# Economic Insecurity and the Demand of Populism in Europe[*]

L. Guiso[†] H. Herrera [‡] M. Morelli[§] T. Sonno [¶]

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**Abstract**

This paper documents the spiral of populism in Europe and the direct and indirect role of economic insecurity shocks. Using survey data on individual voting and data on political parties manifestos in European countries, we make two contributions to the literature, namely: (1) Economic insecurity shocks had a significant impact on the demand of populism as a direct protection demand effect and also through the induced changes in trust and attitudes; (2) A key consequence of a negative shock to economic security is a drop in turnout. The impact of this previously neglected effect is substantial: when economic insecurity increases, almost 40% of the induced change in the propensity to vote for a populist party conditional on voting comes from the turnout incentives channel.

**Keywords**: turnout, trust, attitudes, populism
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[†]Einaudi Institute for Economics and Finance, and CEPR
[‡]Warwick University, and CEPR
[§]Bocconi University, IGIER, and CEPR
[¶]University of Bologna, and CEP

# 1 Introduction

What determined the populism wave in Europe in the 21st century? Are the common sources related to economic crises or stagnation and, if so, through what channels? This paper provides an empirical analysis of the channels through which economic insecurity affected the "demand" of populism. The focus on the common features of populist parties (left and right together rather than separate) and the focus on a broad notion of economic insecurity (rather than just globalization shocks) are necessary for a deep understanding of the phenomenon.

The 21st-century external threats of globalization and migration, as well as the financial crisis, undermined citizens' confidence in both leftist (government-based) policies and rightist (market-based) policies that respect the institutional constraints and functioning of politics.[1] Global market competition, immigration and robotization are making some believers in free markets shake. At the same time, the ability of governments to keep welfare state policies is reduced due to supranational constraints. At a time in which the crisis is two-sided, there is room for new movements and transformation of existing opposition movements in the direction of urging removal of constraining institutions.[2] We argue that a negative economic security shock that affects a citizen at a time when both left and right traditional recipes are perceived as ineffective, depresses the motivation to vote for traditional parties of both left and right; the disappointment generates an abstention-based space for populist platforms who thus experience a massive increase in support. Figure 1 lends support to this sequence. It shows a pattern familiar to several European countries: economic crisis followed by voter apathy and disaffection with traditional parties, which in turn opened the space for entry of new populist parties or greatly magnified the vote share of existing ones. In the paper we offer evidence that is consistent with this chain: economic insecurity causes faith in traditional parties to diminish, inducing disillusioned voters to abstain; in turn, economic insecurity, disillusion and the consequent trust drop attract support for populist platforms.

[FIGURE 1 HERE]

[1] For a discussion of the specific features of the great recession, see e.g. Judis (2016).

[2] Various forms of exit, rejection of international treaties previously subscribed, construction of walls, and so on, are just examples of simple protection proposals that have traction today but would not have attracted votes in other decades. The simple model in section 2 will clarify how the typical populist policies can appeal to disillusioned voters in our context.

To substantiate the claim of generality of the proposed sequential argument, we first propose a very simple theory that elucidates the channels through which a significant economic insecurity shock can trigger abstention and drop in trust and then populist voting. We then show that endogenous turnout effects are key for an evaluation of the relevance of economic insecurity, because economic insecurity shocks affect at the same time the willingness to participate in elections as well as the willingness to switch to a populist party conditional on having decided to participate. The full extent of the impact of economic insecurity trends becomes apparent when we show that even other key drivers of populist voting - namely trust in political parties and attitudes towards immigrants - are in fact substantially influenced by economic insecurity.

For the empirical analysis we will use the PopuList created by Rooduijn et al. (2019) to identify *populist parties*. Underlying the PopuList is the definition of populism proposed by Mudde (2004). This is widely accepted in the recent political science literature; it characterizes populism as "a political narrative that antagonizes the people and the corrupt elite, and that aims for policies that reflect the will and are understood by the people" (Mudde, 2004).[3] We study the determinants of the *demand* for populist platforms in the countries covered by the European Social Survey. Our empirical analysis accounts for selection into electoral participation. We show that adverse shocks to economic security and trust in political parties induce people not to vote and, if they do, to choose a populist party. Ignoring the voter participation margin would bias the estimates of the drivers of the vote underestimating the underlying demand for populist parties, but also would obscure the mechanism by which the disappointment induced by the crisis favours populists. A simultaneous Heckprobit estimation of the chance of participation and of a populist vote shows that economic insecurity has statistically and economically significant direct effects on both margins: it lowers the chances of turning out, but when a vote is cast it raises the chances of voting populist.

Trust in political parties and attitudes toward immigrants matter as well. The worsening of either of these sentiments both discourage participation and encourage voting for populists. Importantly, negative shocks to economic security and trust increase the vote share of populist parties among the participants because they strongly discourage supporters of mainstream parties to participate in elections. More immigrant-averse attitudes have a milder effect through reduced

[3] In Guiso et al. (2017) one can find robustness results to using a different continuous measure of populism.

participation, as the effect is overwhelmingly via switching voters preference from traditional to populist parties.

Building a pseudo-panel from the individual data allows us to show that trust in politics and immigrant attitudes variables are, in fact, affected causally by changes to economic insecurity.[4] Thus, we can document a large total effect (direct and indirect) of economic insecurity on the demand for populism. We confirm the relevant causal effects of economic insecurity on trust and attitudes towards immigrants also on an Italian panel of individual respondents from 2008 to 2013. Importantly, this panel allows us to confirm the timing of our mechanism, highlighting that what matters for the choice of voting populist is the feeling of economic insecurity just before elections. Overall, our evidence suggests that cultural factors such as trust and attitudes sentiments are an important channel driving the populist support, but also probably that they are not independent factors as they are driven by economic insecurity.

In a nutshell, our empirical analysis makes two important contributions to the literature: (1) Economic insecurity shocks have a significant impact on the demand of populism not only as a direct protection demand effect but also through the induced changes in trust and attitudes; (2) A key previously neglected effect of a economic insecurity is a drop in turnout incentives – *more than one third* of the induced increase in the propensity to vote for a populist party relative to other parties comes from a turnout effect. Ignoring the turnout (crucial) channel, one could reach the wrong conclusion (see e.g. Inglehart and Norris, 2016) that economic variables do not matter much in the decision to vote for a populist party. Indeed, failure to consider that economic security shocks significantly affects the decision to abstain makes inconsistent any estimate of the effects of economic insecurity on the propensity to vote populist.

Some literature also emphasized *indirect* effects of economic insecurity on certain cultural traits or attitudes/sentiments, who thus cannot be deemed independent drivers.[5] Indeed, economic insecurity may affect the populist vote in several indirect ways, as for instance fostering a

[4]Our finding that an economic insecurity shock significantly affects the attitudes towards immigrants may be due to any mix of rational updating (i.e., some people may rationally expect a higher risk of substitution) and behavioural external-blaming reactions.

[5]Lucassen and Lubbers **(**2012**)** give evidence – for 8 of the 11 European countries they consider – that shifts towards far-right populism stemmed from perceived cultural threats more than economic threats, whereas it is plausible that in shifts towards left-wing populism the relevant perceived threat is economic. But for us, the important observation is that the perceptions of both economic and cultural threats are causally affected by the economic insecurity shocks.

fear of white-status loss in the case of Trump voters as documented in Mutz (2018). For a review of the literature on populism in the social sciences in general, see e.g. Gidron and Bonikowski (2013) and Mudde and Kaltwasser (2017).

Algan et al. (2017) study the political consequences of the Great Recession in Europe, showing that in elections after 2008 the regions where unemployment rose saw the sharpest decline of trust in institutions and establishment politics. Dustman et al. (2017) reach similar results showing that in the aftermath of the crisis mistrust of European institutions, largely explained by the poorer economic conditions of the Euro-area countries, is correlated with the populist vote. Foster and Frieden (2017) nuance this result using individual characteristics from the Eurobarometer survey, and also show that the correlation is stronger in debtor countries. Like Algan et al. (2017), we find that economic insecurity has an effect on voting for populist parties and we document a causal effect of economic insecurity on people's degree of trust in politics. Further, however, we find that economic insecurity affects the consensus for populist parties not directly but primarily because it disappoints the supporters of the traditional parties of both left and right. This induces abstention and creates a potential electoral basis for a populist platform.[6]

Rodrik (2017) traces the origin of today's populism to the globalization shock, arguing that history and economic theory imply that waves of globalization will predictably lead to a populist backlash, and with specific timing (when the shock hits) and geographical pattern (in the countries most severely affected). While the shock of globalization generates demand for populist policies when considered in isolation and for specific events,[7] Guiso et al. (2019) show that globalization shocks alone cannot account for the cross-country evidence of populist outbreak in Europe. They show that the interaction of globalization with a euro-dummy captures all the explanatory power, and, in presence of such an interaction variable, globalization shocks alone lose relevance. In contrast, using the broader notion of economic insecurity that we propose here (which includes globalization exposure as one of the many components) the interaction effects with institutional variables do not eliminate the significance of economic insecurity.

[6] Bellettini et al. (2019) document that within-individual changes in income significantly impact participation, especially among the poor.

[7] Autor et al. (2016, 2017), Colantone and Stanig (2016, 2017), Jensen et al. (2016) are clear examples of well identified effects of the China shock on specific manifestations like Brexit. Pastor and Veronesi (2018) show that the backlash against globalization is a response to rising income inequality if aversion to inequality is assumed in voter's preferences.

Our paper is entirely focused on the demand side of populism. The existing formal theory of the supply of populism simply postulates that supply follows demand,[8] hence explaining demand is a first priority. Gennaro et al. (2020) displays related components of the strategic supply of populism for US elections. Guiso et al. (2017) contains also results on the entry and strategic positioning of populist parties in Europe. Guriev and Papaioannou (2020) provide a general overview of the most recent literature on populism, highlighting both the role of economic and non-economic factors.

The paper is organized as follows: in section 2 we illustrate the simple theoretical mechanism and the consequent econometric specification; section 3 describes our data and sections 4 and 5 display the empirical analysis of the direct and indirect effects of economic insecurity respectively. Section 6 concludes.

# 2 Simple Theory and Econometric Specification

In this section we flash out the theoretical mechanisms implying that economic insecurity first determined drop in turnout and trust, and populist voting becomes more likely to boom when enough alienation caused a participation drop. We then introduce the corresponding econometric specification.

## 2.1 Simple theory

Assume that in the status quo voters have a pool of traditional parties to choose from, all already tested and with well known positions and valence reputation. For simplicity assume that there is only one traditional party, $T$, but the same logic applies if the initial offering of traditional parties is a wider pool. We assume two periods, 1 and 2, representing the short run and the long run. A voter's expected income for each of the two periods from the preferred traditional party platform (the status quo income) is:

[8] For example, Acemoglu et al. (2013) show that the supply of populist policies simply comes from *pandering* to voters' implicit demand of credible differentiation of the political candidate from the interests of the elites.

**Expected Incomes from Traditional Party T**:

| | $Y_1^T$ | $Y_2^T$ |
|---|---|---|
| Status Quo | $(qy)$ | $\sigma\,(qy)$ |

The key heterogeneity factors among voters are:

- $q$: the short-run perceived *job-security* (e.g. the probability of keeping the current job);
- $y$: the short-run income in the current job (e.g. a low $y$ represents a *barely coping* citizen with a job);
- $\sigma$: the *trust* in current traditional policies to be sustainable or to improve/worsen in the long run (e.g. the perceived chance of improving, $\sigma > 1$, or worsening, $\sigma < 1$, the current short term expected income in the future).

