

Economic Insecurity and the Demand of Populism in Europe*

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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, we make two contributions to the literature, namely: (1) Economic insecurity shocks have a significant impact on the populist vote share, directly as demand for protection, and indirectly through the induced changes in trust and attitudes; (2) A key consequence of increased economic security is a drop in turnout. The impact of this previously neglected turnout 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 in politics, voter sentiments

JEL: D72, F68

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1 Introduction

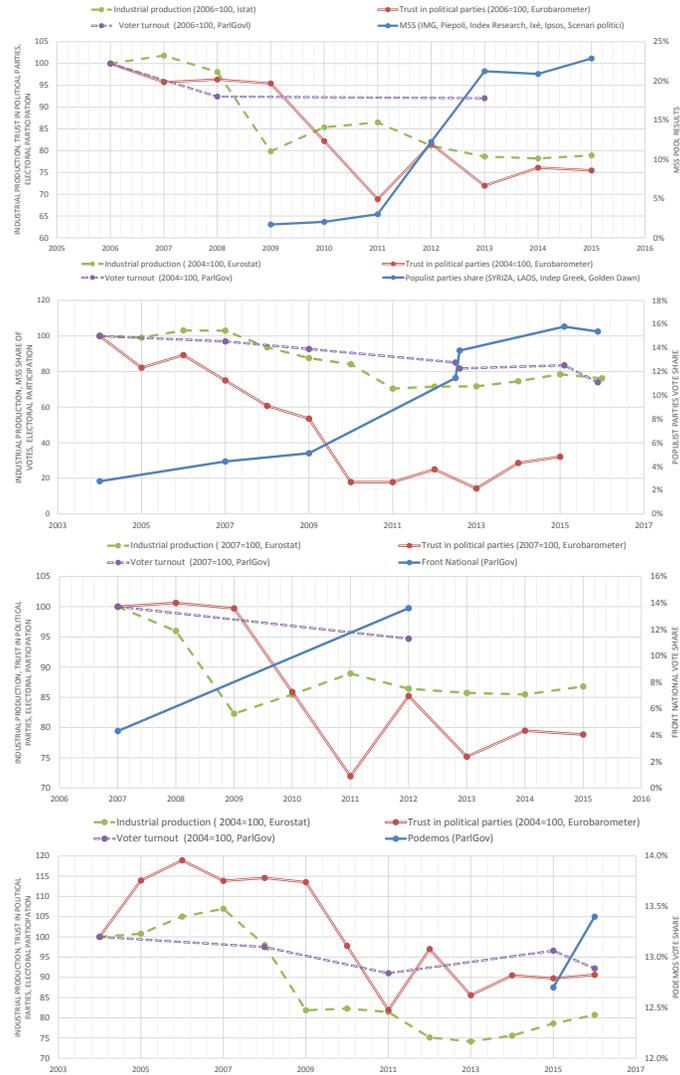
What determined the populism wave in Europe in the 21st century? Are the common sources related to economic crises or stagnation and, if so, through what channels? This paper provides an empirical analysis of the channels through which economic insecurity affected the “demand” of populism. The focus on the common features of populist parties (rather than a predominance of right wing orientation) 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. 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. Facing this two-sided crisis, there is room for new movements (and existing ones) to promote a radical removal of constraining institutions.¹ In this context, a negative economic security shock that affects a citizen at a time when both left and right traditional recipes are perceived as ineffective, may depress the motivation to vote for traditional parties on all sides of the political spectrum. This disappointment, in turn, generates an abstention-based space for populist platforms who thus experience a massive increase in support. Figure 1 lends support to this rationale. 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 this paper we offer evidence consistent with the above logic: economic insecurity causes faith in traditional parties to diminish, inducing disillusioned voters to wane; in turn,

¹Various 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.

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.

this economic insecurity induced disillusion generates support for populist platforms. We show that endogenous turnout effects (which have been largely neglected in the literature) are key for an evaluation of the relevance of economic insecurity. This is 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. In addition, the full extent of the impact of economic insecurity trends becomes apparent when we show that even other key drivers of populist voting - namely falling trust in political parties and adverse attitudes towards immigrants - are in fact substantially influenced by economic insecurity as well.

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 substantially, understating 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 participation and 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 core supporters of mainstream parties to participate in elections. More immigrant-averse attitudes have a milder effect through reduced 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 by changes to economic insecurity.² Thus, we can document a large total effect (direct and indirect) of economic insecurity on the demand for populism.

