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Voting from Abroad: Assessing the Impact of Local Turnout on Migrants' Voting behavior

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Abstract

Over 150 countries allow expatriate citizens to vote in their country of origin. Yet, little is known about their voting behavior and how this is affected by host countries. Using unique micro-data on Chilean expatriates living in Europe, we study how the host country's turnout affects expatriates' electoral participation in the 2017 Chilean Presidential election. We focus on the 2014 European Parliament election turnout in the district of the Chilean's geocoded residence and exploit local transitory shocks to the cost of voting given by the rainfall on the day of the election. We find that migrants living in areas with higher political participation have lower engagement with their home country politics. A 1 percentage point *increase* in the host country's turnout *decreases* the electoral participation of Chilean expatriates by nearly 1 percentage point. The effects are stronger for young Chileans and those living in small communities, and in localities more welcoming to migrants. This suggests that integration into their local environment seems to play an important role on shaping political preferences.

JEL codes: D72, F22, J15, P48, Z13.
Keywords: Migration, Elections, Voting, Turnout, Expatriates, Rainfall.

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1 Introduction

Over 150 countries in the world allow their expatriate citizens to vote in their country of origin. These external voting rights have been widely debated across countries and elections (Ellis et al., 2007; Østergaard-Nielsen et al., 2019; Wellman, 2021). This issue has become even more salient due to the increasing global migrations where, according to the United Nations, over 281 million people of foreign origin live in a different country (UNDESA, 2020). This large amount of non-resident citizens living abroad could have important electoral consequences for the country of origin and in some cases, the expatriates' votes could even sway elections.[1] Despite this, we know very little about expatriates' voting behavior. In particular, we know little about the host-country drivers of expats' decision to participate in home country elections.

Living abroad impacts individuals' identities and beliefs. Recent studies analyze how voters mobilise when embedded in two political and institutional contexts (e.g. Ciornei and Østergaard-Nielsen (2020) and references therein), and the evidence suggests that experiencing a different socio-political context affects migrants' voting behavior (Fidrmuc and Doyle, 2004).[2] However, one of the major difficulties in studying the impact of the host country on expatriates' voting behavior is that expatriates, at least to some extent, can choose where to reside. Expatriates choose where to settle according to their preferences and restrictions, such as economic, political or migration restrictions to mobility. This non-random self-selection can severely impact the conclusions of these studies as any correlations could be driven by the joint distribution of migrants' and host countries' characteristics. Additionally, the lack of granular data on emigrants' electoral behavior and their specific geographical location have limited the scope of these studies, where several studies have to rely on self-reported declarations of political attitudes from surveys instead of actual electoral participation.

In this paper, we study how the *host* country's electoral turnout impacts expatriates' voting behavior in their *home* country elections. Electoral turnout is commonly regarded as an indicator of a country's quality of democratic life, which provides legitimacy to the democratic process (Smets and Van Ham, 2013). Increases in turnout promote individuals' attachment to the act of voting, and affect a community's information, attitudes, and norms about future voting (Fujiwara et al., 2016). These socio-political changes might well impact the political behavior of migrants living in those communities.

There are two opposite arguments on how expatriates' political engagement can be affected by the host country's political participation (Tsuda, 2012; Ciornei and Østergaard-Nielsen, 2020). On the one hand, the *zero-sum* argument states that inclusive host countries decrease migrants'

[1] Data from the OECD for 2014 reveals that 17 percent of Ireland's population live abroad, 14 percent for Portugal and New Zealand, and 12 percent for Mexico. For the United Kingdom, this is almost seven percent. Additionally, the right to vote from abroad was highly debated during the Brexit referendum, where over 700,000 Britons living in other European Countries for more than 15 years were not allowed to vote. These citizens were among the most affected by the referendum and their participation could have had an important impact on the election. For examples for other countries see Mexico, US 2020 House of Representatives, and the Senate election, and Peru (in Spanish).

[2] Using postwar Germany and comparing West versus East Germans, Alesina and Fuchs-Schündeln (2007) show that being exposed to different political regimes had a long-lasting impact on people's political preferences.

engagement in homeland politics. Migrants spend their finite social and economic resources on the society to which they feel most attached to, leaving limited resources to simultaneously participate in the other society.[3] On the other hand, the *complementarity* argument suggests a positive reinforcement of engagement between the host and home country, where political learning in the host country promotes expats' participation in home country elections.

To understand how the host-country turnout affects expats' electoral participation in their country of origin, we use unique microdata on Chilean expatriates who registered to vote from abroad in the 2017 Chilean Presidential election. Our data covers nearly 11,500 Chilean expats living in European Union (EU) countries who registered to vote in the 2017 presidential election. Using information on the expats' precise residence and the exact voting booth where they voted, we match each individual to the corresponding turnout at the booth level. We geocoded the place of residency for each Chilean expat and matched this with the past turnout in EU elections at the district level. To measure the electoral turnout in the host country, we focus on the 2014 EU parliament elections thereby keeping electoral institutions constant across countries as well as the timing of the election.[4]

To provide causal evidence, we instrument the host country's EU electoral turnout at the district level with rainfall on the day of the EU election in 2014. Rainfall can be interpreted as a transitory shock affecting the contemporaneous voting cost, which is unlikely to affect the future benefits and costs of voting since it is outside of the control of voters, candidates or any other political agent.[5] In this sense, rainfall gives us an exogenous shock in the cost of voting on the exact day of the election and thus negatively affects the turnout. Furthermore, in our preferred specification, we include country fixed effects to account for any additional differences across countries that might affect the decision to vote and control for average rainfall for the same day of the election during the last twenty years. Hence, our main specification exploits within-country rainfall variation, while even accounting for the average past rainfall for the day of the election.

Our main finding is that a 1 percentage point decrease in the host country's local turnout (caused by high rainfall) increases expatriates' turnout in their home country's election by nearly 1 percentage point. This effect is robust to different econometric specifications. Furthermore, to ascertain that the relationship between local host country turnout and expats' turnout in the home country is not spurious, we run a set of placebo experiments instrumenting the EU district turnout with the rainfall 1 week and 1 month before and after the EU election. Our result only holds for the rainfall occurring on the exact day of the election.

Our main result suggests that immigrants face a trade-off between home country and host

[3] For instance, the zero-sum argument might be more prevalent when social exclusion in the host country drives migrants to be more attached to their home country or when the assimilation process in the host country discourages transborder attachment to the homeland. This latter alternative might be driven by the desire of the immigrants to assimilate in their new country of residence.

[4] Electoral participation for national and EU parliament elections are highly correlated across EU countries. See main text.

[5] This instrument has been extensively used in the literature. For example, Fujiwara et al. (2016) use election day rainfall to identify group habit formation in voting. Madestam et al. (2013) use rainfall to identify the causal effects of protests on subsequent political outcomes.

country politics in line with the *zero-sum* argument. In this sense, host country socio-political changes (driven by increases in local turnout) such as a community's information, higher attachment to the act of voting, and norms seems to affect migrants' political behavior by reducing their engagement with their home country politics.[6] Another alternative explanation for our main result is that Chileans with dual nationality might be voting in the Chilean election in an effort to compensate for not voting in the EU election. We use data from the census of Chileans living abroad to study this alternative. We do not find evidence in line with this. Instead, most of the evidence we find is consistent with the zero-sum argument. Chilean expatriates that are more likely to be integrated in the host country community are less likely to vote in the Chilean election when the turnout in the local community is high.

To further understand which demographic or contextual factors are most important in driving the impact of local turnout on migrants' decision to vote in their home country and which groups are mostly affected, we perform a heterogeneity analysis. First, we analyze whether differential effects exist across groups potentially perceiving different levels of host country assimilation: depending on the size of the Chilean network in the local community, whether they live in small or large communities, based on age and whether they live in the city center or not. Second, we also analyze whether differential effects exist depending on the host country's characteristics, particularly, we use data from the European Value Study (EVS) to analyze whether the host country's attitudes towards immigrants matter. Third, using data from the census of Chileans living abroad, we analyze differential effects across Chileans expats with a Chilean partner versus those with a non-Chilean partner, and across those Chileans for whom language and prejudice towards Chilean immigrants were among the main difficulties they faced when they migrated.

We find that Chileans in the youngest cohorts, those living in rural areas and in areas with smaller communities are most affected by the local EU turnout. We also find stronger effects among Chilean voters who live in communities more open to migrants and for those with a non-Chilean partner as well as for those reporting that language was not a difficulty they experienced while migrating. All these factors suggest that the negative relationship we find is potentially a result of the integration of Chilean immigrants into the local communities of their host countries. Hence, increases in local political participation promote immigrants' engagement in local politics at the expense of the home country politics in localities where it is easier to integrate.

Moreover, to add further suggestive evidence about the existing mechanisms, we analyze whether the effect of local turnout correlates with secondary outcomes. We find that higher local EU turnout is associated with increases in political participation of host country individuals and their interest in following politics in the newspaper on daily basis. These results are in line with the mechanisms suggested in Fujiwara et al. (2016), where increases in turnout promote local interest in politics. Furthermore, we also find that local EU turnout is correlated with a higher probability of Chilean expatriates participating more in local organization (cultural/voluntary/religious organizations) in the host country, while reducing their participation in Chilean organizations abroad.

[6] Anecdotal evidence from the United States suggests that immigrants in order to be accepted '[t]o become members, they would, according to their fellow citizens -and contrary to the prescriptions of cultural pluralists- have to give up most of their Mexican culture. They would have to assimilate' (Conover et al., 2004).

