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## WORKING PAPER SERIES

### **The Financial Drivers of Populism in Europe**

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**Working Paper n. 715**

**This Version: June 13, 2025**

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<http://www.igier.unibocconi.it>

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# The Financial Drivers of Populism in Europe\*

Luigi Guiso, Massimo Morelli, Tommaso Sonno, and Helios Herrera†

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## Abstract

This Element aims to contribute to the understanding of the evolution of populist attitudes and preferences among voters as well as the evolution of the supply of parties and party platforms in Europe, linking various novel insights on populism to the comparative politics literature on the transformation of political parties. Most importantly, we focus on the role of the financial crisis, since it has been the watershed of populism in Europe, and we need to understand why.

We provide a simple theory that connects in a parsimonious way the effects of a crisis on voters' preferences, on turnout, and on incentives to enter the electoral race by different parties. Moreover, the theory allows to make and then test hypotheses on the interaction effects between changes on the demand side and on the supply side of politics.

We show in a nutshell that the 2008 financial crisis created economic insecurity in social groups and occupations previously not affected – or affected less – by globalization. Moreover, the addition of this class of concerned voters created a bigger dent in

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\*We wish to thank ERC grant 694583 and the IGIER and Baffi research centres for financial support.

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the pre-crisis party structure in countries with low fiscal space, since in such a context, the credibility of transfer-based protection policies is limited. We also contribute to understanding how preferences for exclusion along the cultural dimension evolve, as shaped by voters' beliefs about the feasibility of different types of welfare protection policies.

The middle class was greatly affected by the financial crisis, and the enlargement of the pool of disillusioned voters to include large segments of the middle class fostered populism in Europe. To establish causality, we use a pseudo-panel analysis and instrument the economic insecurity of different cohorts by leveraging a new methodology designed to highlight the variation in sensitivity to financial constraints by occupation. On the supply side, we examine policy positions of old and new parties in order to show that the prevalence of populism became much higher immediately following the financial crisis.

# 1 Introduction

## 1.1 Overview

This Element aims to establish the crucial role of the financial crisis of 2008 for the populist wave in Europe, focusing first on the effects of the crisis on voters of different occupations and, consequently, on the structural transformation of political parties and movements. We contribute to the literature on how old and new parties compete in terms of policy platforms as a function of changes in the distribution of voters' preferences and beliefs; to the literature on what determines the preferences of different occupational groups on the economic and cultural dimension of politics; and on what determines their beliefs on the value of different policies. While focusing simultaneously on both voters and parties is not unique to this Element, our conceptual framework offers a novel interpretation by emphasising the crisis's effects on beliefs about the feasibility and desirability of different policies. This focus provides the key to our interpretation and helps us maintain a coherent view of the broader picture.

Economic crises tend to generate economic insecurity and erode trust in existing institutions — both market and governmental. However, whereas the economic threats posed by immigration, globalization, and automation primarily impact low-skilled workers and their communities, the financial crisis had a distinct effect on the middle class. We illustrate this empirically using a novel methodological approach. The extension of distrust to include the middle class is a critical development, as it signals to politicians and parties that winning over this broader group of disillusioned voters can be decisive for electoral success. Consistent with this intuition, we show that the transformation of the political supply, in terms of new and transformed parties and new and transformed manifestos, happened right after the financial crisis. Moreover, the transformation and the increase in populist voting happened more evidently in countries plagued by low fiscal space, where the feasibility of inclusive welfare redistributive policies is lower. This, in turn, increases the appeal of

exclusionary policy commitments, which are more easily championed by populist parties on the extreme right of the ideological spectrum.<sup>1</sup>

The shrinking fiscal space in many European countries made the financial crisis particularly conducive to the rise of right-wing populist parties. The reason is straightforward: identity-based protection policies typically require limited public spending, whereas the redistributive welfare policies advocated by left-wing populists became increasingly infeasible and less credible—despite remaining ideologically appealing to a significant portion of the population. As a result, the shift toward right-leaning economic policy preferences can be partly attributed to the perceived decline in the feasibility of more inclusive welfare policies.

Shifts in beliefs about the relative feasibility of left- and right-leaning economic policies have also influenced cultural-political cleavages. Macroeconomic and institutional constraints on fiscal policy have altered perceptions of self-interest about public policies, contributing to polarization along the cultural dimension. When individuals lose faith in the feasibility of inclusive welfare policies—particularly those benefiting minorities—or perceive such policies as misaligned with their own self-interest, they are more likely to support exclusionary measures that heighten cultural tensions. As belief grows that anti-immigration and nationalist identity-protection policies are the most effective means of safeguarding personal interests, support increases for politicians who promote anti-pluralism and oppose values such as diversity, equity, inclusion, and minority rights.

## 1.2 Some preliminary look at the different crises

We view the 2008 financial crisis and the resulting great recession as a major factor in the spread of populism in Europe during the 21st century. It happened before: One of the first examples of a populist policy in history is that of Urukagina, who took over power

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<sup>1</sup>Any welfare policy aimed to help minorities and the losers from market competition can be considered example of inclusive policies, and is typically expensive. Exclusionary policies of course include anti-immigration measures, protectionism measures, policies aimed to weaken even the people's perception of the value of diversity, equity and inclusion.

in Lagash — a city state of ancient Mesopotamia- detronizing his corrupted predecessor Lugalanda. This ruler promised to restore the power of ordinary people during an economic downturn and highlighting the corrupted predecessor lack of credibility. To gain consensus, Urukagina forgave all loans, certainly reliving debtors while demonizing financiers. He lumped usurers with criminals to be cast out of the city (see Goetzmann (2015)).

Much of the economic literature on populism has sought to examine the effect of immigration, globalization and automation on job destruction, primarily among low-skilled workers. This is thought to have created voter disillusionment in liberal democracies, gradually transforming the demand for policies. In this context, the financial crisis has been treated as yet another factor that enhanced voter appetite for populist policies as a response to economic insecurity. However, this approach has tended to ignore the peculiar effects and consequences of the financial crisis on the middle class.

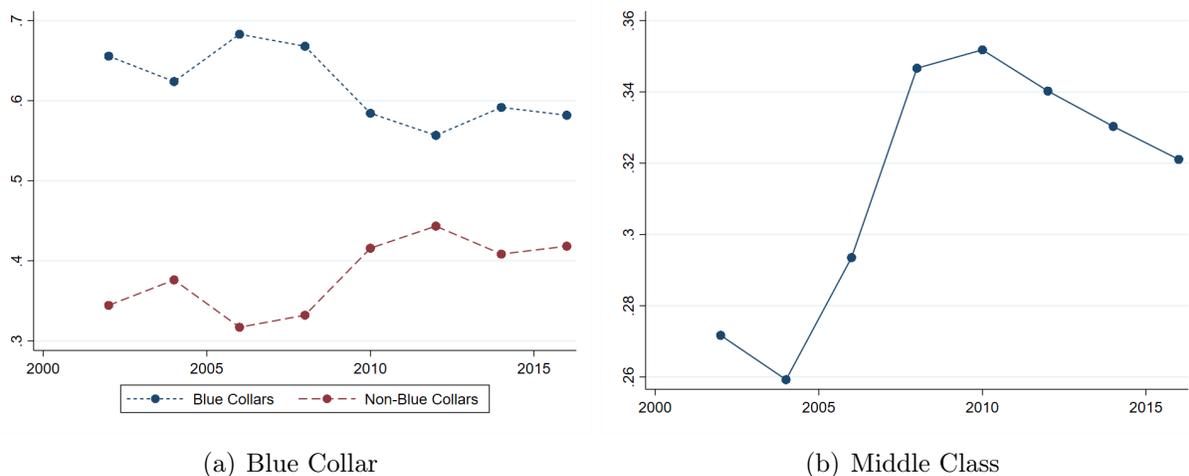
The effects of globalization and automation on some segments of society are not uniformly negative: there are losers, but undoubtedly there are also winners. Apart from the inequality generated by job destruction and lower wages among workers affected by foreign competition or automation, consumers as a whole have benefited from lower prices of final goods and firms' intermediate inputs.

This cannot be said of financial crises. It is difficult to think of a beneficial effect that a financial crisis-induced recession might have. Thus, most people, across the entire spectrum of the voter population, lose out. Income losses tend to be deep and universal. Hence, the discontent fostered by the resulting economic insecurity tends to be more pervasive and thus more politically relevant.

Moreover, the first thing to note about the financial crisis is that the economic insecurity following the onset of the crisis in 2008 spread to segments of the population that were less affected by the globalization shock. Figure 1, panel (a) shows the share of blue-collar and non-blue-collar workers in the top quartile of economic insecurity in each year of our sample. Prior to the financial crisis, when globalization was the main source of economic insecurity,

blue collar workers were those predominantly experiencing a high level of insecurity (66% on average); during the years after 2008 the share of non-blue collar increases substantially (by more than 8 percentage points) compared to the years prior to the financial crisis.

Figure 1: Insecurity among blue-collar workers and members of the middle class



Notes: Panel (a) plots the share of blue-collar and non-blue-collar workers in the top quartile of economic insecurity during the sample period. Panel (b) shows the share of people in the mid-50% of the distribution of income in each country-wave.

Panel (b) shows that the financial crisis increased economic insecurity also among the middle class, as shown by the average share of people in the mid-50% of the distribution of income in each country-year. Thus, the share of middle-class voters suffering from serious economic insecurity, i.e. in the top quartile of insecurity, climbs during the years of the great recession. Thus, the financial crisis not only increased insecurity among social strata that were already distressed by globalization and other processes before the crisis (namely, low-skilled workers at the bottom of the income distribution) but it also spread insecurity among segments of the population that had been relatively sheltered from globalization.

In advanced Western countries, where both firms and households are heavily dependent on financing, a financial collapse can represent an existential threat. Obtaining credit becomes more difficult in a financial crisis, as markets stop working smoothly and financial constraints become tighter. In addition, the accompanying fall in asset prices reduces the value of precautionary savings, thus limiting people's ability to cope with economic

insecurity. On the contrary, up until the financial crisis, financial markets were intact and credit was abundant, implying that some of the people hit by the first wave of globalization threats could use borrowing or their own savings when asset prices were still high. The dramatic spike in the bond spread during the years of the European sovereign debt crisis demonstrates quite clearly how difficult it became for governments to secure funding to run their programs during the financial crisis relative to the globalization years.

The different effect on the share of the population feeling economic insecurity is only one effect. Another factor—more difficult to measure but intuitively central to our argument—is the level of confidence in the existing institutional framework and in the credibility of government objectives and traditional policy commitments. Any rational agent applying standard Bayesian updating must be revising downwards such a confidence when a large crisis like the great recession finds the status quo elites unprepared (or complicit). Our novel theoretical framework will allow us to explicitly consider these additional differences, and the theory will guide an empirical analysis that will add important nuances to the simple first observation of Figure 1.

### 1.3 Introducing the theoretical framework

As explained in Bellodi et al. (2023), there are clear reasons (from standard principal agent logic to endogenous changes in accountability) to expect that a decline in trust in governments and politicians determine what they call a “shift to commitment politics”, whereby the trustee model of political agency is replaced by agents proposing their implicit contract to be based on simple commitments made ex ante.<sup>2</sup>

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<sup>2</sup>In the most well known examples of the relationship between commitment politics and populism, such ex ante contracts were actually made explicit: Berlusconi’s “contract with the Italians” in five points (perhaps inspired by the 5-point “contract for America” by Gingrich) and the explicit commitments of the five star movement (with even a mandate constraint with penalty of expulsion in case of violation) are the most obvious examples for us, but the protectionism, anti-immigration, and disengagement commitments that are integral part of the Make America Great Again agenda also fit in that framework as prominent examples. In Bellodi et al. (2023) the empirical validation of the increased use of policy commitments when trust goes down is extended to the whole set of candidates to Congress in the US in various consecutive parliamentary elections, hence the validation goes well beyond a set of illustrative examples.

The greater necessity to offer ex ante commitments determined a consequent incentive to describe as captured by the Elites any party or politician wanting to maintain policy-making discretion. Hence the shift to commitment politics generates as epiphenomenon the strategic use of anti-elite rhetoric and identity protection rhetoric for the people, which are the essential parts of observable political strategies that constitute the definition of populist vs non populist parties in the political science literature. Moreover, as argued formally in Bellodi et al. (2023), it is also intuitive that parties and politicians shifting more and more to policy commitments desire to weaken the checks and balances, bureaucrats, judges, experts, intellectuals, because they all could constitute obstacles to the implementation of commitments when proved to violate constitutional or international laws (like in the case of deportations).

The theory presented in this Element in Section 2 develops an important feature of the populist commitments: they are almost always “commitments to protect”, from protectionism on the markets, to protection from immigrants, identity protection, nationalism, protection from external influences and even from international organizations and laws.

The financial crisis has played a crucial role in reshaping political preferences. For individuals weighing a policy agenda centered on open borders, open markets, and inclusive policies against one favoring closed borders, protected markets, and the rollback of inclusion efforts, the crisis disproportionately undermined confidence in the former. In contrast, the latter — an agenda of closure — can come to be seen as not only viable but necessary, particularly when the crisis is perceived as stemming from external forces and internal responses are constrained by limited fiscal space.

We capture all the above complex logical connections with a simple theoretical model of both voters’ policy preferences between open market status quo and various types of protectionist commitments as well as voters’ participation decisions given their abilities and ideologies. The simple model will clarify why one should expect the financial crisis to induce differential turnout effects between left and right and thereby cause entry especially

of right-wing populist protectionist parties.

To anticipate some important details of the theory, we assume that individuals are heterogeneous in ability (and hence type of occupations they can obtain), cost of voting, and ideology. The expected utility of an individual if the open market status quo is kept depends both on the probability of being a winner from the open market and on the probability of being bailed out or compensated by institutions when happening to be a loser. Hence this expected utility (which we also call economic security) can be different across occupations. Ideology enters the picture when considering an alternative policy commitment to protect from the open market, which typically is a bundle of closures, from closed markets to closed borders and beyond. Such closure policy commitments typically give a higher expected utility to right-wing individuals, since left-wing individuals are typically closer to the moral universalism description of Enke et al. (2023), and hence have some moral disutility from policies that benefit a subset of the population (the “citizens”) while excluding others (the “immigrants”). Thus, when a crisis arrives and reduces the appeal of the open status quo, right-wing individuals can more easily jump on the populist protection commitment wagon, whereas a left-wing individual equally disappointed by the open status quo may actually rather abstain. This differential incentive to participate in elections is what triggers the increased probability of winning of right-wing populist parties after the financial crisis.

## 1.4 Empirical methodology

On the voters’ side, we use the European Social Survey (ESS), which is conducted in repeated cross-section waves. The data is used to conduct an instrumented pseudo-panel analysis of the economic and financial drivers of change in political attitudes and voter behavior in Europe during the financial crisis and subsequently. Each element of the pseudo-panel is a synthetic cohort of individuals and can be associated to a distribution of occupations. This survey data will be complemented by labor market data that will

allow us to construct a methodology for identifying the causal effects of the financial crisis, exploiting heterogeneity in the distribution of occupations across cohorts.

In order to establish a causal link between the financial crisis and economic insecurity, trust in politics and voter abstention, we build a novel instrumental variable that leverages the idea that financial crises are most damaging to individuals who depend more on borrowing to buffer income shocks and thus to manage economic insecurity. Dependence on borrowing is a function of the steepness of an individual’s age-earnings profile: people with a steeper profile must rely more on borrowing to smooth consumption, which makes them more vulnerable to financial shocks.

The cohorts of respondents to the European Social Survey over time and across countries vary in their distribution by occupation. Furthermore, we find marked differences between occupations in the steepness of the age-earnings profiles. Thus, there will be heterogeneity in the sensitivity to a financial crisis across occupations. Using heterogeneity in the steepness of the age-earnings profiles, we construct a shift-share instrument where the shifter is the aggregate economic shock affecting a country, the share is the weighted average sensitivity/dependence on borrowing by cohort, and the weights are the shares of each occupation within the cohort.

On the supply side, we document in multiple ways the death of traditional parties, birth of new parties, and transformation of the manifestos of surviving parties, giving a comprehensive picture of the transformation of the whole landscape of political platforms after the financial crisis.