Total expected utility from the status quo preferred traditional policy hence is:

$$U^T = qy\,(1+\sigma)$$

A large (perceived) shock to the status quo (e.g. the China shock or other globalization shocks, automation, immigration or financial and associated economic crisis) affect certain types of jobs, affecting the $q$ and $y$ of different categories of voters differently. Those who perceive a direct reduction in $q$ and/or $y$ experience a first direct discouragement effect. Moreover, since these external shocks are persistent, i.e. not a business cycle phenomenon, they affect the trust and expectations component, reducing also $\sigma$. All these effects compound to generate increased abstention rates. Citizens who suffer direct income or employment threats, e.g. from globalization or perceived competition from immigrants, are the first to feel alienated from the traditional parties and institutions, and as the crisis continues the perceived benefits of all traditional policies keep shrinking and trust keeps dropping even in other categories. We assume voters have a (possibly heterogeneous) cost of voting $c$ and behave like expressive voters. The above mentioned external shocks, reducing $q, y, \sigma$ in different ways for different categories, reduce the absolute expressive voting utility of a citizen while the cost of voting remains fixed, hence there is a first

absolute expressive voting downward effect on turnout.[9] As we now show, the more are the people for whom $U^T$ becomes less than $c$ and decide to abstain, the greater will be the potential "fishing pool" for an entrant $P$ that could elicit hopes of an expected utility $U^P > c$.[10] We consider party $P$ as populist when it offers a bundle of short-term protection policies, such as trade protection, defence from immigration, if right wing populism and citizenship income or other secure employment policies, if left wing populism. The policies offered in the short and long run can be summarized as follows:

**Expected Incomes of Populist Platform** $P$

| | $Y_1^P$ | $Y_2^P$ |
|---|---|---|
| Populist | $(q'y')$ | $\mu\,(q'y')$ |

where $Y_1^P$ and $Y_2^P$ are respectively the short term and the long-term expected income from Populist policies, and $\mu$ is the *trust* that the short term Populist policies are sustainable in the long run. Total expected utility from the Populist policy hence is:

$$U^P = q'y'\,(1+\mu)$$

In general, the populist platform proposes a reduction in the dispersion of short term expected income $qy$, by means of enhanced redistribution from the higher to the lower incomes and enhanced job protection for the jobs most at risk (low $q$). These "protection" characteristics of populist platforms and strategies are independent on whether entry occurs on the left or on the right. For instance, closure to immigration is an example of a populist platform aimed at generating higher short term expected income for some. A similar effect can be attributed to protectionist policies in trade. More specifically, populist parties either put greater emphasis on protection from job-stealing immigrants (often identifiable as right-wing populism), or on measures like citizenship income and employment protection (identifiable as left-wing). We can represent the

[9] As documented by Bellettini et al. (2019).

[10] That this very simple voting model interprets abstention as voter alienation: voters who feel let down by traditional parties, do not feel represented hence abstain, if other more palatable alternatives are absent.

populist platform as a linear re-mapping of job security $q$ into:

$$q' = \rho + (1 - \rho)\, q$$

where $\rho$ is the new minimal level of employment protection. This policy improves job security for all voters ($q' > q$) and more so for the agents with least job security. Moreover, the populist platform may also offer redistribution. The latter in reduced form is a re-mapping of income $y$ which increases low incomes and lowers high incomes:

$$y' = y_0 + \left(1 - \frac{y_0}{y_m}\right) y$$

where $y_0$ is some minimal income and $y_m$ is the mean income that is left unchanged by the populist policy, namely we have:

$$y' \gtrless y \quad \Longleftrightarrow \quad y \lessgtr y_m$$

The future cost of an untested populist policy is obviously uncertain and agents in general have heterogeneous beliefs on it: different generations of voters have different experiences with alternative policies and because of education and information heterogeneities. If, for example, a populist on the left proposes citizenship income, perhaps with budget deficit implications that could force the country to violate European budget rules and exit from Euro, the first term $Y_1^P$ is particularly high for the people who need the citizenship income the most, and the second $Y_2^P$ would be high for people with subjective belief that the citizenship income will continue to be feasible given the violation of those rules and its consequences. Thus, $\mu$ is low for more informed/educated people, who may be able to evaluate the indirect effects or the general equilibrium consequences and long term consequences of trade barriers. The under-estimation of future costs of populist policies is not only a well recognized phenomenon,[11] but also an explicit political strategy of populist parties: voters typically receive conflicting messages from the competing parties, with the populist party emphasizing that any concern for future costs expressed by the incumbents is simply a product of elite's interests.

[11] See e.g. Hainmueller and Hiscox (2006).

Conditional on the decision to turn out, a voter's preference for a populist or traditional platform will be determined by:

$$U^P > U^T$$

Substituting and simplifying we obtain:

$$\left(\frac{\rho}{q} + (1-\rho)\right)\left(\frac{y_0}{y} + \left(1 - \frac{y_0}{y_m}\right)\right) > \frac{1+\sigma}{1+\mu}$$

The above inequality delivers the key predictions of our model: populist platform is popular among agents with lower $(q, y, \sigma)$ or higher $\mu$, and all these variables are independent from one another. In sum, populist vote intentions are driven by the following factors:

1. Low $y$ : Lower income, financial distress, struggle to make ends meet. Richer agents have more to lose so are less keen on taking the populist resurrection gamble $\mu$. On the other hand, the poorer and more dissatisfied with the status quo want to take that gamble.

2. Low $q$ : Higher perception of short-run job insecurity. Past country aggregate economic performance, individual economic misfortunes recently experienced as well as differences in exposure to economic risks (e.g. exposure to foreign competition in the goods market - if an entrepreneur, or labor market - if a worker ) can all result in different values of $q$ and thus higher chances of voting for the populist party for those with lower perceived security. Similarly, differences in people confidence in the ability of the incumbent to rule can result in differences across individuals in $q$, with lower confidence leading to a shift towards a populist vote.

3. Low $\sigma$ : Lower trust in traditional status-quo politics to be sustainable or improve matters in the long run.

4. High $\mu$ : Optimistic belief in the long-run sustainability of populist policies. This can reflect differences in people's information about what the costs are as well as differences in ability to see through the populist party concealing of the future cost of their current protection policies. Understanding costs is related to education and attention to politics.

Summarizing, a protracted reduction in confidence in traditional parties and institutions is fertile ground for populist movements. The perceived negative outcomes and the ensuing dissatisfaction and alienation (of a sizeable share of the population) with the traditional policies are an opportunity for a populist policy that aims to subvert the status quo. As populist parties enter and try to appeal to voters they may scoop these disillusioned voters from the pool of abstainers or traditional voters. More in general, the types of citizens who may first be disillusioned and then start voting for a new entrant obviously depends not only on the relative drop in the three parameters of material utility $q, y, \sigma$ but also on the match in terms of ideology between the voter and the new entrant.[12] If entry occurs on the left, it is to be expected that a populist entrant proposes forms of immediate protection such as citizenship income or generalized insurance. Similarly, if entry occurs on the right, the populist is expected to push the national identity pride, closure of borders, protection of national companies, and most importantly anti-immigrant policies.[13] Lastly, mobilization and campaign spending are certainly important. Mobilization efforts by parties would increase turnout but not change the core results outlined above. Indeed in our model parties ' mobilization can be interpreted as lowering the cost of voting and enhancing the understanding and trust in each party, hence the relative effects would not be altered by an equilibrium set of mobilization efforts.[14] We can now turn to the description of the methodology we use to test the predictions of this simple theory.

[12] Obviously, for any given effect on the material utility parameters, the first voters drawn to vote for a right wing populist party are not left wing voters but voters that have more ease to find immigrants as scapegoats. Similarly, if left-wing voters are disillusioned by traditional parties but only right wing populist parties are present in the election, then these voters remain likely to abstain.

[13] Any proposal of this type, offering immediate job protection involves sharp changes and uncertain future consequences. It thus requires a rational attempt to remain vague on future consequences, and a constant association of whoever highlights future costs with the elite that caused the crisis in the first place. A populist proposal is often a "revolutionary" platform (exit from Euro, Brexit, etc) and a traditional party would not be successful in adopting a populist strategy because of lack of credibility: (1) an old party is much less credible when using an anti-elite rhetoric especially if connected to corruption scandals or alike; (2) an old party has a base of partisan ideological types who might feel alienated by a cynical populist move by their party.

[14] Other costly voting models, such as instrumental or ethical voting models, are based on analyzing, individually or collectively, the marginal benefit of a single vote. While pivotal instrumental voting would predict much lower turnout, both these models would also predict abstention effects from greater indifference or lower absolute utility from any alternative, but the main effect would be coming from greater indifference (which, in our case, is consistent with the policy straight jacket effect documented in Guiso et al., 2019).

## 2.2 Specification

We propose a simple framework to empirically model demand of populism. Individual voters make two decisions: they decide whether to participate in elections and, conditional on participation, whether to vote for a populist party or not, if a populist party is present.

Voters indexed by *i* decide whether to participate in elections and whether to vote for a populist party or not in country $c$ year $t$. When voter *i* does not feel sufficiently represented by the traditional party on his side of the spectrum, or when he is dissatisfied enough, he abstains from voting. Formally, the abstention condition can be expressed as:

$$A_{ict} - d_{ict} < C_{ict} + \varepsilon_{ict}$$

where $A_{ict}$ is the benefit of voting for the preferred traditional party when no disappointment for traditional politics $d_{ict}$ is present, $C_{ict}$ is the observable cost of voting, and $\varepsilon_{ict}$ a normally distributed component affecting the net cost of voting. Rearranging, voter *i* participates in the election if disappointment is contained enough:

$$d_{ict} < B_{ict} + \varepsilon_{ict}$$

where $B_{ict} = A_{ict} - C_{ict}$ is civic sense or the net benefit of voting for an ideal party. This net benefit is clearly heterogeneous across voters. Given normality of $\varepsilon_{ict}$, the probability that voter *i* participates in election is then:

$$\Pr\left(B_{ict} - d_{ict} > -\varepsilon_{ict}\right) = F(B_{ict} - d_{ict}) \tag{1}$$

where $F(x)$ is the cumulative normal distribution of $x$.

Those who participate have in turn to decide whether to vote for a populist or for a mainstream party. As argued above, a disappointed voter is more likely to be supportive of a populist program offering protection, and thus to vote for a populist party, if (s)he decides to participate. Let the participation indicator be $v_{ict} = 1$ if $B_{ict} - d_{ict} > -\varepsilon_{ict}$ and 0 otherwise and let $np$ denote the number of existing populist parties.

The more disappointed voters are with traditional politics the more gullible they will be to

the populist message, namely a voter *i* will choose a populist party if

$$d_{ict} > Z_{ict} + \xi_{ict} \quad \text{when: } (v_{ict} = 1, np_{ct} > 0)$$

where $Z_{ict}$ is a vector of observable characteristics that affect party choice (including a voter left/right ideology) and are typically a subset of those affecting participation, and $\xi_{ict}$ is a normally distributed random component. Importantly, the party choice can only be expressed by those voters who choose to participate and live in a country where a populist party exists. The probability of voting for a populist party would then be

$$\Pr\left(d_{ict} - Z_{ict} > \xi_{ict} | v_{ict} = 1, np_{ct} > 0\right) = F(d_{ict} - Z_{ict} | v_{ict} = 1, np_{ct} > 0) \qquad (2)$$

Notice that disappointment, and thus economic insecurity, has opposite effects on the probability of participation in elections and on voting for a populist party: it lowers the first but raises the second.

Estimation of our model (1)-(2) entails a number of econometric problems due to endogenous selection. The estimated parameters are representative of the preferences of the voters of countries that have a populist party but not of the population of voters. Compared to the latter, the estimates would be biased. Given that the variables that affect populist parties presence (and thus the Mill's ratio that one would compute from a first stage probit) only vary at the country-year level, in estimating equation (2) a full set of country specific year dummies would capture all country level variables that explain entry/existence of a populist party, addressing the endogenous entry problem. We will follow this approach and show that accounting for entry/existence of a populist party has a very contained effect on the estimated parameters. To deal with the issues related to the fact that people first decide whether to vote or not and then whom to vote for conditional on voting, we will estimate a two-step Heckman probit model, estimating first the probability of participation, and then the probability of voting for the populist party adjusting for selection. As observed, electoral participation depends on the same set of variables as the choice of party, possibly with opposite signs. For identification, we need a personal characteristic - an instrument - that affects the net benefit of voting (benefit less cost), but not the choice of the party conditional on participation. We will discuss instruments in Sections 4 when we present

the estimates of voters decisions.

# 3 The Data

Our main source of individual data is the European Social Survey (ESS). The ESS systematically tracks changing situations, values and attitudes. It covers all European countries, though not every country participates in every wave. Data has been collected every two years, since September 2002, by face-to-face interviews. We use eight waves through 2016.[15] The questionnaire consists of a core module, constant from round to round, and smaller rotating modules, repeated at intervals, on selected substantive topics. We will use the core module, which covers a wide range of social, economic, political, psychological and demographic variables. We validate our estimates also with an Italian panel dataset covering more than two thousands individuals over the period 2008-2013.

The ESS asks people whether they voted in the last parliamentary election in their country and which party they voted for. From these we obtained our turnout variable and constructed a dummy that takes value 1 if the voter voted for a populist party.[16] In the specification we have chosen we will rely on an instrumental variable that affects the cost of participating in an election but not the voter's choice of party. To this end, we have collected data on the weather on the day of the national election in question at the NUTS3-region level. In particular, we have obtained data on the average temperature and precipitation on election day in each region using the E-OBS dataset provided by the European Climate Assessment & Dataset project.

**Economic insecurity.** The key explanatory variable that we construct from the ESS data is economic insecurity. We capture heterogeneity in economic insecurity with three measures. First, whether the voter has been unemployed at some time in the past five years, forcing search for a new job; second, as a measure of financial distress, whether the voter is experiencing income difficulties, i.e. finds it hard to live on her current income;[17] and third, an indicator of exposure to

[15] The ninth ESS wave (2018) is available, however the ESS has not released the weights for the latter wave. Therefore, we will use only the first eight waves.

