

# Populism: Demand and Supply \*

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## Abstract

We define as “populist” a party that champions short-term protection policies while hiding their long-term costs by using anti-elite rhetoric to manipulate beliefs. Our framework rationalizes this definition and generates significant implications for people’s support for populist platforms (the demand side), for the timing of the appearance of populist parties and their chosen orientation (the supply side) and also for the response of non-populist parties to the success of the populists (an equilibrium market reaction). Using individual data on voting in European countries, we show that key features of the demand for populism as well as its supply heavily depend on turnout incentives, previously neglected in the populism literature. Once turnout effects are taken into account, economic insecurity drives consensus to populist policies directly as well as through indirect negative effects on trust and attitudes towards immigrants. On the supply side, populist parties are more likely to emerge and prosper when countries are faced with a systemic crisis of economic security that incumbent parties (whether left-leaning, relying on government, or right-leaning, relying on markets) find hard to address, disappointing voters who lose faith in them and abstain. The orientation choice of populist parties, i.e., whether they arise on left or right of the political spectrum, is determined by the availability of political space. The typical non-populist policy response is to reduce the distance of their platform from that of new populist entrants, amplifying the aggregate supply of populist policies.

*Keywords:* turnout, short term protection, anti-elite rhetoric, populist entry.

*JEL codes:* D72, D78

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# 1 Introduction

On both sides of the Atlantic, the Western world is facing an unprecedented wave of populist politics and populist rhetoric.<sup>1</sup> Some countries have seen mounting protest against inequality and capitalist institutions, leading to left-leaning policy demands matched by similarly oriented populist supply; in others, right-wing populist movements have found increasing support for protecting the country from immigrants and globalization. Protectionism against immigrants and free trade is also featured in the policy positions of the Trump administration in US and post-Brexit UK. In Southern Europe, the Italian Five Stars movement and the Greek and Spanish populist movements call for a guaranteed minimum income and other forms of short-term economic protection, in opposition to the European imposition of fiscal discipline – what we might call Mediterranean populism. In continental Europe, populist movements stress protection from immigrants (often linking them with Islamic terrorism) and from Chinese imports. Overall, nationalism and closure to immigration are on the rise. Why is there such a rising tide of consensus for populist proposals *now* and why *here* - i.e. with a clear time and geographical pattern? What is driving the simultaneous shift towards populism in so many countries? Is this a global shift in voters' preferences or emotions, immediately captured by new political leaders who enter politics? And if so, what is driving this global shift of demand? Is it related to economic crisis or stagnation and, if so, through what channels?

We believe that in order to tackle these questions and garner a better understanding of the phenomena, we need to abstract from the many observable differences in the existing strands of populism and focus instead on what is common to all populist movements. We argue that populist movements, regardless of political orientation, all share a number of underlying common features. Focusing on these enables us (1) to acquire an analytical rather than a merely descriptive tool; (2) to zoom in on the key drivers of the populist wave and thus answer the questions of why *now* and *here*. To this end, we find the definition of populism in the *Encyclopedia Britan-*

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<sup>1</sup>Google Trends shows an astonishing spike in the number of searches for the word populism, which quadrupled in the fall of 2016.

*nica* a particularly useful starting point: populists claim to promote the interest of common citizens against the elites; they pander to people’s fears and enthusiasms; and they promote policies without regard to the long-term consequences. This broad definition of populism highlights three important components: (1) the claim to be on the side of the people against the elite – which we label “supply rhetoric;” (2) the “fears or enthusiasms” of people – the demand conditions to which the populists pander; and (3) the disregard for longer-term consequences. We sum up the policy characteristics of populists’ political supply as *short-term protection*.<sup>2</sup> The definition of *Encyclopedia Britannica* encompasses both nationalist populism (emphasizing fear or enthusiasm regarding the protection of identity), and economic populism (proposing redistributive policies such as minimum income, regardless of costs). Thus, when we say that a populist party offers short-term protection we intend to include both possibilities.

Rationalizing the three-part definition of populism set out above, we will generate and test some specific implications concerning voters’ support (the demand side), when and where populist parties appear and their political orientation (the supply side), and the response of non-populist parties to populist success (an equilibrium market reaction). Within this framework, the broad answer to *why now and why here* is that populist parties are more likely to emerge and prosper when a country has to deal with a crisis of systemic economic security that the traditional incumbent parties (whether left-leaning, relying on government-based policies, or right-leaning, relying on markets) find it hard to address, so that their voters lose faith in them. The 21st-century crisis (characterized by the external threats of globalization and migration as well as widespread 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. Previous crises, which basically resulted in the failure of only one side simply generated political cycles, and did not leave space for the emergence of populist platforms, which requires substantial

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<sup>2</sup>Citing from *Encyclopedia Britannica* 2015: “...either a platform that promotes the interest of common citizens and the country as a whole or a platform that seeks to redistribute wealth to gain popularity, without regard to the consequences for the country such as inflation or debt.” see [www.britannica.com/topic/populism](http://www.britannica.com/topic/populism)

disappointment and falling electoral turnout across the political spectrum. The best tack for the leader of a new entrant is to urge more protection from the effects of crisis, even at the cost of violating the existing constraints (various forms of exit, rejection of international treaties previously subscribed, construction of walls, and so on).

The anti-elite component of our three-part definition of populism is easily rationalizable when disappointment spreads on both left and right: when governmental and market-based policies both prove ineffective, it is the elite as a whole that has failed, justifying a new party with an anti-elite program and the demand to return power to the people. It should also be clear that this component is complementary to the others. To see this, note that the anti-elite rhetoric simply “supplies disinformation,” making it possible to win elections with a short-term platform. For example, if a non-populist politician counters a populist policy proposal with objections about future costs, debt or banking crises, the winning rebuttal by the populist is to claim that all statements of concern for the consequences merely serve the self-interest of the elites. That is, economists and incumbent politicians may well know something about how to calculate future costs, but since maintaining the status quo policies is in the elite interests, their arguments become non-credible.

The analysis of populism that we offer in this paper hinges on electoral turnout. Our theoretical premise is that voters’ primary choice is between voting and staying home, but, conditional on deciding to participate, they usually vote for the closest party to them ideologically, as long as no populist is present yet on the supply side.<sup>3</sup> In a systemic crisis, which depresses the motivation to vote for traditional parties of both left and right, the disappointment generates an *abstention-based entry space* for a populist platform.

Our framework suggests a number of testable hypotheses on both the demand side (voter behaviour) and the supply side (the appearance and political stance of populist parties and the non-populist reaction). First, on the demand side, the people most severely affected by the crisis - those facing the greatest economic insecurity - should

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<sup>3</sup>The decision to vote or abstain is based on simple expressive voting assumptions, but could be generalized.

be the most prone to abstain and to shift to the populist party when it appears. Second, abstention and the shift to populism should be more common among those with least trust in traditional parties, politics and institutions, to begin with, who are the most vulnerable to the manipulation of beliefs by populist rhetoric. Third, mistrust and various negative attitudes - e.g. hostility to immigrants - could themselves be endogenous to the crisis. That is, mistrust and anti-immigrant attitudes may not be autonomous, cultural drivers of voting behaviour but channels through which the economic insecurity brought by the crisis affects abstention and voting. Fourth, on the supply side, populist parties should be more likely to be present when and where disappointment with traditional parties is greatest - i.e. when and where the basis for abstention due to economic insecurity is broadest; and less likely where national characteristics make entering with a populist platform more costly. We predict that the orientation of a new populist entrant (left or right) will be related to the relative entry space on the two sides of the political spectrum and the relative effectiveness of right-oriented or left-oriented rhetoric.

Our empirical analysis confirms these hypotheses on demand and supply, and delivers several other, more nuanced results.

We first study the determinants of the demand for populist platforms in the countries covered by the European Social Survey. Our empirical examination emphasizes accounting for selection issues, which other studies of populist voting typically ignore. 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 decisions not only biases the estimates of the drivers of the voting choice and underestimates the underlying demand for populist parties, but obscures the mechanism by which the disappointment induced by the crisis favors the populist vote.

A simultaneous Heckprobit estimation of the probability of participation and of a populist vote shows that economic insecurity has a statistically and economically significant direct effect, and trust in political parties and attitudes toward immigrants matter as well. Moreover, building a pseudo-panel from the individual data we show that the trust and attitude variables are themselves affected causally by shocks to

economic insecurity, producing a large total effect (direct plus indirect) of economic insecurity on the demand for populism.

On the supply side we document that the presence of populist parties in the political arena is powerfully affected by economic insecurity and discouraged by the presence of strong non-aligned parties, which undercuts anti-elite rhetoric and so increases the cost of entry. We also show that populist parties choose their orientation strategically, leaning left or right depending on the relative salience of left-type or right-type cleavages weighted with the share of left-leaning and right-leaning voters. We find that the successful entry of a populist party changes the subsequent electoral competition, prompting the established parties to adapt their platforms to populist concerns, lending support to our idea that the supply of disinformation and anti-elite rhetoric make it difficult to conduct a credible contrarian, anti-populist campaign. In the end, the traditional parties' attempt to contain populist success is adaptive reaction.

The paper is organized as follows. In the next section we review the recent literature. Next, we introduce a simple theoretical framework for our general view of the phenomenon of populism. Section 4 discusses the data; Section 5 presents the empirical results on the demand side, and Section 6 those on the supply side. Section 7 concludes.

## 2 The Relevant Literature

The traditional macro-economics literature on populism (Dornbush and Edwards 1991; Sachs 1989) looks at the *consequences* of populist short-term protection policies. Contemporary political economists (e.g. Acemoglu et al, 2013a) have begun to examine the *causes*, what voters want and how politicians play to those desires. The literature on trade exploits exogenous variation in import flows in relation to political polarization and support for populism (Steiner, 2012; Autor et al., 2016; Autor et al., 2017; Colantone and Stanig, 2016; Colantone and Stanig, 2017; Jensen et al., 2016), and analyzes the electoral impact of economic shocks from globalization or the European single market (Becker et al., 2016). 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. Di Tella and Rotemberg (2016) analyze the demand for populism based on the behavioral observation that voters are betrayal averse, and may accordingly prefer incompetent leaders to minimize the danger of betrayal.

All told, the political economics literature has tended to focus on explaining the demand for populist policies, but has not explored the causes and sustainability of those policies on the supply side. Nor has it explained “Why now and here?” Why, that is, there should be such a widespread following for populism in the Western world generally, not only in the Euro-area countries. An exception is Rodrik (2017), who traces the origin of today’s populism to the shock of globalization 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, Rodrik stresses the importance of also understanding the supply side, and in particular the political orientation that the populist parties chose, which in his view depends on the relative salience of the specific cleavages induced by globalization.<sup>4</sup>

Most political science inquiries considered the institutional pre-conditions for the formation of populist parties (Norris, 2005; Rydgen, 2007; Golder, 2016), or electoral dynamics, identifying parties on the radical right (Mudde, 2007), but increasingly also on the radical left (March, 2007; March and Mudde, 2005; Pauwels, 2014; Stavrakakis and Katsambekis, 2014); or else on the populists’ strategy for surviving once in office (see e.g. Boix, 1999). Only recently, has the attention of political scientists shifted to the demand side. Inglehart and Norris (2016) observe that cul-

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<sup>4</sup>The channel of the inequality is investigated for the case of Sweden in Del Bo et al (2017).

tural variables outweigh economic ones in the decision to vote for a populist party (rather than abstain or vote for a non-populist party). But this, apparently, weak *direct* effect probably stems from a failure to consider that economic security shocks significantly affects the decision to abstain (see our empirical sections for the details on this turnout problem). In addition to a stronger direct effect of economic shocks, thanks to our consideration of the turnout effect, we also document a significant *indirect* effect: the shocks to economic security are responsible for a sharp change in political trust and in attitudes towards immigration, which means that these changes in the latter variables cannot be deemed independent drivers.<sup>5</sup> For a review of the literature on populism in the social sciences in general, see e.g. Gidron and Bonikoeski (2013) and Mudde and Kaltwesser (2017).

Here we look simultaneously at the demand and supply sides, to explain the rise of populism. The demand side involves people’s fears and enthusiasms, to which politicians pander. The supply side lies in the politicians’ claim to be on the side of the people and against the elite. Demand and supply meet at a specific point: short-term protection. As economic insecurity intensifies, people demand short-run protection. At the same time, populist parties find their own space within the political landscape, with an agenda based on the dichotomy “the people vs the elite”. This leads to the promise of short-term protection, in that the long-term is disparaged as in the interest of the elite. Like Algan et al. (2017) we find that economic insecurity has an effect on voting for populist parties and also like them, 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 new entrant. Unlike Algan et. al. (2017) and like Rodrik (2017), we study the supply side of populism, highlighting the role of economic insecurity in

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<sup>5</sup>Lucassen and Lubbers give evidence – for 8 of the 11 countries they consider – that shifts towards far-right populism stemmed from perceived cultural threats more than due ethnic 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 economic and of cultural threats are affected by the economic shocks.

triggering entry of populist parties and the importance of the relative political space on the left and the right in explaining the orientation that the populist force chooses. As Rodrik (2017) notes this is crucial in separating the explanatory role of economic shocks from that of cultural shocks. Indeed, our results suggest that economic shocks spur populism through voting and abstention both directly and because they shift beliefs and attitudes, which have traditionally been classified as cultural traits. This sharpens our understanding of the channels of influence of populism.