In a nutshell, our empirical analysis makes two important contributions to the literature:

(1) Economic insecurity shocks have a significant impact on the populist vote not only as a direct protection demand effect but also through the induced changes in trust and attitudes: cultural factors are an important amplifier and are also driven by economic insecurity.

(2) A key previously neglected effect of 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 channel, one could reach the wrong conclusion (see e.g. Norris and Inglehart, 2019) 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 impact of 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): 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 of and are understood by the people”(Mudde, 2004). There is a literature that, like us, emphasized *indirect* effects of economic insecurity on certain cultural traits or attitudes/sentiments, which therefore cannot be deemed independent drivers.³ Indeed, economic insecurity may affect the populist vote in several

²Our 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 losing their job and be substituted by an immigrant) and behavioural external-blaming reactions.

³Lucassen 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 perceived 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

indirect ways, as for instance fostering a 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), and the most comprehensive one by Guriev and Papaioannou (2020).

Coming to the literature on the effects of the various crises, Rodrik (2018) 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,⁴ 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, the interaction effects with institutional variables do not eliminate the significance of economic insecurity.

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. Dustmann 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. We contribute to this literature by finding that economic threats are causally affected by the economic insecurity shocks.

⁴Dorn et al. (2020), Colantone and Stanig (2018a,b), Jensen and Bang (2017) are clear examples of well identified effects of the China shock on specific manifestations like Brexit. Pástor and Veronesi (2021) show that the backlash against globalization is a response to rising income inequality if aversion to inequality is assumed in voter's preferences.

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.⁵ The importance of the financial crisis for the enlargement of the demand of populism to the middle class is studied also in Guiso et al. (2022). Since this paper is entirely on the demand of populism, we send the readers interested in the complementary analysis of the supply side and their consequences to Morelli et al. (2021) and Bellodi et al. (2022).⁶

The paper is organized as follows: in section 2 we describe the data. We illustrate the conceptual framework and the econometric specification in section 3. Our main results follow in sections 4 and 5 which quantify the direct and indirect effects of economic insecurity through turnout and voter sentiments. Section 6 concludes.

2 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, covering a balanced period before and after the financial crisis. 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. Table A5, in Appendix A, shows summary statistics for all the variables described below.

Turnout and voting. The ESS asks people whether they voted in the last parlia-

⁵Schafer et al. (2022) document that within-individual changes in income significantly impact participation, especially among the poor.

⁶Acemoglu et al. (2013) show that the supply of populist platforms may come from *pandering* to voters' implicit demand of credible differentiation of the political candidate from the interests of the elites; but the precise characterization of populist platforms on left and right in political competition is in Morelli et al. (2021), together with an explicit connection with the dynamics of trust.

mentary 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.⁷ 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;⁸ and third, an indicator of exposure to 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, re-scaled 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

⁷Responses 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%.

⁸Answers range from 1 (“*Living comfortably on present income*”) to 4 (“*Finding it very difficult on present income*”).

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.

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 affairs.⁹ 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

⁹For 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.

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.

Populist parties. 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).¹⁰ 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 B, Table A6.

3 Accounting for Turnout Effects

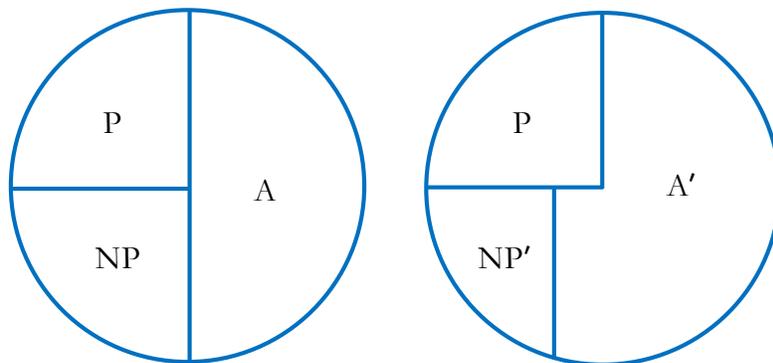
3.1 Importance of Turnout

To empirically model demand of populism accounting for endogenous voter participation, 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

¹⁰Mudde (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 *volont  g n rale* (general will) of the people.

particular, whether or not to vote for a populist party (the voting decision). A simple visualization of the key effects on the populist vote share due to the voter participation decision is given in Figure 2. Here we see that the left and right panels have the same share of citizens who prefer to vote for the populist option (P), but the right panel displays a larger fraction of abstainers ($A' > A$), with voter abstention/disappointment affecting traditional party supporters more strongly. If that were the case then the abstention channel would boost the populist vote share further.