This evidence is in line with the trade-off faced by immigrants in terms of their host and home country involvement as suggested by the zero-sum argument.

Our paper contributes to different strands of the literature. A bulk of studies have analyzed how migrants impact their country of origin through different channels such as remittances (Edwards and Ureta, 2003; Yang, 2008), migrant networks and foreign direct investment and trade (Javorcik et al., 2011; Parsons and Vézina, 2018), among others.[7] A nascent strand within this literature analyzes the impact of migration on politics in origin countries.[8] Based on cross-country data, Spilimbergo (2009) and Docquier et al. (2016) show that emigration promotes democratization in home countries. Other articles exploring microdata for different countries have shown that migration improves political institutions in the home country through a higher demand for accountability (Batista and Vicente, 2011), shaping migrants' political views (Fidrmuc and Doyle, 2004), and their social network in the home country (Nikolova et al., 2017; Batista et al., 2019). Chauvet and Mercier (2014) shows that returned migrants affect electoral outcomes through their increased political participation and by diffusing political norms across their networks.

An important and understudied aspect of how migration affects the politics of the country of origin is through emigrants' enfranchisement.[9] A few recent studies have analyzed the determinants of emigrants' electoral participation on their country of origin. Ahmadov and Sasse (2016) note that host countries with strong economies and democracies incentivize electoral engagement in home-country politics. Along similar lines, Ciornei and Østergaard-Nielsen (2020) find that experiencing political learning promotes expat participation in home country elections, especially if the host country has solid democratic institutions. We contribute to this literature by providing the first causal evidence that the host country's electoral turnout decreases expatriates' decision to vote in their country of origin. In this sense, not only individuals' political preferences might be affected when living abroad (Fidrmuc and Doyle, 2004), but individuals' likelihood of participating in their home country elections are impacted by the turnout in the host country. Our finding points towards an integration of people living abroad who end up distancing themselves even more from the host country when exposed to high turnout in the area where they live. In this sense, our paper relates to the literature on immigrant assimilation (Borjas, 1985; Abramitzky et al., 2020). Our paper shows that immigrants engage and integrate more in the home countries with high political participation.

We also contribute to the literature studying the determinants of electoral participation (Blais, 2006). Understanding how people's decisions to vote are affected by contextual factors is of crucial relevance for the well-functioning of democracy. We contribute to this literature by analyzing an increasingly important yet understudied group: expatriates voting in home country elections.[10]

Evidence shows that past turnout impacts future turnout through habit formation (Gerber et al.,

[7] See Docquier and Rapoport (2012) for an in-depth discussion on high-skilled emigration and its consequences for their home countries.

[8] See Kapur (2014) for a review of this literature.

[9] There is also a related literature analyzing how ethnic diversity affects turnout. See for instance Cho et al. (2006); Förster (2018).

[10] A related literature studies the effect of culture on political participation. See Alesina and Giuliano (2011) and Alesina and Giuliano (2015) and references therein.

2003; Meredith et al., 2009; Fujiwara et al., 2016). Particularly, Fujiwara et al. (2016) shows how short-term shocks to the cost of voting driven by rainfall impacts future voting behavior within the community. They argue that higher turnout increases future turnout by increasing the expressive value of voting for individuals in the local community. In line with their results, we further show that changes in local aggregate turnout have far reaching consequences in the sense that they also affect the turnout of migrants in their home country elections.

As in the case of Fujiwara et al. (2016), our study is related to the literature studying the role of social influence on political participation (Gerber et al., 2008; Funk, 2010; DellaVigna et al., 2016). People might vote to show others that they contribute to society by fulfilling their civic obligation. A distinct feature of our study is that we analyze voters (Chilean expats) interacting in a society where other individuals in their social network (coworkers, neighbours, friends in the host country) do not participate in the election (2017 Chilean presidential election). We observe that even in these contexts, the community has an impact on individuals' electoral participation.

This paper is organized as follows. Section 2 describe the Chilean institutional context and the 2017 presidential election, as well as the data. Section 3 lays out the empirical strategy. Section 4 presents the results, while section 5 discusses the heterogeneity analysis. Finally, we conclude the paper in Section 6.

2 Institutional Setting and Data

2.1 Chilean Presidential Election and Chilean expatriates

Chile is a republic with a presidential system. Since 2005, presidential elections occur every four years on the third Sunday of November in the year before the incumbent president's term expires. The candidate who gets the absolute majority of the valid votes becomes the president.[11] If no single candidate gets the absolute majority, a runoff election occurs between the two most-voted candidates.

Our analysis is focused on the Chilean general elections held on Sunday November 19, 2017. This was the first general election in which Chileans living abroad were allowed to vote. To be eligible to vote, citizens had to be at least 18 years old at the time of the election and they had to be registered in the corresponding embassy or consulate before July 1, 2017. This process had to be done in person. Nearly 40,000 people registered to vote across more than 100 electoral districts around the world.[12]

2.2 Data sources and sample

Microdata on Chileans registered to vote. The list of Chilean citizens residing abroad and registered to vote in the 2017 election comes from the *Servicio Electoral de Chile* (SERVEL), the

[11] Valid votes excludes null or blank votes.

[12] This exceeds 10 percent of the population eligible to vote outside Chile, which is nearly 360,000 people. See https://minrel.gob.cl/minister-munoz-on-the-vote-abroad-for-the-presidential-elections-it/minrel/2017-11-07/121822.html[accessed in March 31, 2020.]

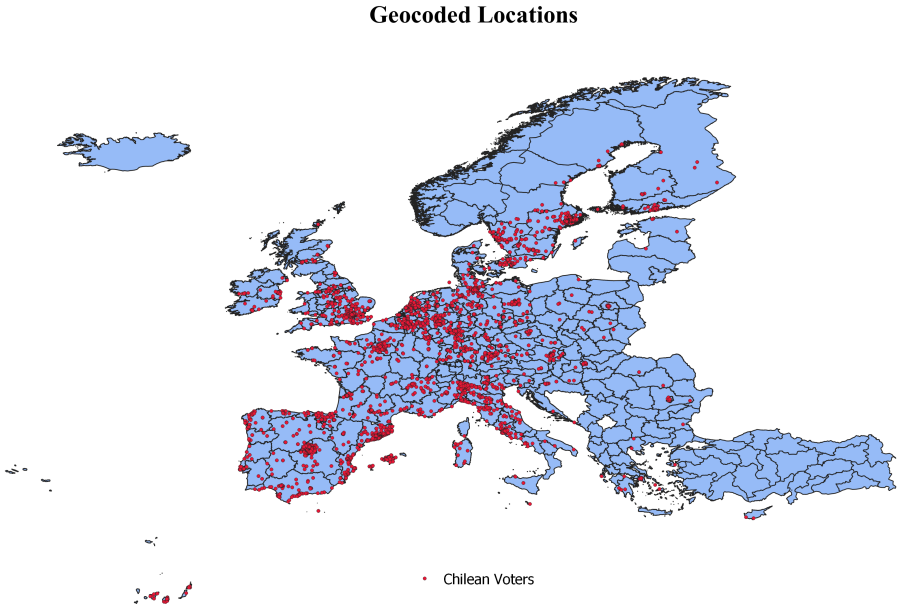

Figure 1: Location of registered Chilean Voters across the EU

Chilean national body in charge of elections. The dataset includes voters' names, national identity numbers, gender, registered home addresses, and the corresponding voting booth and consulate.

Among the people on the entire list of Chileans registered to vote, we focus on those living in countries within the European Union. The number of registered voters is around 11,500. For each one of these voters we determine the exact geographic coordinates (latitude and longitude) associated with their addresses by using Google's Geocoding API.[13] Figure 1 shows the geographic distribution of these (Chilean) voters across the European Union where each red dot indicates a single Chilean voter. As can be seen, there is substantial presence of Chileans across different locations in Europe, mainly concentrated in Western European countries.

Turnout data is available at both the voting booth level and the consulate level from SERVEL. We scraped this data from SERVEL's website for both rounds of voting using Python.[14] We match each voter to the corresponding consulate turnout level.

Additionally, we manually imputed the addresses of each Chilean consulate and obtained the corresponding geographic coordinates using the same process as for individual registered voters (figure 1). Then, we computed the distance (in kilometres) from each voter's address to their assigned voting booth using QGIS and the geo-coordinates of individual voters and voting locations (consulates or embassies).

[13] Google's geocoding API enables users to extract the latitude and longitude for addresses.

[14] Certain consulates had numerous voting booths. SERVEL's website did not report the turnout for certain voting booth in some consulates. Therefore, the consulate level turnout data was manually checked and re-calculated using consulate level turnout data from SERVEL.