As far as our finding of policy convergence is concerned (see Section 6), the closest related result is in Schumacher (2016), who shows from political manifestos that early success of populist parties did heighten scepticism over multiculturalism in mainstream party platforms. We document the systematic convergence of a broad set of policies towards the positions of successful populist parties.

### 3 Theory

We propose a simple narrative to clarify what generated the demand for populist policies simultaneously in so many countries and, in turn, what causes supply of different varieties of populism. Here we conceptualize of the overall phenomenon of demand and supply and derive the hypotheses for empirical testing.

#### 3.1 Traditional politics before the crisis

The simplest model of voting is one in which voters are ideological and expressive. This means that: (1) First, conditional on participation, voters choose the party with their preferred ideology, left or right – the ideological component; and (2) second, that the decision whether to vote or abstain depends exclusively on a comparison between the cost and the expressive benefit of voting.

Voters are either left- or right-leaning. Assume the preference split in the population is:

$$(p_L, p_R)$$

where  $p_L$  ( $p_R$ ) is the proportion of left (right) wing citizens in the population.

Voters have a degree of disappointment with traditional politics owing to the income difficulties they experience  $d \in [0, 1]$ . For simplicity, let this degree of disappointment be the same across ideologies. Disappointment is affected in the same way by an economic crisis.<sup>6</sup>

When voters do not feel sufficiently represented by the traditional parties on their side of the spectrum, or when they are dissatisfied enough, they abstain from voting. Formally, the abstention condition can be expressed as:

$$A - d < C$$

where  $C$  is the cost of voting and  $A$  is the benefit of voting for the preferred party when no disappointment is present. Rearranging we have:

$$d > B$$

where  $B = A - C$  is civic sense or the net benefit of voting for an ideal party. This net benefit is clearly heterogeneous across voters. Assuming  $B$  is uniformly distributed on  $[0, 1]$ , the proportion of left-wing (or right-wing) voters abstaining is:

$$\Pr(B < d) = d$$

Thus, total abstention, not conditional on party orientation, is:  $p_L d + p_R d = d$

### 3.2 Crisis and Populist Strategies

All crises have the effect of increasing voter disappointment  $d$  on average (although there are always some winners even when a crisis creates a multitude of losers). A protracted crisis that leads to a decline in trust of all the traditional policies on both sides of the spectrum creates space for a populist party to enter the political arena. The impact of globalization and free trade effects produces an unemployable workforce in some sectors, reducing confidence in free markets, while the simultaneous

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<sup>6</sup>Allowing for heterogeneous effects on the two sides would not alter our main predictions, and our empirical evidence indicates that this assumption is actually consistent with the data.

financial crisis and the constraints on the usual fiscal policy remedies in many European countries heightened perceptions of the irrelevance of the traditional left-wing policies to welfare.

The populist policy proposal depends crucially on short-term protection, to be obtained through drastic dismantling of institutional constraints (e.g. imposing barriers on imports, say, or exiting from Euro-area, or building a border wall), together with a strategy of concealing the inevitable future costs –which requires a generalized anti-elite rhetoric.

Both leftist and rightist protection proposals involve major changes and very uncertain future effects. This, requires a conscious attempt by the populists to remain vague on the longer-run consequences, associating anyone who talks about future costs with the out-of-touch elite that caused the crisis and stagnation in the first place. These characteristics are common to all populist platforms, but some differences between left- and right-wing populists do remain.

### **3.2.1 Left-Wing Populism**

Left wing populists entering the political arena are likely to focus on the inequality cleavage, thus catering primarily to progressive voters and people who are more likely to depend on government programs such as redistribution or guaranteed income. For instance, they may explicitly call for exit from the Euro-area or also promise some other form of immediate protection, such as guaranteed income and generalized insurance, with deficit implications that would violate European budget rules.

Anticipating the consequences, better informed and educated agents are less likely to vote for this proposal. Those with less education are more likely to underestimate the risks and potential costs of drastic changes in compliance with constraints, rules and institutions. They may also be deliberately manipulated by the strategy component that involves concealing the longer-run consequences.

### 3.2.2 Right-Wing Populism

On the right, populist entrants can be expected to capitalize on the national identity cleavage, calling for closing the borders to immigrants, protecting national companies, and so forth.

The right-wing populist platform, still featuring short-run protection, lacks any explicit redistributive component: the state should be minimal in terms of economic management. The right-wing populist pushes for walls and protectionism, but rejects any form of domestic income redistribution (actually proposing, instead, flat low taxes). Also in this case, the most likely supporters are the people and firms most exposed to the effects of the crisis deriving from globalization and migratory competition.

### 3.3 Demand Side Predictions

Ceteris paribus, citizens with income difficulties should be most tempted by short-term protection, so an economic crisis should amplify this effect. Second, protracted crisis has an indirect effect by undermining trust in traditional politics, so we should expect the citizens who experienced the sharpest drop in trust to be those most prone to vote for a populist party; and those who have most significantly devalued their trust in politics should be those most severely hit by the crisis. Third, the expectations of future costs of a populist platform and the levels of confidence in the established parties are variable owing to the heterogeneity of information. Thus, more informed/educated people, who may be able to evaluate e.g. the general equilibrium and long-term consequences of trade barriers, may be less willing to take the populist gamble.<sup>7</sup> Hence:

**Hypothesis 1:** The percentage of people voting for a populist party is increasing in the number of those who

1. were affected significantly by the crisis in terms of economic security;

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<sup>7</sup>The under-estimation of future costs of populist policies is a well recognized phenomenon. See e.g. Hainmueller and Hiscox (2006).

2. have a low degree of trust in the traditional alternative;
3. have low education.

A second testable hypothesis that emerges from our narrative is :

**Hypothesis 2:** Trust in traditional parties, institutions and politics is negatively affected by protracted crisis.

### 3.4 Supply Side Predictions

An office-seeking populist entrant must choose whether to enter on the left or on the right, fishing primarily in one or the other pool of disillusioned voters.

Disillusioned voters who now abstain are good prospects to vote for a new populist party. We define the probability of being won over by a new party located on the same side of the political spectrum as the voter as:

$$\rho_i \Pr(B < d) = d\rho_i \quad \text{with: } i = L, R$$

where  $\rho_i \in [0, 1]$  measures how effective the populist left- or right-wing rhetoric is, namely what proportion of the dissatisfied voters on that side the populist rhetoric will attract. The effectiveness of this rhetoric, in turn, depends on the magnitude of the country's cleavages; for instance whether they are more anti-austerity and anti elite (left) or anti-immigrant (right).

Party entry entails an entry cost  $c$  which may in turn depend on country-specific institutional features.

A populist party presumably enters on the side where it will gather more votes. Entry is determined by the condition:

$$d \left( \max_{i=L,R} (p_i \rho_i) \right) > c$$

In sum, for a given cost of entry, the entry is determined by three independent factors: the proportion of the electorate that is left (right) wing, the overall level of

disappointment, and the attractiveness of the populist message as a rationalization and solution for that disappointment. This conclusion leads to the two additional hypotheses.

**Hypothesis 3:** Upon entry, a populist party will choose a left orientation if  $p_L\rho_L > p_R\rho_R$ , and conversely a right orientation.

In other words, conditional on entry the populist party will position itself on the side of the political spectrum where there are more voters and where its rhetoric is more effective in mobilizing them.

**Hypothesis 4:** Given the optimal orientation, the likelihood of a populist entry is increasing in voters' disappointment and decreasing in the cost of entry (which is a function of institutional constraints).

### 3.5 A Case Study

Before getting to the general econometric analysis, Figure 1 (panel 1) exemplifies our story, drawing on the Italian case. It shows GDP in the run-up to the 2008 crisis and afterwards, together with the trend of popular confidence in political parties and the level of support (measured by voting intentions) for the Five Star movement - a new populist party. GDP falls significantly in 2009 and then stagnates, resulting in the longest and deepest recession in Italian history. Disappointed with the established parties, Italians lose faith in "the parties", which are blamed for the country's performance. The share of people trusting political parties falls from 25% before the crisis to 5% (or less) after 2009, with no sign of recovery. This disappointment has two consequences: electoral abstention;<sup>8</sup> and, most strikingly, increased support for "outsiders." Driven by the demand for protection and disillusion with establishment parties, the Five Stars movement enters the political market. It first appears in 2009 and since then has gained increasing support, becoming the country's second largest

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<sup>8</sup>The fall in turnout in European elections is even sharper: in 2004 (before the crisis) it was 73%, falling to 66% in 2009, after Lehman Brothers but before the European sovereign debt crisis and to 58.7% in the 2014 elections, when the effects of the European crisis were felt.

party in the 2013 elections and the largest party in 2016 according to surveys. To counter their success, Prime Minister Matteo Renzi, head of the incumbent party, has adopted a number of “populist” policies - ranging from voter-friendly budget policies to more symbolic anti-Euro posturing (such as not exhibiting the EU flag together with the Italian flag as is customarily done by government representatives in public speeches).

The second panel of Figure 1 shows that a similar pattern holds in Greece: as the economic crisis deepens after 2007, people lose faith in the traditional parties, participation in elections falls, and the demand for protection rises. Populist movements either enter the market (Golden Dawn), or expand considerably (Syriza) starting from practically negligible electoral base.

[FIGURE 1 HERE]

In the following sections we provide systematic evidence from all European countries, to support the foregoing narrative.

## 4 The Data

Our main source of individual data is the European Social Survey (ESS), the richest social scientific endeavour to map attitudes, beliefs, and behaviour patterns in Europe. The ESS systematically tracks changing values, attitudes, attributes and behaviour patterns in European polities. 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 all seven waves through 2014. The questionnaire consists of a core module, constant from round to round and smaller rotating modules, repeated at intervals, on selected substantive topics or themes. We will use the core module, which covers a wide range of social, economic, political, psychological and demographic variables.

## 4.1 Measuring voting decisions

The ESS asks people whether they voted in the last parliamentary election in their country and which party they voted for: “Did you vote in the last [country name] national election in [month/year?]”. This gives us an indicator of turnout. Those answering yes were then asked: “Which party did you vote for in that election?” and shown the list of parties. From this we construct a dummy that takes value 1 if the voter voted for a populist party (identified in section 4.3).

## 4.2 Measuring voters’ characteristics

The ESS tracks a large number of variables from which we select a subset to construct proxies for the voters’ characteristics that influence both turnout and voting decisions, as discussed in Section 3. We start with our key explanatory variable for the rise of populism, namely economic insecurity.

**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 his current income; 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 low-tech manufacturing. The indicator takes value of 1 if the individual is a low-skilled 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. It clearly captures exposure to globalization (emphasized by Rodrik (2017), Colantone and Stanig, (2017) and Autor et al (2017)), but also other forces that may have been at work, including the obsolescence of job-specific skills, labor displacement due to rapid automation (Acemoglu and Restrepo, 2017) and enduring disruptions in personal savings and investment returns caused by

the 2008 financial crisis. The point is that one single measure - e.g. unemployment - is unlikely to really capture voters' economic insecurity. Using unemployment alone, for instance, it would be difficult to explain the rising populist vote in Germany where the jobless rate is low (under 4% as of September 2017) and declining (since 2010).

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<sup>9</sup>. 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 5.5; but our results on voting are invariant to the measure used, so Section 5 reports the results using the first measure.<sup>10</sup>

**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 behaviour we use trust in political parties, which speaks directly to our model. In studying the link between

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<sup>9</sup>Caliendo et al. (2017) make an estimate of immigrants by country of origin and country –not region– of destination using the EU labor force survey which reports gross flows of workers into a country by nationality and over time. The only data available at regional level are net population flows, a gauge that is unlikely to capture competitive pressure on local labor markets due to intense immigration. For instance, a zero net flow may reflect an inflow of immigrants of 100 and an equal outflow of displaced local workers: competitive pressure is high but net flow does not reflect it.

<sup>10</sup>Using synthetic panel data we document that people who experience an increase in the index of economic insecurity become more supportive of limiting immigration from low-wage countries (see Section 5). This justifies taking adverse attitudes towards immigrants as a gauge of economic insecurity.

economic insecurity and trust in Section 5.2, we use all the measures.

**Perception of long-run costs.** We use 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 . Education can capture the ability to infer the future costs of current populist policies (e.g. because the highly educated are more likely to be aware of the government inter-temporal budget constraint).

