)	0.012	30826
	8	Low	-0.335	(0.310)	0.012	30826
	Presence of agricultural workers		-1.026a	(0.361)	0.047	30872
	Share of embargoed exports	High	-0.883b	(0.438)	0.047	30826
~		Low	-0.135	(0.384)	0.047	30826
Macron	Value of embargoed exports p.c.	High	-1.046b	(0.439)	0.047	30826
Na.		Low	0.023	(0.376)	0.048	30826
7	Change in agr. exports	High	-0.616	(0.449)	0.047	30826
		Low	-0.401	(0.348)	0.047	30826
	Presence of agricultural workers		-0.390c	(0.218)	0.011	30872
	Share of embargoed exports	High	-0.343	(0.266)	0.011	30826
		Low	-0.206	(0.247)	0.011	30826
Fillon	Value of embargoed exports p.c.	High	-0.388	(0.262)	0.011	30826
ĨĨ,		Low	-0.156	(0.255)	0.011	30826
	Change in agr. exports	High	-0.237	(0.226)	0.011	30826
	change in ugi, exports	Low	-0.311	(0.238)	0.011	30826
	Presence of agricultural workers		0.160	(0.198)	0.003	30872
	Share of embargoed exports	High	0.159	(0.235)	0.003	30826
Ę	share of embargoed exports	Low	0.079	(0.236)	0.003	30826
<i>III</i> i	Value of embargoed exports p.c.	High	0.189	(0.232)	0.003	30826
Ste.	value of embargoed exports p.c.	Low	0.047	(0.252)	0.003	30826
Abstention	Change in agr. exports	High	0.113	(0.223)	0.003	30826
	change in agi, exports	Low	0.348	(0.261)	0.003	30826

Table 5	: Treatment	intensity
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*Notes:* Each line shows a regression. Coefficients not reported: All regressions include control variables as shown in Table 2); we only report the coefficient on our dummy indicating cities that exported embargoed products to Russian in 2013 and/or 2014. Heteroskedasticity-robust standard errors clustered at the employment zone level appear in parentheses. <sup>*a*</sup>, <sup>*b*</sup> and <sup>*c*</sup> indicate significance at the 1%, 5% and 10% confidence level respectively. For each intensity measure, in separate regressions, we retain cities with high and low intensity alternately in the treatment group. The control group remains unchanged.

is defined by the variation of exports before and after the embargo, the impact of the sanctions are stronger in cities with more severe treatment.

As hinted at above, in the cities that received a harsher treatment, we observe a rejection of Macron, Mélenchon, and Fillon. The mobilization around the two most explicitly pro-

Russian candidates bites not only on the most pro-sanction, but also on the pro-Russian candidates who seem too moderate.

## 8 Regional elections (2010-2015)

We now turn to the estimation of the same difference-in-differences framework on data from the regional elections in 2010 and 2015.

As discussed above, the exercise is more difficult for regional elections than for presidential ones. Some parties — such as the Front National — were systematically present in all regions in the 2010 and 2015 elections. But this is not the case for all. Dupont-Aignan's party ("Debout la France") was very present in 2015, but less so in 2010. Others, including large political organizations like the socialist or conservative party, are more difficult to track as they tend to forge alliances in some regions that are not found in others. Additionally, a number of parties are not systematically present in all regions, so that electoral competition is not comparable everywhere and changes over time.<sup>30</sup> In addition, the electoral boundaries changed between 2010 and 2015.<sup>31</sup>

All this makes the difference-in-differences analysis presented in this section less rigorous than the one discussed above for the presidential election. We therefore focus on those parties that can be easily traced over time and cleanly identified politically: The Front National and the "Front de Gauche", i.e. the alliance between the French communist party and Mélenchon's political movement, which competed in both the 2010 and the 2015 regional elections. Econometrically, our specification is identical to that of equation (1), except that we employ fixed effects by département and not by employment zone. The reason is that employment zones do not always coincide with administrative boundaries and may stretch across several regions. The fixed effects by department therefore ensure that the municipalities in the control and treatment groups took part in the same ballot.

The estimates reported in Table 6 corroborate the main findings obtained with data on the presidential elections. We observe a boost in the votes for the Front National in municipalities hosting firms directly hurt by the Russian embargo. The coefficient is much less precisely estimated, but the point estimate, 0.58, is very close to the one obtained in the benchmark regressions. When we eliminate from the treated those cities whose share of farmers in the active population does not exceed 0.01%, the coefficient almost doubles. By repeating the quantification exercise carried out above, the impact of the embargo on votes in favor of the Front National is equivalent to that of a massive economic crisis, which would have increased the local unemployment rate by 22 percentage points

<sup>&</sup>lt;sup>30</sup>This is the case, for instance, for local or regional parties which are very active in French regions with a strong cultural identity.

<sup>&</sup>lt;sup>31</sup>The number of metropolitan regions has been reduced from 22 to 13.