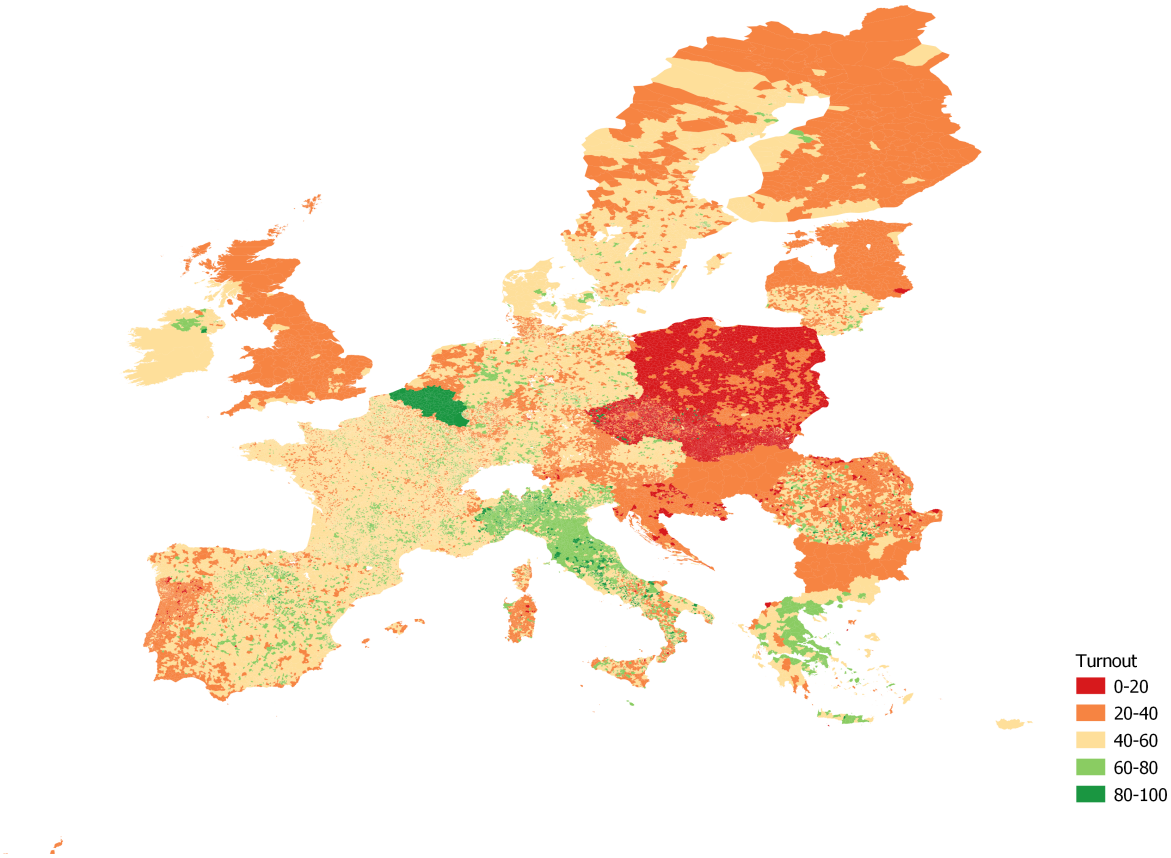

Figure 2: Turnout of voters in 2014 EU Parliament election at sub-national level (the precise level is detailed in Table F9)

Voters' turnout European Election. The 2014 European Union Parliament election turnout data is available at a sub-national level from each country. Table F9 in the appendix provides details on the granularity of the EU 2014 election turnout reported by each country. This data has been compiled into country level shapefiles by DataStory.org.[15] Figure 2 shows the electoral participation across EU countries for the 2014 Parliament election. As can be seen, the electoral turnout varies substantially across countries. At the extremes we see Belgium (where voting is mandatory by law) where almost 90 percent of the eligible voters actually vote, whereas in Poland the turnout is only 24 percent. The granularity of the data not only allows us to exploit cross-country differences but to also exploit the differences within countries. For some countries there are large differences across localities within the nation. This is the case for Italy, for instance, where there are sharp differences between the north and the south (and the islands).

We use the country-level shapefiles to create a composite EU shapefile that we use to match Chilean voters, using their home addresses, with the relevant sub-national 2014 European Parliament election turnout. This means that for each EU country, each Chilean voter that resides in that country is matched to the European Parliament turnout at the level of reporting. Note that the

[15]This data is publicly accessible on their GitHub page: https://github.com/datastory-org/ep-election-turnout.

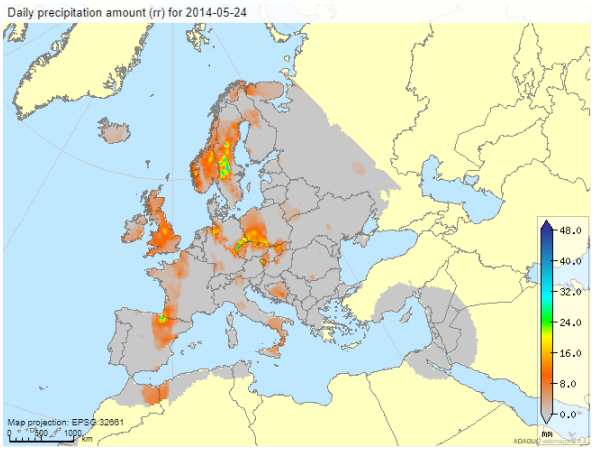

Figure 3: Distribution of rainfall on voting day of the 2014 European Parliament election

level of reporting varies across countries. For example, Chileans living in Italy will be matched to the corresponding European Parliament election turnout for the specific *municipality* where they reside, whereas in Germany they will be matched with the corresponding *district* (Table F9). In the paper we refer to this sub-national level of reporting as 'district'.

A unique feature of using the data from the European Union Parliament election turnout is that the institution is held constant across countries participating in the election as well as the timing of the election. At the same time, in appendix H, we present evidence that the turnout in the EU election and national elections is highly correlated - countries with higher turnout in EU parliament elections are the same as those that have higher turnout in national elections.

Rainfall data. Data on daily rainfall (precipitation) comes from The European Centre for Medium Range Weather Forecasts. The data is provided for a grid that covers Europe and each cell is 0.75x0.75 degrees (approximately 80x80km) in 12 hour steps. Rainfall data is measured as the total precipitation in millimetres in each 12 hour interval. We use rainfall data for each country's EU 2014 election day, 22nd-25th May 2014, and the Chilean election days; the first round of voting was on November, 19th, 2017, followed by a run-off election on December 17th, 2017. For each EU electoral location we compute the total rainfall during the 24 hour period for the specific voting date. Figure 3 shows the distribution of rain during the EU election days.[16] In order for the rainfall on the election day to be used effectively as a unexpected and transitory shock, we also compute the average total rainfall for the EU parliament election dates for twenty years, from 1994-2013, to control for the average past rainfall across districts.

[16]According to the American Meteorological Society (http://glossary.ametsoc.or/wiki/rain), rain is defined as 'light' when it falls at a rate of 2.5 millimetres per hour or less and 'heavy' when it falls at a rate of more than 7.6 millimetres per hour.

3 Empirical strategy

To estimate the effect of the host country's turnout, measured by the European Parliament turnout in 2014, on the electoral participation of Chileans living abroad in their national election in 2017, we first describe our baseline (naive) specification and then describe our main identification strategy (IV).

The baseline estimation equation (OLS) is:

$$turnout_{idc}^{CL} = \beta\, turnout_{dc}^{EU} + \gamma\, \mathbf{X}_{idc} + \alpha_c + \epsilon_{idc} \tag{1}$$

where CL and EU denote Chile and EU countries, respectively, $turnout_{idc}^{CL}$ is the 2017 Chilean election turnout at the consulate-booth level where the Chilean expat i living in district d in country c voted, $turnout_{dc}^{EU}$ is the turnout in the 2014 EU parliament election for district d in country c. X_{idc} is a vector of controls, including the gender and age of the Chilean expat, and some variables accounting for the cost of voting such as the log of distance from voters i's address to the corresponding voting booth/consulate,[17] and the rainfall on the day of the Chilean election. Additionally, we also include country fixed effects α_c to capture time-invariant unobservable characteristics of the host country.

Our parameter of interest is β, which captures the relationship between turnout in the host country and the Chilean expats' turnout in the Chilean presidential election. However, this β might be biased, given that Chilean expats can choose where they live and therefore it is plausible that the host country characteristics may be correlated with certain immigrant's characteristics and their electoral behavior. For example, Chileans with high sense of civic duty, which is unobserved and omitted, may select into countries with like-minded citizens.

To account for this potential endogeneity and estimate a causal relationship between host country turnout and Chilean expatriate turnout, we propose an instrumental variable strategy. We exploit a transitory shock to the cost of voting in the 2014 EU parliament elections, namely, rainfall which generates exogenous variation in the cost of voting across electoral districts across EU countries.

The first stage regression is:

$$turnout_{dc}^{EU} = \theta rain_{dc}^{EU} + \delta AvgPastRain_{dc}^{EU} + \lambda\, \mathbf{X}_{idc} + \alpha_c + v_{dc}^{EU} \tag{2}$$

where $rain_{dc}$ is the rainfall in district d in country c on the day of the 2014 EU parliament election.[18] $AvgPastRain_{dc}$ is the average rainfall in district d in country c on the day of the European election over the past twenty years (Madestam et al., 2013). After controlling for country fixed effects and the average past rainfall, we argue that the rainfall can be considered as good as ran-

[17] Expatriate voters in the Chilean Presidential Election were assigned to a voting booth and could vote either at the Chilean Embassy or consulate. In our analysis we know all the possible options within each country and calculate the distance between the Chilean voters' registered home address and the closest voting location. This distance between their residence and the voting booth is the relevant one to proxy the cost given that voting occurred on a Sunday.