The second proxy 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. 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.<sup>11</sup> *Ceteris paribus*, we expect better educated people and people who watch TV programs on politics to be better able to anticipate the cost consequences of populist policies and accordingly less likely to vote for their proponents.

**Time discounting and risk aversion.** The weight placed on the uncertain future costs and benefits of current policies depends on the subjective discount factor, and the degree of risk aversion. The ESS has no direct measure of people’s patience. 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 (assuming they care about future generations less than they care about themselves). The ESS is richer in terms of proxies 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, measuring the latter with a dummy for “right” (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.

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<sup>11</sup>It may well be that someone who spends 100 percent of his/her time on TV watches only one-sided news. This may be the reason why it turns out not to be significant in the regression on party choice, but is significant for the decision to participate, since watching political news correlates with mobilization.

[TABLE 1 HERE]

### 4.3 Identifying populist parties

To identify populist parties in Europe, we rely on the classification proposed in the recent, comprehensive study by van Kessel (2015) which studies all the parties that gained parliamentary representation in national elections in Europe between 2000 and 2013.<sup>12</sup> The period and the countries covered match those in the ESS data. Van Kessel defines a party as populist if it a) portrays “the people” as virtuous and essentially homogeneous; b) advocates popular sovereignty, as opposed to elitist rule; c) defines itself as against the political establishment, which is alleged to act against the interest of the people. These features reflect the first component of our three-part definition of populism, the “supply rhetoric”. To detect their presence van Kessel uses primary sources such as party manifestos and speeches. To make sure that the classification is meaningful, he also asks a pool of country experts to validate or reject his classification by answering an ad hoc questionnaire. Using these criteria, the author identifies 57 populist parties in 26 of the 31 countries examined.<sup>13</sup> There are several advantages to this classification. First, it uses a clear set of political strategy attributes, rather than subjective judgements. That is, the “supply rhetoric” is observable and can be detected from official documents.<sup>14</sup> Second, van Kessel’s classification covers all the relevant European countries. And third, it allows the

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<sup>12</sup>The countries covered are: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK.

<sup>13</sup>Van Kessel’s definition is very similar to that of Cas Mudde (2007), and in fact the parties identified by the two authors are essentially the same.

<sup>14</sup>Donald Trump’s inauguration speech reads “..we are transferring power from Washington D.C. and giving it back to you, the people.. For too long, a small group in our nation’s Capital has reaped the rewards of government while the people have borne the cost. Washington flourished – but the people did not share in its wealth. Politicians prospered – but the jobs left, and the factories closed. The establishment protected itself, but not the citizens of our country...”. The anti-elite and anti establishment rhetoric, as well as the concept of “the people” as a uniform body, which according to political scientists distinctly characterizes populist parties, is easily spotted and measured in observable speeches.

definition to be time-varying, so that a non-populist party may turn populist in a certain year, a feature which is important for studying the supply side of populism.

Despite these merits, the classification unavoidably contains a certain amount of subjective judgement. More importantly, it does not reflect the other two components of our conceptually more complete three-part definition of populist policies - protection and the concealment of long-term costs. However, the three components of our definition turn out to be complementary and correlated, and hence making use of a measure based on only one dimension does not entail a major loss. Using the 2014 Chapel Hill Expert Survey (CHES), in which national experts rate European parties on a range of positions, policies and salient issues (see Section 6 for more details on CHES) we construct measures of each of our three dimensions (anti-elite and anti-corruption rhetoric, protectionism, concealment of long-term costs) for all the parties in the CHES database. The rhetoric variable averages the scores assigned to a measure of the salience of anti-establishment and anti-elite rhetoric and of reducing political corruption, on a scale from 0 (not important at all) to 10 (very important). The protectionism measure is the average of the scores for the position on five policies that may offer economic protection in different domains: deregulation (10 strongly opposes deregulation of markets); immigration (10 strongly in favor of tough policy); tax policy: (10 strongly favors tax cuts vis-a-vis improving government services); economic intervention (10 fully in favor of state intervention); cosmopolitanism (0 strongly advocates cosmopolitanism, 10 strongly advocates nationalism); redistribution of wealth (10 fully in favor of redistribution). To capture the third dimension we average parties' positions on two long-term issues: the environment and international security or peace-keeping. Policies on these issues will pay off in the long run, the first by limiting global warming, the second by guaranteeing a stable international order. We interpret a high score on downplaying the importance of these issues as the gauge of a strategy of hiding the long-term costs of protectionism. Table 2 shows regressions of each of the three indexes on the van Kessel populist party identifier, *after* controlling for the political orientation of the party (0, far left, 10 far-right).

[TABLE 2 HERE]

Independently of political orientation, populist parties as defined by van Kessel all score higher in each of the three indeces. The difference between populist and non-populist parties is sharpest on the anti elite/anti corruption dimension (59% above the sample average) but it is substantial for the other two (34% and 27% above average). This evidence not only validates van Kessel’s definition but also supports the consistency of our three-part (or 3D in short) definition of populism: what left and right-wing populists have in common are the three dimensions we posit. Political orientation, as argued in Section 3 and documented empirically in Section 6, is chosen strategically by the nascent populist parties depending on voters prevalent orientation and the salient political cleavages in the country. To summarize the three dimensions in a single 3D index of populism, we extract the first principal component of each. The last column of Table 2 shows the correlation of this measure with van Kessel’s populist identifier.

Despite the conceptual merits of the 3D measure, our analysis relies primarily on the van Kessel classification. This for two reasons. First, the CHES dataset does not survey all parties in all countries, sharply reducing the number of observations (from 136,000 using van Kessel to 88,500 using the 3D definition, a drop of around 35%, see Table 1, top panel). Second, because some of the positions used to build the components of the dimensions are collected in only one or two of the CHES surveys, unlike van Kessel the 3D measure has no time variation. And time variation is very well suited to our goal of tracing populist supply over the years. However, we report robustness regressions using the 3D definition.<sup>15</sup>

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<sup>15</sup>Inglehart and Norris (2016), also use the 2014 (CHES) data to identify populist parties. They classify as populist a party that scores more than 80 on a standardized 100-point scale built using thirteen selected indicators contained in the CHES, including support for traditional values, for liberal lifestyles, and for multiculturalism, as well as the stance towards market deregulation, state management of the economy, and preferences between tax cuts and public services. Some of these dimensions are the same as those we use to build our 3D measure, but Inglehart and Norris (2016) make no distinction between the three dimensions. Rather, they emphasize the cultural traits of populist parties. Of Van Kessel’s 57 populist parties, 25 are defined as populist in their stringent classification. Table A1 in the Appendix lists the populist parties based on the two definitions.

## 4.4 Validating survey data on voting

Since we cannot observe true behaviour we analyze voting decisions as reported. Obviously, response to the ESS do not necessarily correspond to what people actually did in the voting booth. Apart from recall bias, people may be reluctant to tell their voting choice truthfully. The correlation between turnout in the ESS and actual turnout is quite high, 80%. Furthermore, in a country-level regression of ESS on actual turnout the slope coefficient is not statistically different from 1, though there is tendency of the ESS to exceed actual turnout on average. The correlation between ESS votes for populist parties conditional on participation and actual voting is lower, at 63%. This is not surprising. Apart from reluctance to reveal voting choice, the survey may be representative of the country's adult population but not necessarily of the electorate. Furthermore, the low correlation can be traced to seven observations out of 79 in which the ESS understates actual vote for the populist party by more than 25 percentage points. Dropping these observations, the correlation is 85% and a regression of the average populist vote in the ESS on actual votes yields a slope of 0.86 and a negative constant of 4.3 percentage points. The joint hypothesis that the slope is 1 and the constant 0 is rejected, suggesting that the ESS sample participants tend to systematically understate the populist vote. However, if this measurement error were positively correlated with preferences for voting populist, our estimates of the effect of economic insecurity on voting would be a conservative estimate of the true effect.

## 4.5 Data on supply

We use the ESS mostly to study individual voting behavior - what we call the demand side of populism. For the supply side, we complement the ESS with several other datasets. Data on national political institutions come from the World Bank Database of Political Institutions. Data on trade with China, India and the rest of the world are drawn from the World Bank WITS statistics (UN Comtrade). Finally, the five waves (1999, 2002, 2006, 2010, 2014) of the CHES serve to determine whether populism, once it appears, spills over to non-populist parties. For each of the 246 parties

included, which belong to all the countries in our sample, CHES gives a measure of the position on a set of relevant issues, which we use to obtain measures of distance between the position of a non-populist party from that of the populist party in the same country. Table 1, panel D, shows summary statistics of these measures, described in detail in Section 6.

## 5 Demand: the empirics of voters' behavior

We first show results on the drivers of the vote for a populist party using the ESS data. 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 – in particular, whether or not to vote for a populist party (the voting decision). Estimating the two decisions simultaneously is important for two related but distinct reasons: to get consistent estimates of the voting decision if unobserved components of the participation decision are correlated with unobserved components of the voting decision; and second, to pin down the channels through which voters' characteristics impact on the voting choice. Let  $\pi^C(x) = \pi^J(x)/\pi^V(x, z)$  denote the probability of preferring a populist party conditional on voting, which is defined as the ratio of the joint probability of voting and preferring a populist party,  $\pi^J$ , and that of participating in the election,  $\pi^V$ . 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,  $\pi_x^C/\pi^C = (\pi_x^J/\pi^J - \pi_x^V/\pi^V)$  which is clearly affected by the effect of  $x$  on the participation decision. By a joint estimation of the voting and participation decisions we retrieve consistent estimates of  $\pi_x^C$  and  $\pi_x^V$  and can assess the economic role of turnout in the voting results. In frequencies,  $\pi^C$  represents the populist party's share of the vote – our dependent variable.

### 5.1 Turnout and identification

Given that the party choice only applies to those who vote in the election, itself a choice variable, we estimate a two-step Heckman probit model, estimating first the

probability of participation, and then the probability of voting for the populist party. As observed in Section 3, electoral participation depends on the same set of variables as the choice of party, possibly with opposite signs: that is, the characteristics that increase the likelihood of voting populist may also discourage participation. For identification, we need a personal characteristic that affects the net benefit of voting (benefit less cost), but not the choice of the 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 affect the cost of going to the polls but not the preference for voting for a specific party. 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.

## 5.2 Estimation results

We estimate our Heckman probit model for the sample of countries that have a populist party in the ESS waves. In all specifications we control for gender and political orientation, on a scale from 0 (far left) to 10 (far right), and for the size (population) of the voter’s region; we also include country-level fixed effects and ESS wave effects. Importantly, country-fixed effects capture all the 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.<sup>16</sup> 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 134,834 observations from 24 European countries when estimating the specification with all controls.

Table 3 reports the estimates of several specifications, with a progressively aug-

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<sup>16</sup>These are some of the context variables that studies of populism (e.g. van Kessel, 2015) consider critical in explaining populists’ success.

mented 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 in southern countries, while high temperatures significantly discourage it in Nordic countries. This conforms with intuition: going to the polls when the temperature is high is a heavy toll in a Nordic country (where hot days are rarer), while going to vote in the rain is costly in southern countries where people are less equipped for it. Conditional on the controls and the instruments there is no sign of selection bias, as is shown by the low and insignificant correlation between the residuals in the voting and the participation regressions in all specifications.

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 thesis that since the populist choice entails risk, it is more appealing for risk-tolerant voters. Age affects participation positively but has no effect on voting populist.<sup>17</sup>

Education - our proxy for people's ability to foresee the long-term costs of current policies - has a positive and precisely measured effect on voting and, conditional on participation, a negative effect on support for a populist party. This is consistent with Hypothesis 1. Increasing education by 4 years (one sample standard deviation) raises participation probability by 19 percentage points (35% of the sample mean) and lowers the probability of voting for a populist party by 1.75 percentage points - as much as 22% of the sample mean. The proxy for political information has a significant impact on turnout - more politically informed citizens are more likely to participate - but it has no effect on voting for a populist party (see the brief discussion

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<sup>17</sup>Interestingly, women are less likely to participate, and when they do, they are also less likely to support populist platforms. The politically right-leaning are more likely to participate and to vote for a populist party - a finding that is robust to specification and consistent with the right-wing orientation of most populist parties in Europe (see Section 6.2 as well as van Kessel, 2015 and Mudde, 2007).

on the reasonableness of these findings in footnote 11).

Economic insecurity is our key determinant of the demand of populism, consistent with Hypothesis 1. Unlike the papers that ignore turnout (e.g. Inglehart and Norris, 2016), our study confirms the effectiveness 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 party vote is more likely among those who suffer an income loss and are exposed to globalization. But having lost a job has no statistically detectable effect on the vote for a populist party, possibly because, as documented, those who have lost jobs refuse to participate rather than vote against the incumbent.