In order to define a European party as populist in a given year, we rely on the Populist proposed by Rooduijn et al. (2019), which is available at [www.popu-list.org](http://www.popu-list.org). This classification is consistent with both the ideational approach and the political strategic approach to defining populism.<sup>3</sup> Accordingly, the people-vs-elite rhetoric is a straightforward

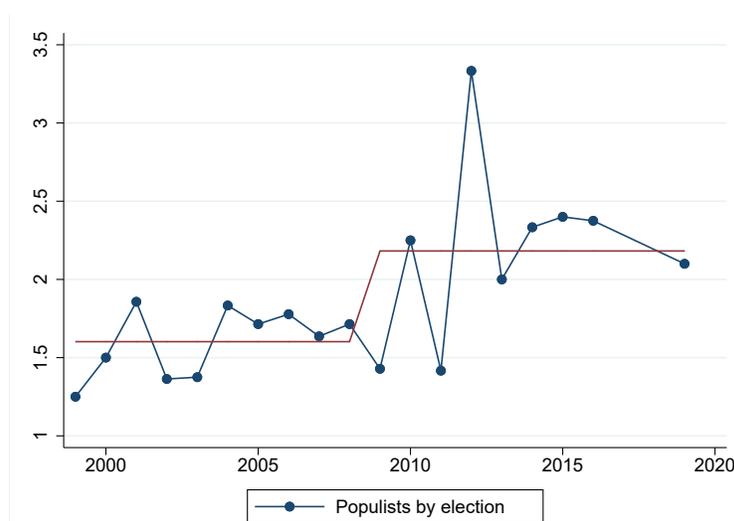
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<sup>3</sup>The “ideational” approach defines populism as a thin-centered ideology that portrays society as divided into “pure people” and the “corrupt elite”, arguing that politics should be the expression of the will of the people. The political-strategic approach considers populism to be a political strategy employed by politicians in the attempt to “win and exercise power” (Mudde, 2004; Weyland, 2001, 2012) while creating

manifestation of populism, which is also the most common measure used in empirical work (Pauwels, 2011; Hawkins and Littvay, 2019; Gennaro et al., 2024).

To give a first sense, just looking crudely at the number of coded populist parties entering, we can already get a sense of the change: Figure 2 plots the average number of populist parties participating in elections up to 2008 and in subsequent years. It is clear that the great recession marks a watershed in terms of the supply of populist parties competing for voters.

Figure 2: Populist parties



*Notes:* The graph shows the number of populist parties (in blue) and the average number of populist parties (red line) actively participating in elections.

Up until 2008 an average of 1.7 populist parties took part in an election with no clear trend over time. In the years following 2008, the average number of participating populist parties jumps to 2.4 – a 33% increase compared to the pre-crisis mean – with a spike in the 2012 elections. The financial crisis appears to mark a structural break in the supply of populist parties. And this is just looking at quantity, but, as we will see, content also changes in directions consistent with our arguments.

The Manifesto Project dataset (Volkens et al., 2018) will be useful because with the use of Lasso regressions we will be able to trace the most important topic shifts and position unmediated ties between the leader and voters (Weyland, 2017).

shifts directly from the texts. We will complement the analysis on party manifestos over time with the insights from expert surveys, which are useful especially to detect major items of convergence or divergence between populist and non populist parties on both sides of the ideological spectrum.

## 1.5 Main empirical findings

Our main empirical finding is that economic insecurity triggered by the financial crisis had a causal effect on turnout and on voting choices. Financial shocks specifically hamper the ability to borrow, which particularly affects segments of the middle class characterized by steep age-earnings profiles. This, in turn, significantly expands the pool of voters seeking economic support and who are at the same time losing confidence in the ability of the government to deliver such support. In view of this disappointment in traditional politics, there is an increase in voter abstention especially among those who had not been seriously affected previously by globalization. Meanwhile, those who were subject to previous crises as well, are the most likely to vote for a populist party, especially if ideologically not opposed to exclusionary policy commitments.

The results show that the instrument has a strong predictive power on both the self-reported as well as wage-based measures of economic insecurity. In turn, in IV regressions (that also control for cohort fixed effects as well as for country and time fixed effects), shocks to instrumented economic insecurity tend to cause a reduction in voter turnout<sup>4</sup> and to increase populist voting (conditional on turnout). The effects on voter behaviour along all three dimensions are significant in magnitude: an increase of one standard deviation in economic insecurity increases populist voting by 7 percentage points, which is about 94% of the sample mean, and it lowers turnout by more than 8 percentage points (about 10% of the sample mean). In Appendix F, we also show that it lowered trust in political parties

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<sup>4</sup>Previous evidence on the negative effects of negative income shocks on turnout includes Emmenegger et al. (2015). Guiso et al. (2024) explain the importance of considering the endogenous turnout selection effects when evaluating the correct impact of economic insecurity shocks on populist voting.

by as much as 35% of the sample mean.

The above numbers suggest that the financial crisis may indeed have been the moment of maximum entry and transformation of parties on the supply side, which gave disillusioned voters new hope. To investigate this hypothesis, we conduct a novel analysis of the dynamics of the supply of populist parties in Europe. We first examine the manifestos of all European parties, distinguishing between long-lived parties (existing both before and after the financial crisis) from the parties that disappeared or emerged at the time of the crisis. The quantitative structural break documented already in Figure 2 is corroborated by a number of findings on contextual interactions and textual content.

In terms of contexts, the party structure transformation phenomenon occurred particularly in countries with a shrinking fiscal space, which is in line with the expectations given our theory and the considerations of credibility of policies mentioned above. A shrinking fiscal space has dramatically different effects on left-oriented versus right-oriented parties. It also reduces the feasibility and thus the credibility of protection policies that are focused on the supply of expensive public goods and on redistributive spending. Hence the traditional leftist parties suffered the most in terms of credibility, leading to the exit of traditionally leftist parties, and the entry of new parties such as the Five Star Movement in Italy and Podemos in Spain. The nationalism and identity protection policies championed by right-wing parties did not need to be altered because they were less dependent on the level of public spending. Thus, nationalist or far-right ideologies do not need to change in a financial and/or fiscal crisis; in contrast, such crises force a shift on the left from (unaffordable) redistributive platforms towards protection rhetoric and pre-distribution. This creates an advantage for right-leaning parties, which are able to advocate the same policies and measures that depend less on public spending.

In terms of textual content, we corroborate the insights on party transformation using expert survey data on topics and salience shifts, to see whether non-populist parties also modified their platform and in which direction. We show that there is a post-crisis con-

vergence, with non populist parties modifying their platforms in the direction of populist ones.

## 1.6 Contribution to comparative politics literature

Our contribution to the comparative politics literature is on multiple levels. First, we contribute to the understanding of the effects of economic shocks of different nature on political preferences of voters (see Margalit (2019) for a review); Second, we contribute to the documentation of changes over time in the political attitudes of occupational groups and the corresponding evolution of parties in the electoral space in the last decades in Europe, complementing thereby the work in the Element by Hall et al. (2023); Third, we emphasize the key role of the financial crisis in the determination of the success of populists also due to the strong incentives of political entrepreneurs to politicize this issue that captured and interested the middle class – a point well illustrated by De Vries et al. (2021). It is useful to zoom separately on these three contributions.

### 1.6.1 Voters' reaction to shocks

Regarding the first contribution — namely, the channels through which economic shocks can alter political preferences — the macro-level arguments explaining how major economic shocks influence key cleavages and political coalitions are developed in the works of Gourevitch (1986), Rogowski (1987), Kriesi et al. (2008), and Bartels (2014).

For the micro-level analysis of the effects of individual shocks on individual preferences and voting behavior, perhaps the richest empirical studies are Malhotra and Margalit (2010), Dancygier and Donnelly (2014) and Ahlquist et al. (2020), while on the theory side the role of self interest is underlined in Meltzer and Richard (1981), Iversen and Soskice (2001), Mares (2006).

Our contribution here is to reinforce the view that economic shocks do not affect ideologies, but rather the policy preferences for people of the different ideologies. As empha-

sized in Campbell (1960), ideological dispositions rarely change. Even significant economic shocks do not change voters' preferences or views from left to right or vice versa: ideologies tend to persist over people's life time (Krosnick and Alwin, 1989; Newcomb, 1967) and are resistant to new information (Taber and Lodge, 2006).

However, "within" one's ideology a significant economic shock can affect trust, willingness to participate in politics, and the decision to continue to support a traditional party or to embrace a new movement.<sup>5</sup>

Golder (2016), Hobolt and Tilley (2018) focus on an emotional channel for the differential effects between left and right. They focus attention on the anger against the status quo, which often translates in hate or resentment against existing institutions and newly included members of society that should instead be excluded. In our Element we do not focus on the emotional aspects, but rather on the (potentially complementary) rational comparison between exclusionary policies and inclusive redistributive welfare policies. The increase in salience of cultural divisions emphasized by De Vries and Hobolt (2020) can be perfectly consistent with our conceptual framework. In fact, we stress that even this change in salience may be in part generated by a lower confidence that the economic protection can be obtained other than with exclusionary policies.

As shown in Margalit (2013), the experience of a job loss typically make individuals more likely to support welfare measures of the left. But, as we will see, the financial crisis hits in particular the occupations with steep age earning profile, namely with potential growth of income over time when initial investments are made possible, and this class of people like small employers actually display typically a right-wing propensity.

Like us, Oesch and Rennwald (2018) identify small employers as one of the key swing groups between the center-right and the radical-right (in their categorization) or between opposing and favoring exclusionary policies (in our framing), but our framework and

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<sup>5</sup>Gerber and Green (1999) and Page and Shapiro (2010) study the possibility that changes in preferences may come from what people "learn" from an economic shock. This is consistent with the view that it is not ideologies that change but what people learn about the feasibility and probability of success of different policies.

methodology allows us to see why this swing group (together with others with similar age earning profile) reacted to the financial crisis more than to other crises.

### 1.6.2 Occupational groups and parties' platforms

As far as the second contribution is concerned, we agree with the Hall et al. (2023) perspective that gives a key role to occupations, and views party strategies (in terms of platform choice) as best responses to the changes of political preferences of the occupational groups that they traditionally represent.<sup>6</sup> We zoom in particular on the role of the 2008 financial crisis but enlarge the analysis to all European countries. Their analysis is instructive on existing pre-trends and connects well also to the theoretical framework that we discuss in the next section. To anticipate, in our framework the preferences on the socio-cultural dimensions that are typical of populist parties can be shaped by changes in the credibility of different policies after crises; hence, looking at the different impact of the financial crisis on the fears and expectations of different occupations can explain positioning of parties on both the economic and cultural dimension.

The employment transformations already started in the 90s, with jobs being created in service sector and information technology (see, Oesch (2013); Goos et al. (2009); and Autor and Dorn (2013)) obviously matter, but the financial crisis is the one that created fear also for people in occupations with steep age earning profiles, hence enlarging the pool of social groups and occupations feeling in danger. A set of scholars contend that the creation of populist attitudes relates mostly to the increasing cultural difference between the progressive and inclusive cosmopolitans and those wanting to protect and preserve the identity of the true people (the true settlers, looking at the manifesto of the People's Party of Bryan in 1890). Our results will support the possibility that the increase in

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<sup>6</sup>They examine the movements of preferences of workers in seven occupational groups on the economic and cultural dimensions in eight western democracies from 1990 to 2018. They use the World Values Surveys (WVS) and European Values Surveys (EVS). They compare citizens' attitudes in 1990 (WVS wave 2), 2006 (WVS wave 5), and 2018 (EVS wave 5) in Britain, France, Germany, Italy, the Netherlands, Norway, Sweden, and the United States. Based on self-reported occupations, they divide respondents in seven categories.

identity politics and exclusionary policy preferences derive from a deterioration of trust in the ability of government institutions to protect the losers from market competition with inclusive welfare policies.<sup>7</sup> Hence the economic and cultural dimensions do not evolve independently, they both depend on the changes in beliefs and trust in the feasibility and desirability of different economic policies.

Thus, in contrast with Inglehart (2013); Kitschelt (1994); Kriesi et al. (2006); De Vries et al. (2013); Häusermann and Kriesi (2015)), we do not frame the political transformation related to populism and its causes as a horse race between the economic and cultural hypotheses. Most importantly, the financial crisis operates almost exclusively on the economic policy preferences and it would be difficult to identify a direct influence on the cultural dimension that is not mediated by the negative shock on the feasibility of inclusive redistributive policies.

Our interpretation of the fact that radical-right parties have become more important contenders for power, increasingly crucial to governing coalitions on the right (Kriesi et al., 2006, 2008; Bornschieer, 2010; Häusermann and Kriesi, 2015; Hooghe and Marks, 2018; Rovny and Polk, 2020) (Marks et al. 2021) is that this is not only due to a greater salience of the cultural dimension, but also to a reduction in trust that other policies, non exclusionary and hence more inclusive, can work. And this lower trust is the variable affected by the financial crisis, our focus in this Element.

Hall et al. (2023) find that, between 1990 and 2018 across eight countries, cultural preferences generally shifted in a more cosmopolitan direction—likely driven in part by the sharp rise in tertiary education. In contrast, they observe a consistent shift to the right on the economic dimension. As we argue in our theory section, declining trust in the feasibility of inclusive, redistributive welfare policies fosters protectionist and nationalist preferences in both economic and social spheres. This, in turn, contributes to growing

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<sup>7</sup>Winners and losers from an open market economy is a distinction that overlaps with other similar distinction in the literature, for example the division in insiders and precarious outsiders in Rueda (2005) or the division along the skills dimension in Iversen and Soskice (2015).

affective polarization on the cultural dimension, as exclusionary policies increasingly conflict with cosmopolitan and universalist valuesâ€”producing divergent effects on political engagement and turnout. Hall et al. also show that the shift toward economically right-wing preferences is not limited to workers but extends to small employers, particularly after 2006, aligning with our finding that the financial crisis expanded economic vulnerability to include the middle class. Meanwhile, cultural attitudes became markedly more cosmopolitan among professionals, skilled white-collar workers, lower-level service workers, and managers, whereas production workers, craft and trade workers, and small employers showed little change in their cultural views on average.

Hall et al. (2023) use the schema devised by Wagner and Meyer (2017) to group parties into the categories of mainstream left, mainstream right, and radical-right and examine the movement of these party families in the two-dimensional space of economic and cultural positions across all eight countries over the period between 1990 and 2018. We do not group parties that way, because the notion of populism has only a partial overlap with extremism and radicalism. What constitutes the logical link from crisis to support for populist parties is different from the emotional link from anger to hate. However, their classification is nonetheless useful for us to illustrate some parts of our argument that relate to different types of protection policies and their appeal to voters of different occupations and ideologies. Both types of analysis support the view that the change came mostly from the radical right parties (in their analysis) and new populist parties and movements (in our analysis) who moved their economic positions to the left in order to capture the concerns of the occupational classes most concerned by technological change and globalization and now access to credit.

It is plausible that this gap widened following the financial crisis. This possibility aligns with our proposed interpretation: after the crisis, the share of voters experiencing economic insecurity — and therefore demanding economic protection typically associated with left-wing policies — expanded. Beyond this quantitative shift, many of these voters also lost

confidence in the feasibility of maintaining, let alone expanding, inclusive welfare policies. As a result, support for exclusionary, conservative positions on the cultural dimension also grew.

In other words, for individuals seeking economic protection and weighing the relative merits of traditional redistributive welfare policies versus exclusionary measures—such as anti-immigration and discriminatory policies—the latter become increasingly attractive when the former are seen as less feasible. This shift is further reinforced when trust in politicians' commitment to protective goals is low. The financial crisis played a significant role in undermining confidence in the viability of open-market solutions, thereby contributing to growing support for policies favoring closed markets, closed borders, and a more exclusionary societal model.

Kitschelt and Rehm (2023) interpret electoral realignment of parties as follows: they argue that people with different levels of income and education have stable preferences on economic and cultural issues but salience changes. We argue that crises change preferences for policies by affecting trust and beliefs on what can work. Moreover, we agree with Hall et al that occupations matter as much as income and education levels.

### **1.6.3 The entrepreneurship of manipulation and Euroskepticism**

De Vries (2018) and Hutter et al. (2016) are examples of political analyses of the public opinion backlash against European institutions. De Vries et al. (2021) discuss the important role of political entrepreneurs of challenger parties on the extreme left and extreme right to channel the public discontent towards European institutions to gain votes. They argue that what is new in recent years is the level of politicization of the arguments pro and against international cooperation and their salience.