[18] This instrument has been extensively used in the literature (Madestam et al., 2013; Fujiwara et al., 2016).

dom.[19]

As is standard for IV estimations, our estimator requires a monotonicity assumption, where the electoral turnout decreases as rainfall increases for every individual. This could be problematic if the unit of observation in the first stage was individual-level voter turnout. For example, individuals who enjoy outdoor activities may experience a fall in the cost of voting during rainy days. However, we study the effect of rainfall shocks on voters' turnout in the European Parliamentary election at the *district* level - instead of the individual level - where the monotonicity assumption is more likely to hold as these shocks work at the community level. In this setup, the parameter β captures a local average treatment effect (LATE) of host-country turnout on Chilean expats' turnout. For interpretation, it is worth noting that the 'compliers' are Chilean expats living in districts with greater shares of voters in the 2014 EU parliament elections whose voting behavior was affected by the rain.[20]

Finally, we take into account that data can be spatially correlated. We compute clustered standard errors at the district level, which is level at which we observe the 2014 EU turnout and rainfall shocks. We also estimate standard errors using Conley (1999, 2008) correction. We allow for spatial correlation across households within a radius of 10 kilometres (namely, the average size of a district). Our results are robust to using alternative cut-offs.

4 Results

We start by describing the results from our naive estimation from OLS, which are reported in the first three columns of Table 1. In column (1), where we do not include any controls, the point estimate is positive yet small in magnitude. Despite not being significant, this suggests that Chileans who live in areas with higher local turnout in the 2014 EU election turned out to vote more in the 2017 Chilean Presidential election. Once we add country fixed effects, the sign of the coefficient flips and becomes negative, although it is still not significant. The reversal in the sign of the estimate highlights the role played by selection effects in such a context. That is, it seems that Chilean expats with high sense of civic duty might be living in countries with high electoral turnout. Finally, in column (3), we add individual-level controls. In this case, the magnitude of the parameter is similar, but we gain greater precision in the OLS estimate. We find a negative and statistically significant relationship between voter turnout in the 2014 EU parliamentary election and in the 2017 Chilean Presidential election. While this change in sign of the estimate highlights the importance of accounting for selection effects when studying the effect between host country and expatriate voting behavior, the OLS estimate may still suffer from selection bias.

To fully account for the endogeneity problem, we further use an IV estimation strategy as described in the previous section, where we instrument the 2014 local EU turnout with total rainfall in the electoral district on the relevant election day. Before discussing these results, we first present

[19] Furthermore, in table C6 in appendix we show some balance tests highlighting that rainfall does not correlate with relevant socio-political variables across countries.

[20] These 'affected' voters are commonly called marginal voters as they are on the margin between voting and abstaining, and therefore were affected by the transitory increase in the cost of voting due to rain.

Table 1: Estimates on the role of the 2014 European election turnout on the turnout in the 2017 Chilean election (first round).

Dependent variable:	Turnout in the 2017 Chilean election (first round)					
	(1) OLS	(2) OLS	(3) OLS	(4) IV	(5) IV	(6) IV
2014 EU *local* turnout	0.016	-0.071	-0.076***	-0.917***	-0.887***	-0.885***
	(0.058)	(0.055)	(0.029)	(0.318)	(0.308)	(0.297)
Observations	11428	11428	11398	11428	11398	11398
Avg Chilean turnout	62.372	62.372	62.372	62.372	62.372	62.372
F-stat (first stage)				16.025	16.558	17.244
Other controls	No	No	Yes	No	Yes	Yes
Country FE	No	Yes	Yes	Yes	Yes	Yes
Controls IV stage						
Country FE				Yes	Yes	Yes
Avg. Past Rainfall				No	No	Yes

Note. The table presents effects of the 2014 European election turnout on the day of the election on the turnout in the 2017 Chilean election from Chileans living abroad. In columns 1-3, we present the OLS estimates, while in columns 4-6 with present the IV estimatest where the 2014 EU local turnout is instrumented by the rainfall. Turnout from Chileans living abroad is at the voting booth level. EU turnout is at the district level. Each individual is assigned the turnout from Chilean and EU elections based on the their geocoded residence. Rainfall data is in millilitres precipitation per day and distance is measured in kilometres from voting booth based on the geocoded individual's residence. Other controls are gender, age, the distance and the square of the distance from the voting booth and rainfall the day of the Chilean election, regional controls at NUTS2 level in 2013 (the population density, Unemployment rate, and the percentage of people with no education). Standard errors in parentheses are clustered at district level (*** p<0.01, ** p<0.05, * p<0.1).

evidence for the relevance of our instrument. Table 2 presents the estimates of the first stage (see equation 2) where the outcome variable is voter turnout in the 2014 EU election and the explanatory variable of interest is rainfall on the election day. Overall, regardless of the specification, rainfall decreases turnout. Our preferred specification, column (3), shows the effect of a rainfall shock on the EU turnout when we control for country fixed effects and the average rainfall on the EU election day over the twenty years prior to this election. A 1 millimetre increase in day rainfall in the district translates into a 0.46 percentage point decrease in the turnout in the EU election in 2014. The estimates from table 2 coupled with the F-statistics reported in columns (4)-(6) of table 1 give us confidence in our IV approach.

Table 2: First stage estimates of IV regression

Dependent variable:	European election turnout in 2014		
	(1)	(2)	(3)
Rainfall on the day of European election	-1.124***	-0.447***	-0.460***
	(0.174)	(0.112)	(0.105)
Observations	11428	11428	11428
R^2	0.083	0.714	0.716
Country FE	No	Yes	Yes
Avg. Past Rainfall	No	No	Yes

Note. The table presents estimates of the first stage of the IV regression (2) of the 2014 European election turnout on the rainfall on the day of the election. EU turnout is at the district level. Rainfall data is in millilitres precipitation per day. Standard errors in parentheses are clustered at district level (*** p<0.01, ** p<0.05, * p<0.1).

The results from the IV estimation can be seen in columns (4)-(6) of table 1. The coefficient from the IV estimate is larger (in absolute value) than the OLS estimate. While the OLS estimate captures the effect of permanent drivers of turnout and the IV captures temporary drivers of turnout due to the rainfall shock, the larger point estimate (in absolute value) in the IV goes in line with the bias produced by the self-selection previously described. The results show that a 1 percentage point increase in the 2014 EU turnout in the geocoded district where the Chilean lives translates into an almost equal percentage point (0.92-0.89 percentage points depending on

the specification) decrease in the turnout in the 2017 Chilean election. This implies a 1.6 percent decrease in the turnout relative to the average Chilean turnout. These results show that Chileans living in municipalities with higher turnout on the 2014 EU parliamentary election turned out significantly less in the Chilean Presidential election. Using the IV estimation strategy enables us to infer a causal relationship between these variables as - after controlling for country fixed effects and average past rainfall (column (6)) - the realised rainfall is as good as random. It is important to note that a one-to-one comparison with the OLS estimates is not possible as the IV estimates capture a local average treatment effect (LATE). This parameter captures the effect on Chilean expats living in EU districts with marginal voters. That is, the group of compliers in this case are the Chileans who turned out to vote as a result of lower turnout in the 2014 EU election that was due to an unexpected increase in the cost of voting due to rain.

It is also worth mentioning that our analyzes thus far have been focused on the first round of the Chilean presidential election (held on November 19, 2017). As no single candidate received a pure majority, there was a second round run-off election on December 17, 2017. We use the data from this election to replicate our first round analyzes and examine whether the 2014 EU parliamentary election impacted voting in the second round of the Chilean election even after controlling for the first round. We find similar estimates as in the first round wherein the effect of the turnout in the 2014 EU parliamentary election on the turnout in the Chilean national election is negative. The turnout in the first round of the Chilean election is perhaps unsurprisingly positively correlated with the turnout in the second round. The results from the OLS and IV estimations can be found in Appendix D. In Appendix I, we also present the estimates for our main specification with a correction for geographical correlation across the standard errors using Conley (1999, 2008). We allow for spatial correlation across households within 10 kilometres and our results are robust to using alternative cut-offs.

More importantly, we also perform several placebo tests where we instrument the 2014 EU electoral turnout by a rainfall shock that occurred 1 month and 2 weeks before and after the EU election to verify that our results are not spurious. Appendix B shows that we do not find any effects in these placebo regressions.

Our main result shows a negative effect of local 2014 EU turnout on Chilean turnout. This rules out a positive reinforcement of engagement between host country and expatriate political participation (*complementary* argument).[21] Instead, our results provide support for the *zero-sum* argument wherein expatriates increase their engagement with their host countries at the expense of their engagement with their home country politics. We explore this possibility in the next section where we take advantage of heterogeneity in the Chilean expatriate population as well as analyze differences in attitudes towards in migrants in the host country.

[21] In this context, this either does not play a role or, if it does, it is not strong enough to overcome the alternatives.

5 Heterogeneity analysis

In this section we investigate relevant heterogeneous effects to shed light on the channels driving the negative relationship between voting in the 2014 EU election and Chilean expatriate voting in the 2017 Chilean presidential election.

As pointed out by Fujiwara et al. (2016), increases in electoral turnout promote the attachment to the act of voting for individuals in the community as well as affecting the information in the local community, attitudes, and norms about future voting. These socio-political changes seem to affect the political behavior of migrants living in those communities as suggested by the results from the previous section, where expatriates decrease their engagement in their home country politics when there is high electoral turnout in the community where their reside.