[16] Responses to the ESS do not necessarily correspond to what people actually did in the voting booth. The correlation between turnout in the ESS and actual turnout is however quite high, 78%. The correlation between ESS votes for populist parties conditional on participation and actual voting is higher, at 87%.

[17] Answers range from 1 (*"Living comfortably on present income"*) to 4 ( *"Finding it very difficult on present*

globalization, constructed exploiting information in the ESS on type of employment, industry and skill level – classifying as more exposed low-skill workers in manufacturing. The indicator takes value of 1 if the individual is a blue-collar worker in manufacturing; 0 otherwise. We will find it useful to combine these three objective measures of financial and economic distress in a single composite index of economic insecurity by taking the first principal component, rescaled to vary between 0 (least insecure) and 1 (most insecure). With this measure we are agnostic about the specific factor causing economic insecurity.

Economic insecurity may also be produced by labor market competition due to immigration. Unfortunately, there are no data on immigration inflows by country of origin and region of destination, which would enable us to obtain intra-country variation in individual exposure to labor market pressure. To capture fear of displacement in the labor market due to the possible arrival of cheap labor, we use a measure of sentiments towards immigrants: whether the voter would like fewer immigrants from low-wage countries, with answers ranging from 1 to 4 increasing in degree of support for immigration quotas. The ESS also collects people's attitudes towards quotas on immigrants from countries of the same race/ethnicity and from countries of different race and ethnicity, as well as whether people agree with the statement that immigrants make their country worse. We will use all these measures in studying the effects of economic insecurity on attitudes and beliefs in Section 5; but our results on voting are invariant to the measure used, so Section 4 reports the results using the first measure.

**Trust in traditional politics and institutions.** The ESS has several proxies for confidence in institutions, governments and political parties, all on a scale between 0 (no trust) and 10 (full trust). These indicators tend to be closely correlated and thus hard to tell apart. In analyzing individual voting behavior we use trust in political parties, which speaks directly to our model. In studying the link between economic insecurity and trust in Section 5, we use all the measures.

**Other controls.** We enrich the set of explanatory variables with two proxies for voters' ability to foresee the pitfalls of the populist platforms. The first is education, measured by the number of years of full-time schooling completed. The second is a measure of attention to politics, captured by two variables: how many hours per week people devote to watching TV in general and how many of these hours are spent watching news or programs about politics and current

*income"*).

affairs.[18] Watching TV in general is taken as a proxy for little interest in politics, and thus as a proxy for poor information. Watching news and programs about politics, given the time spent watching TV, is used to proxy for information level. Voting for an anti establishment party may entail some risk and be more appealing for risk prone voters. Similarly, sensitivity to policies that offer short term protection at the expense of long term policies may depend on people subjective discount. We use age as a proxy for subjective discounting, on the presumption that older people are less likely to have to bear for the future cost of current policies. As a proxy for risk tolerance we use the ESS indicator of whether people consider it important to avoid taking risks. In all regressions we control for gender and political orientation, measured on a scale from 0 (far left) to 10 (far right). Needless to say, some of the variables can proxy for more than one of the dimensions of heterogeneity that we have listed. For instance gender may also reflect risk preferences as may age. Table 1 panel A shows summary statistics for these variables.

[TABLE 1 HERE]

To identify populist parties in Europe, we rely on the PopuList proposed by Rooduijn et al. (2019) available at *www.popu-list.org*. The PopuList is a list of populist European parties that obtained not less than 2% of the vote in at least one national parliamentary election since 1998. Peer-reviewed by more than 30 academics, the list is kept up to date and records changes in the classification of individual parties over time. All of these features make the classification reliable and useful for our analysis. Rooduijn et al. (2019) base their classification of populist parties on the classic definition provided by Mudde (2004).[19] Using criteria compatible with Mudde (2004) definition, the authors identify 82 populist parties in 28 of the 31 countries examined. The full list of parties is available in appendix A, Table A8.

In the replication analysis on the 2008 and 2013 Italian national elections, our main sources of analysis are two publicly-available panel surveys commissioned by the non-profit organization ITANES (Italian National Election Studies). One survey is conducted via Computer Assisted Web Interviews (CAWI) and piloted by the polling company SWG, while the second survey is

[18] For wave eight of the ESS we use the variables "internet use time" and "time spent watching/listening to/reading the news" since the questions on media use have been slightly changed.

[19] Mudde (2004) defines a party as populist if (a) it endorses the set of ideas that society is ultimately separated into two homogeneous and antagonistic groups, "the pure people" versus "the corrupt elite," and (b) it argues that politics should be an expression of the volonté générale (general will) of the people.

jointly promoted by three Italian universities and is operated via CATI, i.e. Computer Assisted Telephone Interviews. The overall number of observations in the balanced panel on which we base our analysis amounts to 2,067. Even if the two samples differ in initial size and attrition rate,[20] the number of waves, the dates of the interviews and the survey questions were identical in the two samples. Both panels contain 5 waves: the first two were run in February and October 2011, one in May 2012 and the last other two in 2013, one before (January 2013) and the other after (in March 2013) the 2013 general election. Economic insecurity is proxied by two variables, available for all the 5 waves, capturing the perceived situation of the Italian economy and that of the household over the past year. Possible answers range from 1 ("*Worsened a lot*") to 5 ("*Improved a lot*"). Starting from this information, we have created new variables indicating the relative change from the previous wave in economic conditions, both at the national and at the household level. Alternatively, we created dummy variables taking value 1 if the individual reported that economic conditions either " *Worsened a lot*" or "*Somewhat worsened*". Analogously to the ESS survey, the ITANES panel contains indicators of trust in political parties, institutions and the government. Questions pertaining to the level of trust in the national parliament and the European Union, along with the degree of satisfaction with the performance of the incumbent government, will be used to study the causal link running from economic insecurity to levels of trust. Lastly, we add socio-demographic controls in order to complement the existing set of explanatory variables. Namely, we control for the level of education (measured by the logarithm of the number of years of schooling), the left-right political orientation and the level of interest in politics of the individual.

# 4 Empirical Analysis

## 4.1 Accounting Turnout Effects

As mentioned above, we model voting as a two-step decision: a) whether to participate in an election (the participation decision); and b) conditional on participation, which party to vote for – in particular, whether or not to vote for a populist party (the voting decision). A simple

[20] The CATI sample consists of 4066 individuals, 1159 of which responded to every interview. Conversely, the CAWI sample is composed by 908 interviews from an original sample of 2455.

visualization of the possible effects on populism demand through the participation channel is given in Figure 2, where we see that panel A and panel B have the same share of citizens who prefer to vote for the populist option, but panel B displays a larger fraction of abstainers, with voter disappointment affecting traditional party supporters more strongly.

[FIGURE 2 HERE]

Estimating the turnout and vote choice decisions simultaneously is important for two related but distinct reasons: first, to get consistent estimates of the voting decision if unobserved components of the participation decision are correlated with unobserved components of the voting decision. Second, to pin down the channels through which voters' characteristics impact on the voting choice.

Denoting by $z$ a variable (such as the weather on election day) that affects only the participation decision and by $x$ a variable that affects both the participation and the party choice,note that our dependent variable of interest, namely the probability of voting for a populist party conditional on voting, denoted by $\pi^C(x)$, must be equal to the ratio of the joint distribution and the marginal probability of turning out, namely $\pi^J(x)/\pi^V(x,z)$. To be more precise, $\pi^J(x)$ is the joint probability of voting and preferring a populist party, which is basically what one estimates when ignoring the turnout incentives. The effect of a change in $x$, say an increase in economic insecurity, is $\pi^C_x = (\pi^J_x \pi^V - \pi^V_x \pi^J)/(\pi^V)^2$ or, in percentage terms,

$$\pi^C_x/\pi^C = \pi^J_x/\pi^J - \pi^V_x/\pi^V. \tag{3}$$

Equation (3) clarifies that the effects of a change in economic insecurity on the conditional probability of voting for a populist (in percentage of the sample mean), which is our variable of interest on the LHS, is a sum of two effects, where the first one on the RHS is the standard effect on the joint distribution, whereas the second one comes entirely from the neglected turnout incentives.[21]

Jointly estimating voting and participation decisions we retrieve consistent estimates of $\pi^C_x$ and $\pi^V_x$ and can assess the economic role of turnout in the voting results. To account for the fact

[21] Since the turnout depression effects of an increase in economic insecurity will be shown to be significant and large, the negative sign in front transforms the effect in a definitely positive – and strong – effect. The same will be shown to be true when considering as independent variable $x$ one of the other important ones, trust or attitudes.

that the party choice only applies to those who vote in the election we estimate a two-step Heckman probit model. Electoral participation depends on the same set of variables as the choice of party, possibly with opposite signs. For identification, we need a personal characteristic that affects the net benefit of voting (benefit less cost), but not the choice of party conditional on participation. As instruments we use the mean temperature and total rainfall on the day of the elections in each region-year. The identification assumption is that meteorological conditions on the election day affect the cost of going to the polls but not the preference for voting for a specific party, which should reflect less transient factors. Because the effect of rain or heat on the cost of going to the polls may be stronger in countries where it rains infrequently (or where temperatures are frequently low) we also include interactions between rainfall and temperature with a dummy variable for southern countries.

We start estimating our Heckman probit model on the sample of countries that have a populist party in the ESS waves. Later we extend the estimates to all countries and account for selection induced by populist party existence/entry. As we will see, results are unaffected, suggesting that the included controls already capture the variables that affect populist parties presence. In all specifications we control for gender and political orientation and for the population of the voter's region; we also include country-level fixed effects and ESS wave fixed effects. Importantly, country-fixed effects capture all the time-invariant features of the country that may affect the success of populist platforms: the electoral system, the responsiveness of the established parties to salient political issues (such as labor market pressure from immigrants), and the level of corruption.[22] For brevity, these controls are not reported. We run regressions using sampling weights to account for differences in national's sample size. In all regressions, standard errors are clustered at the regional level. Our final dataset consists of 142,873 observations from 25 countries when estimating the specification with all controls.

Table 2 reports the estimates of several specifications, with a progressively augmented set of controls. The bottom part shows the parameter estimates of the meteorological instruments on the participation decision. In general, rainfall on election day discourages participation. This effect is stronger for southern countries. Additionally, we can observe that participation increases when temperature is higher. The absence of a significant interaction effect of temperature and

[22] These are some of the context variables that studies of populism (e.g. van Kessel, 2015) consider critical in explaining populists' success.

the “South"-dummy suggests that this effect is driven by the Nordic countries. This conforms with intuition: higher temperature is a good motivation to go to the polls in Nordic countries (where warm days are rarer), while going to vote in the rain is costly – even more so in southern countries where people are less equipped for it. Conditional on the controls and the instruments there is some sign of selection bias, as shown by the significant correlation between the residuals in the voting and the participation regressions in all specifications.

[TABLE 2 HERE]

The first two columns show results of participation and voting decisions controlling for risk and time preferences, education, political information, and the three proxies for economic insecurity. The proxy for risk aversion has a significant positive effect on participation: people who consider it important to avoid taking risks are more likely to vote. This measure has no effect on the choice to vote for a populist party. Hence, we find no support in the data for the idea that since the populist choice entails risk, it is more appealing for risk-tolerant voters. Interestingly, women are less likely to participate, and when they do, they are also less likely to support populist platforms; while the politically right-leaning are more likely to participate. Education has a positive and precisely measured effect on voting and, conditional on participation, a negative effect on support for a populist party. The proxy for political information has a significant impact on turnout - more politically informed citizens are more likely to participate, while its relevance decreases in the specification with full controls.

Unlike papers that ignore turnout (e.g. Inglehart and Norris, 2016), our study confirms the importance of the economic insecurity mechanism. Economic insecurity acts on two margins: it discourages participation and increases the likelihood of a populist vote among those who do decide to vote. The effect on the participation margin is precisely estimated and highly responsive to unemployment, income loss and exposure to globalization. It is this margin, in our interpretation, that creates the basis for the appearance of populist platforms. The populist vote is more likely among those who lost a job, suffer an income loss and are exposed to globalization.

To facilitate interpretation of the magnitude of the effects of economic insecurity, the second set of regressions replaces the three measures of economic insecurity with their principal component. The index of economic insecurity significantly affects electoral participation and voting

for the populist party. At sample means, increasing economic insecurity by one standard deviation lowers turnout by 6.3% of the sample mean and increases the populist vote by 17.1%. For an individual who transits from no economic insecurity to economic insecurity, the probability of voting for a populist party increases by 12.7 percentage points (82% of the unconditional sample mean), while the probability of voting falls by as much as 24 percentage points, equivalent to 30% of the sample mean. These are substantial effects.