Our Element clarifies why this politicization (and in particular, manipulative politicization) may have become easier as a consequence of the financial crisis. The key role of the financial crisis in the determination of the success of populists is due to the strong

incentives of political entrepreneurs to politicize the issue of how much European institutions constitute a constraint to the implementation of simple protection policies – policies like citizenship income, reduction of pension age, low carbon prices ignoring green external mandates, etc. Moreover, as we also argued above, the issue of external constraints to simple protection commitments becomes salient also for the middle class, given the shock determined by the financial crisis on the confidence in open markets and market integration. The increased salience of the inability of European institutions to counter the crisis gave overall a greater push to the mobilizers of discontent.

The financial crisis has increased euroskepticism (Fernández-Albertos and Kuo, 2016; Hobolt and De Vries, 2016), but we stress, in line with our proposed mechanism, that it is mostly in occupations with steep age-earning profiles and small employers that this changed after the financial crisis. For example, a party like Lega in Italy changed its policy platform after the financial crisis, promising policies that could be implemented more likely in the absence of European constraints, legal constraints and constraints in terms of macro stability.

## **1.7 Contribution to the political economy of populism literature**

The conceptual framework developed in Bellodi et al. (2023) and the theory proposed in Section 2 of this Element, which adapts the logic of commitment politics to the differences we want to explain, together push the view that populist policy commitments are a political strategy. The typical features of populist platforms can be traced back to the shift to commitment politics, which in turn emerges naturally at a time of increasing distrust, which is itself shown to be endogenous.

Technological change and in particular the use of internet and social media for political communication have endogenously reduced trust in political agents, and this reduction in trust has increased the use of simple policy commitments; in turn, once political campaigns become more and more focused on policy commitments to voters, this determines the ra-

tional use of typical populist strategies like anti-elite rhetoric, misinformation, and rhetoric and actions against judges, bureaucrats, and all checks and balances, to make the executive as free as possible to implement the promised policies.<sup>8</sup>

Our theory presented below makes this general logic more specific to the financial crisis, by zooming on the particular type of policy commitments that we can call commitments to protect. The financial crisis makes governments, and especially those with low fiscal space, unable to continue to support traditional welfare programs, and this makes those affected by the market shocks shift to demand of simple exclusionary commitments.

There is an immense literature on the economic and cultural causes of populism. The survey article by Guriev and Papaioannou (2022) contains almost all of them. Gidron and Bonikowski (2013), Mudde and Kaltwasser (2017), and especially Norris and Inglehart (2019) highlight the relevance of cultural backlashes, which clearly occur simultaneously with an increase in economic insecurity. Both economic and cultural factors matter, but here we want to zoom in particular on the strands of this literature related to the financial crisis and to the role of the fiscal space. Foster and Frieden (2017) present the correlation between distrust measures and debt using the Eurobarometer survey, Algan et al. (2017) show that in elections after 2008 the regions where unemployment rose saw the sharpest decline in the trust placed in institutions and traditional politics,<sup>9</sup> while Dustmann et al. (2017) shows that in the aftermath of the crisis, the distrust of European institutions was correlated with the populist vote. Using the age-earnings profiles typical of different occupations, we are able to directly identify the channel through which the specific features

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<sup>8</sup>Bellodi et al. (2023) show that voters who prefer ex ante policy commitments are likely to support also the weakening of checks and balances when on the salient policy dimensions the desired policy commitment is a reform. When instead the ex ante desire of voters is pro status quo (standard conservative values) then it is not obvious what voters want on that front, because typically a complex set of status quo institutions help the persistence of the status quo policies as well. This difference is consistent with the anecdotal observation that past Republican presidents in the U.S. who were championing classic conservative values, showed no wish to weaken the bureaucracy, whereas project 2025 and the creation of DOGE are clear signs of commitment to weaken the state.

<sup>9</sup>The transformation of employment opportunities matters, but not necessarily or not only creating new types of conflict across old and new occupations, but also via a direct effect that the financial crisis had on occupations that had not been affected by the globalization and automation shocks alone.

of the financial crisis (primarily the inability to borrow) impacted each cohort of citizens in Europe. We are therefore able to provide evidence of causal effects, by differentiating such effects across cohorts with different occupational distributions.

There is an interesting literature on financial crises as determinants of extremism (see, for example, Funke et al. 2016, and Galofré-Vilà et al. 2021).<sup>10</sup> Our analysis of the 2008 financial crisis emphasizes their impact on the political orientation and feasibility of policy platforms on either side of the political spectrum, rather than focusing on extremism specifically.<sup>11</sup> Voth et al. (2020) were the first to present causal evidence that a financial crisis can fan extreme right populism, based on variation in failing banks in Germany prior to the 1932 elections. In contrast to their findings, we show that the financial crisis in 2008 shifted politics in the direction of populism in a broader scale, rather than only on the right. Indeed, the transformation after 2008 occurred primarily on the left.<sup>12</sup> Furthermore, our method of identification makes it possible to zoom in on the heterogeneous impact of the financial crisis by occupation and to identify the mechanism that creates economic insecurity, regardless of pre-existing anti-Semitism or some similar types of ideology.

On the relevance of the fiscal space, Arias and Stasavage (2019) and Fetzer (2019) look at the political costs of austerity politics, although they ignore the dynamic transformation we focus on. Indeed, we find that it is precisely in the countries with the smallest fiscal space that the financial crisis had a greater impact on politics (and especially on the left).<sup>13</sup>

Rodrik (2018) traces the increase in populism to the globalization shock. While this

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<sup>10</sup>For a related literature on the effects of financial hardship on political participation, see Schaub (2021) and references therein.

<sup>11</sup>A well-known signaling theory that links populism to extremism can be found in Acemoglu et al. (2013).

<sup>12</sup>Gyongyosi and Verner (forthcoming) emphasize the effectiveness of debt relief policies to attract populist voters towards far-right parties in the case of Hungary, while we show that for Europe as a whole the political transformation caused by the financial crisis occurred mostly on the left.

<sup>13</sup>With low fiscal space the effects of the financial crisis are amplified: if the crisis affects the sovereign, fiscal adjustment is necessary, which requires cutting on public procurement, which can cause companies to default, saddling banks with defaults and implying the reduction in credit supply. Importantly, not only blue collar workers but also white collars, managers and firm owners are hit by the shock, - extending economic insecurity to all segments of the population. Evidence of this mechanism is documented by Bonfim et al. (2025).

may be true when considered in isolation and for specific events,<sup>14</sup> Guiso et al. (2019) show that globalization shocks alone cannot account for the cross-country pattern of populism in Europe. They show that the interaction of globalization with an euro-dummy accounts for the large majority of the explanatory power, and, in the presence of such an interaction variable, globalization shocks alone have little effect. In section 7, we show that whereas the supply of populism displays a discontinuous jump in 2008, there was no similar increase in 2004, the year of the globalization shock due to the expansion of the EU. One may argue that in a deep sense the globalization shock is the root cause of populism, because a macro literature traces the burst of the crisis to the imbalances that originated from globalizations. What we show is that a globalization that does not involve a financial crisis is unlikely per se to generate the spread of populism that we have witnessed in Western countries, particularly in countries that are heavily dependent on credit and financial markets.

Moreover, while globalization primarily reduced trust in free markets, the conjunction of the financial crisis and shrinking fiscal space reduces trust in all other institutions as well. It is the collapse of confidence in representative democracy that increases the demand and supply of simple protection commitment policies like walls, protectionism, and Brexit.

The rest of the Element is organized as follows: Section 2 draws the conceptual framework that generated all our ideas on the role of all crises, and in particular the financial crisis, on voters' policy preferences and on asymmetric turnout. Parties enter the picture simply in terms of whether they are likely to adopt a populist protectionist commitment or not and why. Section 3 describes our data and measurements. Section 4 describes the important role of voters' participation incentives and displays descriptive results that are in line with the asymmetric turnout effects of crises that we explain in the theory. Section 5 describes our empirical methodology and identification strategy, and Section 6 displays causal estimates of the effects of the financial crisis on all aspects of voters' preferences and behavior. Section 7 uses manifestos of parties to show the different effects of globalization

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<sup>14</sup>Autor et al. (2020); Colantone and Stanig (2018b,a); Jensen and Bang (2017) are clear examples of well-identified effects of the China shock on specific manifestations like Brexit.

and the financial crisis on the party structure and policy platforms. Section 8 analyzes strategic entry and strategic positioning by parties in the aftermath of the crisis, and looks at the convergence of platforms across parties on each side of the political spectrum using expert surveys. Section 9 concludes.

## 2 Theory

In this section we aim to clarify the effect of a crisis on voters' preferences on policies through a simple theory on the voters' thought process when evaluating the pros and cons of the open market status quo with a policy commitment proposal to close markets and/or borders. In the first part of this section we take it as given that there exists a choice like this for a voter, and only at the end of the section we explicitly consider the intuitive conditions for entry of populist parties with such a type of policy closure commitments on the supply side.

### 2.1 Voters' preferences on closed vs open markets

We start from a voter's evaluation of the tradeoffs involved when considering her expected utility from an open market status quo versus a protectionist reform that would cut out competitors to the voter's employing firm or potential employing firms, reducing also the instability and market dependence on prices and wages.<sup>15</sup> The perception of threat to jobs and wages created by the technological changes that were permitting greater and greater open market integration was the central cause of populist voting already in the United States in the last quarter of the 19th century.<sup>16</sup> The globalization literature on the

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<sup>15</sup>For simplicity here we ignore the potential negative effects of protectionism on input costs and costs of production in general, but in a reduced form this is taken into account via our aggregate inefficiency assumption.

<sup>16</sup>Eichengreen (2018) and more recently Han and Milner (2024) establish that the expansion of the railroad system and refrigeration technology created greater exposure to imported goods and competing firms and farms from far away, creating work and wage insecurity especially in counties with concentrated productions and financial difficulties. Technological change and the consequent market integration proved (as usual) to be good on average (see e.g. Hornbeck and Rotemberg (2024)) but created winners and losers,

role of the China shock in the determination of populist voting in many Western democracies in the 21st century gave rise to an analogous tradeoff. The same tradeoff must have been a central one in the decision by American voters to vote or not to vote for Donald Trump, who made protectionism a central pillar of his campaign(s). Since this key tradeoff has been at the center of so many studies on the fears and insecurities that led to populist voting, let us zoom on this tradeoff.

When evaluating her prospects in an open market status quo, we can simplify the voter's thought process as follows: she has a belief  $p \in [0, 1]$  to be a *winner* from the open market and a probability  $(1 - p)$  to be a *loser* from it. Let us normalize the utility for a winner to 1 and the loser's utility to 0.<sup>17</sup> However, in the open market status quo, with a representative democracy determining the functioning of government institutions, the voter expects that in case she turns out to be a loser from the market process she will be compensated by such institutions with probability  $q \in (0, 1)$ . For example, if a voter expects that her government has both "the objective" to protect the losers from market competition with redistribution or public jobs, and "the capacity" to do so, then  $q$  is a high number; whereas if one expects the government either to be attentive to other objectives (or interest groups' influences) or not to have the capacity to compensate, then  $q$  is a low number. Putting things together, the expected utility from an open market status quo ( $s$ ) with a representative government that could, in principle, try to compensate losers is

$$U(s) = p + (1 - p)q.$$

We can think of  $p$  as representing a combination of the voter's self confidence in her skills and fit of such skills for the open competition and her initial confidence in freedom to choose and the invisible hand. Hence  $p$  can be very different from voter to voter, because it

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and the estimated losing groups were indeed those who can be identified to shift their vote to the people's party in the elections around 1890.

<sup>17</sup>A winner status is reached if the open market competition makes the voter in the future obtain a good job with good profits or wage, while of course a loser is someone who loses her job or suffers from great wage compression as a function of the stronger competition exposure.

depends on education, acquired skills, psychology, etc.<sup>18</sup> The second parameter,  $q$ , captures in a nutshell “*trust*” in the government, where once again trust can be high or low depending on both the government or politicians’ objectives and incentives on one hand and capacity on the other. One might have low trust because she does not think that politicians will even care and try to compensate, derailed by other objectives; or may think that the objectives are aligned but there are not enough resources to effectively counter the negative market prospects of a market loser. We will come back to these components of trust when we will introduce the mechanism through which the financial crisis and fiscal space interact.

A protectionism reform can be captured for simplicity by a fixed expected utility  $r \in (0, 1)$  that the voter expects if all external competitors are shut out of the market. The fixed utility  $r < 1$  captures parsimoniously the perception of many workers and/or firms that on the one hand the market winners payoff is higher in an open market, but, on the other hand, with no competitors her industry and job and wage are sheltered, and hence the low loser’s payoff can be avoided.

Thus, a voter prefers a protectionist commitment iff

$$r > p + (1 - p)q. \tag{1}$$

Hence, a voter is the more likely to support a protectionist commitment the lower are her confidence  $p$  and her trust  $q$ , and the higher is her evaluation of the protected utility  $r$ . Even though in reality voters are heterogeneous in all these three parameters, let us simplify the analysis by assuming  $q$  fixed for all; and as far as  $r$  is concerned, let’s assume for simplicity that it can take two values,  $r^r$  and  $r^l$ , where  $r^j$ ,  $j = l, r$ , represents the expected utility of the protectionist policy for voters of ideology  $j$ , where  $j = l(r)$  denotes the standard left(right) ideology. We assume  $r^r > r^l$ : The typical left ideology dislikes exclusions, closed borders, closure to other cultures, goods, etc, hence a policy bundle based on exclusions

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<sup>18</sup>The simple equation defining  $u(s)$  displays risk neutrality, for simplicity, but of course in reality an additional dimension of heterogeneity across individuals is risk aversion.

and closures gives lower overall utility to left wing voters. Assuming a fixed share  $\alpha \in (0, 1)$  of left wing voters in the population, we denote by  $\hat{r} \equiv \alpha r^l + (1 - \alpha)r^r$  the average utility from a bundle of closure policies.<sup>19</sup> Finally, we let  $p$  be distributed on the interval  $[0, 1]$  with density  $f(\cdot)$ . Assuming that a polity has a unit mass of voters, the standard economic belief that free trade is good in the aggregate can be captured by the following assumption:

**Market Efficiency Assumption (MEA):**  $\int_0^1 p + (1 - p)qf(p)dp > \hat{r}$ .

Even if all voters believe in the MEA, consistent with most economic studies, it is clear that those for whom (1) holds, prefer the protectionist commitment.

## 2.2 The effects of different types of crises

A globalization shock, caused e.g. by a technological change making transportation of goods easier, or by innovations and new competitors (humans or robots) who appear as external threats, typically determines a reduction in  $p$  for some classes or occupational groups. Thus, the common opinion that globalization shocks like the entry of China into the WTO may have been a trigger of populism can be parsimoniously captured by this heterogeneous reduction in  $p$  values in the model. In the binary simplification below, where  $p$  can take only two values,  $\underline{p}$  and  $\bar{p}$ , the globalization and automation shocks affect mostly  $\underline{p}$ , namely the probability of success for low skill individuals (or individuals working in exposed industries).

A financial crisis like the great recession affects all levels of  $p$  and  $q$ : an economic agent who was counting on good access to reliable financial markets and banking for her economic prospects and future now sees the probability  $p$  of the good outcome go down, and, at the same time, perceives a lower  $q$  that market and government institutions can “bail” her out

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<sup>19</sup>As mentioned in the preamble of this theory section, we start from the simple case in which there is only one type of protectionist commitment bundle on the voter’s table, saving for later the discussion on what happens when entry of populist protectionist supply is endogenized. In the empirical analysis we will also consider the fact that in some countries in some years there are both right-wing populist parties and left-wing populist parties, where the latter typically display less exclusionary policies on the social dimension, and hence display a higher  $r^l$ .

in case of a negative realization of economic conditions. The financial crisis made most market operators tighten credit, and government institutions had a hard time helping the many losers. Thus, and naturally more so in countries with very low fiscal space,  $q$  must have been shocked downwards. Given that  $q$  applies to all, this common component of the crisis effects is what relates in the model to the enlargement of the set of people for whom (1) starts holding after the crisis.