While our results suggest that migrants face a trade-off between home country politics and host country politics (*zero-sum* argument), another alternative is that there might be a compensatory voting behavior. In this case Chilean expatriates who have dual citizenship and did not turn out to vote in the 2014 EU election, "compensated" by voting in the 2017 Chilean election. To analyze this, we use data from the Census of Chileans living abroad. Using information about the share of Chilean expatriates with dual citizenship across EU countries (at a NUTS2 level), we do not find any evidence in support of this channel (see Table E8 in the appendix). The coefficient on the interaction between the share of Chileans with dual nationality and the 2014 EU local turnout is small in magnitude and has the opposite sign (positive) to what would be expected if there were compensatory voting behavior, suggesting that in regions where a higher share of the Chilean population has dual nationality, the effect is weaker.

Next, we explore the heterogeneity across characteristics of the Chilean voters which we believe capture the different pressures or motivations which may affect their engagement with their host country.

Table 3 shows the results using our main IV specification (instrumenting the local turnout in the 2014 EU parliamentary election with rainfall on the election day) for different sub-samples. First, we look at differential effects depending on whether the Chilean voters live in the city centre or not (in columns (1)-(2)). This enables us to analyze groups subject to different levels of social pressures; one would expect less social pressures on Chileans living in the city centre. The difference between the estimates in columns (1) and (2) is quite striking. Chileans living outside of the city centre are strongly negatively affected by higher turnout in the 2014 EU election. In contrast, for Chileans living in the city center where, in general, there is greater anonymity and less community interaction, the effect is the opposite. Second, we analyze if the amount of Chileans living nearby matters. As shown in columns (3)-(4), we do not find differential impacts depending on the number of Chileans living within 5 kilometres.[22] In columns (5)-(6), we study differential effects depending on the size of the community as the integration and social pressures are higher in smaller communities (Funk, 2010). The negative effects are larger for Chileans living in small

[22] We draw a circle of 5 kilometres radius around each Chilean voter's registered address and count how many other Chilean registered voters live within that area. After taking the average, we split the sample into Chilean voters living with higher than the average number and lower than the average number.

community areas. In areas where the local network is smaller and perhaps more insulated, and where the 2014 EU turnout was higher, Chileans were less likely to vote in their home election, suggesting that perhaps this voter behavior is a result of integration of Chileans into their local communities.

Finally, columns (7)-(10) present the results for different age cohorts. It is interesting to see that the group most affected by the local host country turnout is the youngest group (aged 18-23 in 2017). This group of voters is arguably the most impressionable, as it would be their first opportunity to vote in any election, and plausibly the most embedded in the host country society. While the size of this group is smaller than the others and so the estimates are less precise, the magnitude of the effect in this group is noteworthy. The relatively smaller effect of the age groups in between is in line with the fact that people within these age-groups (particularly those aged 24-34) are more likely to have moved to the EU for education and/or employment opportunities and are relatively more likely to return to Chile. Therefore, their voting incentives may be somewhat different.

Table 3: Heterogeneous effects (network): estimates from IV regressions on the role of the 2014 European election turnout on the turnout in the 2017 Chilean election (first round).

Dependent variable:	**Turnout in the 2017 Chilean election (first round)**									
	Living in city center		*Chilean network*		*Community size* (host country)		*Age*			
	No	Yes	Small	Large	Small	Large	18-23	24-34	35-55	Above 56
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
2014 EU *local* turnout	-1.333***	1.569***	-0.974***	-1.005***	-1.947***	-0.480**	-1.222***	-0.807***	-0.819***	-0.888**
	(0.416)	(0.514)	(0.288)	(0.371)	(0.685)	(0.192)	(0.420)	(0.216)	(0.246)	(0.411)
Observations	5466	4549	5609	4406	5366	4649	416	2925	3260	3414
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Controls IV stage										
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Avg. Past Rainfall	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note. The table presents the heterogeneous effects of the 2014 European election turnout which is instrumented by the rainfall on the day of the election on the turnout in the 2017 Chilean election from Chileans living abroad. Turnout from Chileans living abroad is at the voting booth level. EU turnout is at the district level. Each individual is assigned the turnout from Chilean and EU elections based on the their geocoded residence. Rainfall data is in millilitres precipitation per day and distance is measured in kilometres from voting booth based on the geocoded individual's residence. Other controls are gender, age, the distance and the square of the distance from the voting booth and rainfall the day of the Chilean election, regional controls at NUTS2 level in 2013 (the population density, Unemployment rate, and the percentage of people with no education). Standard errors in parentheses are clustered at district level in columns (*** p<0.01, ** p<0.05, * p<0.1).

Chilean census data. Here we use data from the census of Chileans living abroad to explore heterogeneous effects along margins that capture different levels of integration. The results are reported in Table 4. Columns (1)-(2) show that for Chileans whose partners are not Chilean, the effect is negative whereas for Chileans with Chilean partners, the effect is positive. While there are many caveats to the interpretation of this result (e.g. this sample is restricted to Chileans who are married), the difference in the sign of the estimates is noteworthy. Chileans whose partners are also Chilean are more likely to be engaged in their home country politics than those with non-Chilean partners. Next, in columns (3)-(4), we look at differential effects among Chilean expatriates who reported that the language was an issue for integrating in the host country. The difference in the point estimates is quite stark (although not statistically significant). Chileans who reported that

language was not an issue when migrating and lived in areas with higher EU turnout in 2014 had much lower turnout in the 2017 Chilean Presidential Election. In contrast, the effect is positive (although not precisely estimated), for Chileans who did experience difficulties in migration due to language. Finally, columns (5)-(6) show that Chileans who did not have difficulty migrating due to facing prejudice against Chilean migrants are slightly more affected by the 2014 EU local turnout. Overall, the trade-off between home and host country is stronger for groups arguably more integrated in the local community.

Table 4: Heterogeneous effects (Census of Chileans living abroad): estimates from IV regressions on the role of the 2014 European election turnout on the turnout in the 2017 Chilean election (first round).

Dependent variable:	**Turnout in the 2017 Chilean election (first round)**					
	% foreign partners		*Encountered difficulty in migration* due to language		due to prejudice	
	No	Yes	No	Yes	No	Yes
	(1)	(2)	(3)	(4)	(5)	(6)
2014 EU *local* turnout	1.190*	-0.362*	-0.543***	1.212	-1.598**	-1.001***
	(0.722)	(0.188)	(0.177)	(5.086)	(0.768)	(0.371)
Observations	4484	5771	5193	5062	5152	5103
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Controls IV stage						
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Avg. Past Rainfall	Yes	Yes	Yes	Yes	Yes	Yes

Note. The table presents the heterogeneous effects of the 2014 European election turnout which is instrumented by the rainfall on the day of the election on the turnout in the 2017 Chilean election from Chileans living abroad. Turnout from Chileans living abroad is at the voting booth level. EU turnout is at the district level. Each individual is assigned the turnout from Chilean and EU elections based on the their geocoded residence. Rainfall data is in millilitres precipitation per day and distance is measured in kilometres from voting booth based on the geocoded individual's residence. Other controls are gender, age, the distance and the square of the distance from the voting booth and rainfall the day of the Chilean election, regional controls at NUTS2 level in 2013 (the population density, Unemployment rate, and the percentage of people with no education). Standard errors in parentheses are clustered at district level in columns (*** p<0.01, ** p<0.05, * p<0.1).

European Values Survey. While the heterogeneous effects presented in Tables 3 and 4 are focused on differences within the Chilean community, in Table 5 we explore potential differences in the effect of the 2014 EU turnout on the turnout among Chilean expatriates based on the attitudes towards migrants across European communities.

We use survey data from the European Values Study in 2007 and aggregate the responses at the NUTS2 level and then separately estimate the effects for Chileans living in areas that are more open to migrants and/or have a more positive view towards immigration. In columns (2) and (4), compared to columns (1) and (3), respectively, we see that Chileans living in areas which have a more positive view towards migrants and disagree more strongly with the statement that there are "too many immigrants" are more affected by the 2014 EU election turnout. As before, it seems that in communities where immigrants integrate better, increases in local turnout promote a higher level of disengagement of immigrants with their home country politics.

5.1 Analysis on secondary outcomes

The heterogeneous effects presented in the previous section are purely suggestive yet they are in line with the *zero-sum* argument. The evidence shows that increases in local turnout produce a

Table 5: Heterogeneous effects (attitude towards immigrants): estimates from IV regressions on the role of the 2014 European election turnout on the turnout in the 2017 Chilean election (first round).

Dependent variable:	**Turnout in the 2017 Chilean election (first round)**			
	Too many immigrants		*Immigrants enrich* Cultural life	
	Agree	Disagree	No	Yes
	(1)	(2)	(3)	(4)
2014 EU *local* turnout	-1.383**	-1.919*	-0.912***	-3.113*
	(0.541)	(1.102)	(0.250)	(1.696)
Observations	5862	5526	5703	5685
Other controls	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Controls IV stage				
Country FE	Yes	Yes	Yes	Yes
Avg. Past Rainfall	Yes	Yes	Yes	Yes

Note. The table presents the heterogeneous effects of the 2014 European election turnout which is instrumented by the rainfall on the day of the election on the turnout in the 2017 Chilean election from Chileans living abroad. Turnout from Chileans living abroad is at the voting booth level. EU turnout is at the district level. Each individual is assigned the turnout from Chilean and EU elections based on the their geocoded residence. Rainfall data is in millilitres precipitation per day and distance is measured in kilometres from voting booth based on the geocoded individual's residence. Other controls are gender, age, the distance and the square of the distance from the voting booth and rainfall the day of the Chilean election, regional controls at NUTS2 level in 2013 (the population density, Unemployment rate, and the percentage of people with no education). Attitudes towards immigrants at regional level are from the 2007 European Value Study. Standard errors in parentheses are clustered at district level in columns (*** p<0.01, ** p<0.05, * p<0.1).

higher disengagement with the home country politics for immigrants that might be more integrated in the community.