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 6.2% of the sample mean and increases the populist vote by 4.3%. For an individual who transits from no economic insecurity to economic insecurity, the probability of voting for a populist party increases by 14.5% of the unconditional sample mean, while the probability of voting falls by as much as 21 percentage points, equivalent to 27% 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 the prediction of the model (see Hypothesis 1), 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 7.7% of the sample mean. The effect on electoral participation is similarly strong: a drop of 5 points lowers the chance of partici-

pating in elections by 8.8 percentage points, almost 11% of the unconditional mean electoral turnout.

[TABLE 3 HERE]

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. The specific measure is support for policies that limit immigrants from non-EU countries; if instead we use a measure of 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, the results are basically unaltered. People who are more adverse 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 9.2% of the sample mean. The effects of the other variables, particularly economic insecurity and trust in political parties, are unchanged.

Table 4, 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 the 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 mostly through their effect on turnout. Accounting for the effects on the decision whether of not to vote is crucial to understand how the drivers of populist voting operate.<sup>18</sup>

[TABLE 4 HERE]

A summary illustration of the fact that economic insecurity affects populism demand through the participation effect 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

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<sup>18</sup>From the expression  $\pi_x^C \sigma_x = ((\pi_x^J \pi^V - \pi_x^V \pi^J)/(\pi^V)^2) \sigma_x$ , where  $\sigma_x$  is the standard deviation of  $x$ , the contribution through the effect on turnout is  $(-\pi_x^V \pi^J/(\pi^V)^2) \sigma_x$ .

option, but panel B displays a larger fraction of abstainers, with the disillusionment affecting traditional party supporters more strongly.

[FIGURE 2 HERE]

### 5.3 Robustness

Table 5 reports a number of robustness exercises. To save on space, the estimates of the instruments in the turnout regressions are shown in Appendix C. 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 3. The same holds true for the effects of trust in parties and the other controls. The second set of estimates, run on all countries, adds a dummy for countries in the euro-area. This has no effect on turnout but significantly raises the consensus for populist parties, possibly reflecting the dismal performance of euro-area countries during the Great Recession. The other estimates are unaffected. The next two columns add country-wave fixed effects, capturing changes in populist manifestos and rhetoric. Again the results are unchanged. One last 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, except that economic insecurity has a somewhat stronger effect on voting populist. As a final robustness exercise, we run the estimates again, using a different exclusion restriction in the Heckman selection model. This is not because weather on the election day fails to be orthogonal to the voting choice, but because one may doubt 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.<sup>19</sup> All results (not reported for brevity) hold if we use this alternative instrument (see working paper version, Guiso et al., 2017).

[TABLE 5 HERE]

## 5.4 The three-part definition of populism

As discussed, our theoretical framework leads naturally to a three-part definition of populism. In Section 4 we showed that this is a good fit with the van-Kessel classification, although protectionism and concealment of its long-term costs are harder to measure empirically. Table 6 reports the basic estimates using our empirical implementation of the three-dimensional measure of populism. Again the estimates of the instruments in the participation regressions are given in Appendix C. The first two columns show the estimates of a Heckman selection model taking as dependent variable in the main specification a 3-D measure of populism; this index is a continuous measure of a political party's degree of populism, and free of the unavoidable arbitrariness of the dichotomous classification into "populist" and "non-populist" parties. Because of the lower coverage of the CHES survey the number of censored observations increases considerably (from 36,000 to 68,000) compared with Table 3. Even so, confirming the previous results, economic insecurity lowers the likelihood of voting and increases support for more populist parties. Moving from economic security to insecurity increases the preference for a party along the 3D scale by 4.7% of the sample mean. Trust in political parties affects participation positively and the preference for more populist parties negatively, but the latter effect is not statistically significant. The other variables have effects qualitatively similar to those produced using van Kessel definition. The second set of estimates use a binary definition of populist parties defined as those above the 75th percentile of the 3-D index. The results are similar to those in Table 3. Economic insecurity increases the probability of voting for a populist party, while trust in political parties decreases it; both effects

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<sup>19</sup>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

are precisely estimated. The next two columns add attitudes towards immigrants finding that fear of immigration lowers participation and boosts populist votes. The results are invariant to the more stringent definition of populist parties (3D index above the 80th percentile, last two columns).

[TABLE 6 HERE]

To sum up, the evidence reported in Tables 3, 5 and 6 is consistent with the implications of the model (Hypothesis 1). Voting for populist parties is more likely among people who are affected by economic insecurity, those who have lost faith in political parties, and those who are less able to foresee the future costs of populist policies. The role of risk preferences is unclear. A populist vote is a risky option - one that might require high risk tolerance. But one may also argue that gambling on resurrection is the only option that loss-averse citizens who have already suffered economic loss can perceive.

Economic insecurity plays a quantitatively important *direct* role in explaining the voting decisions of those who vote, as well as in explaining the decision to vote itself. However, economic insecurity plays also a role through at least two important *indirect* channels: via its effect on people's trust in established parties, and via its effect on attitudes towards immigrants. Next we discuss these channels.

## **5.5 Economic insecurity, trust in political parties and attitudes toward immigrants**

### **5.5.1 Testing Hypothesis 2**

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. This is what our theoretical framework (Hypothesis 2) suggests. As Figure 1 shows, the sharp drop in income in Italy in 2009 and the dismal performance of the economy since then are closely correlated with a sharp loss of confidence in political parties. In principle, causality can run either way. A negative shock to confidence in politics, for whatever reason, may produce a sudden economic

slowdown, for instance if debt holders reduced financing to the government. This channel has been analyzed in the literature on the systematic and persistent international differences in per capita GDP (see e.g. Zak and Knack, 2001; Algan and Cahuc, 2010). This literature considers the relevance of trust not in politics but in people, a slow-moving trait. A recent strand of work emphasizes instead the decline in confidence caused by sharp drops in economic activity. This literature focuses on changes in trust over time at business-cycle frequencies, not on persistent differences in levels of trust between different communities. There is some evidence that recessions undermine people’s trust. Ananyev and Guriev (2016) are able to 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. 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.

In fact, 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. And 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. We group the data into eleven 5-year age cohorts of men and women in each country, respectively, and estimate the following model

$$y_{jct} = \beta_1 \mathbf{x}_{jct} + \beta_2 EI_{jct} + f_j + f_{cT} + u_{jct} \quad (1)$$

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  $f_j$ .<sup>20</sup> 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, 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 age 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.

[FIGURE 3 HERE]

The first two columns of Table 7 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 8% of its sample standard deviation and increases hostility to non-EU immigration by 8.7% of its sample standard deviation. Because these are fixed-effects regressions, the results cannot depend on unobserved heterogeneity.<sup>21</sup> The results confirm the thesis that a deterioration in individual

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<sup>20</sup>Our pseudo-panel consists of 784 age/country/year-of-birth groups. Cohorts are relatively large, with 294 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 (8% of the total) does not alter the results.

<sup>21</sup>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

economic security causes a loss of confidence in political parties as well as a change in attitudes towards immigrants, lending support to Hypothesis 2.<sup>22</sup>

[TABLE 7 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 can be seen to cause people to lose confidence in politics, institutions and governments and to increase aversion to immigrants across the board.<sup>23</sup>

### 5.5.2 Direct, indirect, and total effects of economic insecurity

We use the estimates in the first two columns of Table 7 together with those in Table 3 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.<sup>24</sup> The estimates are shown in Table 8.

[TABLE 8 HERE]

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changing their attitudes when they experience insecurity directly; b) changes in trust towards parties/attitudes towards immigrants in that cohort reflecting group effects: say, an individual in a given cohort who loses confidence in political parties because he/she observes that other members of the same cohort have experienced economic insecurity.

<sup>22</sup>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.

<sup>23</sup>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.

<sup>24</sup>The magnitude of the effects of economic insecurity on trust and anti-immigrant sentiments is taken from the pseudo-panel estimates; the effect of trust and immigrant sentiments (as well as the direct effect of economic insecurity) on both voting populist and turnout are taken from the Heckprobit main specification.

In total, an increase in economic insecurity by 1 standard deviation increases populist voting by 7.4% of the sample mean. Around 81% of this increase stems from the direct effect on voting and the rest from the indirect effect through lower trust (6%) and fears of immigrants (13%). An increase of the same magnitude in insecurity lowers electoral turnout by 6.6% of the sample mean (5.1 percentage points); 92% of the drop is due to the direct effect, while 6% to the indirect effect through lower trust in political parties and a marginal 2% to increased fear of immigrants.

## 6 Supply: the empirics of populist parties and policies

### 6.1 Presence and entry of populist parties

Populist parties are not always present. Figure 4 (left panel) shows the share of countries with at least one populist party among the 26 European countries in our sample. In 2000, the proportion was less than 70%; by 2009 it rose to 100%. Our model suggests that the presence of populist parties is heavily affected by the magnitude of the potential demand: if underlying support is sufficiently large, a populist platform is more likely to emerge (and to disappear if support fades). In Section 5 we showed that economic insecurity undermines confidence in political parties and creates political space for a populist platform. Our model accordingly predicts that economic insecurity will be a major explanatory factor for the presence of populist parties, where the scale of electors' disappointment due to insecurity exceeds the cost of setting up a party, which depends on context-specific variables, a populist party should emerge.

To test this implication we estimate the following model:

$$np_{ct} = \alpha d(e_{ct}) - \beta z_{ct} + u_{ct}$$

where  $np_{ct}$  is the number of populist parties in country  $c$  in year  $t$ ,  $d(e_{ct})$  is the level of voters' disappointment - an increasing function of the level of economic insecurity

in country  $c$  in year  $t$ ;  $z_{ct}$  is a feature of the institutional and political system, possibly time-varying, that affects the cost of setting up a party with a populist platform; and  $u_{ct}$  an error term. We measure heterogeneity in the supply of populist parties with a discrete variable - the number of parties in each country defined as populist by van Kessel, in the years from 2000 to 2015. Figure 4 (right panel) shows the distribution of this variable. We capture economic insecurity with two measures. The first is simply the mean in the ESS sample in country  $c$ , year  $t$ , of our principal component measure of individual economic insecurity used in Section 5. Because the ESS is run every two years, for the country/years when the ESS measure of economic insecurity is not available we extend that of the nearest wave. Clearly, this limits the time variability of this measure. Our second measure is the share of imports (total imports over population), to capture exposure to globalization. Because this measure is available every year, it adds variation in economic insecurity. As a proxy of the cost of forming a populist party, we have experimented with several political/institutional features, including an index of checks and balances, the nature of the electoral system, and party-political fragmentation. Though these measures all effect the presence of a populist party in the expected direction (populist parties are less likely to be present in countries with stronger checks and balances, a less fragmented political system and a proportional electoral system),<sup>25</sup> the factors with the greatest predictive power are the strength of the opposition parties and of non-aligned parties (both captured by vote in the last election). We report the results using these measures in Table 9, where we estimate a Poisson model controlling for year fixed effects, to account for the common trend in populist parties documented in Figure 4 and clustering standard errors at country level, as some countries have more than one populist party. The first column shows the results proxying  $z_{ct}$  with the share of the votes going to opposition party. The supply of populism is greater where economic insecurity is more widely diffused among the population and in countries more highly exposed to globalization. It is smaller where opposition parties are strong. All the effects

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<sup>25</sup>In principle, a proportional system should encourage the supply of populist parties by lowering the entry costs; but because lower entry costs facilitate the entry of other parties as well, they may dilute the benefit of offering a populist platform, by leaving a smaller share of the vote on the table. In our data this effect seems to prevail

are statistically significant; they are also economically relevant. A country with an index of individual economic insecurity 1 standard deviation above the sample mean is predicted to have 0.2 more populist parties. The same effect obtains for a country with a share of world imports 1 standard deviation above the sample mean. Countries with an opposition vote 1 standard deviation above the sample mean have on average 0.22 fewer populist parties. Since the average number of populist parties per country in our sample is 1.5, these effects amount to about 13% of the sample mean. The second column shows that the results are very similar proxying  $z_{ct}$  with the share of the votes going to non-aligned parties. The measures of economic insecurity are somewhat stronger and more precisely estimated. The negative effect of our proxies for  $z_{ct}$  lends support to our thesis that a populist platform has a better chance of winning consensus, and thus of inducing a party to propose it, when people lose faith in all the established parties. A strong opposition party or the presence of strong non-aligned parties weakens the anti-elite pillar, rendering a populist strategy less attractive.