The third pair of columns have trust in political parties as an additional explanatory variable. Consistent with our proposed interpretation of the role of disappointment with politics for the rise of populism, people with greater confidence in political parties are more likely to vote and to vote for a non-populist party. Those who have lost faith in political parties are more likely to abstain, but if they do vote, they are more likely to choose a populist party. Trust in political parties is on a scale of 0 to 10; a drop of 5 points increases the probability of voting for a populist party by 10% of the sample mean. The effect on electoral participation is similarly strong: a drop of 5 points lowers the chance of participating in elections by 6.7 percentage points, more than 44% of the unconditional mean electoral turnout.

The last pair of columns add, as a control, a measure of attitudes towards immigrants, used as a proxy for fears of competition in the labor market. Support for policies that limit immigrants from non-EU countries, support for limiting immigrants of the same race/ethnicity or immigrants of other race/ethnicity than that of the respondent, or an average of the three measures, all have the same implications: people who are more averse to immigrants are less likely to vote and more likely to vote for a populist party if they do. A 1-standard-deviation increase in hostility to immigrants lowers turnout by 1 percent of the sample mean; the effect on voting for a populist party is more pronounced: it increases by 15.5% of the sample mean. The effects of the other variables, particularly economic insecurity and trust in political parties, are unchanged.

Table 3, first column, summarizes the direct effect on the conditional probability of voting for a populist party of a 1-standard-deviation increase in economic insecurity, trust in political parties, and fear of immigrants. The second column shows the contribution of these variables to this conditional probability of a populist vote *through their effect on the probability of voting at all*. Economic insecurity and trust in political parties affect the conditional probability of voting for a populist party with a decisive contribution through their effect on turnout. To see the magnitude of the effects, consider again equation (3), which decomposes the effects of a

change in a variable $x$ by highlighting in particular the presence of the turnout incentive effects as last term on the RHS: considering first economic insecurity as variable $x$, we show that the second term on the RHS of (3), neglected in previous studies, amounts to almost 38% of the total change in the share of populist votes. Similarly, if one focuses on another key variable like trust, the effect of the decrease in turnout incentives amounts to roughly 25% of the total effect, while for anti-immigrant sentiment this contribution is lower, around 8%. In sum, accounting for the effects on the decision whether or not to vote is crucial to understand how the drivers of populist voting operate.[23]

[TABLE 3 HERE]

Table A9 in appendix B reports a number of extensions and robustness exercises.

## 4.2 The Italian Case

The evidence on the role of averse shocks to economic security as a key driver of the demand for populist parties is further confirmed using the Italian case. The available panel data cover the years of the great recession in a country that was hit hard, and allow to correlate individual-level changes in voting with changes in economic security, minimizing concerns about unobserved heterogeneity. Moreover, the Italian data allow to separate voters views about the country economy from those about their own economic situation and thus study which one affects voting the most - whether worries about their own economic prospects or those of the nation. Consistent with the ESS survey analysis, we use the PopuList classification for the sake of identifying populist parties in the 2008 and 2013 elections. We focus on two dependent variables: voting for populist party in the 2013 election and switching to a populist party between the 2008 and the 2013 election, both conditionally on voting . The first variable is a dummy taking value 1 if the individual voted for a populist party in 2013, whereas the second one takes value 1 if the individual voted for a non-populist party in 2008 or did not vote and supported one of the three populist parties (Five Star Movement, Forza Italia and Northern League) in the subsequent national election. We estimate selection-adjusted Heckprobit models adding a macro-region fixed

[23] Letting $\sigma_x$ denote the standard deviation of any independent variable $x$, the RHS of equation (3) when evaluating the effects of a standard deviation change in $x$ becomes: $\sigma_x \pi_x^J / \pi^J - \sigma_x \pi_x^V / \pi^V$.

effect to capture local features that may correlate with the success of populist platforms (e.g. the level of political corruption).Moreover we control for standard individual demographic characteristics, namely gender, age, years of education. Lastly, we add fixed effect for the size of the municipality and variables measuring interest in politics and left-right orientation of the interviewed.

As a measure of economic insecurity of a respondent we use the number of cases (s)he reports that the economic situation has worsened in each of the four waves preceding the 2013 national elections, distinguishing between worsening of the situation of the country and worsening of the situation of her family. To capture the salience of economic shocks closer to election we discount a worsening episode geometrically at a rate of 0.8 per wave.[24]

[TABLE 4 HERE]

Table 4 reports the results of this analysis.[25] Column 1 shows that a longer sequence of economic insecurity shocks has a positive and highly statistically significant effect on the probability of voting for a populist party in the 2013 Italian national election. Both a perceived deterioration in the country economy as well as in the voter's family enhance populist party voting. Interestingly, nation-wide shocks have a more than 1.5 times stronger marginal effect on switching to a populist party, suggesting that it is primarily aggregate performance that drives disappointment towards traditional parties. Both country level adverse shocks and family ones induce voters of mainstream parties to switch to a populist party and the first effect is stronger. A voter of a mainstream party in 2008 that reports four episodes of negative shocks to the country economy is 20 percentage points more likely to switch to a populist party in the 2013 election compared to a voter that sees no deterioration. The probability of switching is almost 8 percentage points

[24]Specifically, let $x_{jt}$ be a dummy variable taking value 1 if the individual $i$ reported a deterioration in economic situation in wave $t$ for the country as a whole ($j = c$) or for his family ($j = f$). The variable Total Negative Shock for $j = (c, f)$ is defined as: $\text{TotNegativeShock}_{ji} = \sum_{t=1}^{4} 0.8^{4-t} x_{jt}$. This choice is driven by the fact that among each wave there is an interval of around 8 months for the first four waves. Among the last two waves there is an interval of two months, therefore, we use a 0.2 discount factor for the last wave.

[25]Mirroring our analysis of the ESS data, we estimate Heckprobit models of the conditional probability of voting populist (columns 1, 3, and 5 of Table 4) and of the conditional probability of switching (from abstention or voting for a non-populist party) to voting for a populist party (columns 2, 4, and 6 of Table 4). As before, our instruments are rainfall and average temperature on the election day as well as their interactions with a dummy variable that indicates southern Italy. Selection equation estimates are reported in appendix C.

higher if the four shocks are to her family economic situation. In columns 3 and 4 we repeat the exercise using just the sum of the shocks occurred in the last two waves before the elections and in the last two columns using separate dummies for negative shocks to economic security in the last two wave (more lags were statistically insignificant). Results are similar to those in the first two columns. A worsening of the nation economy or of the own family increases the chances of voting for and switching to a populist party, marginal effects are larger for country-wide negative shocks and for shocks closer to the election.

# 5 Trust in politics and attitudes toward immigrants

As me mentioned, economic insecurity can affect both electoral participation and populist vote also indirectly, because it influences people's confidence in political parties and attitudes towards immigrants. A recent strand of work emphasizes the decline in confidence in other people caused by sharp drops in economic activity (Ananyev and Guriev, 2018).[26] The same logic applies, even more plausibly, to falls in trust in political parties, politicians and governments, say because citizens blame incumbent parties (and the government) for poor economic performance. The same logic can be extended to argue that negative attitudes towards immigrants may be exacerbated when people, faced with economic insecurity, feel more threatened by labor market competition. Let us study these channels using our data, starting from the ESS data.

## 5.1 The pseudo-panel analysis

Economic insecurity and trust in political parties are negatively correlated, when gauged using cross sectional variation in the pooled ESS. Similarly, economic insecurity is correlated positively with hostility to immigrants from non-EU countries. These correlations hold even controlling for observable and country and wave fixed effects. Of course the correlations may just reflect unobserved heterogeneity - i.e. some individual characteristics that drive both economic insecurity and people's trust in politics and attitudes towards immigrants. To address this problem, we

[26] Ananyev and Guriev (2018) isolate the causal effect of economic downturns on people's trust during the 2009 recession in Russia, exploiting regional variations in the industrial structure inherited from the Soviet Union, and noticing that capital-intensive and oil-related industries are more responsive to shocks to GDP. They find that a decline in GDP causes a sizeable drop in trust in other people.

follow Deaton (1985) and construct a pseudo-panel from the sequence of ESS waves. We group the data into fourteen 5-year age cohorts of men and women in each country, respectively, and estimate the following model:

$$y_{jct} = \beta_1 \mathbf{x}_{jct} + \beta_2 EI_{jct} + f_j + f_{ct} + u_{jct} \tag{4}$$

where $y_{jct}$ denotes the generic belief/attitude of cohort $j$ in country $c$ in year $t$, $\mathbf{x}_{jct}$ the vector of controls, $EI_{jct}$ the index of economic insecurity, and $u_{jct}$ an error term. Unobserved heterogeneity is controlled for by the cohort-specific fixed effects $f_j$.[27] Country-specific trends in beliefs/attitudes and economic insecurity are captured by country-year fixed effects $f_{ct}$. The latter pick up any country aggregate variable that affects changes in beliefs over time, including any effect of populist party rhetoric.

[FIGURE 3 HERE]

Figure 3, left panel, shows a simple bivariate correlation between the change in trust in political parties and that in economic insecurity among the pseudo-panel cohorts. In all cases, an increase in the economic insecurity of the cohorts leads to a decrease in trust in political parties. The right panel shows the bivariate correlation between changes in attitudes towards EU immigrants and changes in economic insecurity for the same cohorts. This second correlation is strongly positive. The first two columns of Table 5 report controlled fixed-effect pseudo-panel regressions of trust in political parties and attitudes to non-EU immigrants on our summary measure of economic insecurity and individual time-varying controls (risk aversion, age, exposure to the media) as well as country-specific time effects common to all cohorts. Economic insecurity has a negative and highly significant effect on trust in political parties and a positive and highly significant effect on hostility towards immigrants. The economic effects are substantial: a 1-standard-deviation increase in economic insecurity lowers trust in political parties by 7.3% of its sample standard deviation and increases hostility to non-EU immigration by 5.2% of its sample standard deviation. Because these are fixed-effects regressions, the results cannot depend

[27] Our pseudo-panel consists of 840 age/country/year-of-birth groups. Cohorts are relatively large, with 358 observations on average. This reassures us that measurement error in the cohort means is likely to be negligible. Dropping cohorts with fewer than 50 observations (4.8% of the total) does not alter the results.

on unobserved heterogeneity.[28] The results lend support to our thesis that a deterioration in individual economic security causes a loss of confidence in political parties as well as a change in attitudes towards immigrants.[29]

[TABLE 5 HERE]

The rest of the table expands the evidence by regressing several measures of trust (in politicians, in the national parliament, in the European parliament, and an index of satisfaction with the government) and attitudes towards immigrants (preference for fewer immigrants of different race/ethnicity; for fewer immigrants of same race/ethnicity; agreement that immigrants make the country worse). Economic insecurity causes people to lose confidence in politics, institutions and governments and to increase aversion to immigrants across the board.[30]

## 5.2 Italian panel analysis

Table 6 displays the replication of the results using the Italian panel data. Our dependent variables are the level of trust in parties, national parliament and European Union (columns 1-3). We also look at a slightly different concept of trust in institutions, by using two measures of appreciation toward the incumbent government: the first refers to the overall activity of the national government, the second to the valuation of the incumbent with respect to the most salient policy for the respondent. As a measure of attitudes toward immigrants we use the answers to a question on a ban for immigrants from Muslim countries, with values increasing in the support for the ban. We complement each regression with individual and wave$\times$region fixed effects; hence identification comes from variation over waves in measures of trust and attitudes and economic

[28] The pseudo-panel regressions identify the causal effect of economic insecurity on trust in political parties and on attitudes towards immigrants that is due to: a) individuals in the cohort changing their attitudes when they experience insecurity directly; b) changes in trust towards parties/attitudes towards immigrants in that cohort reflecting group effects.

[29] Reverse causality - people who lose trust in parties and because of this are more likely to lose their jobs or to suffer income losses - is not plausible, particularly in light of the fact that any effect that a generalized loss of confidence in politics has on the economy is already picked up by the time fixed effects and similarly for a change in attitudes towards immigrants.