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.

3.2 Identification Strategy

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 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 $\pi_x^C = (\pi_x^J \pi^V - \pi_x^V \pi^J)/(\pi^V)^2$ or, in percentage terms,

$$\pi_x^C / \pi^C = \pi_x^J / \pi^J - \pi_x^V / \pi^V. \quad (1)$$

Equation (1) 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.¹¹

Jointly estimating voting and participation decisions we retrieve consistent estimates of π_x^C and π_x^V and can assess the economic role of turnout in the voting results.

3.3 Instrumented Heckprobit

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 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.

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

¹¹Since 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.

the party conditional on participation.

As instruments we use here 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.

3.4 Econometric Specification

Formally, we estimate the following selection equation:

$$\begin{aligned} voted_{irct} = & \gamma_1 \mathbf{x}_{irct} + \gamma_2 rain_{rct} + \gamma_3 rain_{rct} \times south_c + \\ & \gamma_4 av. temperature_{rct} + \gamma_5 av. temperature_{rct} \times south_c + \\ & \gamma_6 EI_{ict} + f_c + f_t + \epsilon_{ict} \end{aligned} \quad (2)$$

and the following second stage equation:

$$voted\ populist_{irct} = \alpha_1 \mathbf{x}_{irct} + \alpha_2 EI_{irct} + f_c + f_t + v_{irct} \quad (3)$$

where $voted_{irct}$ is a dummy variable assuming value one if the person i (living in region r , belonging to country c) voted in period t ; \mathbf{x}_{jct} the vector of controls; $rain_{rct}$ is the daily total rainfall in the day of the election in region r ; $south_c$ is a dummy indicating southern countries (Spain, Portugal, Italy, Greece, Cyprus, Malta); $av. temperature_{rct}$ is the daily mean temperature in region r the day of the election; EI_{jct} the index of economic insecurity;¹² $voted\ populist_{ict}$ is a dummy assuming value one if individual i voted for a

¹²Note that in the first econometric specification we do not use the synthetic index of economic insecurity, but we regress its three components to show their differential effects on the selection and second stage equation.

populist party; f_c and f_t are country- and time-specific fixed effects; and u_{irct} and v_{irct} are error terms.

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.¹³ For brevity, these controls are not reported. We run regressions using sampling weights to account for differences in the national’s sample size. In all regressions, standard errors are clustered at the regional level. Our final dataset consists of more than 142 thousand observations from 25 countries when estimating the specification with all controls.

4 Main Results

Table 1 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 with similar effects in Southern and Nordic countries. This conforms with intuition: higher temperature (relative to the country mean captured by the country fixed-effects) is a good motivation to go to the polls

¹³These are some of the context variables that studies of populism (e.g. van Kessel, 2015) consider critical in explaining populists’ success.