	Front N	Iational	Front de	Gauche	Abste	ntion
Treated	All	Rural	All	Rural	All	Rural
Exported Embargoed	0.580c	1.064c	0.028	0.356	-0.489c	-0.494
Products to Russia	(0.321)	(0.610)	(0.173)	(0.252)	(0.266)	(0.520)
Exported Embargoed	-1.035a	-1.035a	0.235	0.235	0.344a	0.342a
Products	(0.161)	(0.161)	(0.154)	(0.154)	(0.109)	(0.109)
Exported to Russia	-1.161a	-1.165a	-0.132c	-0.131c	0.497a	0.498a
	(0.155)	(0.155)	(0.077)	(0.077)	(0.109)	(0.109)
Exported anywhere	-0.289b	-0.288b	-0.292a	-0.293a	-0.340a	-0.340a
	(0.132)	(0.132)	(0.068)	(0.068)	(0.087)	(0.087)
ln Population	4.449a	4.461a	0.574	0.575	0.292	0.307
	(0.668)	(0.665)	(0.458)	(0.459)	(0.608)	(0.609)
ln Income	2.026b	2.003b	-1.156	-1.152	1.036	1.035
1	(0.975)	(0.975)	(0.775)	(0.780)	(0.935)	(0.935)
Unemployment rate	2.610b	2.616b	-1.128 (0.749)	-1.110 (0.745)	2.389c	2.425c
Share of farmers	(1.264)	(1.269)	(0.749) -0.361	(0.743) -0.354	(1.269) 0.314	(1.272)
Share of farmers	1.342b (0.627)	1.348b (0.627)	(0.361)	-0.354 (0.393)	(0.314)	0.320 (0.558)
Share of blue-collar	(0.027) 1.190a	(0.027) 1.196a	(0.393) -0.397c	-0.393c	(0.550) 0.601b	(0.330) 0.600b
Share of Dide-Collar	(0.308)	(0.308)	(0.225)	-0.393C (0.224)	(0.285)	(0.286)
Share of white-collar	-0.774	-0.760	-0.424	-0.426	-0.035	-0.038
bhare of white condi	(0.536)	(0.537)	(0.333)	(0.334)	(0.587)	(0.587)
Share of pop. above 65	-17.488a	-17.537a	0.048	0.052	-6.080a	-6.043a
	(1.990)	(1.994)	(1.273)	(1.277)	(1.702)	(1.710)
Share of pop. below 25	-3.248c	-3.222c	-2.104c	-2.126c	0.350	0.323
1 1	(1.911)	(1.910)	(1.140)	(1.138)	(1.975)	(1.977)
Exports per capita	-0.002	-0.002c	-0.000	-0.000	-0.001c	-0.001c
	(0.001)	(0.001)	(0.000)	(0.000)	(0.001)	(0.001)
Share of immigrants	-11.349a	-11.121a	1.557	1.563	2.308	2.192
	(3.177)	(3.169)	(1.932)	(1.933)	(3.011)	(3.016)
Observations	31389	31268	30090	29972	31389	31268
$R^2$	0.020	0.020	0.002	0.002	0.003	0.003

**Table 6:** Regional elections (2010-2015)

*Notes*: All variables except for treatment dummies are in first-differences. Département fixed effects. Heteroskedasticity-robust standard errors clustered at the employment zone level appear in parentheses. <sup>*a*</sup>, <sup>*b*</sup> and <sup>*c*</sup> indicate significance at the 1%, 5% and 10% confidence level respectively.

 $(0.58/2.61 = 22.2).^{32}$ 

<sup>&</sup>lt;sup>32</sup>With the coefficients reported in column (2), the impact is of course much greater: it is equivalent to an increase in unemployment of 40 percentage points.

## 9 Conclusion

In this paper, we identify and quantify the impact of sanctions on democratic elections. We document and show econometrically that electoral districts in France that were exposed to Russian countersanctions saw a shift to the electoral right — an increase in support for parties being perceived as or declaring openly as being pro-Russian. The results are robust to a battery of robustness checks and placebo exercises.

The overall impact on the general election outcome is non-negligible, but relatively small: In the 2017 French presidential election the Russian embargo on food and agricultural products led to an increase in the number of votes for the pro-Russian right-wing politician Le Pen by about 16,300 — far from making a dent in the vote difference of almost 1 million votes to the winner, Emmanuel Macron. It should be noted that the limited magnitude of this impact on the general election is not the result of a moderate reaction of voters. On the contrary, the average treatment effect is large and the citizens directly affected by the sanctions reacted quite strongly. If the embargo did not change the final outcome of the election, it is essentially because it was limited in scope. The embargo affected a limited number of products and hence a small fraction of French foreign trade and a small number of exporting firms (see Crozet and Hinz, 2020)). It is difficult to say what the political consequences of sanctions with more widespread and devastating economic effects would have been. But our results are a reminder that democracies can be fragile and easily destabilized. This should lead democratic governments not to neglect the possible consequences of countersanctions and to take precautions accordingly, for example by providing compensatory aid for individuals and firms directly affected.