In this section, we further explore whether increases in the local turnout promote local political involvement for individuals in the host country community and also promote migrants political participation in the host country at the expense of the home country politics. For this purpose, we use variables from the European Value Study 2017 and the Census of Chileans living abroad as secondary outcomes.

In line with the *zero-sum* argument, in Table 6, we present some correlations that show that Chileans who live in areas with higher local turnout in the 2014 EU elections have greater participation rates in local community organisations and less so in Chilean organisations.

Moreover, on the host country side, Table 7 shows that a greater turnout in the 2014 EU parliamentary elections is positively correlated with local individuals caring more about political institutions and that they become more politically active. This is consistent with Fujiwara et al. (2016) who argue that increases in turnout promote the community's information, attitudes, and norms about future voting.

These results are purely suggestive, and although we are unable to dig deeper into the mechanisms, we put forward these estimations as potential indications of the *zero-sum* channel playing a role. We are aware that the effects presented here are not definitive evidence, but we believe that they do present value as they enable us to take a step to shed some light on the mechanisms that may be driving our main result.

Table 6: Estimates from OLS regressions on the role of the 2014 European election turnout on secondary outcomes from the Chilean census.

Dependent variable:	Participate in Chilean organization	Participate in cultural, voluntary or religious organization in *host country*
	(1)	(2)
	(OLS)	(OLS)
2014 EU turnout (NUTS2)	-0.243***	0.216*
	(0.061)	(0.113)
Observations	6121	6121
Average (%)	9.574	20.095
F-stat (first stage)		
Other controls	Yes	Yes

Note. The table presents the correlation between the 2014 European election turnout on the probability to participate in a Chilean organization in the host country, the probability to participate in cultural, voluntary or religious organization in the host country. The data are from the 2016 Chilean census of Chilean living abroad. EU turnout is at the NUTS2 level. Each individual answering the Chilean census is assigned the turnout from EU elections based on the their NUTS2 region of residence. Other controls are the gender, the age, the age squared, the education, a dummy equal to 1 if the respondent is born in Chile, the year in which the respondent left Chile, the number of years the respondent has lived in the current residence, and the dummies equal to 1 if the mother, father or grandparents were born in Chile and a dummy equal to 1 if the respondent is employed. Standard errors in parentheses are clustered at regional level (*** p<0.01, ** p<0.05, * p<0.1).

Table 7: Estimates from OLS regressions on the role of the 2014 European election turnout on secondary outcomes from the 2017 European Value Study.

Dependent variable:	Important to respect political institutions	Attend lawful Demonstrations	Follow Politics on daily papers	Interested in politics
	(1)	(2)	(3)	(4)
	(OLS)	(OLS)	(OLS)	(OLS)
2014 EU turnout	0.005***	0.015***	0.015***	0.002
	(0.001)	(0.001)	(0.003)	(0.002)
Observations	23279	22635	23323	23347
Average	3.603	1.924	2.452	2.447
Other controls	Yes	Yes	Yes	Yes

Note. The table presents the correlation between the 2014 European election turnout and outcomes from the European Value Study (EVS). The data are from the 2017 EVS. EU turnout is at the NUTS2 level. Each individual answering the EVS is assigned the turnout from EU elections based on the their NUTS2 region of residence. Other controls are the gender, the age, the age squared, the education, a dummy equal to 1 if the respondent is born in the country, a dummy equal to 1 if the respondent is employed. Standard errors in parentheses are clustered at regional level (*** p<0.01, ** p<0.05, * p<0.1).

6 Conclusion

This paper analyzes how host country electoral participation affects expatriate electoral participation in their country of origin. Using unique microdata on Chilean expatriates living in Europe, we estimate that a 1 percentage point *increase* in voter turnout in the 2014 EU parliamentary election (instrumented by the amount of rainfall at the day of the election) *decreases* Chilean expatriates turnout in the 2017 Chilean presidential election by 1 percentage point. These results are in line with the *zero-sum* argument wherein migrants become more engaged in their host countries' politics and as a result are less so in Chilean politics. Our heterogeneity analysis and the use of secondary outcomes present suggestive evidence in support of this theory and the important role that integration in the host country community plays in shaping migrants political preferences. We find that the youngest cohorts are most affected by the local EU turnout, as well as those living in rural areas and in areas with smaller communities where the integration with the local communities is arguably higher. Furthermore, we also find stronger effects among Chilean voters who live in communities that are more open to migrants, which suggests that it is easier to engage in local politics (at the expense of the home country politics) in areas where it is easier to integrate.

Equally, we found stronger effects among Chileans with non-Chilean partners as well as those who report that language was not a difficulty they experienced while migrating are also supportive of this channel. Overall, the evidence shows that increases in local turnout produce a higher disengagement with the home country politics for Chilean expats that might be more integrated in the host country community.

It is important to note that while our IV strategy allows us to causally estimate how Chilean expatriates' electoral participation is affected by the local turnout at their place of residency (driven by a transitory shock to the cost of voting), the focus on causality might come at the expense of exploring the long-term process through which expatriate voting behavior is affected by the host country. Despite this, our OLS estimates that account for some of the selection (through the use of country fixed) are in the same direction as our IV estimates, giving us greater confidence in our findings regarding the trade-off between home country and host country politics. This implies an important step towards understanding how individual electoral participation may be affected by the voter behavior, as measured by turnout, of the place where she lives.

Our paper contributes to a better understanding of expatriate voting behavior and the potential forces at play when countries decide whether or not to expand voting rights to those living abroad. Our finding points towards the crucial role of integration in host country societies and how this affects migrants' political preferences towards their home country. In this sense, our result relates to the stability of the political preferences, suggesting that they seem to be malleable and can evolve over time. Individuals' political values and identities are affected by the current environment, and do not only depend on the initial context where they grew up. Still, our combined results suggest that these values (identities) are quite persistent, as home country turnout is more sensitive to host-country turnout for young individuals whose values are arguably the most malleable.

While our results shed light on the far-reaching impacts of local turnout on future turnout across borders, further research has to be made to precisely identify the mechanism of this process. The literature analysing the impact of past turnout on future turnout within a country points out that increases in political participation in the local community promote the community's information, attitudes, and norms about future voting (Fujiwara et al., 2016). We observe evidence that increases in local turnout promote the political engagement in the community and the awareness of the importance of political institutions.

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Appendices to "Voting from Abroad: Assessing the Impact of Local Turnout on Expats' Voting behavior"

A Determinants of voting

Table A1 presents the estimates of the turnout in the Chilean election from the first round on some important determinants of voting. We estimate this regression by introducing a variable at the time from column 1 to column 5. Finally, in column 5 we introduce all the variables at the same time, while in column 6 we control for country fixed effects.

We confirm results already found in the literature. A higher distance from the voting booth and rain on the day of the election, which can be often considered as the cost of voting, decreases the turnout. On the other hand, age positively correlates with a higher turnout. This could be because older people have already experienced previous elections and the sunk cost that come with them. Finally, in column 6, we do a horse-race introducing all the variables at the same time and controlling for country fixed effects. Age and the rainfall on the day of the election are statistically significant with the expected signs.

Table A1: Estimates from OLS regressions on the determinants of the turnout in the 2017 Chilean election.

Dependent variable:	Turnout in the 2017 Chilean election (first round)					
	(1)	(2)	(3)	(4)	(5)	(6)
	OLS	OLS	OLS	OLS	OLS	OLS
Log distance	-0.340				-0.355	0.076
	(0.865)				(0.822)	(0.485)
Age		0.051			0.052*	0.019*
		(0.031)			(0.029)	(0.010)
Female			-0.899***		-0.832***	0.042
			(0.193)		(0.185)	(0.112)
Rainfall on the day of Chilean election				-0.020	0.022	-2.702***
				(0.453)	(0.409)	(0.511)
Observations	11428	11428	11428	11428	11428	11428
R^2	0.003	0.005	0.002	0.000	0.010	0.601
Country FE	No	No	No	No	No	Yes

Note. The table presents some possible determinants of the turnout in the 2017 Chilean election. Turnout in 2017 national election from Chileans living abroad is at the voting booth level. Each individual is assigned the turnout from Chilean based on the their geocoded residence. Rainfall data is in millilitres precipitation per day and distance is measured in kilometres from voting booth based on the geocoded individual's residence. Standard errors in parentheses are clustered at district level (*** p<0.01, ** p<0.05, * p<0.1).

B Placebo test

Tables B2 and B3 present the placebo test of the effects of the 2014 European election turnout which is instrumented by the rainfall occurred 2 weeks and 1 month *before* the day of the election on the turnout in the 2017 Chilean election from Chileans living abroad. On the other hand, Tables B4 and B5 present the placebo test of the effects of the 2014 European election turnout which is instrumented by the rainfall occurred 2 weeks and 1 month *after* the day of the election on the turnout in the 2017 Chilean election from Chileans living abroad. These placebo estimates give us confidence that the relationship between local host country turnout (instrumented by rain on the day of the election) and expats' turnout in the home country is not spurious.