in all countries, 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 1: 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	-0.00256 (0.00800)	0.0142*** (0.00390)	-0.00161 (0.00803)	0.0137*** (0.00389)	-0.00264 (0.00845)	0.0155*** (0.00413)	-0.00358 (0.00861)	0.0169*** (0.00419)
ln(Age)	-0.306*** (0.0713)	0.762*** (0.0268)	-0.292*** (0.0695)	0.751*** (0.0267)	-0.301*** (0.0700)	0.768*** (0.0274)	-0.324*** (0.0722)	0.780*** (0.0279)
ln(Education)	-0.436*** (0.0536)	0.527*** (0.0360)	-0.451*** (0.0531)	0.539*** (0.0358)	-0.437*** (0.0521)	0.526*** (0.0371)	-0.387*** (0.0544)	0.521*** (0.0377)
TV total	0.0171** (0.00722)	-0.0208*** (0.00454)	0.0177** (0.00716)	-0.0210*** (0.00451)	0.0186*** (0.00711)	-0.0191*** (0.00442)	0.0138* (0.00714)	-0.0192*** (0.00434)
TV politics	-0.0265*** (0.00838)	0.0557*** (0.00625)	-0.0264*** (0.00835)	0.0558*** (0.00627)	-0.0205** (0.00841)	0.0489*** (0.00642)	-0.0169** (0.00846)	0.0484*** (0.00633)
Unemployment	0.147*** (0.0319)	-0.167*** (0.0184)						
Income difficulties	0.209*** (0.0144)	-0.154*** (0.0107)						
Exposure globalization	0.0529 (0.0345)	-0.113*** (0.0229)						
Economic insecurity (PC)			0.813*** (0.0634)	-0.718*** (0.0412)	0.726*** (0.0620)	-0.656*** (0.0425)	0.707*** (0.0645)	-0.650*** (0.0430)
Trust in pol. parties					-0.0783*** (0.00611)	0.0473*** (0.00371)	-0.0719*** (0.00607)	0.0461*** (0.00376)
Few immigrants from no-EU							0.144*** (0.0177)	-0.0287*** (0.00803)
Controls, Wave FE, Country FE	Yes		Yes		Yes		Yes	
Rho	-0.391		-0.400		-0.375		-0.373	
Cluster SE	Region		Region		Region		Region	
Countries	With P		With P		With P		With P	
Observations	155,506		155,506		145,877		142,849	
Censored observations	49,509		49,509		46,421		45,099	
<i>Selection</i>								
Rain		-0.00708** (0.00292)		-0.00712** (0.00288)		-0.00728** (0.00316)		-0.00750** (0.00324)
Rain × South		-0.0166** (0.00807)		-0.0164** (0.00805)		-0.0150* (0.00792)		-0.0145* (0.00771)
Av. Temperature		0.0178*** (0.00612)		0.0179*** (0.00612)		0.0206*** (0.00635)		0.0208*** (0.00639)
Av. Temperature × South		-0.00896 (0.0118)		-0.00925 (0.0118)		-0.00831 (0.0117)		-0.00511 (0.0116)

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.

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 partici-

pation: 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.

4.1 Magnitude of Effects

Our study confirms the importance of the economic insecurity mechanism which crucially 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, despite the latter being not significantly estimated under standard thresholds.

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%. 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, almost 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 15.8% of the sample mean. The effects of the other variables, particularly economic insecurity and trust in political parties, are unchanged.

4.2 Comparing Direct and Indirect Effects

Table 2, 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 (1), 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 (1), 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 7%. 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.¹⁴

Table 2: Direct effects and effects via turnout

	Effect of conditional prob of 1SD over sample mean	Contribution via turnout
Economic insecurity (PC)	0.150	0.057
Trust in pol. parties	-0.186	-0.046
Few immigrants from no-EU	0.158	0.011

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 1, column 4.

4.3 Robustness

Table 3 present several robustness exercises of Table 1. 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

¹⁴Letting σ_x denote the standard deviation of any independent variable x , the RHS of equation (1) when evaluating the effects of a standard deviation change in x becomes: $\sigma_x \pi_x^J / \pi^J - \sigma_x \pi_x^V / \pi^V$.

lowers participation and increases the populist vote; the effects are significant and of the same order of magnitude as those in Table 1. 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. Table 3 in Appendix C reports the first stages of Table 3.

Table 3: Robustness

	(1)		(2)		(3)	
	Heckprobit		Heckprobit		Heckprobit	
	Populist	Vote	Populist	Vote	Populist	Vote
Risk aversion	-0.00272 (0.00850)	0.0177*** (0.00407)	0.00156 (0.00870)	0.0170*** (0.00447)	-0.000808 (0.00862)	0.0160*** (0.00412)
ln(Age)	-0.197*** (0.0603)	0.763*** (0.0279)	-0.205*** (0.0568)	0.797*** (0.0270)	-0.282*** (0.0708)	0.767*** (0.0272)
ln(Education)	-0.367*** (0.0527)	0.427*** (0.0399)	-0.372*** (0.0522)	0.542*** (0.0365)	-0.415*** (0.0535)	0.525*** (0.0374)
TV total	0.0169** (0.00717)	-0.0209*** (0.00383)	0.0182** (0.00722)	-0.0252*** (0.00441)	0.0183** (0.00729)	-0.0187*** (0.00446)
TV politics	-0.0150* (0.00866)	0.0506*** (0.00537)	-0.0185** (0.00895)	0.0528*** (0.00627)	-0.0176** (0.00845)	0.0491*** (0.00646)
Economic insecurity (PC)	0.674*** (0.0592)	-0.635*** (0.0365)	0.689*** (0.0601)	-0.705*** (0.0480)	0.705*** (0.0655)	-0.656*** (0.0426)
Trust in pol. parties	-0.0730*** (0.00613)	0.0456*** (0.00340)	-0.0825*** (0.00615)	0.0522*** (0.00376)	-0.0789*** (0.00623)	0.0476*** (0.00376)
Controls	Yes		Yes		Yes	
Wave FE	Yes		No		Yes	
Country FE	Yes		No		Yes	
Wave × Country FE	No		Yes		No	
Rho	-0.150		-0.185		-0.331	
Cluster SE	Region		Region		Region	
Countries	All		With P		With P (no new P)	
Observations	177,567		145,877		143,581	
Censored observations	56618		46421		46421	