[TABLE 9 HERE]

## 6.2 The choice between left and right

In Section 3 we have argued that a populist who enters the political scene will actually have very similar characteristics (in terms of our three-part strategy components) regardless of whether it entered on the left or the right, this contention is supported empirically in Section 4. Our theoretical framework implies that the choice of entering on the left or on the right should depend on the *relative entry space* (Hypothesis 3).<sup>26</sup> The latter, in turn depends on the ideological orientation of the electorate and, as Rodrik (2017) observes on the salient features of the particular form taken in a given country by the crisis from which economic insecurity originates – e.g. a large inflow of immigrants (a globalization shock), or a marked increase in income concentration and inequality. In turn, these factors are likely to be differentially salient

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<sup>26</sup>It maybe worth noting that in political science the concept of entry space often refers to spatial measures, whereas our notion of "entry space" is based exclusively on relative abstention.

for left- or right-oriented voters, pulling the populist party’s orientation choice one way or the other depending on the relative weight of left- and right-wing voters and the relative salience of left-versus right-wing factors. To test Hypothesis 3 on our European data, we estimate the model:

$$r_{jct} = \delta_0 + \delta_1 s_{lct} \times L_{ct} + \delta_2 s_{rct} \times R_{ct} + v_{ct}$$

where  $r_{jct}$  is the orientation of populist party  $j$  in country  $c$  at  $t$ , increasing in orientation to the right;  $s_{ct}^L$  and  $s_{ct}^R$  the shares of left- and right-oriented voters,  $L_{ct}$  and  $R_{ct}$  the left-salient and right-salient factors and  $v_{ct}$  an error term. The party orientation is observed in the CHES survey and measured on a scale from 1 (far left) to 10 (far right), so our data are limited by the CHES coverage. The shares of left-oriented and right-oriented voters, also a 1-to-10 scale, are obtained from the waves of the ESS. As a measure of left-salient factors we use the Gini coefficient of income inequality (from the World Bank World Income Inequality Database) and as a measure of the right-salient factor the share of immigrants from Muslim countries in the total population. This variable, obtained from the World Bank Bilateral Migration Matrix, is available for three years (1999, 2010 and 2013). Hypothesis 3 predicts  $\delta_1 < 0$  and  $\delta_2 > 0$ .

Of course, as we observed in Section 3.4, relative entry space should be a critical determinant of the orientation choice whenever the individual characteristics of left-leaning and right-leaning voters are similarly distributed in terms of the key variables of economic insecurity, trust and ability to assess populist policies that drive the consensus for populist parties, as shown in Section 5. Table 10 confirms that this is indeed the case. Left-oriented and right-oriented voters differ mainly in relative share of the electorate. The distribution of proxies for the determinants of voting, summarized by mean and standard deviation, are extremely similar between left-oriented and right-oriented voters.

Figure 5 shows that in the CHES data, the distribution of the orientation of populist parties is sharply different from that of non-populist parties: populists have a much higher density on the right.

[FIGURE 5 HERE]

[TABLE 10 HERE]

Table 11 shows that the heterogeneity in populist party orientation can be explained at least in part by our model. Income inequality weighted by the population share of left-oriented voters tends to pull orientation of populist parties to the left, and the effect is statistically significant. 1-standard-deviation increase in this factor shifts orientation to the left by almost one unit in the scale, or 18.5% of the sample mean. The share of immigrants from Muslim countries weighted by the share of right-oriented voters has a positive and highly statistically significant effect, pulling populist parties' orientation to the right. A 1-standard-deviation increase in this factor increases the score by 1.45 points, or 27.9% of the sample mean orientation. Interestingly, it is not immigration per se that affects the populist orientation but its origin from Muslim countries. If we replace immigration from Muslim countries with the population share of all immigrants or of immigrants from EU countries, the immigration variable (weighted by the share of right-oriented voters) is not statistically significant. This strengthens our interpretation of the results, as it strongly suggests that the orientation chosen is the one most susceptible to effective populist rhetoric (see Rodrik 2017).

In sum, the results set out here and in the previous section fully support our interpretation. Populist parties and platforms appear when the popular disappointment is sharp enough to raise realistic hopes of winning a share of the total vote - *a scale effect* - large enough to outweigh the entry cost. Conditional on entry, the party chooses its political orientation strategically, tilting towards voters ideology and where the factors behind the crisis are more salient - *a relative size effect*.

As a general remark on these major findings of our paper, we want to emphasize two points: (i) disappointment and the attendant turnout effects are as important on the supply side as they have been proven to be on the demand side of populism; (ii) there may well be other ideological and cultural reasons, both historical and contemporary for the orientation choice of a new party, but we have shown that even the most standard office-seeking motivation can explain the observed variation.

### 6.3 Non-populist parties' reaction to populism

One possibility is that non-populist parties may adapt their own platforms in imitation of a successful populist party. To test this hypothesis we use the five waves of the Chapel Hill Expert Survey (CHES). For each of a list of issues (see Appendix B for the full description), the CHES reports the position of the party on a scale of 0 to 10 (for some issues, the CHES scale is 1 to 7, but we rescale them to 0-10). To assess the party position CHES questions a pool of experts in each country. For instance, on the issue of deregulation /regulation the position of the party is gauged by a number, running from 0 (strongly opposed to deregulation) to 10 (strongly in favor). We disregard issues present in only one or two survey, considering only those that are assessed in at least three and preferably all five surveys. We group the positions into four families: overall European integration (P\_EI); European policy (P\_EU, obtained summing the scores on three issues: powers of European institutions, European cohesion policy, and EU foreign and security policy); ideology (P\_ID, obtained summing the scores on three issues: general ideological stance (left/right), stance on intensity of government intervention in the economy, libertarian versus traditional/authoritarian stance); and an index of the positions on a set of eleven policy issues (P\_PD: government expenditure versus taxation, deregulation, redistribution of wealth, civil liberties versus law and order, social lifestyle, religious principles in politics, immigration policy, multiculturalism, urban versus rural interests, political decentralization to regions/cities and position towards ethnic minorities). The first three indices are available for all surveys, the fourth for the last three waves. In addition, we construct an overall measure of the party position (P\_total), summing the scores on the four indices (for the last three waves, only, of course).

To compare platforms we proceed as follows. Let  $y_{icjt}$  denote the position of party  $i$  in country  $c$  on issue  $j$  (EI, EU, ID, PD, Total) in year  $t$ . We distinguish between platforms of populist parties, P, and non-populist, NP, and let  $D_{ijct} = (P_{ijct}^{NP} - P_{ijct}^P)^2$  denote the distance between the platform of non-populist party  $i$  and the main populist party in its country, if there is one. Let  $s_{t-1}^P$  denote the share of the vote going to the populist party or parties in the last election before the survey. We test

the electoral competition hypothesis by running the regression:

$$D_{icjt} = f_T + f_{NP} + \gamma s_{t-1}^P + u_{icjt}$$

where  $f_T$  are time fixed effects,  $f_{NP}$  are non-populist party fixed effects and  $u_{icjt}$  an error term. Because parties are country-specific, the party fixed effects also capture systematic national differences across countries. A Downsian model predicts a negative value for  $\gamma$ , that is, the platforms of non-populist parties should move closer to that of the populist party as the latter becomes more successful.

[FIGURES 6 HERE]

Figure 6 plots the relation between the distance of the platforms of non-populist parties from those of the populist and the populist share of the vote in the most recent election for each of the issues and for the overall index. To pick up possible non-linearities, we plot a local polynomial regression, with the 95% confidence band. In all the issues the distance decreases as populist parties gain support, which jibes with the thesis that populist policies are more palatable to the electorate at times of systemic crisis. Table 12 shows the estimates of the linear regression specified above, confirming the visual inspection of Figure 6: as populist parties gain support, their non-populist adversaries appear to adapt their platforms to reduce the distance from the populists. The effects are substantial: increasing the share of votes to the populist party by 1 standard deviation (16 percentage points) shortens the distance between the non-populist and populist platforms by 33% of the sample mean. Table 13 rules out the possibility that it is the populist party that moves closer to the traditional parties as it gains consensus. To show this, we regress the change in populist positions on the populist share of the vote. We find that populist parties do not revise their position as their share of votes increases. Overall, this evidence means that simply counting the number of populist parties, or tallying their share of votes/seats, understates the supply of populist policies in a country.

[TABLE 12 HERE]

[TABLE 13 HERE]

## 7 Conclusions

We have described the situation of Western countries in the last decade as one of global crisis that has affected both markets and sovereign states, leaving many people with unprecedented fears. This has not been the case previously: the crisis of the 1970s was mainly a market crisis, while various crises in the 1990s were government crises in a context of thriving markets. The rare combination of inability of markets and governments to provide security has shaken the confidence in traditional political parties and institutions, fostering fears that are aggravated by threats such as mass immigration. This paper describes how this dual global crisis affects the demand for, and supply of, populism systematically. The factor that we highlight as key for the understanding of both demand and supply of populism is electoral participation. We show that the abstentionism, disillusionment effect, which the literature generally ignores, makes economic insecurity appear to be the real driver of populism on the demand side. And, these same abstention effects determine the timing, the quantity, and the orientation choice of populist parties on the supply side. Beside the primary role of the voter turnout effects, the paper makes it clear that any populist entrant, on the left as well as on the right, can be characterized as using a three-dimensional strategy that always includes short-term protection, concealment of future costs and anti-elite rhetoric. Examination of the interaction between this rhetoric (the key element of populist supply strategy) and economic insecurity (the key driver of populist demand) has been shown to be very useful in understanding how trust and attitudes towards migration evolve. Populism does not have a *cultural cause*, but rather an *economic insecurity cause*, with an important and traceable *cultural channel*.

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## Appendix

### A Populist parties

Table A1 lists parties that are defined as populist by van Kessel (2016) on the one hand and by Norris & Inglehart (2016) on the other.

[TABLE A1 HERE]

### B Political platforms

We obtain information on parties political platforms from the five waves of the Chapel Hill Expert Survey (CHES). For each of a list of several issues the CHES reports the position of the party on a scale either between 1 and 7 or between 0 and 10. Positions are grouped in four families: i) overall European integration (P\_EI); ii) 11 issues on European policy (P\_EU); 3 position on ideological issues (P\_ID) and 17 positions on policy issues (P\_PD). Table A2 lists the issues covered for each family, the scale on which the position is reported and the survey years it is available in CHES. To make sure we have enough coverage over time, we build the EU index P\_EU using the position on the three issues covered in all 5 surveys (three issues, highlighted in italics in the table) and construct the P\_PD index using the 11 positions covered in three surveys (again highlighted in italics in the table).

[TABLE A2 HERE]

### C First stages for robustness and 3D measure

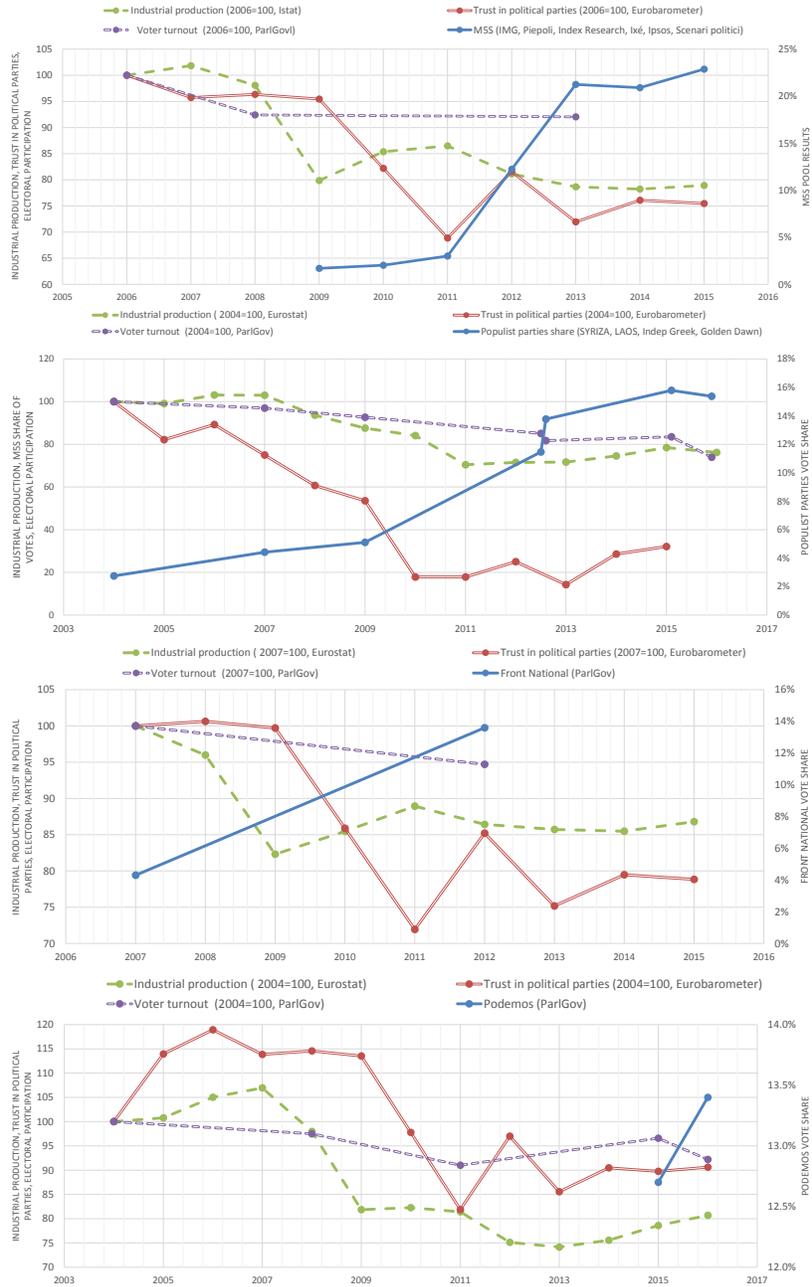
Here we present the estimates of the instruments in the turnout regressions for section 5.3 and 5.4.