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## A Descriptive statistics

Municipalities	All		Exporti	ng	
Products		Embargoed	Embargoed	All	All
Destinations		Russia	All	Russia	All
Number of cities	30912	172	1646	1860	9739
% of cities	100	0.56	5.32	6.01	31.5
% of Population	100	9.58	41.45	47.46	80.47
% of Registered voters	100	8.51	38.07	43.59	78.28
Unweighted Averages					
Population	2,066.4	35,594.9	16,085.5	16,300.4	5,278.3
Density (pop/km <sup>2</sup> )	182.7	1,293.2	1,053.9	1,219.1	445.1
Median income	20,922.1	20,522.5	21,274.1	2,1492.5	21,555.6
Unemployment rate	10.8	13.3	12.8	12.9	11.4
Share population above 65	20.7	20.8	20.6	19.7	20.6
Share non-native population	4.2	6.5	7.2	7.6	5.3
Share farm workers	5.1	1.9	2.0	1.4	2.9
Share low skilled jobs	45.9	44.2	43.6	43.4	44.9
Share high skilled jobs	16.6	18.3	19.2	19.4	18.3
2017 Abstention Rate	19.0	21.2	21.2	21.7	20.01
2017 % Macron	20.4	24.8	23.5	23.4	21.8
2017 % Le Pen	26.4	20.9	22.2	22.7	24.8
2017 % Fillon	19.9	19.0	20.0	19.8	20.1
2017 % Mélenchon	17.3	19.6	19.0	19.0	17.8
2017 % Hamon	5.2	6.9	6.1	5.9	5.4
2017 % Dupont-Aignan	5.8	4.7	5.0	5.1	5.6
2017 % Lassale	2.0	1.3	1.4	1.1	1.5
2017 % Poutou	1.3	1.2	1.1	1.1	1.2
2017 % Asselineau	0.8	0.8	0.9	0.9	0.9
2017 % Arthaud	0.8	0.6	0.6	0.7	0.7
2017 % Cheminade	0.2	0.2	0.2	0.2	0.2

## Table 7: Summary Statistics

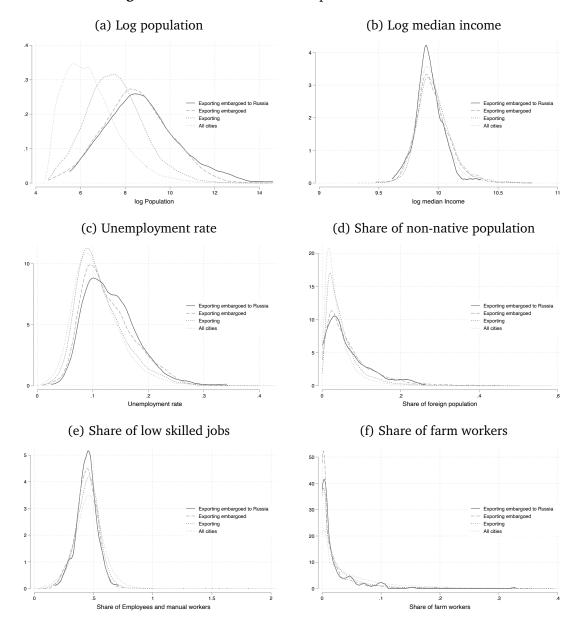
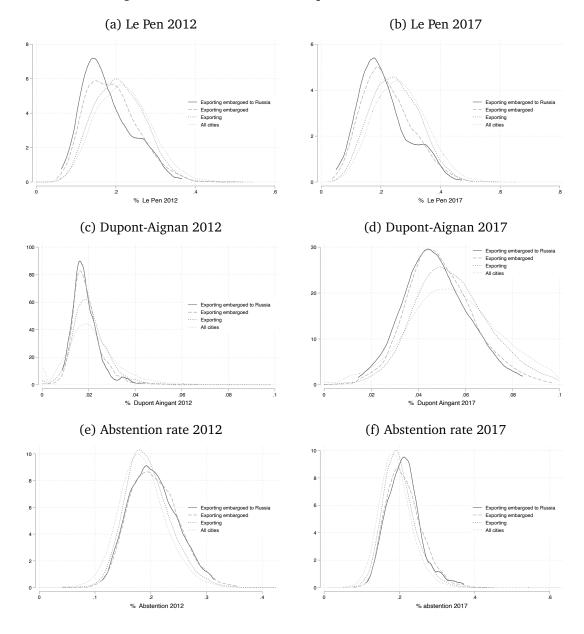


Figure 5: Distribution of municipalities' characteristics



## Figure 6: Distribution of municipalities' electoral results