The importance of the trust parameter  $q$  can also be appreciated through a number of historical comparisons. At the time of increased import exposure and price instability exposure caused by technological change in the US after the civil war, there were no income taxes (only *una tantum* taxes to recover from the civil war and reconstruction costs). Hence, when the democratic party saw the growing success of the people's party in 1890 and 1892 with a protectionist campaign due to the perceived effects of market integration on  $p$ , they managed to take back such voters by acknowledging such grievances and by making a pledge to support the demand for a graduated income tax, which had been one of the economic policy components of the people's party platform. A federal progressive income tax system came later, but the alignment of the democratic party with those stances of the people's party was enough, because in case of success of introduction of redistributive taxes the perception was that  $q$  could be high. On the other hand, in the 21st century the vast majority of liberal democracies is plagued by high debts and low fiscal space, in spite of income taxes already on the downward sloping portion of a hypothetical Laffer curve. Thus, in the 21st century the "capacity" part of the trust parameter  $q$  is very low. Hence it is more difficult to gain back the support of those who shifted their support to populist protectionist parties.

In all historical cases it is the case that the populist campaigns focused a lot on corruption, on capture by the elites, on difficult accountability of traditional politicians, because that "objectives" component of  $q$  does not depend on the capacity component and hence regardless of the latter an anti-elite and corruption denunciation rhetoric play well as

complementary to a protectionist commitment. In other words, if a party or politician proposes itself as a credible protectionist, then it is in their campaign strategy interest to focus the campaign on further reducing  $q$  with claims or pointers to the capturability of traditional discretionary politicians by interest groups. Anti-elite rhetoric is therefore a clear complement to a policy commitment strategy, especially when running against a candidate proposing themselves as able to handle the potential consequences for some people of a free market economy that is efficient.<sup>20</sup> Given that anti-elite rhetoric is one of the key elements of what constitute the measure of populism in parties and politicians in political science, the association of populists with parties and politicians championing protection policy commitments is an “equilibrium” one.<sup>21</sup>

A similar logic could be invoked to capture the tradeoff between open and closed borders policies: on the one hand in many European countries the demographic trends and the sustainability issues for social security systems make many economists think that free movement of labor is good in the aggregate for a country, and the pros of open borders on average dominate the cons. But, on the other hand, those who fear losing the job or jobs for their children or fear lower wages may support closed borders in spite of what economists claim on the aggregate effects. And this is especially so if there is low trust in the willingness or capacity of institutions to protect potential losers in case of open competition. As the literature on social identification suggests (see e.g. Bonomi et al. (2021) and the survey by Nouri and Roland), voters who fear being on the loser side of markets switched from identifying with other poor people asking for redistribution of the winners’ money to identifying with their social or ethnic group, asking protection through exclusion of the other groups, external competitors, other groups and races, minorities. Thus, the logic behind the closed border commitment policies is very similar to that behind the closed

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<sup>20</sup>On the complementarity of policy commitments and anti-elite rhetoric and other forms of populist strategies see Bellodi et al. (2023).

<sup>21</sup>As the reader will appreciate when looking at our Lasso regression findings on parties’ manifestos, indeed protectionism is present in all populist parties in Europe and especially so after the financial crisis and on the right of the political spectrum.

market protectionist commitments. If the protectionist policy bundle on the voter's table contains also closed borders and anti-immigration stances, the difference between  $r^r$  and  $r^l$  can be expected to be even larger than in the case of protectionist economic policies alone, because a left-wing ideology is socially even more inclusive, and hence the threshold to switch to an exclusionary immigration policy is very different than that for right wing voters. This implies that when  $q$  is shocked downwards by a crisis, a disproportionately large fraction of the voters for whom the before crisis (1) did not hold and after crisis it does, are right wing.

### 2.3 The consequent cultural clashes

One of today's most pronounced cultural cleavages pits the traditional left's progressive, inclusive vision — centered on diversity and equal opportunity — against a conservative impulse to protect identity by excluding immigrants and minority cultures from the political agenda. In other words, an "open" versus "closed" society. While other external factors (see the literature review) may also have heightened this divide, our key argument is that polarization on cultural issues can emerge naturally from shifting preferences over economic openness versus protectionism, even if individual ideologies remain unchanged.

In fact, for a moderate voter with no animosity against other groups based on hate or conflict history or whatever, but simply concerned about jobs and wages and alike, the decision to endorse a protectionist policy in the economic domain goes hand in hand with a closed borders support, which naturally leads to support a politician who campaigns on a set of exclusionary commitments. Thus, even moderate people now split in supporters for exclusion vs inclusion, even though they are still the same ideologically moderate people.

While any type of economic crisis may shift individual preferences toward protectionist commitments, it is important to distinguish *which occupational groups* are primarily affected. In our simplified model with two types of agents—those with low and high baseline probability  $p$  of being a market winner—globalization shocks (e.g., the China shock) mainly

reduce  $\underline{p}$ , thereby increasing insecurity particularly among occupations already vulnerable to external competition. Financial crises, by contrast, typically affect both  $q$  and  $\bar{p}$ . Thus, the above implications for cultural division coming from the policy preferences effects extends to the classes that were not affected by the globalization shock. The increase in survey responses highlighting divisions on inclusion vs exclusion preferences is therefore potentially a simple byproduct of the extension of protection commitment preferences to the middle class.

If the model is correct, we should observe that the China shock increased reported economic insecurity mostly among the “low- $p$ ” occupations, whereas the financial crisis triggered declines across the board but relatively more for the “high- $p$ ” group. This strengthens the interpretation of cultural polarization as an indirect effect of differentiated economic shocks across occupational strata.

## 2.4 Turnout effects

In the simple theoretical framework described so far, we used the language of “preferences” for one or the other policy; but having a preference for one policy over another doesn’t necessarily mean that the voter possessing such preferences will turn out to vote. Of course in elections an important component is voters’ participation. Using the as-if-pivotal voting assumption (see e.g. Alesina and Rosenthal (1996)), combined with the standard assumption that there is an orthogonal distribution of stochastic costs of voting for citizens, the simplest theory of turnout says that a citizen can be expected to turn out to vote whenever the difference in expected utility between the policy vector championed by her favorite party and the alternative party is greater than the cost of voting realization for her. In this simple framework, the citizens who are almost indifferent between the alternatives (i.e., for whom  $r$  is very close to  $p + (1 - p)q$ ), are the least likely to vote. Thus, a downward shock in  $q$  caused by a crisis or corruption scandal is likely to cause an increase in abstention for those who had  $p + (1 - p)q > r$  before the crisis. Given the same downward

direction of the  $q$  shock for everybody, those who were previously abstaining may now be shifting to voting for a populist protectionist commitment campaign. Of course, for those citizens for whom the jump down in the expected utility of the status quo is very large, there can be a jump directly from voting one way to voting the other way, but it is more frequent to have the two effects separate, with the abstention option becoming more likely the preferred choice for those previously supporting open markets and the populist option becoming more attractive for those who were previously almost indifferent and abstaining.

Moreover, given  $r^r > r^l$ , the prediction on turnout for left- and right- wing voters when  $q$  is shocked downwards by a crisis is different: turnout of left-wing voters may go down because the distribution of  $p$  values is correlated with income and class, such that the increased fraction of potential losers is more concentrated on the left, but since  $r^l$  is lower such left-wing citizens are more likely to station in the abstention pool; on the other hand, among those right-wing voters who were close to indifferent before the crisis it is more likely that they jump over to vote for a protectionist closed markets and closed border party, since  $r^r$  is higher.

Let us illustrate the point with a numerical example.

Suppose  $\alpha = 0.5$ ,  $r^r = 0.7$ ,  $r^l = 0.4$ ; the initial  $q$  was 0.5 and the new after crisis is 0.3. Finally, suppose that among left-wing voters  $f(p)$  is simply that half have  $\underline{p} = 0.2$  and the other half have  $\bar{p} = 0.5$ . Among right-wing voters, those with  $\bar{p}$  are actually 70 percent. Thus, within this numerical example condition (1) has to be evaluated differently not only for left and right but also for  $\bar{p}$  and  $\underline{p}$  types within each ideology, hence there are four different conditions.

For a high ability right-wing citizen, the expected utility of open market is 0.75 before the crisis, hence greater than the 0.7 of protectionism; hence before the crisis all the high ability right-wing prefer open markets. Low ability  $\underline{p}$  types among right-wing citizens have 0.6 from open market, hence they prefer protectionism. On the left, all prefer open markets or borders over closed markets or borders before the crisis, because of the much lower  $r^l$ .

So, in terms of preferences between the two alternative policies, only low ability right-wing citizens prefer to close everything, but for any cost of voting  $c$  we need to zoom on willingness to turnout as well: for high ability right-wing voters the difference in expected benefit between the two alternative policies is only 0.05, hence only those in that set with very low cost realization will turn out to vote. On the other hand, for low ability right-wing people the difference in expected benefit is 0.1 (in favor of protectionism), and hence the expected turnout among right-wing voters is higher within the low ability segment. On the left, on the other hand, for high ability citizens the benefit expected gap is 0.35, and hence they likely vote, if the distribution of costs for example goes from zero to 1. Finally, among low ability left-wing people the expected benefit gap is 0.2, and hence their turnout rate is somewhere between that of high ability left-wing and that of right-wing voters. Thus, in the status quo pre-crisis only low ability right-wing people would be interested in a populist protectionist policy, and they would almost surely lose, given the higher turnout on the left and low expected turnout on the right, and hence a populist party might not even enter the race.

After the crisis, which shocks downwards  $q$  to 0.3, the picture changes:

Now **all** right-wing citizens prefer the protectionist policy, but the benefit gap is 0.05 (the opposite direction wrt pre-crisis) for high ability and 0.26 for low ability, so the high ability right-wing people have the same turnout rate as before crisis, but the turnout rate among low ability right-wing citizens jumps significantly up. On the other hand, on the left we have that the high ability types continue to prefer openness but with an expected benefit gap of 0.25, hence a reduction in turnout; and the low ability left-wing have a benefit gap of only 0.04, hence they almost all stay home rather than voting. Thus, this example clarifies that

**Remark.** *a crisis can definitely shock downwards the turnout on the left and shock upwards the turnout on the right, increasing thereby the probability of victory of a populist protectionist.*

Formally, assuming costs of voting distributed uniformly from zero to one and a discrete support for  $p \in \{\underline{p}, \bar{p}\}$ , the turnout rate within group  $\theta, j$ ,  $\theta \in \{\underline{p}, \bar{p}\}$ ,  $j \in \{l, r\}$  is

$$t_{\theta j}(q) = |\theta + (1 - \theta)q - r^j|$$

and hence expected turnout for group  $\theta, j$  increases(decreases) when  $q$  decreases if and only if (1) holds(doesn't hold) before the crisis for such a group.

Whether the market efficiency assumption holds in the status quo before crisis obviously depends on the percentage  $\alpha$  of left-wing voters, because, given the correlations mentioned above, left-wing voters typically not only have  $r^l < r^r$  but also have a lower percentage  $\beta$  of members with  $\theta = \bar{p}$ ,  $\beta^l < \beta^r$ .

Formally, MEA holds iff

$$\hat{r} < [\alpha\beta^l + (1 - \alpha)\beta^r][\bar{p} + (1 - \bar{p})q] + [\alpha(1 - \beta^l) + (1 - \alpha)(1 - \beta^r)][\underline{p} + (1 - \underline{p})q]. \quad (2)$$

With  $\alpha = 0.5, \beta^l = 0.5, \beta^r = 0.7, q = 0.5, r^r = 0.7, r^l = 0.4, \bar{p} = 0.5, \underline{p} = 0.2$  the LHS of (2) is  $\hat{r} = 0.55$ , while the RHS is  $0.60.75 + 0.40.6 = 0.7$ , hence MEA holds. If the crisis is such that  $q$  drops to 0.3, then the RHS drops to  $0.60.65 + 0.40.44 = 0.566$ , and hence MEA continues to hold in the numerical example even after the big drop in  $q$ .

Let us now compare the probability of winning for a party proposing the closure commitment before and after the crisis. With  $q = 0.5$  the expected turnout of voters supporting the closure commitment is  $(1 - \alpha)(1 - \beta^r)t_{\bar{p},r}(0.5) = 0.015$ , whereas the total expected turnout in favor of the open market status quo (defended by traditional parties based on MEA rhetoric) is  $(1 - \alpha)\beta^r t_{\bar{p},r}(0.5) = 0.0175$  plus  $\alpha[\beta^l t_{\bar{p},l}(0.5) + (1 - \beta^l)t_{\underline{p},l}(0.5)] = 0.34$ . Thus, with these expected turnouts, the probability of winning for the closure party is almost zero. Hence, as intuitively argued below, one might not even expect the closure party to materialize in the electoral race in the first place before the crisis.

After the crisis, expected turnouts change as follows: now the right-wing are all in favor

and their total expected turnout is roughly 0.21, where the left is all against but turnout drops to below that, and hence the probability of winning for the closure commitment proposer is significant and entry by populist protectionist party is guaranteed.

While the example computations above are made by assuming that a crisis shocks only  $q$ , it is easy to obtain a similar example even for the case in which a crisis also shrinks  $\bar{p}$ .

To illustrate the example in a compact way, Table 1 reports the expected utility from the open market status quo, the utility from protectionist policies, and the resulting preference and turnout gap for each type of voter. The table compares outcomes before and after a crisis that reduces  $q$  from 0.5 to 0.3, using the same numerical assumptions discussed above. The turnout gap corresponds to the absolute difference in utility between the preferred and alternative option, which directly maps into the share of individuals within each type expected to vote under the uniform cost distribution assumption.

Table 1: Voter preferences before and after the crisis

<b>Panel A: Before crisis (<math>q = 0.5</math>)</b>					
Type ( $\theta, j$ )	Description	$U(s)$	$r^j$	Preference	Turnout gap $ U(s) - r^j $
$(\underline{p}, l)$	Left, low ability	$0.2 + 0.8 \cdot 0.5 = 0.6$	0.4	Open market	0.2
$(\bar{p}, l)$	Left, high ability	$0.5 + 0.5 \cdot 0.5 = 0.75$	0.4	Open market	0.35
$(\underline{p}, r)$	Right, low ability	$0.2 + 0.8 \cdot 0.5 = 0.6$	0.7	Closure	0.1
$(\bar{p}, r)$	Right, high ability	$0.5 + 0.5 \cdot 0.5 = 0.75$	0.7	Open market	0.05
<b>Panel B: After crisis (<math>q = 0.3</math>)</b>					
Type ( $\theta, j$ )	Description	$U(s)$	$r^j$	Preference	Turnout gap $ U(s) - r^j $
$(\underline{p}, l)$	Left, low ability	$0.2 + 0.8 \cdot 0.3 = 0.44$	0.4	Open market	0.04
$(\bar{p}, l)$	Left, high ability	$0.5 + 0.5 \cdot 0.3 = 0.65$	0.4	Open market	0.25
$(\underline{p}, r)$	Right, low ability	$0.2 + 0.8 \cdot 0.3 = 0.44$	0.7	Closure	0.26
$(\bar{p}, r)$	Right, high ability	$0.5 + 0.5 \cdot 0.3 = 0.65$	0.7	Closure	0.05

*Notes:* Each row in the table reports the expected utility from the open market status quo  $U(s) = \theta + (1 - \theta)q$  for a given voter type  $(\theta, j)$ , where  $\theta \in \{\underline{p}, \bar{p}\}$  denotes ability (or perceived benefit from openness), and  $j \in \{l, r\}$  denotes ideology. The table compares this to the utility from protectionist policies  $r^j$  and indicates which policy is preferred by the voter (based on which utility is higher), along with the absolute utility difference between the two options (Turnout gap), which determines the likelihood of turning out under the assumption of uniformly distributed voting costs. A higher turnout gap implies a greater incentive to vote. The table highlights how a crisis-driven decline in  $q$  can shift preferences toward protectionism among right-wing voters and simultaneously reduce turnout among left-wing voters, thereby increasing the relative electoral viability of populist protectionist parties even if the open market equilibrium remains efficient.

An important note about this example: it shows that even after a big negative shock in trust  $q$  in the objectives and or capacity of institutions to make inclusive welfare policies work, the open market status quo can still remain the efficient solution (MEA holds even

with  $q = 0.3$ ; but the probability of winning (and hence the incentive to enter) for a right wing populist party with a closure bundle of policy commitments jump up significantly. This is exactly what we observe in the data.

## 2.5 Entry of populist parties

Like for voters, obviously there is a cost of entry also for a political party (organizational cost and opportunity costs). Intuitively, the expected benefit from entering on the competitive supply of politics with a protection commitment campaign is larger, hence outweighing the costs, the larger the pool of citizens who could turn out to vote for them conditional on running. Thus, given the above analysis, it is natural that drops in  $p$  or  $q$  eventually enlarge enough the pool of disillusioned voters such that entry occurs. Thus, if the financial crisis caused a reduction of  $p$  for a new class of voters and a reduction of  $q$  for all, it is natural to expect the financial crisis as a moment of great endogenous transformation also on the supply side.