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.

5 Trust in politics and attitudes toward immigrants

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.¹⁵ Namely, falls in trust in political parties, politicians and governments may be due to citizens blaming incumbent parties (and the government) for poor economic performance. The same logic can be extended to argue that negative attitudes towards immigrants are exacerbated when people, faced with economic insecurity, feel more threatened by labor market competition.

5.1 Synthetic Panel Model

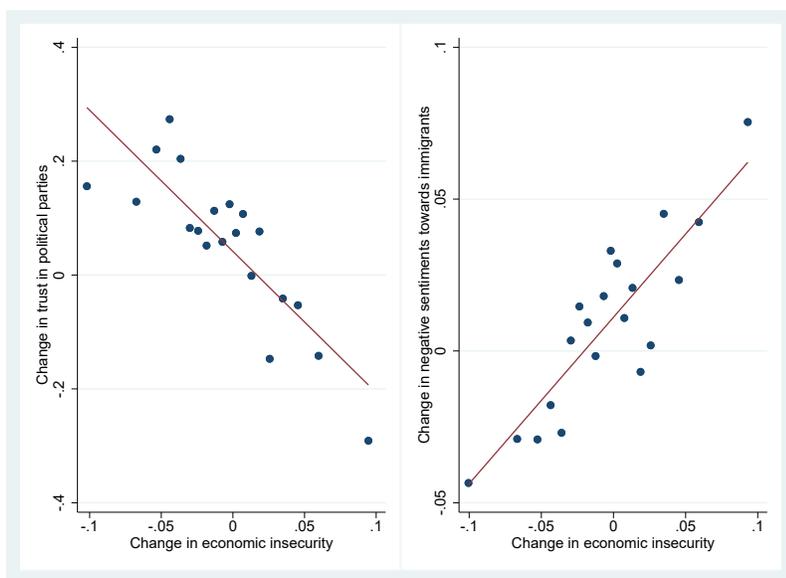
Economic insecurity and trust in political parties are negatively correlated, when gauged using cross sectional variation in the pooled ESS. Similarly, economic insecurity is correlated positively with hostility to immigrants from non-EU countries. These correlations hold even controlling for observable 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 follow Deaton (1985) and construct a pseudo-panel from the sequence of ESS waves. Panel B of Table A5, in Appendix A, shows summary statistics for all the variables used in this section. We group the data into fourteen 5-year age cohorts of men and women in each country, respectively, and estimate the following model:

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

¹⁵A recent strand of work emphasizes the decline in confidence in other people caused by sharp drops in economic activity. Ananyev and Guriev (2019) 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.

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 .¹⁶ 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: 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.

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 4 report controlled

¹⁶Our 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.

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 7.1% of its sample standard deviation and increases hostility to non-EU immigration by 5% of its sample standard deviation. Because these are fixed-effects regressions, the results cannot depend on unobserved heterogeneity.¹⁷ 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.¹⁸

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.¹⁹

¹⁷The 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.

¹⁸Reverse 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.

¹⁹Our 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.