[TABLE A3 HERE]

[TABLE A4 HERE]

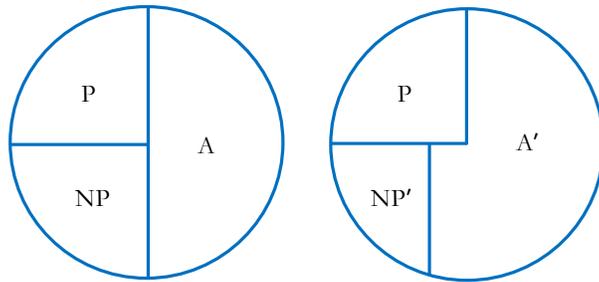
# Figures

Figure 1: Populism, Economics, Electoral participation and Trust



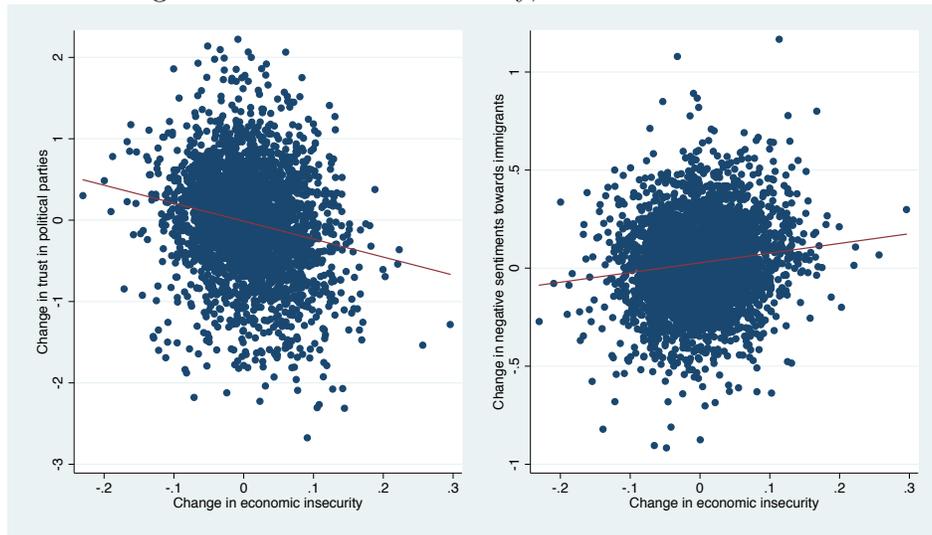
The figures show the evolution of economic activity, trust in political parties, electoral participation and consensus to populist parties in Italy, Greece, France, and Spain. Economic activity (measured by the index of industrial production), the share of the vote going to the populist parties and voter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

Figure 2: Economic insecurity and populist demand



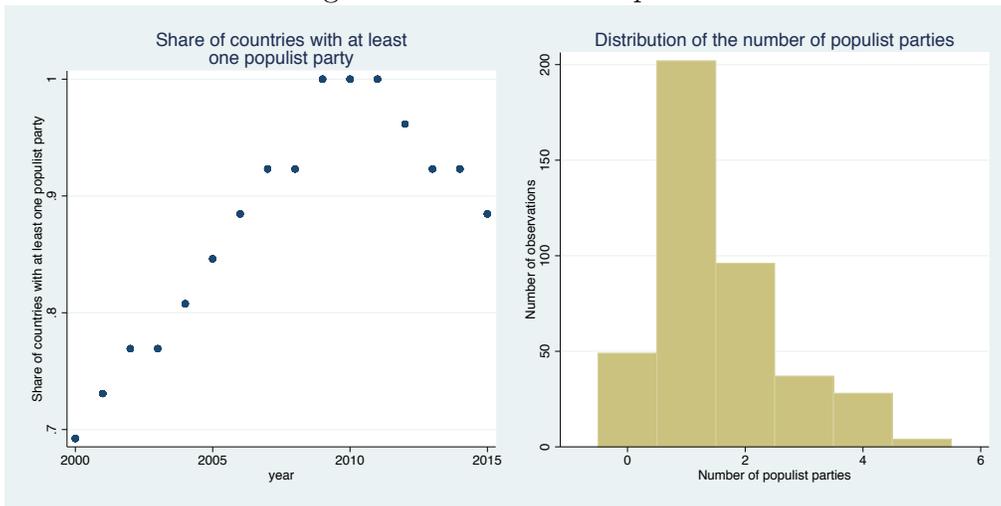
The figure shows Venn diagrams of the distribution of the population of voters between abstainers (A), populist voters (P) and non-populist voters (NP) before (left figure) and after (right figure) an increase in economic insecurity. It shows the case where economic insecurity leads to disappointment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

Figure 3: Economic insecurity, trust and sentiments



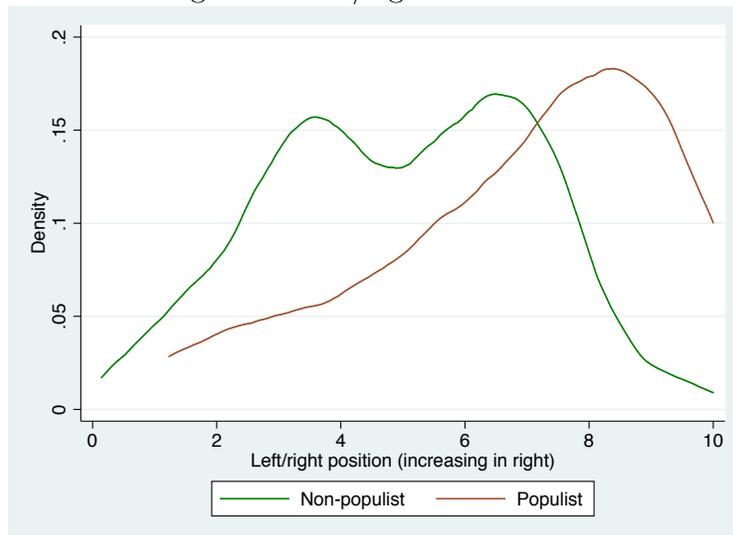
The figure shows scatterplots and linear regressions of the change in economic insecurity (x-axis) and the change in trust in political parties (y-axis, left figure) and hostility to immigrants (y-axis, right figure) in the synthetic cohorts panel.

Figure 4: The Rise of Populism



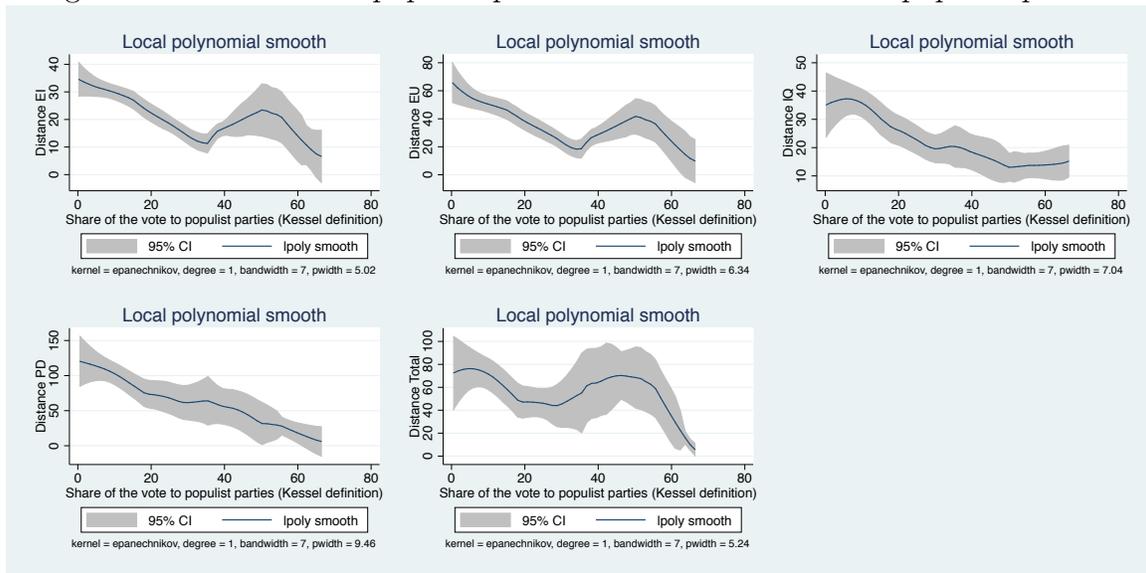
The left panel shows the evolution of the share of European countries in the ESS sample that have at least one populist party. The right panel shows the histogram of the number of populist parties in our sample.

Figure 5: Left/right orientation



The figure shows the kernel density of the ideological orientation on the left/right scale of populist and non-populist parties in Europe.

Figure 6: Distance from populist platform and share of vote to populist parties



The figures show the local polynomial smooth relation between measures of distance of non-populist from populist platforms and the share of the vote that went to populist parties in the last most recent election. The relation is shown for distance in the position on four issues (first four panels) and one aggregate measure (last panel).

# Tables

Table 1: Descriptive statistics

Variable	Obs.	Mean	St. Dev.	Min	Max
<b>A. Demand analysis</b>					
Voted	199,095	0.78	0.41	0	1
Vote for populist party	136,243	0.07	0.26	0	1
Risk aversion	200,485	3.92	1.42	1	6
Age	210,590	48.93	17.82	18	100
Education	211,439	12.75	3.94	0	25
TV total	211,010	4.24	2.05	0	7
TV politics	203,296	2.01	1.32	0	7
Female	211,170	0.53	0.50	0	1
Right wing	188,090	5.13	2.16	0	10
Regional population (1000)	194,612	2,294	2,845	28	17,900
Unemployment	210,352	0.13	0.34	0	1
Income difficulties	206,503	0.96	0.87	0	3
Exposure to globalization	192,783	0.28	0.45	0	1
Economic insecurity (PC)	188,070	0.25	0.23	0	1
Trust in political parties	180,227	3.66	2.36	0	10
Want fewer non-EU immigrants	203,830	2.51	0.89	1	4
Daily total rain fall	200,685	3.03	5.05	0	35
Daily mean temperature	200,758	10.62	6.48	-7	25
Daily average sea level pressure	199,310	1,014	9.17	976	1,036
3D measure of populism	88,564	30.99	14.67	0	99
<b>B. Pseudo-panel analysis</b>					
Risk aversion	4,842	4.12	0.56	2	6
Age	4,899	54.92	16.60	22	88
Education	4,899	11.48	2.32	3	18
TV total	4,899	4.43	0.78	2	7
TV politics	4,899	2.15	0.51	1	7
Female	4,899	0.50	0.50	0	1
Right wing	4899	5.16	0.64	0	9
Regional population (1000)	4111	2270	2184	118	10800
Economic insecurity (PC)	4842	0.27	0.10	0	1
Trust in political parties	4283	3.42	1.12	0	7
Want fewer non-EU immigrants	4899	2.65	0.38	1	4
Trust politicians	4899	3.49	1.11	1	7
Trust national parliament	4898	4.34	1.25	1	8
Trust European parliament	4898	4.38	0.81	0	9
Satisfaction with government	4871	4.18	1.20	0	9
Want fewer immigrants different race/ethnicity from majority	4899	2.56	0.36	1	4
Want fewer immigrants same race/ethnicity from majority	4899	2.21	0.33	1	4
Immigrants make country worse	4899	5.24	0.88	2	9
<b>C. Supply analysis</b>					
Populist party	416	1.53	1.09	0	5
Economic insecurity (PC)	338	1.21	0.32	1	2
Import p.c.	368	10.69	7.09	1	40
Vote share opposition parties	325	41.41	13.74	0	74
Vote share non-aligned parties	307	0.39	2.08	0	15
<b>D. Chapel Hill Expert Survey</b>					
Distance European integration	706	23.01	22.54	0	91
Distance European policy	704	37.15	43.57	0	239
Distance ideological issues	706	27.35	38.20	0	184
Distance policy issues	501	79.36	106.26	0	510
Total distance	500	51.78	85.12	0	521
Gini coefficient (percentage points)	686	29.51	4.01	23	39
Immigrants from Muslim countries (percentage points)	557	1.61	1.35	0	5

The table shows summary statistics of the variables used to study demand (Panels A and B) and supply (Panel C and D) of populism. The construction of the single variables is discussed in the text and in Appendix A and B.