[30] Our interpretation is supported by the results in Algan et al. (2017) who show that in regions of Europe where unemployment increased more sharply following the 2008 crisis, trust in parties and political institutions fell more and sentiments towards immigrants deteriorated. An IV analysis suggests that the causality runs from changes in unemployment to changes in trust and sentiments.

conditions with the fixed effects taking care of individual fixed characteristics.[31] Our main independent variables here are two measures of economic condition, at the national and household level, rescaled between 0 and 1.[32]

[TABLE 6 HERE]

The estimates in Table 6 are in line with the results using the ESS-based pseudo-panel. Better economic conditions both at the household and at the national level have a positive impact on the level of trust in parties, national institutions and European Union. The estimates also suggest that the perceptions on the national economy have a stronger impact than those of the own family conditions, particularly so for trust in political parties and appreciation of the government. The estimates on attitudes toward immigrants reveal an interesting pattern: a worsening in personal economic conditions predicts a stronger support to the ban of Muslim immigrant and the effect is large (one standard deviation decrease in the family economic situation increases support to the ban by 5% of the sample mean). On the other hand, a worsening of the country economic conditions has no statistically significant effect on the attitude towards immigrants.[33]

## 5.3 Total effects of economic insecurity

We use the estimates in the first two columns of Table 5 together with those in Table 2 to obtain an estimate of the total effect of an increase in economic insecurity on the probability of voting for a populist party among those who vote and on electoral turnout rate. The estimates are shown in Table 7.[34]

[TABLE 7 HERE]

[31] Results are robust if we add individual time-varying controls: left-right positioning and interest in politics.

[32] The two questions in ITANES are "According to you, the economic situation in Italy during the last year has..." and "According to you, the economic situation of your household during the last year has...", with answers ranging from 1 ("Worsen a lot") until 5 ("Improved a lot").

[33] A note of caution: the number of observations in column 6 is significantly smaller because the question on the immigration ban was asked in just 3 out of 5 waves between 2011 and 2013.

[34] We use the parameter estimates in the first two columns of the pseudo panel to compute the effect on trust and hostility towards immigrants of one standard deviation increase in economic insecurity; we then use the estimated change in trust and hostility towards immigrants to compute the effect on voting using the estimates in the last two columns of Table 2.

In total, an increase in economic insecurity by 1 standard deviation increases populist voting by 17.2% of the sample mean. Around 87% of this increase stems from the direct effect on voting and the rest from the indirect effect through lower trust (8%) and fears of immigrants (4%). An increase of the same magnitude in insecurity lowers electoral turnout by 7.7% of the sample mean (6 percentage points); 93% of the drop is due to the direct effect, while 6% to the indirect effect through lower trust in political parties and a marginal 1% to increased fear of immigrants. Hence, directly or indirectly (through its effects on attitudes), economic insecurity is a key driver of populist voting; and a fundamental channel operates through electoral turnout, which accounts for 35% of the total effect on voting.[35] Ignoring either turnout incentives or the indirect effects is bound to understate the relevance of economic insecurity as cause of the rise of populism.

# 6 Conclusions

Western countries in the last decade have experienced an unprecedented crisis that has affected global markets and sovereign states, leaving many people on unstable grounds in a way unseen before. The rare combination of inability of both markets and governments to provide security has shaken the confidence in traditional political parties and institutions, induced frustration and fears aggravated by growing threats from mass immigration and globalization. This paper has described how this dual crisis, reflected in peoples' economic insecurity, has systematically affected the demand for populist policies. We have shown that alienation-induced abstention, largely ignored by previous literature, has made economic insecurity an important motive behind the demand of populist policies. We also highlighted that cultural sentiments, such as distrust for traditional politics and attitudes towards immigrants, are key drivers of the populist vote, but they themselves are affected by economic insecurity. In sum, populism has an *economic insecurity origin,* with an important and traceable *cultural channel.* These direct and indirect ef-

[35] The computations come from a simple logical extension of equation (3). Define $t(x)$ the mapping from economic insecurity to trust and by $a(x)$ the mapping from economic insecurity to attitudes, and let's evaluate the total differential on populist voting from a unit change in economic insecurity. When considering all effects of a change in economic insecurity $x$, direct and indirect together, the expression for the change in the probability of voting populist conditional on voting (as a percentage of the sample mean) is $\frac{\pi_x^C}{\pi^C}(1 + t_x + a_x)$, and this must be equal to $\left(\frac{\pi_x^J}{\pi^J} - \frac{\pi_x^V}{\pi^V}\right)(1 + t_x + a_x)$, and again the second of the two components (counting all three pieces) counts for 35 percent of the total effect.

fects of economic insecurity have been clearly internalized by existing or newly created populist parties in Europe that entered politics on either sides of the political spectrum. The future will tell us whether the populists who won elections and make policies will make economic insecurity ultimately even higher, in spite of walls and various closures labeled as protection measures.

# References


[1] Acemoglu, Daron, Georgy Egorov and Konstantin Sonin (2013): "A Political Theory of Populism", *Quarterly Journal of Economics*, 128(2), 771-805.

[2] Algan, Yann, Sergei Guriev, Elias Papaioannou, and Evgenia Passari (2017): "The European Trust Crisis and the Rise of Populism", *Brookings Papers on Economic Activity*, Fall.

[3] Ananyev, Maxim, and Sergei Guriev (2018): "Effect of Income on Trust: Evidence from the 2009 Economic Crisis in Russia", *Economic Journal*, 129(619), 1082-1118.

[4] Autor, David , David Dorn, Gordon Hanson, and Kaveh Majlesi (2016): "Importing Political Polarization? The Electoral Consequences of Rising Trade Exposure", NBER Working Paper No. 22637.

[5] Autor, David , David Dorn, Gordon Hanson, and Kaveh Majlesi (2017): "A Note on the Effect of Trade Exposure on the 2016 Presidential Elections", MIT Working Paper.

[6] Bellettini, Giorgio, Carlotta Berti Ceroni, Enrico Cantoni, and Jerome Shafer (2019): "Making Unequal Democracy Work? The Effects of Income on Voter Turnout in Northern Italy", working paper.

[7] Colantone, Italo and Piero Stanig (2016): "Global Competition and Brexit", forthcoming *American Political Science Review*.

[8] Colantone, Italo and Piero Stanig (2017): " The Trade Origins of Economic Nationalism: Import Competition and Voting Behavior in Western Europe", forthcoming *American Journal of Political Science*.

[9] Deaton, Angus (1985): "Panel data from time series of cross-sections", *Journal of Econometrics*, 30(1-2), 109-26.

[10] Dustmann, Christian, Barry Eichengreen, Sebastian Otten, André Sapir, Guido Tabellini, and Gylfi Zoega (2017): "Europe's Trust Deficit: Causes and Remedies", CEPR Press.

[11] Foster, Chase and Jeffry Frieden (2017): "Crisis of Trust: Socio-economic determinants of Europeans' confidence in government", Mimeo Harvard University.

[12] Gennaro, Gloria, Massimo Morelli, and Giampaolo Lecce (2020): "Mobilization and the Strategy of Populism: Theory and Evidence from the United States", working paper.

[13] Gidron, Noam and Bart Bonikowski (2013): "Varieties of Populism: Literature Review and Research Agenda", Harvard University, Weatherhead Center for International Affairs, WP n. 13.

[14] Guiso, Luigi, Helios Herrera, Massimo Morelli, and Tommaso Sonno (2017): "Demand and supply of populism", CEPR DP 11871.

[15] Guiso, Luigi, Helios Herrera, Massimo Morelli, and Tommaso Sonno (2019): "Global Crises and Populism: the Role of Eurozone Institutions'", forthcoming *Economic Policy*.

[16] Guriev, Sergei and Elias Papaioannou (2020): "The political economy of populism", fothcoming *Journal of Economic Literature*.

[17] Inglehart Ronald F. and Pippa Norris (2016): "Trump, Brexit, and the Rise of Populism: Economic Have-Nots and Cultural Backlash ", Harvard Kennedy School RWP 16-026.

[18] Judis, John B. (2016): *The Populist Explosion. How the Great Recession Transformed American and European Politics*, New York, Columbia University Press.

[19] Hainmueller, Jens and Michael Hiscox (2006): "Learning to Love Globalization: Education and Individual Attitudes Toward International Trade", *International Organization*, 60(2), 469-498.

[20] Lucassen, Geertje and Marcel Lubbers (2012): "Who Fears What? Explaining Far-Right-Wing Preference in Europe by Distinguishing Perceived Cultural and Economic Ethnic Threats", *Comparative Political Studies* , 45(5), 547-74.

[21] Mudde, Cas (2004): "The Populist Zeitgeist", *Government and opposition*, 39(4), 541-563.

[22] Mudde, Cas and Cristobal Rovira Kaltwasser (2017): *Populism*, Oxford University Press, Oxford UK.

[23] Mutz, Diana C. (2018): "Status threat, not economic hardship, explains the 2016 presidential vote", *PNAS*, 115(19), 1-10.

[24] Pastor, Lubos and Pietro Veronesi (2018): "Inequality Aversion, Populism, and the Backlash Against Globalization", Mimeo University of Chicago.

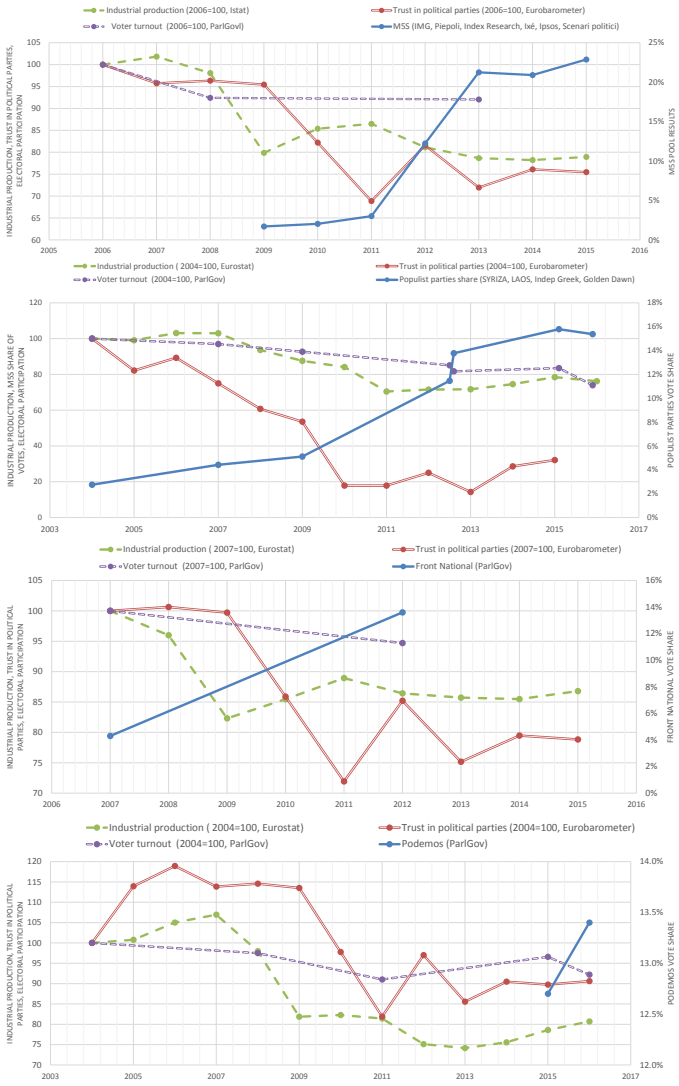
[25] Rodrik, Dani (2017): "Populism and the Economics of Globalization", CEPR DP 12119.

[26] Rooduijn, Matthijs, Stijn Van Kessel, Caterina Froio, Andrea Pirro, Sarah De Lange, Daphne Halikiopoulou, Paul Lewis, Cas Mudde, and Paul Taggart (2019): "The PopuList: An Overview of Populist, Far Right, Far Left and Eurosceptic Parties in Europe", http://www.popu-list.org.

[27] Van Kessel, Stijn (2015): *Populist Parties in Europe. Agents of Discontent?*, Palgrave MacMillan, London.