Moreover, in principle multiple protection policy commitments could come to the voter's table, perhaps one championing almost exclusively economic protection commitments like tariffs, quotas etc, while another bundle of protection commitments by another (typically more right-wing) party includes anti-immigration commitments of a brutal type and other social exclusion policies on other dimensions. The intuitive reason why in a country both a left-wing populist party with weaker closures on the social dimension and a right-wing populist party championing a tougher set of exclusionary policies may simultaneously or sequentially decide to enter the electoral race after a big crisis relates to the turnout message conveyed by the above example: left-wing voters if they find the status quo depressing may simply abstain if the only protection alternative on the table has ugly components of anti-diversity, anti-pluralist, anti-integration stances, hence if there exists only a tough right-wing populist option the predicted asymmetric turnout effects described above are unavoidable.

A populist party with softer closures on the social dimension can instead attract those depressed and abstaining left-wing voters. Since the entry conditions depend on too many factors outside our model, we do not attempt to obtain a set of sufficient conditions for existence in equilibrium of one or two or more populist parties on one or both sides of the ideological spectrum, but it is clear that such sufficient conditions always exist, and hence in the empirical analysis we expect to find evidence of greater appeal for populist parties coded to be on left or right for voters of the two sides. Thus, ideology simply partitions incentives.

## 2.6 Transition to empirics

We present empirical evidence supporting the predictions of our simple model. The survey data described below quantify economic insecurity across occupations before and after the crisis. Because populist parties did not gain the power to immediately change policy in its aftermath, we can map these measures of insecurity directly on our theoretical framework as follows: the economic security of an individual of type  $\theta$  at a time with trust  $q$  is given by  $e_\theta(q) = \theta + (1 - \theta)q$ . Denoting by  $\bar{e} = e_{\bar{p}}$  and  $\underline{e} = e_{\underline{p}}$ , our arguments above point to the fact that the globalization and automation shocks should be expected to affect downwards  $\underline{e}$ , whereas the financial crisis affects  $\bar{p}$  and  $q$  probably more, and hence empirically we should see a significant change in  $\bar{e}$  around the financial crisis.  $\bar{e}$  could for example be constructed from the survey responses as the average level of economic security declared by individuals with an age earning profile above the median.

In the empirical analysis we will also need to consider voters' preferences and participation decisions when multiple populist parties exist. In particular, when a populist party positions itself on the left but embraces protectionist economic policies — without adopting the exclusionary or deportation measures that left-wing voters oppose — we would expect left-wing turnout to rise. In this scenario, voters' perceived utility from a "softer" protectionist platform exceeds their utility under the status quo.

Even if the radical right-wing party and the moderate populist-left party split the protectionist vote, the overall shift in demand toward closure policies makes it more likely that some form of protectionism becomes politically dominant. Stylized predictions on convergence toward protectionism follow naturally: when economic insecurity is widespread, even voters with inclusive social preferences may favor market closure—if such a policy is offered in an acceptable ideological form.

### 3 Data and Important measurement choices

The individual data is primarily drawn from the European Social Survey (ESS), which systematically tracks socioeconomic status, opinions, and attitudes. It is carried out in all European countries as repeated cross-sections, though not every country participates in every wave. Data has been collected by means of face-to-face interviews biannually since September 2002, where a random sample of individuals is surveyed each time. Sample size varies by country, ranging from 1,000 for smaller countries to 3,000 for larger ones. To study the dynamics of populist party support, we use all eight waves up to 2016.

We extract from them a synthetic panel after grouping people into 14 5-year birth cohorts of men and women in each country, as in Deaton (1985). These waves cover the full cycle preceding and following the financial crisis. By 2016, almost all European countries had recovered to the levels of income prevailing in 2006 and, as we will show, by 2016 individual economic insecurity was back down to pre-crisis values. The ESS questionnaire consists of a core module, which is fixed from round to round, and smaller-scale rotating modules on selected topics that are repeated at intervals. We focus on the core module, which covers a wide range of social, economic, political, psychological and demographic variables. Table 2 presents the descriptive statistics.<sup>22</sup>

**Voter choice and turnout.** The ESS asks respondents whether they voted in the last

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<sup>22</sup>A more detailed description of the data used can be found in Appendix B.

Table 2: Descriptive statistics

	Obs.	Mean	St. Dev	Median
<i>ESS Dataset</i>				
Economic Insecurity (PC)	2,310	0.22	0.09	0.22
Instrument	2,310	2.48	0.60	2.59
Turnout	2,310	0.80	0.12	0.83
Populist Vote	2,310	0.08	0.11	0.03
Trust Parties	1,981	3.41	1.10	3.32
Trust Politician	2,310	3.46	1.06	3.39
Trust Parliament	2,310	4.30	1.15	4.28
Trust (PC)	1,981	0.34	0.11	0.34
Importance Adventure	2,310	4.13	0.54	4.12
Population Region (thousands)	2,310	2262	2295	1223
TV Total	2,310	4.41	0.76	4.39
TV Politics	2,310	2.19	0.57	2.12
Left-Right Orientation	2,310	5.16	0.61	5.15
Age	2,310	54.66	16.25	54.60
Education	2,310	11.93	2.37	12.44
<i>EU-SILC Dataset</i>				
Age	3,097,970	48.49	18.56	48.00
Income	1,053,770	12734	14583	9376
Marital status	3,079,617	0.56	0.50	1.00
Education	3,004,680	2.85	1.30	3.00

*Notes:* Authors' computations based on from the European Social Survey (ESS) data, and the European Union Statistics on Income and Living Conditions (EU-SILC) data.

parliamentary election in their country and which party they voted for.<sup>23</sup>

This provides us with an indicator of turnout and an indicator of voting for a populist party. The method for identifying these parties is described in detail below.<sup>24</sup>

**Age earnings profiles.** As discussed in Section 6, constructing the instrument for economic insecurity requires individual panel data with well-measured labor income for each European country in the sample. This is obtained from the European Union Statistics on Income and Living Conditions (EU-SILC), which covers the period from 2003 to 2012. The

<sup>23</sup>An important characteristic of the ESS repeated cross-section data is that each individual is asked which party they voted for in the *last* parliamentary election, as well as their *current* level of economic insecurity. Since ESS interviews are performed every two years, some adjustments are needed. In particular, two problems might arise: (i) cases in which multiple waves are associated with the same election, and (ii) cases in which the election happened too far in advance of the survey. For these reasons, we attach to each election in each country only one wave of interviews, with a maximum lag of 2 years between the wave and the election. See Appendix C for details and examples of this problem in the data. In the same appendix, we test the robustness of our analysis to modifications of this correction method.

<sup>24</sup>Responses to the ESS do not necessarily correspond to the respondents' actual choices. The correlation between turnout in the ESS and actual turnout is however quite high at 78%. The correlation between ESS votes for populist parties conditional on participation and the actual voting choice is even higher at 80%.

main purpose of the EU-SILC is to collect information over time on labor market experiences and outcomes for a representative panel of individuals in each European country. In particular, it collects annual data on employment spells and labor earnings, apart from a wealth of demographic characteristics. Since we know the year of birth, gender and country of the respondents, we can use EU-SILC to retrieve several variables for our synthetic panel, particularly  $\beta_k$ , the steepness of the age-earnings profiles for each occupation  $k$ , and  $s_{jkc}$ , the occupation weights for each cohort and country prior to the 2008 financial crisis. To reiterate, the age-earnings profile is a very relevant parameter for an occupation, because the steeper it is, the more it suggests that people in this occupations rely on credit markets at early stages to smooth consumption and for investment. Hence, based on our theory, the cohorts with a large fraction of workers in this type of occupation group should show a particular sensitivity to the financial crisis.

**Controls.** Two proxies for voters’ ability to understand the pitfalls of the populist platforms are used as controls: education and a measure of attention devoted to politics (details in Appendix B). We also control for age dummies, risk tolerance, and left-right orientation. Education is measured by four dummies indicating quartiles of the education distribution. The measure of attention devoted to politics is captured by two variables: hours per week devoted to watching TV in general, and the portion of those hours spent watching news or programs about politics and current affairs.<sup>25</sup> Watching TV in general is taken as a proxy for low interest in politics, and thus being poorly informed about political platforms. The portion of hours spent watching the news and programs about politics, is used to proxy information level. Voting for an anti-establishment party may entail some risk and therefore may appeal more to risk-loving voters. Similarly, sensitivity to policies that offer short term protection at the expense of long term benefits likely depends on individuals’ subjective discounting. Four age dummies for cohort age quartile are used as a proxy for subjective discounting, on the assumption that older people are less likely to

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<sup>25</sup>For the eighth wave of the ESS, we use the variables “internet use time” and “time spent watching/listening to/reading the news”, as the questions on media use have been slightly changed in this wave.

bear the future cost of current policies. The ESS indicator of whether people consider it important to avoid taking risks is used as a proxy for risk tolerance. In all the regressions, we control for political orientation, as measured on a scale from 0 (far left) to 10 (far right).

**Economic insecurity.** We use three indicators from the ESS data to construct the economic insecurity variable: 1) whether the voter has been unemployed at some time in the past five years, thus forcing him to search for a new job; 2) a measure of financial distress, based on whether the respondent finds it hard to live on her current income,<sup>26</sup> and 3) an indicator of exposure to the business cycle, based on type of employment, industry and skill level, such that low-skilled workers in manufacturing are most exposed. The indicator takes a value of 1 if the individual is a blue-collar worker in manufacturing and 0 otherwise. We will find it useful to combine these three objective measures of financial and economic distress into a single composite index of economic insecurity. This will be done by taking the first principal component and rescaling it to vary between 0 (least insecure) and 1 (most insecure). By using this measure, we are agnostic about the specific factor causing economic insecurity. This composite index maps closely to the theoretical construct  $e_\theta(q) = \theta + (1 - \theta)q$ , which captures perceived economic security as a function of a voter’s market position ( $\theta$ ) and trust in government ( $q$ ). Hence, our measure of economic insecurity empirically proxies for low values of  $p$  and/or  $q$  in the theoretical model.

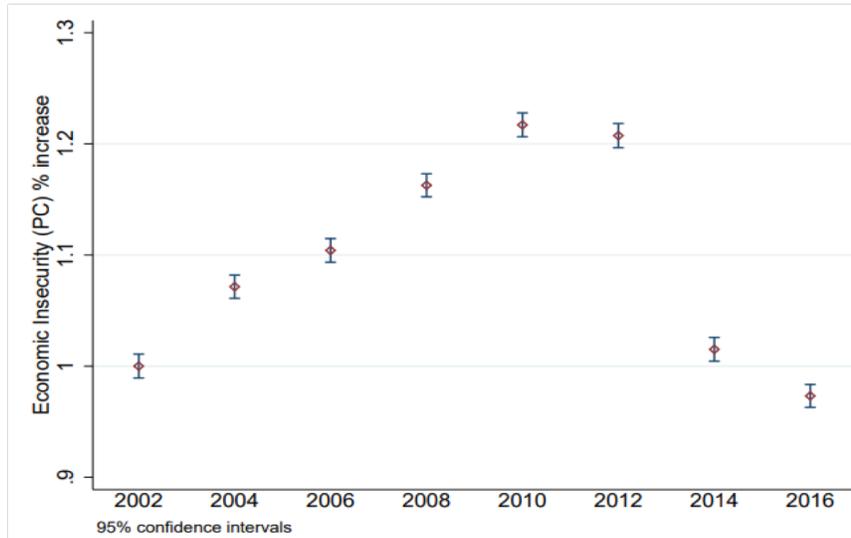
Figure 3 shows the time profile of our index of economic insecurity using individual-level data when we pool the data in our full sample of European countries. The index is on the rise in the early 2000s, presumably as a consequence of the globalization shock but notably, it jumps significantly with the onset of the financial crisis. Indeed, in 2010 and 2012 it is 20% higher than it was in the first wave of the ESS in 2002. Economic insecurity reverts to the level prevailing in 2002 after the 2014 wave, by which time most countries had recovered from the great recession.

**Parties.** To identify populist parties in Europe, we rely on the PopuList which was

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<sup>26</sup>Answers range from 1 (“*Living comfortably on present income*”) to 4 (“*Finding it very difficult on present income*”).

Figure 3: Economic Insecurity by Year



Notes: The figure plots the average level of economic insecurity by ESS survey year, along with 95% confidence intervals. Values are normalized to percentage increases relative to the base year.

proposed by Rooduijn et al. (2019) and is available at [www.popu-list.org](http://www.popu-list.org). The PopuList is a list of populist European parties that obtained at least 2% of the votes in at least one national parliamentary election since 1998. Peer-reviewed by more than 30 academics, the list is kept up to date with changes in the classification of individual parties over time. Thus, it is a reliable source of information and well-suited to our needs. Rooduijn et al. (2019) base their classification of populist parties on criteria derived from the classic definition provided by Mudde (2004).<sup>27</sup> We were able to identify 121 populist parties in the sample of 30 countries examined. The full list of parties can be found in Appendix D.

**Manifestos.** The parties’ policy positions were obtained from the Manifesto Project<sup>28</sup>, which provides a content analysis of parties’ electoral manifestos in electoral years. The data covers over a thousand political parties starting from 1945. It relies on textual analysis to identify a party’s position on a large number of issues grouped into seven domains. The process yields a total of 56 variables.<sup>29</sup> Each variable is assigned a score that increases

<sup>27</sup>Mudde (2004) defines a party as populist if (a) it endorses idea that society is ultimately separated into two homogeneous and antagonistic groups: “the poor” and “the corrupt elite,” and (b) it argues that politics should be an expression of the general will of the people.

<sup>28</sup><https://manifesto-project.wzb.eu/>

<sup>29</sup>The seven domains are: External Relations; Freedom and Democracy; Political System; Economy;

with the party's support of that issue. There are sometimes separate scores measured for positive and negative mentions in the parties' manifestos.<sup>30</sup> In order to examine the change in the parties' positions, we selected one manifesto prior to 2008 and one subsequent to 2008. More specifically, we choose the manifesto closest to 2006, but (strictly) before 2008, and the one closest to 2013, but (strictly) after 2008.

## 4 Voter Turnout/Abstention

In this section, we take an in-depth look at voter turnout, which has largely been neglected in the literature, and at how it interacts with economic insecurity and populist voting. The analysis here tends to be more descriptive, a stronger identification analysis is presented in the subsequent sections.

The pseudo-panel consists of 840 age/country/year-of-birth/gender groups/cohorts. Cohorts are relatively large, with an average of 358 observations and therefore measurement error in the cohort is likely to be negligible. Dropping cohorts with fewer than 50 observations (4.8% of the total) does not alter the results.

In Table 3, we split cohorts between left- and right-oriented individuals and compute average turnout in elections taking place before and after the financial crisis, and the rise in economic insecurity. The table suggests that the drop in turnout took place almost entirely on the left. Thus, although voter turnout is on average higher among left-oriented voters, the crisis reduced their participation rate by 1.56 percent. In contrast, turnout among right-oriented voters hardly changed (and if anything increased slightly). This suggests that left-leaning voters suffered greater disappointment with traditional political parties, which was not tempered by the appearance of populist parties. This first descriptive finding is in line with our theory: the crisis reduces both  $p$  (for some occupations in

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Welfare and Quality of Life; Fabric of Society; Social Groups.

<sup>30</sup>For example, the variable "Traditional Morality: Positive" measures a party's "Favourable mentions of traditional and/or religious moral values" in its manifesto while "Traditional Morality: Negative" measures "Opposition to traditional and/or religious moral values".

particular) and  $q$ , and hence those who shift to the demand of protectionism of populist parties are disproportionately among low income categories and occupations, and it makes sense to observe that turnout decreases mostly on the left: it is voters who previously supported open markets with welfare redistribution who become less convinced and move into the abstention pool, while some of the low-prospects individuals who were previously abstaining now start turning out, but mostly for right wing parties who champion closure commitments. Hence both sides of the descriptive finding are consistent with the theory.

Table 3: Decrease in voter turnout

	Left	Right
Pre	0.834	0.744
Post	0.821	0.746
<i>% change</i>	<i>-1.56%</i>	<i>0.27%</i>

*Notes:* The table shows the pre- and post-crisis average level of turnout among left- and right-oriented individuals, together with their relevant percentage change.