Table 2: 3D and Kessel

	(1)	(2)	(3)	(4)
	Rhetoric	Protection	Concealment	Populist 3D
Populist party	2.651*** (0.210)	1.840*** (0.116)	1.247*** (0.0958)	34.54*** (1.848)
Left/Right control	YES	YES	YES	YES
Observations	742	609	828	609
Percentage of sample mean	59%	34%	24%	96%

The table shows OLS regressions of the each of the three indexes of parties of the 3D measure of populism (Anti-Elite Rhetoric, Protection, and Concealment of the long-term costs of short-term protection) as well as of the principal component of three measures - the Populist 3D measure - on the van Kessel dummy identifying populist parties. Each regression controls for the left/right orientation of the party. The last row shows the difference in the score of populist parties from the sample mean.

Table 3: 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	0.00313 (0.0120)	0.0228*** (0.00550)	0.00480 (0.0121)	0.0227*** (0.00550)	0.00455 (0.0128)	0.0245*** (0.00560)	0.00659 (0.0126)	0.0240*** (0.00563)
ln(Age)	-0.0985 (0.0670)	0.835*** (0.0274)	-0.0907 (0.0706)	0.831*** (0.0279)	-0.0555 (0.0878)	0.850*** (0.0293)	-0.121 (0.0792)	0.859*** (0.0296)
ln(Education)	-0.264*** (0.0593)	0.473*** (0.0304)	-0.305*** (0.0602)	0.471*** (0.0301)	-0.247*** (0.0661)	0.463*** (0.0315)	-0.249*** (0.0616)	0.456*** (0.0310)
TV total	0.00884 (0.00842)	-0.0277*** (0.00476)	0.00979 (0.00837)	-0.0276*** (0.00478)	0.0118 (0.00891)	-0.0269*** (0.00489)	0.00590 (0.00915)	-0.0258*** (0.00487)
TV politics	-0.00236 (0.0151)	0.0608*** (0.00633)	-0.00486 (0.0155)	0.0606*** (0.00638)	-0.00633 (0.0159)	0.0533*** (0.00703)	-0.00263 (0.0160)	0.0514*** (0.00699)
Unemployment	-0.0416 (0.0468)	-0.186*** (0.0198)						
Income difficulties	0.0767** (0.0305)	-0.148*** (0.0108)						
Explosure globalization	0.127*** (0.0412)	-0.101*** (0.0158)						
Economic insecurity (PC)			0.316*** (0.115)	-0.696*** (0.0331)	0.257** (0.121)	-0.659*** (0.0353)	0.279** (0.121)	-0.650*** (0.0353)
Trust in pol. parties					-0.0259** (0.0114)	0.0541*** (0.00410)	-0.0229** (0.0102)	0.0525*** (0.00411)
Fewer non-EU immigrants							0.116*** (0.0214)	-0.0292*** (0.00884)
Controls, Wave FE, Country FE	YES		YES		YES		YES	
Rho	-0.109		-0.161		-0.108		-0.210	
Cluster SE	Region		Region		Region		Region	
Countries	With P		With P		With P		With P	
Observations	136,634		136,634		126,569		124,458	
Censored observations	40,441		40,441		37,260		36,353	
<i>Selection</i>								
Rain		0.000315 (0.00186)		0.000341 (0.00185)		0.00295 (0.00223)		0.00153 (0.00188)
Rain * South		-0.0175** (0.00856)		-0.0174** (0.00864)		0.00439 (0.0134)		-0.0181** (0.00811)
Av. Temperature		-0.00490** (0.00216)		-0.00478** (0.00214)		-0.00442** (0.00222)		-0.00551** (0.00219)
Av. Temperature * South		0.0250 (0.0179)		0.0237 (0.0181)		0.0631** (0.0293)		0.0327* (0.0181)

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 4: Direct effects and effects via turnout

	Effect on conditional prob of 1SD increase in economic insecurity (ratio of sample mean)	Contribution via turnout
Economic insecurity (PC)	0.059	0.062
Trust in pol. parties	-0.050	-0.051
Fewer non-EU immigrants	0.129	0.011

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 3, column 4.

Table 5: Main specification - Robustness

	(5) Heckprobit		(6) Heckprobit		(7) Heckprobit		(8) Heckprobit	
	Populist	Vote	Populist	Vote	Populist	Vote	Populist	Vote
Risk aversion	0.00375 (0.0130)	0.0240*** (0.00503)	0.00353 (0.0130)	0.0240*** (0.00503)	0.00705 (0.0133)	0.0235*** (0.00566)	0.00771 (0.0134)	0.0234*** (0.00565)
ln(Age)	-0.0733 (0.0794)	0.809*** (0.0281)	-0.0719 (0.0806)	0.809*** (0.0281)	-0.0557 (0.0762)	0.849*** (0.0292)	-0.0847 (0.0708)	0.844*** (0.0290)
ln(Education)	-0.257*** (0.0633)	0.457*** (0.0355)	-0.256*** (0.0640)	0.457*** (0.0355)	-0.260*** (0.0629)	0.467*** (0.0308)	-0.280*** (0.0597)	0.456*** (0.0308)
TV total	0.0126 (0.00900)	-0.0291*** (0.00437)	0.0115 (0.00900)	-0.0291*** (0.00437)	0.00593 (0.00923)	-0.0269*** (0.00486)	0.0104 (0.00931)	-0.0259*** (0.00491)
TV politics	-0.00777 (0.0158)	0.0567*** (0.00630)	-0.00745 (0.0159)	0.0567*** (0.00630)	0.00680 (0.0167)	0.0529*** (0.00688)	-0.00573 (0.0162)	0.0530*** (0.00700)
Economic insecurity (PC)	0.280** (0.125)	-0.684*** (0.0361)	0.287** (0.125)	-0.684*** (0.0361)	0.291** (0.123)	-0.654*** (0.0355)	0.312*** (0.118)	-0.657*** (0.0351)
Trust in pol. parties	-0.0272** (0.0111)	0.0543*** (0.00366)	-0.0266** (0.0111)	0.0543*** (0.00366)	-0.0215** (0.0107)	0.0536*** (0.00411)	-0.0249** (0.0103)	0.0550*** (0.00411)
Euro area			0.420*** (0.0788)	-0.0333 (0.0409)				
Controls	YES		YES		YES		YES	
Wave FE	YES		YES		NO		YES	
Country FE	YES		YES		NO		YES	
Wave * Country FE	NO		NO		YES		NO	
Rho	-0.154		-0.152		-0.102		-0.164	
Cluster SE	Region		Region		Region		Region	
Countries	All		All		With P		With P	
Observations	152,001		152,001		127,095		126,240	
Censored observations	46,643		46,643		37,424		37,424	

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 uses the all countries but adds a Euro-area dummy; the third set controls for interacted country-wave fixed effects; the last set runs the regressions dropping observations of individuals who voted for a new party. 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 6: 3D definition of populism

	(9) Heckman		(10) Heckprobit		(11) Heckprobit		(12) Heckprobit	
	Populist 3D (0-100)	Vote	Populist 3D d.v. (>75p)	Vote	Populist 3D d.v. (>75p)	Vote	Populist 3D d.v. (>80p)	Vote
Risk aversion	0.0530 (0.0608)	0.0299*** (0.00582)	-0.00368 (0.00992)	0.0300*** (0.00582)	-0.00369 (0.0100)	0.0308*** (0.00586)	-0.0174* (0.00993)	0.0307*** (0.00585)
ln(Age)	0.213 (0.272)	0.736*** (0.0334)	-0.135** (0.0641)	0.737*** (0.0334)	-0.149** (0.0645)	0.749*** (0.0343)	-0.122** (0.0583)	0.749*** (0.0343)
ln(Education)	-1.177*** (0.280)	0.334*** (0.0292)	-0.125*** (0.0423)	0.333*** (0.0290)	-0.105** (0.0438)	0.319*** (0.0288)	-0.0253 (0.0457)	0.320*** (0.0288)
TV total	0.0508 (0.0535)	-0.0247*** (0.00458)	0.00657 (0.00949)	-0.0248*** (0.00458)	0.00599 (0.00959)	-0.0237*** (0.00457)	0.0145 (0.00971)	-0.0237*** (0.00456)
TV politics	0.0412 (0.0579)	0.0482*** (0.00632)	-0.0117 (0.0107)	0.0482*** (0.00630)	-0.0109 (0.0108)	0.0467*** (0.00628)	0.00275 (0.0101)	0.0468*** (0.00629)
Economic insecurity (PC)	1.396*** (0.480)	-0.516*** (0.0460)	0.350*** (0.0645)	-0.516*** (0.0459)	0.344*** (0.0669)	-0.507*** (0.0459)	0.215*** (0.0711)	-0.507*** (0.0459)
Trust in pol. parties	-0.000905 (0.0440)	0.0592*** (0.00515)	-0.0197** (0.00819)	0.0592*** (0.00516)	-0.0180** (0.00828)	0.0563*** (0.00502)	-0.0164* (0.00858)	0.0564*** (0.00501)
Fewer non-EU immigrants					0.0381** (0.0162)	-0.0444*** (0.00988)	0.0390*** (0.0149)	-0.0443*** (0.00988)
Controls, Wave FE, Country FE	YES		YES		YES		YES	
Rho	-0.0426		-0.0426		-0.425		-0.314	
Cluster SE	Region		Region		Region		Region	
Countries	With P		With P		With P		With P	
Observations	127,095		127,095		124,458		124,458	
Censored observations	69,947		69,947		68,326		68,326	

The table shows robustness Heckman probit estimates of the decisions to vote and to vote for a populist party when the latter is defined using the 3D definition. The first two columns use the continuous measure of the 3D definition of populism. The second set defines as populist all parties with a 3D score above the 75th percentile; the third set uses this definition but expands the set of controls; the last set uses a tighter threshold to define a party as populist (3D score  $\geq$  80 percentile). 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 7: Pseudo Panel

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Trust parties	Fewer non-EU immigrants	Trust politicians	Trust national parliament	Trust European parliament	Satisfaction with government	Fewer immigrants of different race/ethnicity	Fewer immigrants of same race/ethnicity	Immigrants make worse
Risk aversion	-0.104*** (0.0400)	0.00856 (0.0143)	-0.0422 (0.0345)	-0.0144 (0.0407)	-0.133*** (0.0438)	-0.0378 (0.0399)	-0.00171 (0.0157)	-0.00822 (0.0156)	0.0575 (0.0357)
ln(Age)	-0.126 (0.312)	-0.105 (0.108)	0.0438 (0.246)	-0.240 (0.295)	-0.728** (0.309)	-0.588* (0.316)	0.256** (0.109)	0.321*** (0.108)	-0.0593 (0.272)
ln(Education)	0.321* (0.171)	-0.257*** (0.0616)	0.513*** (0.179)	0.592*** (0.217)	0.259 (0.277)	0.515** (0.259)	-0.326*** (0.0631)	-0.353*** (0.0724)	-0.998*** (0.162)
TV total	-0.0376 (0.0290)	0.0114 (0.0108)	-0.0215 (0.0272)	-0.0629* (0.0330)	-0.0590* (0.0355)	-0.00865 (0.0303)	0.00762 (0.0108)	0.0154 (0.0108)	0.0584** (0.0288)
TV politics	0.0832* (0.0479)	-0.00766 (0.0167)	0.0295 (0.0392)	0.0865* (0.0490)	-0.0292 (0.0569)	-0.0182 (0.0491)	0.00905 (0.0167)	-0.0192 (0.0193)	-0.0703 (0.0448)
Economic insecurity (PC)	-0.828*** (0.231)	0.310*** (0.0847)	-0.976*** (0.212)	-0.956*** (0.228)	-1.000*** (0.254)	-1.209*** (0.253)	0.286*** (0.0848)	0.281*** (0.0891)	0.446*** (0.219)
Controls	YES	YES	YES	YES	YES	YES	YES	YES	YES
Cohort FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Number of cohorts	784	784	784	784	784	784	784	784	784
Wave*Country FE	YES	YES	YES	YES	YES	YES	YES	YES	YES
Countries	All	All	All	All	All	All	All	All	All
Observations	3,438	3,774	3,774	3,774	3,774	3,746	3,774	3,774	3,774

The table shows pseudo-panel fixed effect regressions of trust and attitudes towards immigrants on economic insecurity and controls. All regressions include country and wave fixed effects. Robust standard errors are shown in parenthesis. \*\*\* significant 1% or less; \*\* significant at 5%; \* significant at 10% confidence level.

Table 8: 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 (% of total effect)	0.060 81%	0.004 6%	0.010 13%	0.074 100%
Turnout (% of total effect)	-0.061 92%	-0.004 6%	-0.001 2%	-0.066 100%

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.