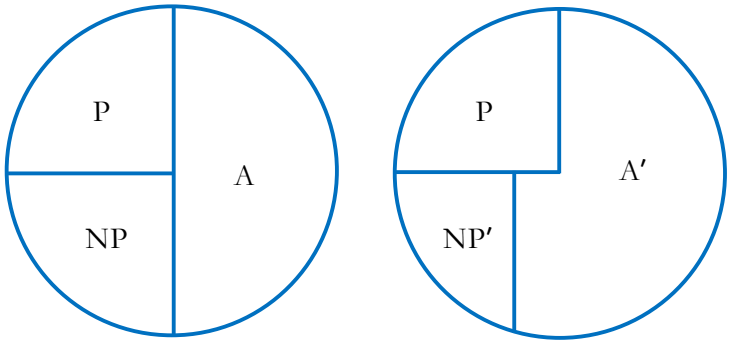
# Figures and Tables

Figure 1: Populism, Economics, Electoral participation and Trust



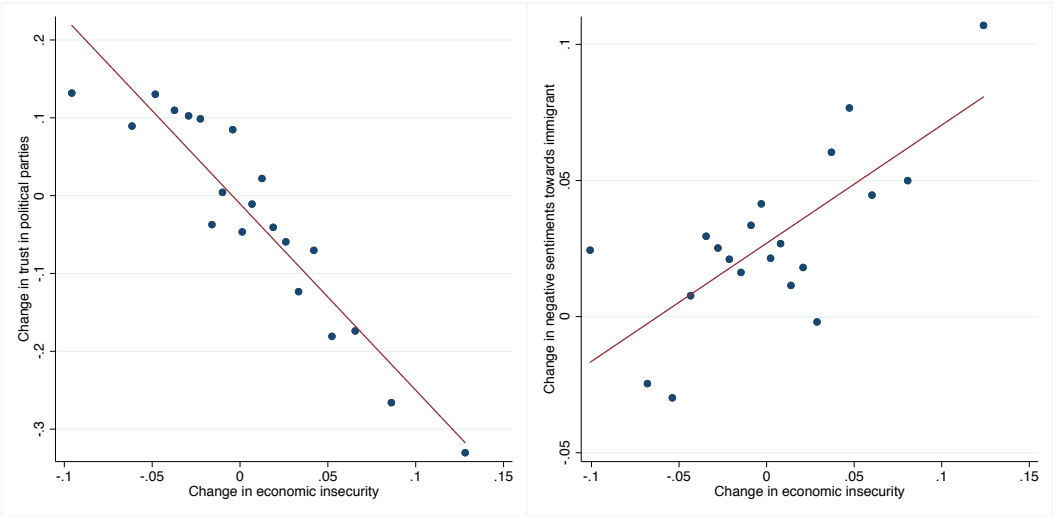

*Notes:* The figures show the evolution of economic activity, trust in political parties, electoral participation and consensus to populist parties in Italy, Greece, France, and Spain. Economic activity (measured by the index of industrial production), the share of the vote going to the populist parties and voter turnout are on the left scale; trust in political parties on the right scale.

Figure 2: Economic insecurity and populist demand




*Notes:* The figure shows Venn diagrams of the distribution of the population of voters between abstainers (A), populist voters (P) and non-populist voters (NP) before (left figure) and after (right figure) an increase in economic insecurity. It shows the case where economic insecurity leads to disappointment with traditional parties and thus to abstention by their supporters.

Figure 3: Economic insecurity, trust and sentiments




*Notes:* The figure shows the binned scatterplot (20 equal-sized bins) and linear regressions of the change in economic insecurity (x-axis) and the change in trust in political parties (y-axis, left figure, 4,166 observations) and attitudes against immigrants (y-axis, right figure, 4,726 observations) in the synthetic cohorts panel.

# Table 1: Descriptive statistics

| Variable | Obs. | Mean | St. Dev. | Min | Max |
|---|---|---|---|---|---|
| **A. Demand analysis** | | | | | |
| Voted | 270,816 | 0.78 | 0.41 | 0 | 1 |
| Vote for populist party | 175,560 | 0.15 | 0.36 | 0 | 1 |
| Risk aversion | 279,655 | 3.94 | 1.43 | 1 | 6 |
| Age | 288,008 | 49.43 | 17.85 | 18 | 100 |
| Education | 289,257 | 12.84 | 3.99 | 0 | 25 |
| TV total | 267,347 | 4.33 | 2.06 | 0 | 7 |
| TV politics | 280,629 | 2.13 | 1.45 | 0 | 7 |
| Female | 288,986 | 0.53 | 0.50 | 0 | 1 |
| Right wing | 255,490 | 5.12 | 2.17 | 0 | 10 |
| Regional population (1000) | 254,607 | 2558.00 | 3501.44 | 28 | 18075 |
| Unemployment | 287,983 | 0.13 | 0.34 | 0 | 1 |
| Income difficulties | 283,502 | 1.00 | 0.86 | 0 | 3 |
| Exposure to globalization | 262,180 | 0.30 | 0.46 | 0 | 1 |
| Economic insecurity (PC) | 256,841 | 0.22 | 0.21 | 0 | 1 |
| Trust in political parties | 256,905 | 3.59 | 2.36 | 0 | 10 |
| Want less immigrants from outside EU | 279,452 | 2.55 | 0.90 | 1 | 4 |
| Daily total rain fall | 255,274 | 2.84 | 4.87 | 0 | 35 |
| Daily mean temperature | 255,157 | 10.05 | 6.81 | -12 | 27 |
| 3D measure of populism | 127,587 | 31.98 | 15.51 | 0 | 99 |
| **B. Pseudo panel analysis** | | | | | |
| Risk aversion | 6,013 | 4.14 | 0.55 | 2 | 6 |
| Age | 6,071 | 56.58 | 16.84 | 22 | 90 |
| Education | 6,071 | 11.56 | 2.32 | 3 | 19 |
| TV total | 5,978 | 4.36 | 0.82 | 1 | 7 |
| TV politics | 6,071 | 2.29 | 0.63 | 0 | 7 |
| Female | 6,071 | 0.50 | 0.50 | 0 | 1 |
| Right wing | 6,069 | 5.17 | 0.66 | 0 | 10 |
| Regional population (1000) | 5,109 | 2397.38 | 2543.75 | 118 | 14375 |
| Economic insecurity (PC) | 6,013 | 0.22 | 0.09 | 0 | 1 |
| Trust in political parties | 5,455 | 3.49 | 1.12 | 0 | 8 |
| Want less immigrants from outside EU | 6,071 | 2.65 | 0.39 | 1 | 4 |
| Trust politicians | 6,071 | 3.55 | 1.11 | 1 | 8 |
| Trust national parliament | 6,070 | 4.40 | 1.23 | 0 | 9 |
| Trust European parliament | 6,070 | 4.35 | 0.84 | 0 | 9 |
| Government satisfaction | 6,043 | 4.27 | 1.17 | 0 | 9 |
| Want less immigrants different race/ethnicity from majority | 6,071 | 2.56 | 0.38 | 1 | 4 |
| Want less immigrants same race/ethnicity from majority | 6,071 | 2.21 | 0.34 | 1 | 4 |
| Immigrants make country worse | 6,071 | 5.23 | 0.91 | 2 | 9 |
| **C. Panel analysis** | | | | | |
| Vote Pop. | 1,685 | 0.38 | 0.49 | 0 | 1 |
| Switch Pop. | 1,561 | 0.15 | 0.35 | 0 | 1 |
| Total national economic negative shocks | 2,067 | 2.49 | 0.67 | 0 | 2.95 |
| Total family economic negative shocks | 2,067 | 1.49 | 1.14 | 0 | 2.95 |
| Total national economic negative shocks (wave 3-4) | 2,061 | 1.72 | 0.55 | 0 | 2 |
| Total family economic negative shocks (wave 3-4) | 2,061 | 1.09 | 0.87 | 0.00 | 2 |
| National economic negative shock wave 3 | 2,056 | 0.89 | 0.31 | 0.00 | 1 |
| National economic negative shock wave 4 | 2,052 | 0.84 | 0.37 | 0 | 1 |
| Family economic negative shock wave 3 | 2,056 | 0.55 | 0.50 | 0 | 1 |
| Family economic negative shock wave 4 | 2,055 | 0.54 | 0.50 | 0 | 1 |
| Age | 2,066 | 49.33 | 16.58 | 18 | 98 |
| Years of Education | 2,067 | 11.56 | 3.83 | 1 | 21 |
| Male | 2,067 | 0.51 | 0.50 | 0 | 1 |
| Municipality Size | 2,067 | 3.14 | 1.33 | 1 | 5 |
| Trust Parties | 10,139 | 0.30 | 0.23 | 0 | 1 |
| Trust Parliament | 10,149 | 0.39 | 0.25 | 0 | 1 |
| Trust UE | 8,021 | 0.51 | 0.25 | 0 | 1 |
| Incumbent Perf. | 10,157 | 0.37 | 0.23 | 0 | 1 |
| Incumbent Perf. (own policy) | 9,358 | 0.27 | 0.27 | 0 | 1 |
| Immigration Ban | 5,876 | 0.29 | 0.46 | 0 | 1 |
| National economic situation | 10,279 | 0.19 | 0.20 | 0 | 1 |
| Family economic situation | 10,287 | 0.36 | 0.18 | 0 | 1 |
| Political Interest | 10,293 | 0.61 | 0.27 | 0 | 1 |
| Left-right political identification | 9,253 | 0.46 | 0.289 | 0 | 1 |

*Notes:* The table shows summary statistics of the variables used in the analysis. Panel A and B focus on the ESS data, while panel C describes the ITANES panel dataset. The construction of the single variables is discussed in the text.

Table 2: Main specification - Heckman probit estimates of populist party vote and participation in voting

| | (1) Heckprobit | | (2) Heckprobit | | (3) Heckprobit | | (4) Heckprobit | |
|---|---|---|---|---|---|---|---|---|
| | Populist | Vote | Populist | Vote | Populist | Vote | Populist | Vote |
| Risk aversion | -0.00460 | 0.0149*** | -0.00359 | 0.0144*** | -0.00477 | 0.0162*** | -0.00566 | 0.0176*** |
| | (0.00792) | (0.00371) | (0.00795) | (0.00371) | (0.00840) | (0.00396) | (0.00855) | (0.00404) |
| ln(Age) | -0.313*** | 0.758*** | -0.298*** | 0.746*** | -0.308*** | 0.763*** | -0.330*** | 0.776*** |
| | (0.0694) | (0.0265) | (0.0681) | (0.0264) | (0.0699) | (0.0272) | (0.0722) | (0.0278) |
| ln(Education) | -0.438*** | 0.522*** | -0.454*** | 0.535*** | -0.440*** | 0.521*** | -0.390*** | 0.515*** |
| | (0.0507) | (0.0353) | (0.0505) | (0.0352) | (0.0502) | (0.0368) | (0.0525) | (0.0375) |
| TV total | 0.0164** | -0.0210*** | 0.0170** | -0.0212*** | 0.0178** | -0.0193*** | 0.0130* | -0.0193*** |
| | (0.00717) | (0.00467) | (0.00711) | (0.00463) | (0.00700) | (0.00455) | (0.00704) | (0.00445) |
| TV politics | -0.0261*** | 0.0555*** | -0.0260*** | 0.0556*** | -0.0199** | 0.0487*** | -0.0162* | 0.0482*** |
| | (0.00809) | (0.00643) | (0.00808) | (0.00648) | (0.00824) | (0.00668) | (0.00829) | (0.00656) |
| Unemployment | 0.144*** | -0.163*** | | | | | | |
| | (0.0315) | (0.0176) | | | | | | |
| Income difficulties | 0.211*** | -0.155*** | | | | | | |
| | (0.0143) | (0.0107) | | | | | | |
| Exposure globalization | 0.0584* | -0.112*** | | | | | | |
| | (0.0322) | (0.0229) | | | | | | |
| Economic insecurity (PC) | | | 0.820*** | -0.715*** | 0.733*** | -0.652*** | 0.713*** | -0.646*** |
| | | | (0.0614) | (0.0390) | (0.0603) | (0.0401) | (0.0626) | (0.0405) |
| Trust in pol. parties | | | | | -0.0790*** | 0.0476*** | -0.0728*** | 0.0463*** |
| | | | | | (0.00616) | (0.00369) | (0.00612) | (0.00375) |
| Few immigrants from no-EU | | | | | | | 0.142*** | -0.0309*** |
| | | | | | | | (0.0172) | (0.00820) |
| Controls, Wave FE, Country FE | Yes | | Yes | | Yes | | Yes | |
| Rho | -0.409 | | -0.418 | | -0.393 | | -0.389 | |
| Cluster SE | Region | | Region | | Region | | Region | |
| Countries | With P | | With P | | With P | | With P | |
| Observations | 155,535 | | 155,535 | | 145,906 | | 142,873 | |
| Censored observations | 49,509 | | 49,509 | | 46,421 | | 45,099 | |
| *Selection* | | | | | | | | |
| Rain | | -0.00697** | | -0.00702** | | -0.00718** | | -0.00735** |
| | | (0.00290) | | (0.00286) | | (0.00315) | | (0.00323) |
| Rain * South | | -0.0160** | | -0.0158* | | -0.0144* | | -0.0140* |
| | | (0.00809) | | (0.00808) | | (0.00794) | | (0.00773) |
| Av. Temperature | | 0.0182*** | | 0.0183*** | | 0.0211*** | | 0.0212*** |
| | | (0.00614) | | (0.00613) | | (0.00637) | | (0.00641) |
| Av. Temperature * South | | -0.0100 | | -0.0103 | | -0.00948 | | -0.00617 |
| | | (0.0118) | | (0.0118) | | (0.0118) | | (0.0117) |

*Notes:* The table shows Heckman probit estimates of the decisions to vote (Vote) and to vote for a populist party conditional on participation (Populist). Left-hand side variables: a dummy if a voter has chosen a populist party in the columns Populist and a dummy if (s)he has participated in the election in the column Vote. The excluded instrument in the populist regression is an indicator of weather condition on election day. All regressions include country and wave fixed effects. Robust standard errors clustered at the region level are shown in parenthesis. *** significant 1% or less; ** significant at 5%; * significant at 10% confidence level.