To better understand this phenomenon, we first compute the cohort-specific growth rate in abstention in the vicinity of the crisis by comparing the first election after the financial crisis with the last one before it, which is denoted as *abstention growth* $_{jct}$ . We then create a country dummy that takes a value of 1 if in that period there is an increase in the number of populist parties available to voters, and denote it as *new populist party* $_{ct}$ . With those variables in hand we estimate the following specification, and present the results in column 1 of Table 4:

$$abstention\ growth_{jct} = \delta_1 \mathbf{x}_{jct} + \delta_2 new\ populist\ party_{ct} + f_t + u_{jct} \quad (3)$$

where  $j$  is the cohort,  $c$  is the country, and  $t$  is time. The variable  $\mathbf{x}_{jct}$  is a vector of time-varying voter controls (described in Section 3), while  $f_t$  are wave fixed effects. In column 2 we replace *new populist party* $_{ct}$  with a somewhat different dummy, which takes a value of 1 when the number of leftists (rightist) populist parties available to left-leaning (right-leaning) voters increases in that period. Column 2 shows that this magnifies the

effect on turnout. Apparently, the drop in turnout following the financial crisis shock is smaller in presence of a populist party on the same side of the political spectrum as the voter.

Table 4: Increase in voter abstention

Dependent variable	(1)	(2)
	Abstentionism growth rate	
Estimation	OLS	
New populist party	-0.561** (0.271)	
New populist party same orientation		-0.784*** (0.225)
Obs	659	659
Wave FE	Yes	Yes
Controls	Yes	Yes

*Notes:* OLS estimation. Dependent variable: Abstentionism growth rate (comparing the first election after the financial crisis with the last one before it). *New populist party* is a dummy equal to 1 if there is an increase in the number of populist parties for that country-year. *New populist party same orientation* is a dummy equal to 1 if there is an increase in the number of populist parties of the same orientation as the cohort for that country-year. In all regressions, we control for wave fixed effects, together with cohort-level time-varying controls described in section 3. Table A10 in Appendix 1 presents the control variables' coefficients. Errors are clustered at the cohort level.

These correlations are consistent with the idea that the presence of populist parties mitigated the disappointment of voters on the left and the right, and reduced abstention but only if those populist parties had the same ideological orientation as the voter. A populist right-wing party is one championing exclusionary policies on both economic and social dimensions, and hence if the supply contains only right-wing populist parties, then left-wing voters are more likely to react to a crisis simply by abstaining more.

Table 5 enriches the evidence on the dynamics of voter turnout and choice by splitting the cohorts into two groups: high abstainers, denoted by *HA*, which are the cohorts in each country with the highest abstention rate in the last election before the crisis<sup>31</sup> and the complement set of cohorts, denoted by *O*. We calculate the change in abstentionism for each of the two groups between the current and the following election. Panel (a) shows that abstentionism increases by 9% in the *O* group relative to the pre-crisis level; in contrast, it falls by a remarkable 29% in the *HA* group. Panel (b) shows the mean vote

<sup>31</sup>These individuals – who were already high abstainers even before the financial crisis – are likely to be those who had been particularly affected by previous economic shocks.

shares received by populist parties in elections before and after the crisis for each group. Populist vote share increases by 32% in the  $O$  group, but increases by twice as much (65%) in the  $HA$  group, suggesting that populist platforms were particularly appealing to disappointed voters. In panel (c) and (d) we split the  $HA$  group into two, according to level of economic insecurity (EI).<sup>32</sup> Panel (c) indicates that the drop in abstentionism in the group  $HA$  is similar in both subgroups at about 30%. On the other hand, there is a significant difference between the two subgroups in terms of vote choice: voting for populist parties increases by more than 100% among voters with high  $EI$ , compared to only 20% among those with *low EI*. These data anecdotally suggest that when a populist alternative was available, disappointment translated into a remarkable increase in support for populist parties among the most insecure cohorts. This also motivated them to vote, thus driving abstentionism down. Put differently, the emergence of populist parties mitigated the drop in turnout due to disappointment with traditional parties. Furthermore, these additional votes tended to go to populist parties.

## 5 Empirical Framework and Identification Strategy

To complement the descriptive analysis above, we now test more rigorously whether increased economic insecurity during the great recession in Europe affected voter preference for populist parties and voter turnout. We estimate the following panel-data model:

$$v_{jct} = \gamma_1 \mathbf{x}_{jct} + \gamma_2 EI_{jct} + f_j + f_c + f_t + u_{jct} \quad (4)$$

where  $v_{jct}$  is a generic outcome variable (voting for a populist party, turnout, or trust in the political system) for cohort  $j$  in country  $c$  in year  $t$ ,  $\mathbf{x}_{jct}$  is a vector of time-varying voter controls,  $EI_{jct}$  is the index of economic insecurity, and  $u_{jct}$  is an error term that

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<sup>32</sup>*High-EI* cohorts are those above the median of economic insecurity, and *low-EI* cohorts constitute the complementary set.

Table 5: Abstentionism and economic insecurity

Panel (a): Abstentionism

	High Abstainers	Other
Pre	0.373	0.172
Post	0.263	0.188
	-29%	9%

Panel (b): Populist Vote

	High Abstainers	Other
Pre	0.054	0.072
Post	0.089	0.095
	65%	32%

Panel (c): Abstentionism

	High Abstainers - high EI	High Abstainers - low EI
Pre	0.450	0.290
Post	0.320	0.202
	-29%	-30%

Panel (d): Populist Vote

	High Abstainers - high EI	High Abstainers - low EI
Pre	0.057	0.050
Post	0.116	0.060
	104%	20%

*Notes:* In Panel (a) we compare the pre- and post-crisis average levels of abstentionism among *High Abstainers* (which contains for each country the cohorts with the highest abstention rate in the last election before the crisis) and *Other* (the complement set of cohorts). In Panel (b) we make the same comparison in terms of Populist Vote. In the last two panels we replicate the analyses on Abstentionism, Panel (c), and Populist Vote, Panel (d) but focusing on *High Abstainers* only, splitting them among *High Abstainers - high EI* (who are above the median of economic insecurity within the *High Abstainers* group) and *High Abstainers - low EI* (the complement set).

varies across cohorts, countries and time. Unobserved heterogeneity is controlled for by the cohort-specific fixed effects  $f_j$ . We also include country fixed effects ( $f_c$ ) and wave fixed effects ( $f_t$ ) in order to capture common trends in the outcome variables and in economic insecurity and systematic differences in both across countries.<sup>33</sup>

Any effect of economic insecurity on the outcome variable stems from the correlation between changes over time in the economic insecurity of the various cohorts and the corresponding change in the outcome variable. OLS estimation would produce a consistent estimate of the parameter  $\gamma_2$ , which captures the causal effect of economic insecurity on the outcome variable, only if, conditional on the controls and fixed effects, economic insecurity is uncorrelated with the error term. There are two reasons why this may fail: first, despite the presence of cohort-level time-varying controls, the control function may not capture all relevant variables that affect the change in the outcome and therefore some may end up in the error term and may be correlated with economic insecurity (known as omitted variable bias). The second realistic possibility is measurement error in economic insecurity. As we will discuss in the next section, we use various proxies to gauge individual economic insecurity, yet precisely because they are proxies they are likely to imperfectly capture the true state of an individual economic insecurity.

In order to address the above problems, and in order to focus on the financial sources of economic insecurity, we propose a new instrument. This involves exploiting the heterogeneity across members of the different cohorts in terms of exposure to the financial crisis, in order to generate the instrument and obtain exogenous variation in each cohort's economic insecurity. Specifically, we rely on the idea that individuals who are more dependent on external financing tend to be hit harder by the tighter restraints on borrowing during a financial crisis. To obtain a measure of dependence on external finance we leverage on the idea that individuals that face steeper age earning profiles need to borrow more intensively

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<sup>33</sup>Notice that we cannot control for time-country fixed effects. This is because the synthetic panel is constructed by averaging individual level variables by cohort-country-wave. Hence, the cohort fixed effects and the country-wave fixed effects will absorb all the variability in the data.

in order to smooth lifetime consumption or invest at early stages. Accordingly, they suffer more when a financial shock hits the economy compared to individuals with less steep income profiles. We exploit variation in the steepness of the income profile across types of occupations; e.g. originating by differences across occupations in education requirement, or on the job accumulation of human capital in the tradition of Becker (1962), and Mincer (1975).

## 5.1 Building the instrument

Let  $\beta_k$  denote the steepness parameter of the age-earnings profile of workers in occupation  $k$  and let  $s_{jkc}$  denote the share of workers that belong to cohort  $j$  in country  $c$  who are employed in occupation  $k$ , relative to all workers in the cohort at the beginning of our sample. Our instrument is then:

$$z_{jct} = y_{ct} \left( \sum_{k=1}^K \beta_k s_{jkc} \right) \quad (5)$$

where  $y_{ct}$  is country  $c$ 's GDP in year  $t$ , which is set to 1 in 2008. Hence it captures the dynamics of GDP in a country relative to 2008 and differences across countries in terms of the crisis' impact on the country's economy. The instrument allocates the shock to a country's GDP among the various cohorts according to the relative importance of the various occupations in each cohort and the exposure of each occupation to financial shocks. Hence, when a country's GDP falls following the onset of a financial crisis, cohorts that have a higher incidence of occupations with greater dependence on external financing should experience a larger increase in economic insecurity. In other words, the instrument  $z_{jct}$  should correlate negatively with cohort economic insecurity  $EI_{jct}$ . In Section 6, we discuss in detail how the measures of  $\beta_k$  were obtained and how we constructed the instrument.

To build the instrument, we first use the EU-SILC panel data for the period 2003-2012 and estimate for each of the two-digit ISCO occupation codes (comprising 26 occupations)

the following model of labor income:

$$y_{ict}^k = \alpha_0^k + \alpha_1^k Z_{ict} + \beta^k \log(\text{age})_{ict} + f_i + f_t + \varepsilon_{ict}^k \quad (6)$$

where  $k$  is occupation,  $i$  is the individual,  $c$  is the country, and  $t$  is time. The variable  $y_{ict}$  is logged labor income,  $\text{age}_{ict}$  is the individual's age, and  $\varepsilon_{ict}$  is the residual shock to labor income. The model also includes an individual fixed effect  $f_i$  which captures relevant time-invariant individual characteristics, a vector  $Z_{ict}$  of controls which include time-varying individual demographics (marital status and education, which vary over time for some members of the sample), and year fixed effects ( $f_t$ ) reflecting business cycle and aggregate productivity dynamics.

From this estimation, we retrieve the slope of the profile  $\hat{\beta}^k$ . The estimated values of  $\beta^k$  range from 1.99 to 4.37, with a mean of 3.18 and a standard deviation of 0.53, suggesting that there is a remarkable degree of heterogeneity in ISCO occupation age-earnings profiles. At age 40, an extra year on the job is associated with an increase in labor income that ranges from 5% in the occupation with the flattest profile to 11% in the occupation with the steepest. Table A4 in Online Appendix E lists the occupations and their relative  $\hat{\beta}^k$ .

We next use the EU-SILC 2003, 2004 and 2005 waves, for each cohort  $j$  and country  $c$ , to compute the weights  $\hat{s}_{jkc}$ , i.e. the share of workers in occupation  $k$  belonging to cohort  $j$  in country  $c$ , prior to the financial crisis shock. We then compute the instrument:

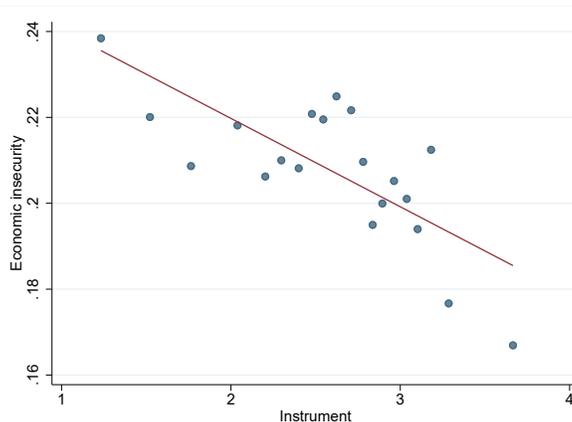
$$\hat{z}_{jct} = y_{ct} \left( \sum_{k=1}^K \hat{\beta}^k \hat{s}_{jkc} \right). \quad (7)$$

This instrument captures exogenous variation in  $EI_{jct}$  that corresponds to theory-based shocks to  $p$  and  $q$ : occupations with steeper earnings profiles rely more on financial access in early stages, making them more vulnerable to a fall in perceived success probability  $p$  and in institutional support  $q$  after a financial crisis.

Figure 4 presents a bin scatter plot of the instrument plotted against the index of eco-

conomic insecurity across the cohorts in our sample, highlighting a clear negative correlation between the instrument and economic insecurity. Thus, cohorts with a higher than average share of individuals in occupations characterized by steep age-earnings profiles experienced a greater increase in economic insecurity when the financial crisis reduced a country’s GDP, that is, when  $y_{ct}$  dropped below 1 in the years following the financial crisis.

Figure 4: The instrument and economic insecurity



*Notes:* The figure shows the bin scatter plot of the instrument (equation 7) against the index of economic insecurity across the cohorts in our sample.

Table 6 presents the results of regressing the instrument against economic insecurity, where the first column controls for cohort, country, and wave fixed effects, and the second adds the cohort-level time-varying controls described in Section 3, thus reproducing the first stage of our IV estimation. The instrument has the expected sign and is highly statistically significant, suggesting that we are likely to have enough power to use this instrument in regressions estimating the effect of economic insecurity on voting and the other outcome variables.

## 6 The Financial crisis and voters’ reaction

We begin our empirical analysis by documenting a salient descriptive pattern: the evolution of economic insecurity across income groups in the wake of the 2008 financial

Table 6: Economic insecurity and populist vote - First stage

Dep. Variable	(1)	(2)
	Economic Insecurity	
Estimation:	OLS	
Instrument	-0.0380*** (0.00876)	-0.0368*** (0.00865)
Obs	2,310	2,310
Wave, Country, Cohort FE	Yes	Yes
Controls	No	Yes

*Notes:* OLS estimation. Dependent variable: Economic insecurity. *Instrument* is the variable computed as in equation 7. In both regressions we control for cohort, country, and wave fixed effects. In column 2, we add the cohort-level time-varying controls described in section 3. Table A11 in Appendix I includes the control variables' coefficients. Errors are clustered at the cohort level.

crisis. This provides an initial, non-parametric validation of the theoretical mechanism discussed in Section 2, before turning to more rigorous regression-based identification.

Using repeated cross-sectional data from the ESS, we construct a principal component index of economic insecurity (described in Section 3) and track its evolution across two waves: the one closest to 2006 (pre-crisis) and the one closest to 2010 (post-crisis). To capture heterogeneous effects by baseline economic status, we split individuals within each country into two groups based on whether their income is above or below the national median.

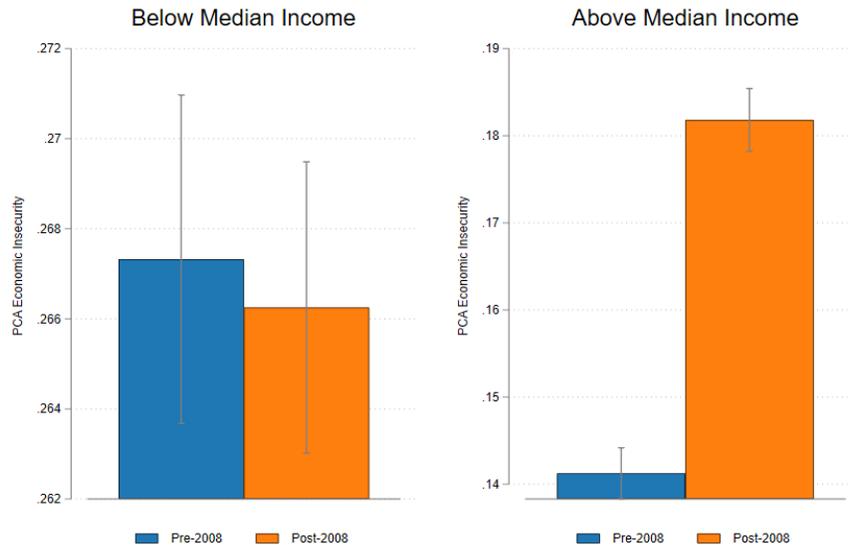
Figure 5 presents the resulting comparison. The left panel shows that among individuals below the median income, economic insecurity remains largely stable across the two periods. The small post-crisis decline is not statistically significant. In contrast, the right panel reveals a sharp and statistically significant increase in perceived insecurity among individuals above the median. Their average PCA index of insecurity rises by approximately 30%, indicating that the financial crisis caused substantial subjective economic distress even among relatively advantaged individuals.