Table 9: Explaining the Rise of Populist Parties

	Populist parties	Populist parties
Economic insecurity (PC)	2.219* (1.216)	2.663** (1.352)
Import p.c.	0.0298*** (0.0082)	0.0359*** (0.0100)
Vote share opposition parties	-0.0146** (0.00585)	
Vote share non-aligned parties		-0.0368*** (0.0143)
Controls	YES	YES
Year FE	YES	YES
Observations	262	251

The table shows regression results for the number of populist parties in a country as a function of measures of voters' insecurity and countries' institutional characteristics. The left hand side is the number of populist parties in a country in a given year. Voters' characteristics are those in the most recent ESS survey. All regressions include year fixed effects. Robust standard errors are shown in parenthesis. \*\*\* significant 1% or less; \*\* significant at 5%; \* significant at 10% confidence level.

Table 10: Comparison left/right oriented

Variable	Left-oriented					Right-oriented				
	Obs.	Mean	St. Dev.	Min	Max	Obs.	Mean	St. Dev.	Min	Max
Share of people of [left/right] orientation	573	0.58	0.07	0.44	0.74	573	0.71	0.07	0.59	0.85
Share of people of [left/right] orientation * [left/right] turnout	573	0.27	0.08	0.14	0.46	573	0.39	0.08	0.24	0.61
Education	573	2.50	0.07	2.20	2.64	573	2.48	0.07	2.14	2.60
Economic insecurity	565	0.27	0.08	0.14	0.50	565	0.27	0.08	0.13	0.52
Fewer non-EU immigrants	573	2.48	0.31	1.69	3.30	573	2.62	0.29	1.85	3.36
Trust parties	451	3.38	1.01	1.52	5.43	451	3.45	1.07	1.35	5.70

The table reports summary statistics of characteristics of left-oriented and right oriented voters in our sample.

Table 11: Populist parties' orientation choice

	Left/right orientation (increasing in right)
Share of left oriented * Left-salient factor	-0.564* (0.319)
Share of right oriented * Right-salient factor	2.410*** (0.550)
Observation	46

The table reports regressions of the orientation of the populist parties in our sample on measures of relative entry space. The measure of party orientation is defined on a scale from 1 (extreme left) to 10 (extreme right). Standard errors clustered at the country level, are shown in parenthesis. \*\*\* significant 1% or less; \*\* significant at 5%; \* significant at 10% confidence level.

Table 12: Distance from populist platform and populist share of the vote

Dependent variable	Coefficient	Std. Err.	Year FE	Obs.	R2
(1) P_EI	-0.430***	(0.1206)	YES	397	0.907
(2) P_EU	-0.165	(0.2168)	YES	396	0.895
(3) P_IQ	-0.380**	(0.1865)	YES	397	0.913
(4) P_PD	-1.255*	(0.7067)	YES	286	0.927
(5) P_total	-0.432	(0.7410)	YES	286	0.914

The table shows the regression of the distance between the positions of non-populist and populist party on four separate issues and the share of the vote that went to the populist parties in the last past election. The last row shows the regression results for an overall measure of distance. All regressions include year fixed effects. Robust standard errors are shown in parenthesis. \*\*\* significant 1% or less; \*\* significant at 5%; \* significant at 10% confidence level.

Table 13: Who moves

Dependent variable	Coefficient	Std. Err.	Year FE	Obs.	R2
(1) P_EI	0.083*	(0.0415)	YES	70	0.871
(2) P_EU	0.072	(0.1151)	YES	70	0.889
(3) P_IQ	0.108	(0.0927)	YES	70	0.904
(4) P_PD	0.343	(0.3521)	YES	56	0.945
(5) P_total	0.559	(0.4869)	YES	56	0.927

The table shows results of regressions testing for the presence of effects of populist rhetoric on several measures of trust in politics and institutions and attitudes towards immigrants using the synthetic cohort panel data. Robust standard errors in parenthesis. \*\*\* significant 1% or less; \*\* significant at 5%; \* significant at 10% confidence level.

Table A1: Comparison Kessel (K) and Norris & Inglehart (N&I)

Country	Party	Kessel	N&I
AT	FPO	1	1
AT	Alliance for the Future of Austria	1	0
AT	Team Stronach	1	0
BE	Vlaams Blok	1	1
BE	FRONT NATIONAL	1	0
BE	List Dedecker	1	0
BG	NDSV	1	0
BG	Coalition Ataka	1	1
BG	Law, Order and Justice (Red, Zakonnost, Spravedlivost)	1	0
BG	Citizens for European Development of Bulgaria (GERB)	1	0
BG	VMRO-BND Bulgarian National Movement	0	1
BG	NFSB National Front for the Salvation of Bulgaria	0	1
BG	HSS Croatian Peasants Party	0	1
CH	Swiss People's Party	1	1
CH	Swiss Democrats	1	0
CH	Lega dei Ticinesi	1	0
CH	Geneva Citizen's Movement	1	0
CZ	ANO	1	0
CZ	Public Affairs (Veci Verejne)	1	0
CZ	Usvit	1	1
DE	Die Linke (The Left)	1	0
DE	NPD National Democratic Party	0	1
DE	AfD Alternative for Germany	0	1
DK	Dansk Folkeparti	1	1
ES	Podemos	-	1
FI	True Finns	1	1
FR	FN (Front National)	1	1
FR	MPF Popular Republican Movement	0	1
GB	British National Party	1	1
GB	UK Independence Party	1	0
GB	NF National Front	0	1
GR	SYRIZA	1	1
GR	ANEL	1	1
GR	XA Golden Dawn	0	1
GR	LAOS Popular Orthodox Rally	0	1
GR	ND New Democracy	0	1
HR	HSP-AS	1	1
HR	HSS Croatian Peasants Party	0	1
HR	HDSSB Croatian Democratic Alliance of Slavonia and Baranja	0	1
HR	HSP Croatian Party of Rights	0	1
HR	HDZ Croatian Democratic Union	0	1

The table compares the classification of populist parties according to van Kessel with that in Inglehart and Norris. The sign "-" indicates that the country is not covered.

Country	Party	Kessel	N&I
HU	FYD-HDF Fed.of Young Democrats&Hungarian Dem.Forum	1	1
HU	Justice and Life Party (MIEP)	1	0
HU	Movement for a Better Hungary	1	1
HU	FIDESZ-MPSZ	1	1
IE	Sinn Fein	1	-
IS	Citizen's Movement (BF)	1	-
IT	Forza Italia	1	0
IT	Lega Nord	1	1
IT	Movimento Cinque Stelle	1	1
IT	Il Popolo della Liberta (PdL)	1	0
IT	Fdl Brothers of Italy	0	1
LT	Labour Party (DP)	1	0
LT	Party "Order and Justice" (TT)	1	0
LT	DK The Way of Courage	0	1
LU	Alternative Democratic Reform Party	1	1
LV	For Fatherland and Freedom/ LNNK	1	0
LV	All for Latvia	1	0
LV	NA National Alliance	0	1
NL	List Pim Fortuyn	1	0
NL	Liveable Netherlands	1	0
NL	Geert Wilders' Freedom Party (PVV)	1	1
NL	SGP Political Reformed Party	0	1
NO	Progress Party (FrP)	1	1
NO	Democrats	1	0
PL	Samooobrona Rzeczypospolitej Polskiej	1	0
PL	Prawo i Sprawiedliwosc	1	1
PL	SP United Poland	0	1
PL	KNP Congress of the New Right	0	1
RO	Greater Romania Party	1	0
RO	People's Party	1	1
SE	Sweden Democrats	1	1
SI	Slovene National Party (SNS)	1	0
SI	SDS Slovenian Democratic Party	0	1
SI	SDS Slovenian Democratic Party	0	1
SK	HZDS Movement for a Democratic Slovakia	1	0
SK	SMER	1	0
SK	KDH Christian Democratic Movement	1	1
SK	Slovak National Party (SNS)	1	1
SK	Ordinary People and Independent Personalities (OLaNO)	1	0
TR	MHP National Action Party	-	1

The table compares the classification of populist parties according to van Kessel with that in Inglehart and Norris. The sign "-" indicates that the country is not covered.

Table A2: Chapel Hill Expert Survey

Issue	Scale	Availability	N. waves asked
<b>General question</b>			
1. European Integration	1 (SO) -7 (SF)	1999-2014	5
<b>EU Policy</b>			
1. Powers of European Parliament	1 (SO) -7 (SF)	1999-2014	5
2. Tax Harmonization	1 (SO) -7 (SF)	1999	1
3. Internal Market	1 (SO) -7 (SF)	2002-2014	4
4. Common Employment Policy	1 (SO) -7 (SF)	1999, 2014	2
5. EU authority over member state budgets	1 (SO) -7 (SF)	2014	1
6. EU agriculture spending	1 (SO) -7 (SF)	2002	1
7. EU cohesion on regional policy	1 (SO) -7 (SF)	1999-2014	5
8. Common policy on environment	1 (SO) -7 (SF)	1999, 2002	2
9. Common policy on political asylum	1 (SO) -7 (SF)	1999, 2002	2
10. EU foreign and security policy	1 (SO) -7 (SF)	1999-2014	5
11. EU enlargement to Turkey	1 (SO) -7 (SF)	2006, 2010, 2014	3
<b>Ideological position</b>			
1. Overall stance	0 (Left)-10(Right)	1999-2014	5
2. Stance on economic issues	0 (Left)-10(Right)	1999-2014	5
3. Stance on democratic freedoms	0 (Libertarian)-10(Traditional)	1999-2014	5
<b>Policy issues</b>			
1. Increase gov exp/reduce taxes	0(Favor gov exp)-10(Favor reduc taxes)	2006-2014	3
2. Deregulation	0(Oppose der)-10(Favor Der)	2006-2014	3
3. Redistribution of wealth	0(Favor)-10(Oppose)	2006-2014	3
4. State intervention in economy	0(Favor)-10(Oppose)	2014	1
5. Civil liberties vs law&order	0(Promote liberties)-10(Support L&O)	2006-2014	3
6. Social lifestyle	0(Support liberal pol)-10(Oppose lib pol)	2006-2014	3
7. Role of religion in politics	0(Oppose)-10(Support)	2006-2014	3
8. Immigration policy	0(Oppose tough policy)-10(Support tough pol)	2006-2014	3
9. Integration of immigrants	0(Favor multicul. policy)-10(Support multicul pol)	2006-2014	3
10. Urban versus rural interest	0(Support urban)-10(Support rural)	2006-2014	3
11. Environment	0(Support environment)-10(Support growth)	2010, 2014	2
12. Cosmopolitanism	0(Support cosm.)-10(Support nationalism)	2006	1
13. Regional decentralization	0(Support political decentr.)-10(Oppose decentr.)	2006-2014	3
14. International security and peace keeping	0(Support int. sec)-10(Oppose int. sec.)	20,102,014	2
15. Position towards US power in world affairs	0(Oppose)-10(Support)	2006	1
16. Rights to ethnic minorities	0(Support more rights)-10(Oppose)	2006-2014	3

The table lists the CHES questions that we use to define the average positions of the political parties on each of the four domains we consider (European integration, EU policy, Ideological positions; Policy issues). It shows the years in which these items are covered by CHES and the range over which the party position is defined.

Table A3: First stage Robustness

	(5) Vote	(6) Vote	(7) Vote	(8) Vote
Rain	0.00452** (0.00205)	-0.00129 (0.00294)	0.00146 (0.00188)	0.00452** (0.00206)
Rain * South	-0.0172** (0.00701)	-0.0149* (0.00871)	-0.0173** (0.00834)	-0.0172** (0.00701)
Av. Temperature	-0.00285 (0.00257)	-0.00360 (0.00649)	-0.00517** (0.00216)	-0.00287 (0.00256)
Av. Temperature * South	0.00607 (0.0102)	0.0266 (0.0193)	0.0283 (0.0181)	0.00606 (0.0102)
Pressure	0.00219* (0.00122)	0.0021* (0.00121)		
Pressure * South	-0.00121 (0.00478)	-0.0012 (0.00478)		
Wave FE	YES	YES	YES	YES
Country FE	YES	YES	YES	YES
Wave * Country FE	NO	NO	NO	NO
Cluster SE	Region	Region	Region	Region
Countries	All	All	With P	With P (no new P)

The table shows the instruments in the voter turnout regressions in Table 5 in the text.

Table A4: First stage on 3D

	(9) Vote	(10) Vote	(11) Vote	(12) Vote
Rain	-9.42e-05 (0.00263)	4.30e-05 (0.00276)	-5.48e-05 (0.00282)	-0.000108 (0.00275)
Rain * South	0.00313 (0.00956)	0.00302 (0.00958)	0.00213 (0.00936)	0.00218 (0.00934)
Av. Temperature	-0.0132*** (0.00292)	-0.0146*** (0.00297)	-0.0152*** (0.00304)	-0.0142*** (0.00299)
Av. Temperature * South	0.0463 (0.0308)	0.0476 (0.0308)	0.0481 (0.0305)	0.0472 (0.0305)
Wave FE	YES	YES	YES	YES
Country FE	YES	YES	YES	YES
Cluster SE	Region	Region	Region	Region
Countries	With P	With P	With P	With P

The table shows the instruments in the voter turnout regressions in Table 6 in the text.