Table 3: Direct effects and effects via turnout

| | Effect on conditional prob. of populist voting | Contribution via turnout |
|---|---|---|
| Economic insecurity (PC) | 0.150 | 0.056 |
| Trust in pol. parties | -0.187 | -0.046 |
| Few immigrants from no-EU | 0.155 | 0.012 |

*Notes:* The table shows the direct effect on voting for a populist party of a 1-standard-deviation increase in Economic insecurity, Trust in political parties and attitudes towards immigrants respectively (first column) and the contribution through the change induced in turnout. Calculations use estimates in Table 2, column 4.

Table 4: Populist party vote - Panel data

| | (1) Vote Pop. | (2) Switch Pop. | (3) Vote Pop. | (4) Switch Pop. | (5) Vote Pop. | (6) Switch Pop. |
|---|---|---|---|---|---|---|
| Total national economic negative shocks | 0.0967** | 0.254*** | | | | |
| | (0.0442) | (0.0624) | | | | |
| Total family economic negative shocks | 0.0957** | 0.0968*** | | | | |
| | (0.0392) | (0.0364) | | | | |
| Total national economic negative shocks (waves 3-4) | | | 0.457*** | 0.297*** | | |
| | | | (0.0543) | (0.0795) | | |
| Total national economic negative shocks (waves 3-4) | | | 0.139*** | 0.131*** | | |
| | | | (0.0539) | (0.0457) | | |
| National economic negative shock wave 3 | | | | | 0.273** | 0.128 |
| | | | | | (0.109) | (0.154) |
| National economic negative shock wave 4 | | | | | 0.592*** | 0.434*** |
| | | | | | (0.0650) | (0.0802) |
| Family economic negative shock wave 3 | | | | | -0.000462 | 0.0540 |
| | | | | | (0.0832) | (0.112) |
| Family economic negative shock wave 4 | | | | | 0.285*** | 0.215** |
| | | | | | (0.0690) | (0.0902) |
| Controls, Macro Region FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Rho | 0.558 | 0.951 | 0.510 | 0.947 | 0.521 | 0.947 |
| Cluster SE | Region | Region | Region | Region | Region | Region |
| Observations | 1,643 | 1,643 | 1,643 | 1,643 | 1,643 | 1,643 |
| Censored observations | 102 | 102 | 102 | 102 | 102 | 102 |

*Notes:* Notes: The table shows Heckprobit selection-adjusted estimates of the decision to vote for a populist party using the Italian panel dataset. In the columns Vote Pop. the left-hand side variable is a dummy if a voter has chosen a populist parta; in the columns Switch Pop. it is a dummy if (s)he has switched from not voting for a populist party (in the 2008 election) to voting for a populist party in the 2013 election. All specifications includes: macro-region and gender fixed effects, controls for the individual?s left-right political orientation and interest in politics. Selection equation estimates are shown in the appendix Table A11. Robust standard errors clustered at the region level are shown in parenthesis. *** significant 1% or less; ** significant at 5%; * significant at 10% confidence level.

## Table 5: Trust and attitude towards immigrants - Pseudo panel

| | (1) Trust parties | (2) Few immigrants from no-EU | (3) Trust politicians | (4) Trust national parliament | (5) Trust European parliament | (6) Government satisfaction | (7) Few immigrants from different race/etnicity from majority | (8) Few immigrants from same race/etnicity from majority | (9) Immigrants make country worse |
|---|---|---|---|---|---|---|---|---|---|
| Risk aversion | -0.0395 | 0.00374 | 0.0313 | 0.0654 | -0.0471 | 0.0106 | -0.00966 | -0.00899 | 0.0187 |
| | (0.0332) | (0.0123) | (0.0357) | (0.0428) | (0.0440) | (0.0245) | (0.0165) | (0.0152) | (0.0316) |
| ln(Age) | -0.104 | -0.0429 | 0.00360 | -0.125 | -0.523 | -0.967*** | 0.240*** | 0.351*** | -0.0451 |
| | (0.207) | (0.0609) | (0.194) | (0.343) | (0.329) | (0.157) | (0.0714) | (0.0727) | (0.299) |
| ln(Education) | 0.315*** | -0.178*** | 0.434*** | 0.630*** | 0.515** | 0.365 | -0.203*** | -0.255*** | -0.762*** |
| | (0.0927) | (0.0511) | (0.0789) | (0.0710) | (0.203) | (0.215) | (0.0516) | (0.0402) | (0.205) |
| TV total | -0.0448*** | 0.0182*** | -0.0500*** | -0.0280 | -0.0550** | -0.0418*** | 0.0117** | 0.00839 | 0.0533*** |
| | (0.0110) | (0.00550) | (0.0119) | (0.0166) | (0.0231) | (0.0129) | (0.00457) | (0.00498) | (0.0152) |
| TV politics | 0.0993*** | -0.0171 | 0.0642** | 0.0712** | -0.00158 | 0.0127 | 0.00853 | -0.0212 | -0.0704** |
| | (0.0220) | (0.0123) | (0.0238) | (0.0285) | (0.0402) | (0.0282) | (0.0137) | (0.0148) | (0.0318) |
| Economic insecurity (PC) | -0.866*** | 0.214** | -0.916*** | -1.088*** | -0.405 | -1.535*** | 0.320*** | 0.371*** | 0.664*** |
| | (0.225) | (0.0788) | (0.210) | (0.219) | (0.284) | (0.180) | (0.0760) | (0.0971) | (0.170) |
| Controls | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Cohort FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Wave*Country FE | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Number of cohorts | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 | 840 |
| Cluster SE | Cohort | Cohort | Cohort | Cohort | Cohort | Cohort | Cohort | Cohort | Cohort |
| Countries | All | All | All | All | All | All | All | All | All |
| Observations | 4,591 | 4,955 | 4,955 | 4,955 | 4,955 | 4,927 | 4,955 | 4,955 | 4,955 |

*Notes:* The table shows pseudo-panel fixed effect regressions of trust and attitudes towards immigrants on economic insecurity and controls. Left-hand side variables: several measures of trust (towards national and European) institutions, and attitudes toward immigrations (more details in the text). All regressions include country×wave fixed effects. Robust standard errors clustered at the cohort level are shown in parenthesis. *** significant 1% or less; ** significant at 5%; * significant at 10% confidence level.

## Table 6: Trust and attitude towards immigrants - Panel data

| | (1) Trust parties | (2) Trust parliament | (3) Trust EU | (4) Incumbent performance | (5) Incumbent perf. (own policy) | (6) Immigration Ban |
|---|---|---|---|---|---|---|
| Family economic situation | 0.0481*** | 0.1169*** | 0.0696*** | 0.2042*** | 0.1323*** | -0.0795** |
| | (0.0159) | (0.0185) | (0.0191) | (0.0196) | (0.0237) | (0.0402) |
| National economic situation | 0.1235*** | 0.1687*** | 0.0776*** | 0.4011*** | 0.4369*** | 0.0464 |
| | (0.0122) | (0.0139) | (0.0129) | (0.0148) | (0.0183) | (0.0310) |
| Individual FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Wave*Region FE | Yes | Yes | Yes | Yes | Yes | Yes |
| Cluster SE | Individual | Individual | Individual | Individual | Individual | Individual |
| Observations | 10,092 | 10,101 | 7,968 | 10,103 | 9,305 | 5,799 |
| R2 | 0.6332 | 0.6008 | 0.7358 | 0.5176 | 0.4577 | 0.7498 |

*Notes:* The table shows the effect of the economic situation on trust and attitudes towards immigrants. All regressions include individual fixed effects, and region×wave fixed effects. Robust standard errors are shown in parenthesis. Left-hand side variables: several measures of trust (towards national and European) institutions, and attitudes toward immigrations (more details in the text). Economic insecurity is proxied by two variables (scaled on the 0-1 interval), capturing the economic perception of the Italian economy and the economic situation of the household over the past year. The results are robust if we add left-right orientation and interest in politics controls. Standard error are clustered at the individual level. *** significant 1% or less; ** significant at 5%; * significant at 10% confidence level.

Table 7: Effect of economic insecurity

| Effect of (1 SD) economic insecurity (share of sample mean) | Direct effect | Indirect effect: trust | Indirect effect: hostility towards immigrants | Total effect |
|---|---|---|---|---|
| Voting populist | 0.150 | 0.014 | 0.007 | 0.171 |
| (% of total effect) | 88% | 8% | 4% | 100% |
| Turnout | -0.056 | -0.003 | -0.001 | -0.060 |
| (% of total effect) | 93% | 6% | 1% | 100% |

*Notes:* The table reports the effect of a 1-standard-deviation increase in economic insecurity on voting for a populist party and on voter turnout. It shows the direct effect, the indirect effect through the impact of economic insecurity on trust in political parties and attitudes towards immigrants, and the total effect - the sum of the direct and indirect effects.

# Appendix

## A Populist parties

Table A8 lists parties that are defined as populist by the PopuList on the one hand and by van Kessel (2015) and Inglehart & Norris (2016) on the other.

[TABLE A8 HERE]

# B Robustness

Table A9 present several robustness exercises of Table 2 in the text. The first two columns run the estimates of the Heckman probit using all the sample countries, not only those that have a populist party. That is, the turnout equation is estimated using observations for countries both with and without populist parties. The endogenous presence of populist parties is fully captured by the country dummies. The results are unaffected. Economic insecurity lowers participation and increases the populist vote; the effects are significant and of the same order of magnitude as those in Table 2. The same holds true for the effects of trust in parties and the other controls. The next two columns add country-wave fixed effects, capturing changes in populist manifestos and rhetoric. Again the results are unchanged. One concern is that, the populist vote may actually be capturing voting for a new party as such. To address this, in the last two columns we run the estimates after dropping individuals who voted for any new party - i.e. a party present in the election for the first time. The results are basically unaffected. As a final robustness exercise, we run the estimates again using a different exclusion restriction in the Heckman selection model. We run this regression not because we doubt that weather on the election day is not orthogonal to the voting choice, but because one may be concerned about its power. As an alternative instrument we use the voters' self reported health status, on the assumption that people in weaker health face a higher turnout cost.[36] All results (not reported for brevity) hold if we use this alternative instrument (see working paper version, Guiso et al., 2017). Table A10 presents the estimates of the instruments relative to the robustness regressions.

[TABLE A9 HERE]
[TABLE A10 HERE]

[36] Health status is invalid as an instruments if it affects people's preferences for populist or non-populist parties via differences in healthcare policies. This may apply in the US presidential elections, where dismantling Obama care was part of the Trump program, but, it is not an issue in Europe, where populist versus non-populist programs do not differ on health policy.