This pattern is consistent with our theoretical framework, where the financial crisis is modeled as a common shock that reduces both the probability of market success (especially  $\bar{p}$ ) and the trust in institutional compensation mechanisms ( $q$ ). While globalization shocks mainly affect low- $p$  individuals (typically low-income), financial crises extend economic

insecurity to previously secure groups thus reducing the expected utility  $U(s) = p + (1-p)q$  for a broader segment of the population.

In what follows we test these implications more rigorously by estimating the causal effect of economic insecurity on turnout and populist voting, and by examining how political supply responded to the new distribution of insecurity.

Figure 5: Change in Economic Insecurity, Below and Above Median Income



Notes: The figure shows the average value of economic insecurity before and after the 2008 financial crisis by populist vote. The left panel shows values for individuals below the median income of their country. The right panel shows values for individuals above the median income of their country.

**Voting populist.** In light of equation (1) in the theoretical model, rising economic insecurity implies that more individuals satisfy  $r > p + (1-p)q$  and thus prefer closure policies. We test this implication by estimating the effect of  $EI_{jct}$  on populist vote shares.

Table 7 presents the estimation results for model (4) where the outcome variable is the share of votes going to populist parties. The first two columns present the OLS estimates, where the first column controls for cohort, wave, and country fixed effects while the second adds the time-varying cohort controls described in Section 3. In both cases, a cohort's support for populist parties correlates positively with the variation over time in the level of economic insecurity experienced by the cohort in a particular country. The effect is

highly statistically significant and of similar magnitude in both specifications. The other two columns show the 2SLS estimation results for the corresponding specification. The effect of economic insecurity on the populist vote is strongly positive and significant. The IV estimates show a larger effect than the OLS estimates, which is consistent with the idea that the index of economic insecurity imperfectly captures economic distress, thus resulting in attenuation bias in the OLS estimates. Based on the estimates in the last column, an increase of one standard deviation in economic insecurity leads to an increase in the populist vote of 7 percentage points, which is about 94% of the sample mean. The Kleibergen-Paap Wald F statistic reported at the bottom of the table indicates that the estimates do not suffer from a weak instrument problem.

Table 7: Economic insecurity and the populist vote

Dep. Variable	(1)	(2)	(3)	(4)
	Populist vote			
Estimation	OLS		2SLS	
Economic insecurity	0.0956*** (0.0301)	0.128*** (0.0234)	0.790*** (0.149)	0.850*** (0.193)
Obs	2,310	2,310	2,310	2,310
Wave, Country, Cohort FE	Yes	Yes	Yes	Yes
Controls	No	Yes	No	Yes
KP F			18.80	18.10

*Notes:* OLS estimation in columns 1 and 2, 2SLS estimation in columns 3 and 4. Dependent variable: Populist vote. *Economic insecurity* is the survey-based measure of economic insecurity. In all regressions we control for cohort, country, and wave fixed effects. In columns 2 and 4 we add also cohort-level time-varying controls described in section 3. Table A12 in Appendix I includes control variables' coefficients. Errors are clustered at the cohort level. Kleibergen-Paap F-statistic are reported for columns 3 and 4.

### Turnout.

Table 8 shows the estimation results for voter turnout, based on OLS (column 1) and 2SLS (columns 2-4) estimates, including in all cases all the controls (cohort, wave, and country fixed effects and time-varying cohort controls). The results indicate that an increase in economic insecurity discourages people from voting. This is true for both the OLS estimates and the 2SLS estimates. As in the case of voting populist, the IV estimate of the effect of economic insecurity is much stronger than the OLS estimate, which is consistent

with the presence of measurement error in the index of economic insecurity. From an economic perspective, the estimates in the second column imply that an increase of one standard deviation in economic insecurity reduces turnout by more than 8 percentage points, or about 10% of the sample mean.

The evidence is consistent with the idea that the economic insecurity resulting from the crisis led to disappointment with traditional political parties and as a result voters either became more receptive to populist anti-elite, and protectionist rhetoric and more likely to vote populist parties, or they became more inclined to abstain.

We next investigate whether the appearance of a populist party constitutes a valid alternative for disappointed voters, thus mitigating their tendency not to vote. In column 3, we add an indicator for whether a new populist party with the same orientations as the voters in the cohort exists in that country, as well as its interaction with the economic insecurity variable.<sup>34</sup> The results show that neither of the two variables is statistically significant. In column 4, we replace the indicator for a new populist party with one indicating whether or not a populist party appears *just after* the onset of the financial crisis. This is based on evidence, albeit weak, that the presence of a populist party of the same orientation at the onset of the crisis reduces the tendency to abstain from voting. This suggests that political orientation matters and that a populist party can more easily attract the disappointed voters who share its ideology. Among such voters, the effect of economic insecurity on turnout is 1/3 smaller (in absolute value) than among voters who do not share the orientation of the populist party (-0.976 as compared to -0.622, which is the difference between -0.976 and 0.354).

This is aligned with the model's prediction that abstention is mitigated only when voters are offered a protectionist platform with a compatible  $r^j$  value—i.e., left-oriented voters are more likely to turn out if a non-exclusionary protectionist party enters, thus raising their

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<sup>34</sup>A cohort is defined to be right-oriented if the average orientation of the cohort is above the median orientation in the country wave, and vice versa for left-orientation. This is then compared to the orientation of the populist party.

perceived utility from closure above  $U(s)$ .

Table 8: Economic Insecurity and Voter Turnout

Dep. Variable Estimation	(1)	(2)	(3)	(4)
	OLS	2SLS	2SLS	2SLS
Economic insecurity	-0.383*** (0.0514)	-0.972*** (0.306)	-0.962*** (0.306)	-0.976*** (0.313)
Economic insecurity $\times$ New populist of same orientation			0.203 (0.188)	
Economic insecurity $\times$ New populist of same orientation post-crisis				0.354* (0.179)
New populist of same orientation			-0.0426 (0.0486)	
New populist of same orientation post-crisis				-0.0788* (0.0438)
Obs	2,310	2,310	2,310	2,310
Wave, Country, Cohort FE	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes
KP F		18.10	8.97	8.94

*Notes:* OLS estimation in column 1, 2SLS estimation in columns 2-4. Dependent variable: Populist vote. *Economic insecurity* is the survey-based measure of economic insecurity. *New populist same orientation* is a dummy equal one if a new populist party exists in the country and whether it is of the same orientation as that of the voters in the cohort. *New populist same orientation post crisis* is a dummy assuming value one when the new populist appears just after the burst of the financial crisis. In all regressions we control for cohort, country, and wave fixed effects, together with cohort-level time-varying controls described in section 3. Table A13 in Appendix I includes control variables' coefficients. Errors are clustered at the cohort level. Kleibergen-Paap F-statistic are reported for columns 2-4.

**Trust and Sensitivity Analysis.** In Appendix F, we show how economic insecurity also triggered substantial distrust in politicians and political parties. Importantly, all these result survives several robustness checks (Appendix G), which include using alternative (data-driven and not self-reported) measures of economic insecurity (following Guvenen et al., 2014), potential non-random exposure to the shocks (Borusyak and Hull, 2020), and different clustering of the standard errors and/or different fixed effects schemes.

The results, taken together, lend support to our thesis that deterioration in individual economic security leads to a loss of confidence in political parties, which may in turn lead to disappointment and voters' abstention.

## 7 Supply side: the financial crisis and party dynamics

In this section, we present evidence that the political supply of populist parties was substantially altered by the financial crisis. As noted above, voters' reactions to the in-

creased economic insecurity were modified by the appearance of new populist parties. In this section, we provide a detailed account of the change by examining the platforms of all the political parties that existed during that period. For each party we examine the last platform adopted before 2008 and the first adopted after 2008. Before doing so, however, it is worth presenting some summary statistics in order to get an initial impression of the political transformation that occurred following the onset of the crisis: the number of *long lived* parties, i.e. they existed before and after the 2008 crisis, is 173; the number of *dead* parties, i.e. they existed only prior to 2008, is 92; the number of *newborn* parties, i.e. they appeared after 2008, is 152, of which 30 were populists, and the turnover ratio, i.e. the sum of *newborn* and *dead* parties divided by the pre-crisis total number of parties, in 2008 is 58%, which is notably higher than prior to the crisis. Indeed, it is 38% higher than in 2004, another watershed in which the EU was expanded.

To quantify the changes in the political platforms, we use lasso regressions and isolate the top six policy items that tend to be most associated with populist positions (whether before or after the financial crisis, or both), namely: anti-EU, protectionism, anti-internationalism, anti-multiculturalism, protection of national way of life, anti-corruption (see Appendix H for a full explanation of the methodology). Among those, anti-multiculturalism and protection of national way of life appear to be particularly relevant for populists on the right (herein “right policies”), whereas the other four are characteristics of all populist parties, although two, namely anti-EU and protectionism, are more characteristic of left-oriented populists (herein “left policies”). Anti-corruption and anti-internationalism characterize both left and right, therefore we do not include them in the comparative analysis of the two orientations.

The common feature of all six policies is that they tend to stress protection against some type of threat (immigrants/foreigners) or shock (economic, cultural, etc.). As argued by Guiso et al. (2017), this is indeed a distinctive feature of populist parties, the other being anti-elite rhetoric, as captured by the anti-corruption position.

We now take the positions of all *long lived* parties on these six issues before and after the crisis and construct a *delta policy* variable for the change in their positions. To identify possible drivers of change in a party’s position on these issues we run the following regression model:

$$\delta_{ipc} = \sigma_1 y_{ipc}^{pre} + \sigma_2 pop_{pc} + \sigma_3 left_{pc} + \sigma_4 left_{pc} \times ds_c + f_i + f_c + u_{ipc} \quad (8)$$

where  $i \in \{1, \dots, 6\}$  is the index of the issue,  $p$  is the party, and  $c$  is the country;  $\delta_{ipc}$  is the delta policy variable described above;  $y_{ipc}^{pre}$  is the party’s pre-crisis position on issue  $i$ ;  $pop_{pc}$  is a dummy for whether party  $p$  is populist and  $left_{pc}$  is a dummy for whether party  $p$  is left-oriented, and  $ds_c$  measures the difference between the average country-level 5-year sovereign CDS spread during 2009-2012 and the average country-level 5-year sovereign CDS spread during 2005-2007. This captures the deterioration in a country’s access to the bond market and thus the ability to finance fiscal policy. In other words, it is a proxy for the change in the fiscal space following the financial crisis. Finally,  $f_i$  is a policy fixed effect and  $f_c$  is a country fixed effect. The OLS estimates of equation (8) are presented in Table 9. Column 1 pools the six policies together. The pre-crisis platform is relevant to explain the change in the party’s platform: the higher the initial score for its policy - that is, the more protection-oriented it was prior to the crisis - the less “room for manoeuvrer” it has at the onset of the crisis. Populist parties, on average, appear to have changed their platform the most, with right-oriented parties moving toward greater protection. However, the effect of orientation on a party’s platform depends on the available fiscal space. In the case of a shrinking fiscal space, left-oriented parties tend to move their platform towards increased protection. Nonetheless, the regression reported in Column 1 makes no distinction between the nature of the parties’ platforms. In columns 2 and 3 we estimate the same model but separately for “right policies” and “left policies” respectively. Interestingly, in the case of “right policies”, left-oriented parties are less prone to advocate more protection in response to a crisis even when the fiscal space has tightened, as can be seen by the fact

that the interaction between the left party variable and the fiscal space proxy is no longer significant. In the case of “left-policies”, left-oriented parties advocate greater protection, which is supported by left-oriented voters when the fiscal space is shrinking, where the magnitude of the interaction term being more than 4-fold prior to that estimated in column 1.<sup>35</sup> Before the financial crisis and even more so before the acceleration of globalization, the platforms of left-oriented parties often involved spending as a way to address individuals’ economic insecurity and their demand for greater protection. Thus, a shrinking fiscal space that occurs simultaneously with a financial crisis requires a much larger re-adjustment with respect to the right, whose identity-protection policies require no spending.

These results align closely with the theoretical mechanism linking reduced fiscal capacity to lower institutional trust  $q$ , which in turn reduces support for the open market status quo. When  $U(s)$  falls below  $r^j$ , parties face incentives to shift their platforms toward protectionist policies. This shift is most pronounced among left-wing parties facing tighter fiscal constraints, as shown by the significant interaction term in column (3), and is consistent with the model’s prediction that political supply adapts when compensatory redistribution becomes less credible.

In Table 10 we compare the average scores of the platforms of *dead parties* (534 in total) to those of *newborn* parties (882 in total). The former are obviously measured prior to the crisis and the latter after it. A comparison between the two offers some insight into how the financial crisis influenced the platforms of new parties. Taking all the platforms together, we find a significant difference between the *dead* parties and the *newborn* ones. Compared to *dead* parties, *newborn* parties offer policies that are even more protection-oriented, particularly in the case of parties in high-spread countries (above the median) where fiscal space is more constrained. Focusing separately on right and left policies, we find that the right policies of *newborn* parties are no different (in level and statistically) from those of *dead* parties. Meanwhile, the left policies of *newborn* parties are

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<sup>35</sup>All the results are robust to including the interaction between the percentage delta in GDP (measured consistently using the percentage spread delta) and the variable  $left_{pc}$  as an additional control.

Table 9: Protection dynamics

Dep. Variable	(1)	(2)	(3)
	Delta Policy		
Policies analysed	All policies	Right policies	Left policies
Policy pre-period	-0.719*** (0.110)	-0.743*** (0.125)	-0.617*** (0.0912)
Populist	0.794** (0.314)	0.861 (0.747)	0.901* (0.442)
Left	-0.299** (0.135)	-0.778** (0.338)	-0.0261 (0.149)
Percentage change spread $\times$ Left	0.000482*** (0.000163)	-0.000349 (0.000445)	0.00228*** (0.000179)
Obs.	720	240	240
R2	0.410	0.513	0.318
Policy FE, Country FE	Yes	Yes	Yes

*Notes:* OLS estimation. Dependent variable: *Delta policy*, defined as the difference between the policy in the (closest) manifestos in 2013 and 2006; in column (1) all policies are included; in column (2) only left policies are included; in column (3) only right policies are included. \*\*\*, \*\*, \* = indicate significance at the 1, 5, and 10% level, respectively. *Policy pre-period* is the policy in the (closest) manifesto in 2006. *Populist* is a dummy = 1 when the party is populist. *Left* is a dummy = 1 when the party is left-oriented. *Percentage change spread* is the country-level spread (5-year sovereign CDS spread) percentage change between pre-crisis (average 2005-2007) and post-crisis (average 2009-2012) periods. All specifications include policy FE and country FE. Standard errors are clustered at the country level.

much more tilted towards protection than those of dead parties, particularly in countries with limited fiscal space (i.e. high spread countries).

Table 10: Platform comparison

Policies	Countries	Observations		Mean policies		Absolute diff means
		Dead parties	New born parties	Dead parties	New born parties	
All policies	All	534	882	0.96	1.29	0.32*
	High spread	252	410	0.47	1.09	0.62***
Right policies	All	178	294	1.89	1.76	0.13
	High spread	84	138	0.75	1.11	0.35
Left policies	All	178	294	0.36	0.75	0.39**
	High spread	14784	138	0.33	0.82	0.49**

*Notes:* The table reports the difference in (mean) policies and its significance among parties who did not survived the 2008 crisis (*Dead parties*) and parties who were born after the 2008 crisis (*New born parties*). The policies analysed are either *All policies* (anti-EU, protectionism, anti-internationalism, anti-multiculturalism, national way of life, anti-political corruption), *Right policies* (anti-multiculturalism, national way of live), or *Left policies* (anti-EU, protectionism). The comparison is performed among *All* countries and *High spread* (above the median) countries.