B.1 Rainfall shock (2 weeks and 1 month *before* the day of the 2014 EU election)

Table B2: Placebo test - Rainfall 2 weeks *before* election day - Estimates from IV regressions on the role of the 2014 European election turnout on the turnout in the 2017 Chilean election.

Dependent variable:	Turnout in the 2017 Chilean election			
	(1)	(2)	(3)	(4)
	IV	IV	IV	IV
2014 EU *local* turnout	-8.764	-5.780	-8.764	-5.780
	(30.553)	(10.815)	(29.470)	(10.816)
Observations	11398	11398	11398	11398
Other controls	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Controls IV stage				
Avg. Past Rainfall	No	Yes	No	Yes

Note. The table presents the placebo test of the effects of the 2014 European election turnout which is instrumented by the rainfall occurred 2 weeks *before* the day of the election on the turnout in the 2017 Chilean election from Chileans living abroad. Turnout from Chileans living abroad is at the voting booth level. EU turnout is at the district level. Each individual is assigned the turnout from Chilean and EU elections based on the their geocoded residence. Rainfall data is in millilitres precipitation per day and distance is measured in kilometres from voting booth based on the geocoded individual's residence. Other controls are gender, age, the distance and the square of the distance from the voting booth and rainfall the day of the Chilean election, regional controls at NUTS2 level in 2013 (the population density, Unemployment rate, and the percentage of people with no education). Standard errors in parentheses are clustered at district level in columns 1-2 , while standard errors are estimated using Conley (1999, 2008) correction in columns 3-4 (*** p<0.01, ** p<0.05, * p<0.1). We allow for spatial correlation across households within 10 kilometres. Our results are robust to using alternative cut-offs.

Table B3: Placebo test - Rainfall 1 month *before* election day - Estimates from IV regressions on the role of the 2014 European election turnout on the turnout in the 2017 Chilean election.

Dependent variable:	Turnout in the 2017 Chilean election			
	(1)	(2)	(3)	(4)
	IV	IV	IV	IV
2014 EU *local* turnout	-142.664	93.823	-142.664	93.823
	(2680.335)	(817.990)	(2810.378)	(854.888)
Observations	11398	11398	11398	11398
Other controls	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Controls IV stage				
Avg. Past Rainfall	No	Yes	No	Yes

Note. The table presents the placebo test of the effects of the 2014 European election turnout which is instrumented by the rainfall occurred 1 month *before* the day of the election on the turnout in the 2017 Chilean election from Chileans living abroad. Turnout from Chileans living abroad is at the voting booth level. EU turnout is at the district level. Each individual is assigned the turnout from Chilean and EU elections based on the their geocoded residence. Rainfall data is in millilitres precipitation per day and distance is measured in kilometres from voting booth based on the geocoded individual's residence. Other controls are gender, age, the distance and the square of the distance from the voting booth and rainfall the day of the Chilean election, regional controls at NUTS2 level in 2013 (the population density, Unemployment rate, and the percentage of people with no education). Standard errors in parentheses are clustered at district level in columns 1-2 , while standard errors are estimated using Conley (1999, 2008) correction in columns 3-4 (*** p<0.01, ** p<0.05, * p<0.1). We allow for spatial correlation across households within 10 kilometres. Our results are robust to using alternative cut-offs.

B.2 Rainfall shock (2 weeks and 1 month *after* the day of the 2014 EU election)

Table B4: Placebo test - Rainfall 2 weeks *after* election day - Estimates from IV regressions on the role of the 2014 European election turnout on the turnout in the 2017 Chilean election.

Dependent variable:	Turnout in the 2017 Chilean election			
	(1)	(2)	(3)	(4)
	IV	IV	IV	IV
2014 EU *local* turnout	3.530	4.112	3.530	4.112
	(2.824)	(3.003)	(2.780)	(3.142)
Observations	11398	11398	11398	11398
Other controls	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Controls IV stage				
Avg. Past Rainfall	No	Yes	No	Yes

Note. The table presents the placebo test of the effects of the 2014 European election turnout which is instrumented by the rainfall occurred 2 weeks *after* the day of the election on the turnout in the 2017 Chilean election from Chileans living abroad. Turnout from Chileans living abroad is at the voting booth level. EU turnout is at the district level. Each individual is assigned the turnout from Chilean and EU elections based on the their geocoded residence. Rainfall data is in millilitres precipitation per day and distance is measured in kilometres from voting booth based on the geocoded individual's residence. Other controls are gender, age, the distance and the square of the distance from the voting booth and rainfall the day of the Chilean election, regional controls at NUTS2 level in 2013 (the population density, Unemployment rate, and the percentage of people with no education). Standard errors in parentheses are clustered at district level in columns 1-2 , while standard errors are estimated using Conley (1999, 2008) correction in columns 3-4 (*** p<0.01, ** p<0.05, * p<0.1). We allow for spatial correlation across households within 10 kilometres. Our results are robust to using alternative cut-offs.

Table B5: Rainfall 1 month *after* election day - Estimates from IV regressions on the role of the 2014 European election turnout on the turnout in the 2017 Chilean election.

Dependent variable:	Turnout in the 2017 Chilean election			
	(1)	(2)	(3)	(4)
	IV	IV	IV	IV
2014 EU *local* turnout	-2.366**	-2.376**	-2.366	-2.376
	(1.075)	(1.024)	(1.835)	(1.794)
Observations	11398	11398	11398	11398
Other controls	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes
Controls IV stage				
Avg. Past Rainfall	No	Yes	No	Yes

Note. The table presents the placebo test of the effects of the 2014 European election turnout which is instrumented by the rainfall occurred 1 month *after* the day of the election on the turnout in the 2017 Chilean election from Chileans living abroad. Turnout from Chileans living abroad is at the voting booth level. EU turnout is at the district level. Each individual is assigned the turnout from Chilean and EU elections based on the their geocoded residence. Rainfall data is in millilitres precipitation per day and distance is measured in kilometres from voting booth based on the geocoded individual's residence. Other controls are gender, age, the distance and the square of the distance from the voting booth and rainfall the day of the Chilean election, regional controls at NUTS2 level in 2013 (the population density, Unemployment rate, and the percentage of people with no education). Standard errors in parentheses are clustered at district level in columns 1-2, while standard errors are estimated using Conley (1999, 2008) correction in columns 3-4 (*** p<0.01, ** p<0.05, * p<0.1). We allow for spatial correlation across households within 10 kilometres. Our results are robust to using alternative cut-offs.

C Balance test

We present some balance tests of whether rainfall on the day of the EU election in 2014 at NUTS2 level correlates with socio-political variables in our countries for the 2012 European Social Study.

Table C6: Balance Tests from European Social Survey (2012)

Dependent variable:	Interested in politics	Attend lawful demonstrations	Allow many immigrants from outside of Europe	Immigrants enrich cultural life
	(1)	(2)	(3)	(4)
Rainfall on the EU election day (2014)	-0.002	-0.002	-0.008	-0.022
	(0.004)	(0.002)	(0.005)	(0.016)
Observations	21266	21210	20578	20599
Country FE	Yes	Yes	Yes	Yes
Avg. Past Rainfall	Yes	Yes	Yes	Yes

Note. The table presents the balance tests of variables from ESS 2012 on the rainfall on the day of the election conditional on the average past rainfall on the day of the election and country fixed effects. Each individual answering the ESS is assigned the rainfall on the day of the 2014 EU elections based on the their NUTS2 region of residence. Rainfall data is in millilitres precipitation per day. Standard errors in parentheses are clustered at NUTS2 level (*** p<0.01, ** p<0.05, * p<0.1).

D Second Round Turnout Estimates

Table D7 presents the results of the effect of local turnout on the second-round turnot in the Chilean elections.

Table D7: Estimates on the role of past Chilean election (first round) and the 2014 European election turnout on the turnout in the 2017 Chilean election (second round).

Dependent variable:	Turnout in the 2017 Chilean election (second round)					
	(1) OLS	(2) OLS	(3) OLS	(4) IV	(5) IV	(6) IV
Chile turnout (first round)	0.893***		0.892***	0.836***		0.842***
	(0.008)		(0.008)	(0.034)		(0.039)
2014 EU *local* turnout		-0.069**	-0.024		-1.260***	-0.505***
		(0.029)	(0.016)		(0.321)	(0.117)
Observations	11398	11398	11398	11398	11398	11398
Avg Chilean turnout	55.669	55.669	55.669	55.669	55.669	55.669
F-stat (first stage)				27.052	15.773	
Other controls	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Controls IV stage						
Country FE				Yes	Yes	Yes
Avg. Past Rainfall				Yes	Yes	Yes

Note. The table presents effects of the 2014 European election turnout which is instrumented by the rainfall on the day of the election on the turnout in the 2017 Chilean election from Chileans living abroad. Turnout from Chileans living abroad is at the voting booth level. EU turnout is at the district level. Each individual is assigned the turnout from Chilean and EU elections based on the their geocoded residence. Rainfall data is in millilitres precipitation per day and distance is measured in kilometres from voting booth based on the geocoded individual's residence. Other controls are gender, age, the distance and the square of the distance from the voting booth and rainfall the day of the Chilean election, regional controls at NUTS2 level in 2013 (the population density, Unemployment rate, and the percentage of people with no education). Standard errors in parentheses are clustered at district level (*** p<0.01, ** p<0.05, * p<0.1).