# C First stages Italian panel

[TABLE A11 HERE]

# Figures and Tables Appendix

Table A8: Comparison PopuList, van Kessel and Norris & Inglehart (N&I)

| Country | Party | PopuList | Kessel | N&I |
|---|---|---|---|---|
| **AT** | Freedom Party (FPÖ) | 1 | 1 | 1 |
| **AT** | Alliance for the Future of Austria (BZÖ) | 1 | 1 | 0 |
| **AT** | Team Stronach (TS) | 1 | 1 | 0 |
| **AT** | Liste Dr. Martin | 1 | 0 | 0 |
| **BE** | Flemish Interest (VB) | 1 | 1 | 1 |
| **BE** | National Front (FN) | 1 | 1 | 0 |
| **BE** | List Dedecker (LDD) | 1 | 1 | 0 |
| **BG** | National Movement Simeon the Second (NDSV) | 1 | 1 | 0 |
| **BG** | Attack Party (Ataka) | 1 | 1 | 1 |
| **BG** | Law, Order and Justice (RZS) | 1 | 1 | 0 |
| **BG** | Reload Bulgaria/Bulgaria Without Censorship (BBZ/BBT) | 1 | - | - |
| **BG** | Citizens for European Development of Bulgaria (GERB) | 1 | 1 | 0 |
| **BG** | VMRO-BND Bulgarian National Movement | 1 | 0 | 1 |
| **BG** | NFSB National Front for the Salvation of Bulgaria | 1 | 0 | 1 |
| **CH** | Swiss People?s Party (SVP) | 1 | 1 | 1 |
| **CH** | Swiss Democrats (SD) | 0 | 1 | 0 |
| **CH** | League of Ticinesians (LdTi) | 0 | 1 | 0 |
| **CH** | Geneva Citizens? Movement (MCG) | 0 | 1 | 0 |
| **CY** | Citizens' Alliance (SYM/SYPOL) | 1 | - | - |
| **CZ** | ANO 2011 (ANO) | 1 | 1 | 0 |
| **CZ** | Freedom and Direct Democracy (SPD) | 1 | - | - |
| **CZ** | Public Affairs (VV) | 1 | 1 | 0 |
| **CZ** | Dawn of Direct Democracy (Úsvit) | 1 | 1 | 1 |
| **CZ** | Rally for the Republic-Republican Party of Czechoslovakia (SPR-RSC) | 1 | 0 | 0 |
| **CZ** | Sovereignty–Jana Bobosikova Bloc | 1 | - | - |
| **DE** | Party of Democratic Socialism/ The Left (PDS/Linke) | 1 | 1 | 0 |
| **DE** | NPD National Democratic Party | 0 | 0 | 1 |
| **DE** | AfD Alternative for Germany | 1 | 0 | 1 |
| **DK** | Danish People?s Party (DF) | 1 | 1 | 1 |
| **DK** | Progress Party (FrP) | 1 | 0 | 0 |
| **EE** | Res Publica (ERP) | 1 | - | - |
| **EE** | Conservative People's Party (EKRE) | 1 | - | - |
| **ES** | Podemos | 1 | - | 1 |
| **FI** | True Finns (PS) | 1 | 1 | 1 |
| **FI** | Blue Reform (SIN) | 1 | - | - |
| **FR** | National Front (FN) | 1 | 1 | 1 |
| **FR** | MPF Popular Republican Movement | 0 | 0 | 1 |
| **FR** | La France Insoumise | 1 | - | - |
| **GB** | British National Party | 0 | 1 | 1 |
| **GB** | UK Independence Party | 1 | 1 | 0 |
| **GB** | NF National Front | 0 | 0 | 1 |
| **GR** | Coalition of the Radical Left (SYRIZA) | 1 | 1 | 1 |
| **GR** | Independent Greeks (ANEL) | 1 | 1 | 1 |
| **GR** | Popular Orthodox Rally (LAOS) | 1 | 1 | 1 |
| **GR** | XA Golden Dawn | 0 | 0 | 1 |
| **GR** | ND New Democracy | 0 | 0 | 1 |
| **GR** | Democratic Social Movement (DIKKI) | 1 | 0 | 0 |
| **HR** | Croatian Party of Rights dr. Ante Star?evi? (HSP-AS) | 0 | 1 | 1 |
| **HR** | Croatian Labourists ? Labour Party (HL-SR) | 1 | 1 | 0 |
| **HR** | HSS Croatian Peasants Party | 0 | 0 | 1 |
| **HR** | HDSSB Croatian Democratic Alliance of Slavonia and Baranja | 1 (until 2015) | 0 | 1 |
| **HR** | HSP Croatian Party of Rights | 1 | 0 | 1 |
| **HR** | Human Shield | 1 | 0 | 0 |
| **HR** | Bridge of Independent Lists (MOST) | 1 | 0 | 0 |
| **HR** | HDZ Croatian Democratic Union | 0 | 0 | 1 |

| Country | Party | PopuList | Kessel | N&I |
|---|---|---|---|---|
| **HU** | FIDESZ-Hungarian Civic Alliance (FIDESZ-MPSZ) | 1 (since 2002) | 1 | 1 |
| **HU** | Movement for a Better Hungary (Jobbik) | 1 | 1 | 1 |
| **HU** | Hungarian Justice and Life Party (MIEP) | 1 | 0 | 0 |
| **IE** | Sinn Féin (SF) | 1 | 1 | - |
| **IS** | Centre Party (M) | 1 | - | - |
| **IS** | People's Party (FIF) | 1 | - | - |
| **IS** | Citizens? Movement (BF) | 1 | 1 | - |
| **IT** | Forza Italia (FI) / People for Freedom (PdL) | 1 | 1 | 0 |
| **IT** | Northern League (LN) | 1 | 1 | 1 |
| **IT** | 5 Star Movement (M5S) | 1 | 1 | 1 |
| **IT** | Brothers of Italy (Fdl) | 1 | 0 | 1 |
| **LT** | Labour Party (DP) | 1 (only in 2004) | 1 | 0 |
| **LT** | Order and Justice Party (TT) | 1 | 1 | 0 |
| **LT** | DK The Way of Courage | 1 | 0 | 1 |
| **LT** | National Resurrection Party (TPP) | 1 | 0 | 0 |
| **LT** | Lithuanian Centre Party (LCP) | 1 (since 2016) | 0 | 0 |
| **LU** | Alternative Democratic Reform Party (ADR) | 1 | 1 | 1 |
| **LV** | All for Latvia (VL) | 0 | 1 | 1 |
| **LV** | New Era Party (JL) | 1 | 0 | 0 |
| **LV** | Zatler's Reform Party | 1 | 0 | 0 |
| **NL** | List Pim Fortuyn (LPF) | 1 | 1 | 0 |
| **NL** | Liveable Netherlands (LN) | 0 | 1 | 0 |
| **NL** | Freedom Party (PVV) | 1 | 1 | 1 |
| **NL** | SGP Political Reformed Party | 0 | 0 | 1 |
| **NL** | Socialist Party (SP) | 1 | 0 | 0 |
| **NO** | Progress Party (FrP) | 1 | 1 | 1 |
| **PL** | Self Defence (SO) | 1 | 1 | 0 |
| **PL** | Law and Justice (PiS) | 1 (since 2005) | 1 | 1 |
| **PL** | SP United Poland | 0 | 0 | 1 |
| **PL** | KNP Congress of the New Right | 0 | 0 | 1 |
| **PL** | Kukiz'15 | 1 | - | - |
| **PL** | League of Polish Families (LPR) | 1 | 0 | 0 |
| **RO** | Greater Romania Party (PRM) | 1 | 1 | 0 |
| **RO** | United Romania Partry (PRU) | 1 | - | - |
| **RO** | People?s Party ? Dan Diaconescu (PP-DD) | 1 | 1 | 1 |
| **SE** | Sweden Democrats (SD) | 1 | 1 | 1 |
| **SI** | Slovenian National Party (SNS) | 1 | 1 | 0 |
| **SI** | SDS Slovenian Democratic Party | 0 | 0 | 1 |
| **SI** | The Left (L) | 1 | 0 | 0 |
| **SI** | List of Marjan Sarec | 1 | - | - |
| **SK** | Movement for a Democratic Slovakia (HZDS) | 0 | 1 | 0 |
| **SK** | Direction (Smer) | 1 (until 2006) | 1 | 0 |
| **SK** | Slovak National Party (SNS) | 1 | 1 | 1 |
| **SK** | Ordinary People and Independent Personalities (OLaNO) | 1 | 1 | 0 |
| **SK** | KDH Christian Democratic Movement | 0 | 0 | 1 |
| **SK** | Real Slovak National Party (PSNS) | 1 | 0 | 0 |
| **SK** | Alliance of the New Citizen | 1 | 0 | 0 |
| **SK** | We are family (SR) | 1 | - | - |
| **TR** | MHP National Action Party | - | - | 1 |

*Notes:* The table compares the classification of populist parties according to the *PopuList* with that in van Kessel as well as with that in Inglehart and Norris. The sign "-" indicates that the country and/or time period is not covered.

Table A9: Main specification - Robustness

| | (5) Heckprobit | | (6) Heckprobit | | (7) Heckprobit | |
|---|---|---|---|---|---|---|
| | Populist | Vote | Populist | Vote | Populist | Vote |
| Risk aversion | -0.00485 | 0.0185*** | -0.000357 | 0.0176*** | -0.00842 | 0.0163*** |
| | (0.00848) | (0.00390) | (0.00869) | (0.00428) | (0.00798) | (0.00389) |
| ln(Age) | -0.206*** | 0.757*** | -0.197*** | 0.793*** | -0.426*** | 0.769*** |
| | (0.0609) | (0.0280) | (0.0554) | (0.0266) | (0.0937) | (0.0271) |
| ln(Education) | -0.371*** | 0.421*** | -0.369*** | 0.537*** | -0.516*** | 0.527*** |
| | (0.0509) | (0.0395) | (0.0512) | (0.0361) | (0.0479) | (0.0365) |
| TV total | 0.0162** | -0.0209*** | 0.0170** | -0.0253*** | 0.0217*** | -0.0197*** |
| | (0.00706) | (0.00393) | (0.00710) | (0.00449) | (0.00673) | (0.00459) |
| TV politics | -0.0146* | 0.0502*** | -0.0173* | 0.0523*** | -0.0287*** | 0.0500*** |
| | (0.00848) | (0.00558) | (0.00888) | (0.00643) | (0.00885) | (0.00667) |
| Economic insecurity (PC) | 0.683*** | -0.629*** | 0.688*** | -0.701*** | 0.810*** | -0.663*** |
| | (0.0580) | (0.0351) | (0.0579) | (0.0457) | (0.0561) | (0.0400) |
| Trust in pol. parties | -0.0739*** | 0.0459*** | -0.0826*** | 0.0527*** | -0.0813*** | 0.0479*** |
| | (0.00625) | (0.00338) | (0.00616) | (0.00376) | (0.00549) | (0.00375) |
| Controls | Yes | | Yes | | Yes | |
| Wave FE | Yes | | No | | Yes | |
| Country FE | Yes | | No | | Yes | |
| Wave * Country FE | No | | Yes | | No | |
| Rho | -0.171 | | -0.174 | | -0.641 | |
| Cluster SE | Region | | Region | | Region | |
| Countries | All | | With P | | With P (no new P) | |
| Observations | 177,600 | | 145,906 | | 141,799 | |
| Censored observations | 56,618 | | 46,421 | | 46,421 | |

*Notes:* The table shows robustness Heckman probit estimates of the decisions to vote and to vote for a populist party. Left-hand side variables: a dummy if a voter has chosen a populist party in the columns Populist, and a dummy if (s)he has participated in the election in the column Vote. The excluded instrument in the populist regression is an indicator of weather conditions on election day. The first set of regressions includes all countries, not only those with a populist party; the second set controls for interacted country-wave fixed effects; the last set runs the regressions dropping observations of individuals who voted for a new party. The first set of and last set of regressions include country and wave fixed effects. Robust standard errors clustered at the region level are shown in parenthesis. *** significant 1% or less; ** significant at 5%; * significant at 10% confidence level.

## Table A10: First stage Robustness

| | (5)<br>Vote | (6)<br>Vote | (7)<br>Vote |
|---|---|---|---|
| Rain | -0.00152 | -0.000165 | -0.0139*** |
| | (0.00246) | (0.00263) | (0.00365) |
| Rain * South | -0.00654 | -0.0165** | -0.00908 |
| | (0.00506) | (0.00835) | (0.0106) |
| Av. Temperature | 0.0170*** | -0.00320 | 0.0243*** |
| | (0.00564) | (0.00609) | (0.00618) |
| Av. Temperature * South | 0.00675 | 0.0203 | -0.0126 |
| | (0.00902) | (0.0157) | (0.0129) |
| Wave FE | Yes | No | Yes |
| Country FE | Yes | No | Yes |
| Wave * Country FE | No | Yes | No |
| Cluster SE | Region | Region | Region |
| Countries | All | With P | With P<br>(no new P) |

*Notes:* The table shows the instruments in the voter turnout regressions in Table A9 in the text.

## Table A11: First stage Italian panel

| | (1)<br>Vote Pop. | (2)<br>Switch Pop. | (3)<br>Vote Pop. | (4)<br>Switch Pop. | (5)<br>Vote Pop. | (6)<br>Switch Pop. |
|---|---|---|---|---|---|---|
| Rain | -0.114* | -0.109 | -0.113* | -0.108 | -0.113* | -0.106 |
| | (0.0679) | (0.0724) | (0.0682) | (0.0724) | (0.0644) | (0.0700) |
| Av. Temp. | -0.0194* | -0.0183 | -0.0193* | -0.0180 | -0.0180* | -0.0172 |
| | (0.0115) | (0.0121) | (0.0111) | (0.0122) | (0.0106) | (0.0118) |
| Rain*South | 0.0850 | 0.102 | 0.0871 | 0.102 | 0.0918 | 0.102 |
| | (0.112) | (0.114) | (0.115) | (0.115) | (0.110) | (0.112) |
| Av. Temp.*South | 0.156 | 0.109 | 0.153 | 0.105 | 0.145 | 0.101 |
| | (0.183) | (0.193) | (0.189) | (0.194) | (0.185) | (0.190) |

*Notes:* The table shows the instruments in the voter turnout regressions in Table 4 in the text. "South" is defined as Abruzzo, Apulia, Basilicata, Calabria, Campania, and Molise. In general, both rain and heat deter Italian voters from going to the polls. The interactions with the "South"-dummy show that this effect is driven mainly by the northern Italian regions