Table 4: Trust and attitude towards immigrants - Pseudo panel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Trust parties	Few immi- grants from no-EU	Trust politi- cians	Trust na- tional par- liament	Trust Euro- pean parlia- ment	Government satisfaction	Few immi- grants from different race/ethnicity from major- ity	Few im- migrants from same race/ethnicity from major- ity	Immigrants make coun- try worse
Risk aversion	-0.0421 (0.0341)	0.00444 (0.0127)	0.0283 (0.0365)	0.0623 (0.0446)	-0.0482 (0.0443)	0.00601 (0.0257)	-0.00888 (0.0171)	-0.00765 (0.0158)	0.0214 (0.0310)
ln(Age)	0.0400 (0.208)	-0.0707 (0.0561)	0.117 (0.198)	0.00704 (0.357)	-0.473 (0.331)	-0.774*** (0.162)	0.200*** (0.0720)	0.301*** (0.0755)	-0.130 (0.285)
ln(Education)	0.326*** (0.0843)	-0.182*** (0.0500)	0.446*** (0.0712)	0.643*** (0.0635)	0.518** (0.198)	0.386* (0.214)	-0.208*** (0.0522)	-0.264*** (0.0388)	-0.778*** (0.205)
TV total	-0.0457*** (0.0108)	0.0182*** (0.00551)	-0.0504*** (0.0119)	-0.0284 (0.0168)	-0.0554** (0.0230)	-0.0419*** (0.0128)	0.0116** (0.00462)	0.00822 (0.00504)	0.0527*** (0.0154)
TV politics	0.101*** (0.0226)	-0.0172 (0.0122)	0.0655*** (0.0229)	0.0719** (0.0283)	-0.00259 (0.0409)	0.0152 (0.0278)	0.00789 (0.0136)	-0.0220 (0.0146)	-0.0711** (0.0313)
Economic insecurity (PC)	-0.901*** (0.171)	0.198** (0.0791)	-0.950*** (0.162)	-1.144*** (0.243)	-0.472** (0.201)	-1.490*** (0.162)	0.293*** (0.0831)	0.293*** (0.0811)	0.533*** (0.161)
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
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.

6 Conclusions

Western countries in the 21st century have experienced an unprecedented sequence of crises that have 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 effects 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.

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Appendix

A Descriptive statistics

Panel A of Table A5 presents descriptive statistics of the ESS data at the individual level, therefore, used for the Heckprobit estimations. Panel B, instead presents descriptive statistics of the ESS data aggregated at the cohort-level, for the pseudo-panel analysis.

Table A5: Descriptive statistics

Variable	Obs.	Mean	St. Dev.	Min	Max
A. Demand analysis					
Voted	270,777	0.78	0.41	0	1
Vote for populist party	175,521	0.15	0.36	0	1
Risk aversion	279,621	3.94	1.43	1	6
Age	287,968	49.43	17.86	18	100
Education	289,218	12.84	3.99	0	25
TV total	267,308	4.33	2.06	0	7
TV politics	280,590	2.13	1.45	0	7
Female	288,947	0.53	0.50	0	1
Right wing	255,451	5.12	2.17	0	10
Regional population (1000)	254,568	2561	3504	28	18075
Unemployment	287,944	0.13	0.34	0	1
Income difficulties	283,463	1.00	0.86	0	3
Exposure to globalization	262,146	0.30	0.46	0	1
Economic insecurity (PC)	256,807	0.22	0.21	0	1
Trust in political parties	256,871	3.59	2.36	0	10
Want less immigrants from outside EU	279,413	2.55	0.90	1	4
Daily total rain fall	255,235	2.84	4.87	0	35
Daily mean temperature	255,118	10.05	6.81	-12	27
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	2544	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

Notes: The table shows summary statistics of the variables used in the analysis from the ESS data. The construction of the single variables is discussed in the text.

B Populist parties

Table A6 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 A6: 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 Ticinians (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 (Āšsvit)	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 Party (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.

C Robustness

Table A7 presents the estimates of the instruments relative to the robustness regressions.

Table A7: First stage Robustness

	(1) Vote	(2) Vote	(3) Vote
Rain	-0.00164 (0.00248)	-0.000783 (0.00258)	-0.00678** (0.00332)
Rain \times South	-0.00594 (0.00509)	-0.0160* (0.00824)	-0.0165** (0.00804)
Av. Temperature	0.0166*** (0.00563)	-0.00456 (0.00623)	0.0193*** (0.00644)
Av. Temperature \times South	0.00773 (0.00904)	0.0216 (0.0157)	-0.00727 (0.0118)
Wave FE	Yes	No	Yes
Country FE	Yes	No	Yes
Wave \times Country FE	No	Yes	No
Cluster SE	Region	Region	Region
Countries	All	With P	With P (no new P)

Notes: The table shows the instruments in the voter turnout regressions in Table 3 in the text.