E Compensatory Effect

Table E8 presents the estimates of compensatory voting behavior to test if Chilean expatriates who have dual citizenship and did not turn out to vote in the 2014 EU election, "compensated" by voting in the 2017 Chilean election. To analyze this, we use data from the Census of Chileans living abroad. Using information about the share of Chilean expatriates with dual citizenship across EU countries (at a NUTS2 level), we do not find any evidence in support of this channel.

Table E8: Estimates from IV regressions on the role of the 2014 European election turnout on Chilean turnout by the share of Chileans with dual nationality.

	Turnout in the 2017 Chilean election (first round)			
	(1)	(2)	(3)	(4)
2014 EU *local* turnout	-0.927***		-0.882**	-1.228***
	(0.339)		(0.356)	(0.283)
Share Chilean with EU nationality		-0.012	-0.005	-0.513*
		(0.008)	(0.010)	(0.303)
Interaction term				0.011*
				(0.006)
Observations	11398	10194	10194	10194

Note. The table presents the estimates of compensatory voting behavior to test if Chilean expatriates who have dual citizenship and did not turn out to vote in the 2014 EU election, "compensated" by voting in the 2017 Chilean election. The 2014 EU local turnout is instrumented by rainfall on the day of the election. Other controls are gender, age, the distance and the square of the distance from the voting booth and rainfall the day of the Chilean election, regional controls at NUTS2 level in 2013 (the population density, Unemployment rate, and the percentage of people with no education). The share of Chileans with EU nationality comes from the Chilean census and is matched at the NUTS2 level. (*** p<0.01, ** p<0.05, * p<0.1).

F Data sources

Table F9 presents the data sources of the 2014 EU turnout data at the district level.

Table F9: Data sources for European Parliament election turnout

Country	GIS	Data	Level	Count
Austria	Statistik Austria	Bundministerium Fur Inneres	Town	2376
Belgium	Katholieke Universiteit te Leuven	Service public federal Interiur	Canton	209
Croatia	GADM	State Electoral Commission	Municipality and Town	560
Czech Republic	Geoportal UZK	Czech Statistical Office	Municipality	6258
Denmark	GADM	Statistics Denmark	Municipality	99
Finland	National Land Survey of Finland	Statistics Finland	Municipality	311
France	Open Street Map	Ministry of the Interior	Municipality	34982
Germany	GeoDataZentrum (v. 2014-01-01)	Federal Returning Officer	District	11477
Greece	GADM	Ministry of Interior	Municipality	326
Hungary	GADM	National Election Office	County and Capital	20
Ireland	GADM	Elections Ireland	Constituency	3
Italy	GADM	Department for Internal and Territorial Affairs	Municipality	8096
Luxembourg	Natural Earth Data	EU	Country	1
Netherlands	PDOK	Electoral Council	Municipality	403
Poland	GADM	Government	Municipality and City	2478
Portugal	DADOS	Ministry of Internal Administration	Parish	3223
Romania	GADM	Autoritatea Electoral? Permanent?	Municipality	2939
Spain	GADM	Ministry of the Interior	Municipality	8112
Sweden	Valmyndigheten	Valmyndigheten	Electoral district	5837
UK	Office for National Statistics	Parliament	Local Authority District	380
Northern Ireland	Open Data Ni	Electoral Office for Northern Ireland	District Electoral Area	80

Note. This table the data sources of the turnout from the 2014 European Parliament election.

G Registered electorates by country

Table G10 presents the descriptive statistics on the Chilean population in each country employed in the analysis and the number of Chilean registered to vote from abroad.

Table G10: Percentage of Chileans registered to vote by country of residency

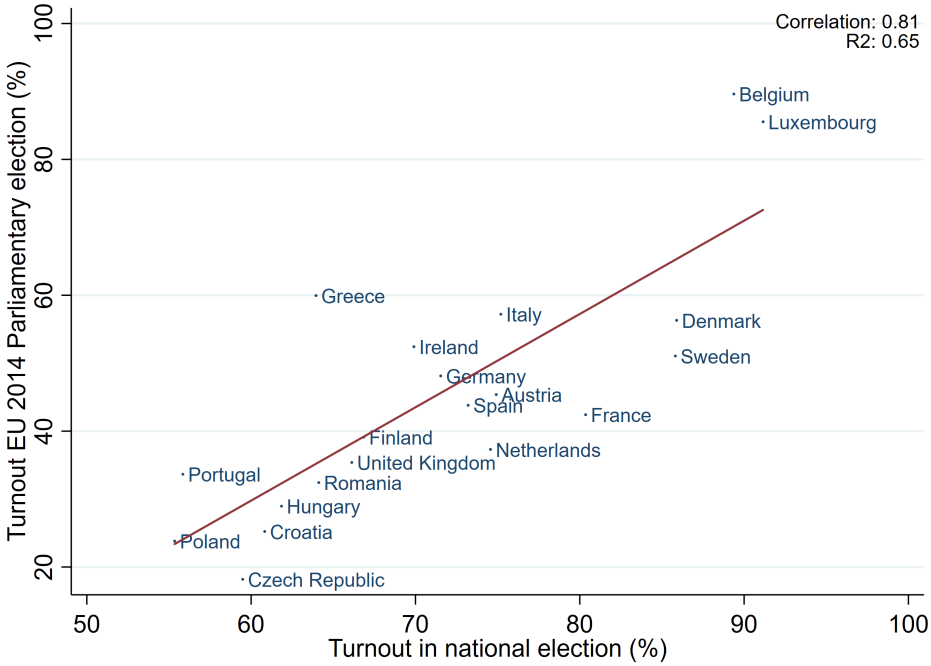
	Population born in Chile (A)	Registered to vote (B)	B/A (%)
Austria	1,264	189	15
Belgium	4,085	537	13
Czech Republic	127	52	41
Denmark	1,373	99	7
Finland	367	97	26
France	14,310	1,384	10
Germany	12,958	1,814	14
Greece	380	84	22
Ireland	311	139	45
Italy	11,129	725	7
Luxembourg	165	28	17
Netherlands	2,949	451	15
Portugal	276	87	32
Spain	68,130	3,037	4
Sweden	28,072	1,453	5
UK	7,071	1,134	16

Notes. The table shows the proportion of Chileans living abroad (born in Chile) that were registered to vote. The table shows information of a selection of countries were more than 100 Chileans were born in Chile according to the Census (column 2). The population born in Chile comes from the Second registry of Chileans Abroad (DICOEX - INE, 2019) . The number of people registered to vote comes from SERVEL and refers to those registered for the 2017 presidential election.

H Comparison between EU parliament and national turnout

Figure H1 presents a scatter plot of 2014 EU and national turnout. The national elections considered occurred between 2011 and 2015. The clear pattern that emerges is a high correlation of the two (the Pearson correlation is 0.81) and up to 65 percent of the variation is explained. Countries with a high turnout in EU Parliament elections are the same ones with a high turnout in national elections.

Figure H1: Comparison between the turnout from the 2014 European Parliament election and national election.



Note. The scatter plot presents a comparison between the EU turnout from the EU 2014 Parliament election and the national election. The national elections considered occurred between 2011 and 2015.

Online Appendix

I Conley standard errors

Table I11 presents effects of the 2014 European election turnout which is instrumented by the rainfall on the day of the election on the turnout in the 2017 Chilean election from Chileans living abroad. Columns 1-3 present the results from the 1st round, while columns 4-6 present the results from the 2nd round. The standard errors in parentheses are estimated using Conley (1999, 2008) correction. We allow for spatial correlation across households within 10 kilometres. Our results are robust to using alternative cut-offs.

Table I11: Estimates from IV regressions (with Avg. past rainfall and Country FE) on the role of past election and the 2014 European election turnout on the turnout in the 2017 Chilean election.

Dependent variable:	**Turnout in the 2017 Chilean election**					
	First Round			**Second Round**		
	(1)	(2)	(3)	(4)	(5)	(6)
Chile turnout (first round)				0.820***		0.842***
				(0.048)		(0.057)
2014 EU *local* turnout	0.186	-0.951***	-0.951***		-1.260***	-0.505***
	(0.167)	(0.363)	(0.354)		(0.362)	(0.179)
Observations	11398	11398	11398	11398	11398	11398
Avg Chilean turnout	62.372	62.372	62.372	55.669	55.669	55.669
Other controls	No	Yes	Yes	Yes	Yes	Yes
Country FE	No	Yes	Yes	Yes	Yes	Yes
Controls IV stage						
Country FE	Yes	Yes	Yes	Yes	Yes	Yes
Avg. Past Rainfall	Yes	Yes	Yes	Yes	Yes	Yes

Note. The table presents effects of the 2014 European election turnout which is instrumented by the rainfall on the day of the election on the turnout in the 2017 Chilean election from Chileans living abroad. Columns 1-3 present the results from the 1st round, while columns 4-6 present the results from the 2nd round. Turnout from Chileans living abroad is at the voting booth level. EU turnout is at the district level. Each individual is assigned the turnout from Chilean and EU elections based on the their geocoded residence. Rainfall data is in millilitres precipitation per day and distance is measured in kilometres from voting booth based on the geocoded individual's residence. Other controls are gender, age, the distance and the square of the distance from the voting booth and rainfall the day of the Chilean election, regional controls at NUTS2 level in 2013 (the population density, Unemployment rate, and the percentage of people with no education). Standard errors in parentheses are estimated using Conley (1999, 2008) correction (*** $p<0.01$, ** $p<0.05$, * $p<0.1$). We allow for spatial correlation across households within 10 kilometres. Our results are robust to using alternative cut-offs.