The results in Tables 9 and 10 are consistent with the idea that the 2008 crisis indeed led to a major shift in the supply of political parties in Europe toward populism. To test whether this is unique to the crisis we run a placebo test using the 2004 enlargement of the EU. As Guiso et al. (2016) argue, this event constitutes one of the three critical junctures

in the European construction process.<sup>36</sup> They show that it was a source of tension based on individuals' sentiments towards the EU, but that it did *not* have the same effect in the political arena. Specifically, re-estimating the same model as in equation (8), with the boundary as 2004 rather than 2008, leaves policy positions unchanged along the six dimensions of populism mentioned above.<sup>37</sup> Similarly, in comparing *newborn* and *dead* parties, the replacement of 2008 with 2004 does not lead to any significant change in populist platforms (even in the case of high-spread countries).

In sum, the difference-in-difference results presented in this section suggest that the globalization shock was not sufficient to change the platforms of *long-lived* parties significantly nor to create new parties at a faster rate. It would appear that the globalization shock affected economic insecurity only on the “market side”, leaving room for political competition on state provision of welfare protection. This is consistent with the increasing number of countries who violated the Maastricht limit on government debt following the entry of China into the WTO and prior to the start of the Great Recession.<sup>38</sup> On the other hand, the financial crisis, which was combined with (or contributed to) a shrinking fiscal space, led to much greater disillusionment also on the “state side”. Thus, the distrust in markets, as well as in state institutions that were already facing constraints, encouraged political competition which led to more radical platforms.

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<sup>36</sup>The other two are the signing of the Maastricht treaty and the Great Recession.

<sup>37</sup>To perform this exercise, we designated the election closest to 2002 but (strictly) before 2004 as the pre-election, and the election closest to 2006 but (strictly) before 2008 and after 2004 as the post-election. The change in spread is measured as the difference between the average country-level 5-year sovereign CDS spread during 2005-2009 and the average country-level 5-year sovereign CDS spread during 2002-2003.

<sup>38</sup>The number of countries violating the Maastricht threshold already jumped from 6 to 10 after the globalization shock and before the financial crisis, suggesting that the globalization shock contributed to shrinking the fiscal space available when the financial crisis arrived. The number of threshold violators jumped to 15 during the crisis, both because GDP per capita shrank and because countries accumulated debt in order to recapitalize banks during the crisis.

## 8 Entry decisions and strategic party positioning

Having highlighted the dramatic reshuffling of party landscapes following the financial crisis — with numerous parties dissolving and new ones emerging — we now turn to the mechanics of party entry. Each party faces two decisions: whether to adopt a populist platform, and, if so, where to position itself on the left-right spectrum. Once its orientation is chosen, a party’s entry decision hinges on the expected vote share it can secure under that platform. Moreover, the cost of launching a populist campaign — shaped by country-specific political and regulatory factors — also influences whether a party enters the race.

The expected share of votes will depend on the extent of voters’ disappointment with mainstream parties, itself a function of the economic insecurity that voters experience. 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. We capture the adoption and orientation decisions with the following two empirical specifications:

$$np_{ct} = \alpha \bar{d}(e_{ct}) + \beta z_{ct} + u_{ct} \quad (9)$$

$$r_{jct} = \delta_0 + \delta_1 s_{lct} \times L_{ct} + \delta_2 s_{rct} \times R_{ct} + v_{ct} \quad (10)$$

Equation (9) models entry/adoption;  $np_{ct}$  is the number of populist parties in country  $c$  in year  $t$  and is equal to zero if no populist party is present;  $\bar{d}(e_{ct})$  is the average level of voters’ disappointment - an increasing function of the voters degree of economic insecurity in country  $c$  in year  $t$ ,  $e_{ct}$ ;  $z_{ct}$  is a vector of features of the institutional and political system, possibly time-varying, that affect the cost of setting up a party with a populist platform; and  $u_{ct}$  an error term. In equation (10)  $r_{jct}$  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. Details about how we compute each of these variables are presented below. This formulation captures the idea, stressed by Rodrik (2017), that in a country a populist party chooses to position itself more to the right if there is a larger share of right oriented voters, catering towards some salient issue to which right-oriented voters are particularly sensitive, e.g. immigrants. Vice versa, it will position more to the left if the share of left oriented voters is larger and will cater to some salient issue to which these voters are responsive, such as income inequality. We will see at the end how even in the data these two separate types of policies share the protection strategy features.

The estimation of populist parties existence does not pose particular problems. Equation (9) is a reduced form regression and can be estimated using standard methods such as an ordered probit or a Poisson regression.

An issue emerges in estimating equation (10), which studies populist parties orientation, because the latter is only observed if a populist party is present. Because the presence of a populist party is endogenous, if we ignore this selection issue, there may be sorting among populist parties presence and local voters preferences. Hence the estimated orientation choice will be representative of the countries that have a populist party but not of the population of all countries. We deal with this issue by running a probit for the presence of a populist party and obtaining a Mills ratio that is then added to the choice of orientation regression as a control; the specification of equations (9) and (10) imply that valid instruments are the institutional variables in vector  $z_{ct}$  which affect the probability that a populist platform is offered.

## 8.1 Expert survey data

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 11 shows summary statistics of these measures.

Table 11: Descriptive statistics CHES

Variable	Obs.	Mean	St. Dev.	Min	Max
Rhetoric	767	4.52	2.02	1	10
Protection	633	5.38	1.17	2	9
Concealment	853	5.08	1.00	3	8
Populist 3D	633	35.91	18.30	0	100
Distance European integration	706	22.57	22.33	0	91
Distance European policy	704	36.54	43.30	0	239
Distance ideological issues	706	26.53	37.44	0	184
Distance policy issues	501	75.33	101.23	0	450
Total distance	500	48.28	76.67	0	441
Gini coefficient (percentage points)	686	29.51	4.01	23	39
Immigrants from Muslim countries (percentage points)	573	0.02	0.01	0.00	0.05

*Notes:* The table shows summary statistics of the CHES variables used.

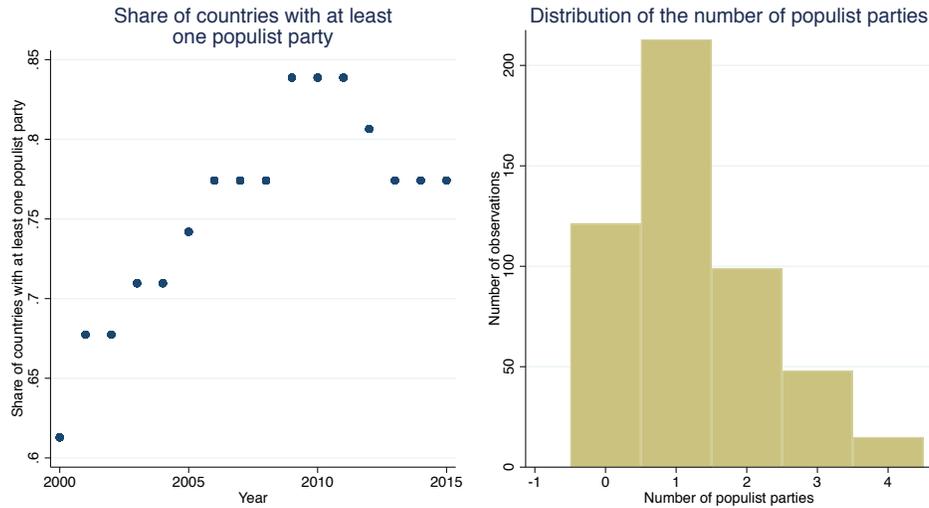
## 8.2 Presence and entry of populist parties

Populist parties are not always present. Figure 6 summarizes the temporal and cross-sectional variation in their presence across Europe. The left panel shows the share of countries with at least one populist party among the 31 in our sample. In 2000, just over 60% of countries had at least one such party; by 2009, the figure had climbed to nearly 85%, confirming that the financial crisis marked a pivotal turning point for the rise of populism in Europe. This increase is consistent with our theoretical framework, which predicts that large shocks to institutional trust and economic insecurity (declines in  $q$  and  $p$ ) can expand the pool of voters for whom protectionist platforms become attractive, thus altering entry incentives on the supply side.

The right panel displays the distribution of the number of populist parties across countries and years. It highlights considerable heterogeneity: while some countries have only one active populist party in a given year, others have as many as four or five. This variation is important for interpreting equilibrium supply responses. According to our model, when the voter base demanding protectionist commitments grows large enough, multiple entrants may emerge, occupying different ideological niches (e.g., one party with strong exclusionary

rhetoric on the right, another focused on economic protectionism from the left). Hence, the right panel not only confirms the diffusion of populism but also suggests strategic positioning and possible segmentation in the populist supply. The fat right tail of the distribution supports this view and motivates the richer analysis of entry and ideological orientation presented in the next section.

Figure 6: The Rise of Populism



*Notes:* 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.

Table 12 displays the results of the estimation of equation (9) from a Poisson model, controlling for year fixed effects (to account for the common trend in populist parties documented in Figure 6) and macro Euro-regions fixed effects,<sup>39</sup> 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 are statistically significant; they are also

<sup>39</sup>The macro Euro-regions are: South (Spain, Portugal, Italy, Greece, Cyprus, Malta), Baltic (Estonia, Latvia, Lithuania), East (Romania, Czech Republic, Poland, Bulgaria, Croatia, Slovenia, Slovakia, Hungary), and Centre-North (Germany, France, Belgium, Denmark, Sweden, Finland, Austria, Ireland, Luxembourg, Netherlands, UK, Switzerland, Iceland, Norway).

economically relevant. All else being equal, the expected number of populist changes by a multiplicative factor of 1.35, for an increase of economic insecurity of 1 standard deviation (i.e. a 35% increase in number of populist parties). An expected increase of 22% of populist parties obtains for an increase of import of 1 standard deviation. An increase in opposition vote share by 1 standard deviation decreases by 23% the expected number of populist parties. The second column shows that the results are similar proxying  $z_{ct}$  with the share of the votes going to non-aligned parties, but smaller in magnitude, i.e. 1 standard deviation increase in not-aligned vote share decrease the expected number of populist parties by 7%). The effects of measures of economic insecurity are somewhat stronger. The third column shows that the two proxies maintain their relevance and significance also when considered together. 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 12: Explaining the Rise of Populist Parties

	(1)	(2)	(3)	(4)	(5)	(6)
	Poisson	Poisson	Poisson	Ord. Probit	Ord. Probit	Ord. Probit
	Number	Number	Number	Number	Number	Number
	pop. parties	pop. parties	pop. parties	pop. parties	pop. parties	pop. parties
Economic insecurity (PC)	3.587*** (1.217)	3.907** (1.561)	3.597*** (1.282)	7.390** (2.894)	7.723** (3.229)	7.342** (3.094)
Import p.c.	0.0292*** (0.00964)	0.0380*** (0.0107)	0.0282*** (0.00931)	0.0662*** (0.0226)	0.0839*** (0.0210)	0.0673*** (0.0221)
Vote share opposition parties	-0.0197*** (0.00582)		-0.0201*** (0.00628)	-0.0394*** (0.0144)		-0.0400** (0.0179)
Vote share not-aligned parties		-0.0370** (0.0146)	-0.0391*** (0.0126)		-0.0600*** (0.0193)	-0.0732*** (0.0207)
Year FE, Euro-region FE	Yes	Yes	Yes	Yes	Yes	Yes
Observation	308	297	297	308	297	297

*Notes:* 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 dependent variable 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 and macro Euro-regions fixed effects. Columns (1)-(3) are estimated with a Poisson regression, while columns (3)-(6) using Ordered Probit. Robust standard errors are shown in parenthesis. \*\*\* significant 1% or less; \*\* significant at 5%; \* significant at 10% confidence level.

### 8.3 The choice between left and right

Our hypothesis is that the choice of entering on the left or on the right should depend on the *relative entry space*. The latter, in turn depends on the ideological orientation of the electorate and, as observes, on the salient features of the main economic insecurity determinants – e.g. a large inflow of immigrants or a globalization shock, or a marked increase in income concentration and inequality. In turn, these factors are likely to be differentially salient 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 our hypothesis on our data, we estimate model (10).

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). We predict  $\delta_1 < 0$  and  $\delta_2 > 0$ .

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. Table 13 confirms that this is indeed the case. 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 7 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

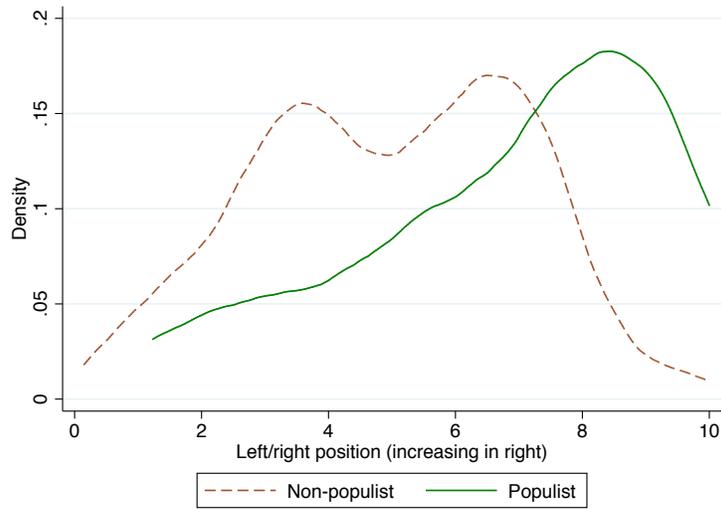
Table 13: Comparison left/right oriented

Variable	Left oriented					Right oriented				
	Obs.	Mean	St. Dev.	Min	Max	Obs.	Mean	St. Dev.	Min	Max
Share of people of [left/right] orientation	593	0.574	0.073	0.441	0.740	593	0.713	0.068	0.593	0.852
Education	593	2.482	0.113	1.951	2.641	593	2.457	0.122	1.888	2.605
Economic insecurity	585	0.230	0.076	0.101	0.450	585	0.222	0.081	0.085	0.460
Few immigrants from no-EU	593	2.488	0.305	1.692	3.297	593	2.627	0.287	1.855	3.362
Trust parties	467	3.341	1.015	1.517	5.434	467	3.406	1.071	1.349	5.698

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

density on the right.

Figure 7: Left/right orientation



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

Table 14 first column shows that the heterogeneity in populist party orientation is consistent with our hypothesis. 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 more than one unit in the scale, or 21% 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

Table 14: Populist parties' orientation choice

	Left/right orientation (increasing in right)	Left/right orientation (increasing in right)
Share of left oriented $\times$ Left-salient factor	-0.606* (0.318)	-0.608* (0.349)
Share of right oriented $\times$ Right-salient factor	249.4*** (52.86)	249.1*** (57.50)
R-squared	0.264	0.264
Mills ratios	No	Yes
Cluster SE	Country	Country
Observation	46	46

*Notes:* 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). In the second column Mill's ratio computed from a first stage Probit for the presence of a populist party using as instruments the controls in the third column of Table 12 is added. Standard errors clustered at the country level, are shown in parenthesis. \*\*\* significant 1% or less; \*\* significant at 5%; \* significant at 10% confidence level.

right. A 1-standard-deviation increase in this factor increases the score by 1.51 points, or 29% of the sample mean orientation. Interestingly, it is not immigration per se that affects the populist orientation but its origin from Muslim countries (see e.g. Laitin (2018)). 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)). Results are unchanged if we account for selection due to endogenous populist party entry (second column) by adding as a control a Mill's ratio computed from a first stage Probit for the presence of a populist party using as instruments the controls in the third column of Table 12.

These results corroborate the theoretical intuition that the composition of  $r^j$ —which includes preferences over both economic and social exclusion—determines the relative attractiveness of entry on the right versus the left. In environments where  $q$  falls and social exclusion gains salience, right-wing entry becomes more likely.

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*.<sup>40</sup> There may have been other ideological and cultural reasons 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.

## 8.4 Populists' policy choices – short term protection

Having shown the determinants of entry and orientation choices, it remains to show the third supply choice, namely the policy platform choice. In this section we show that both on the left and on the right a populist party consistently offers a significantly greater degree of short term protection. Hence the findings of this section will lend empirical support to the relevance of the Encyclopedia definition (add here).

Using the 2014 Chapel Hill Expert Survey (CHES), in which national experts rate European parties on a range of positions, policies and salient issues, we construct continuous measures of the three dimensions of the encyclopedia definition – (1) anti-elite rhetoric, (2) protectionism, and (3) concealment of long-term costs – for all the parties in the CHES database. We use these measures to see if it is true that those parties identified as populist by van Kessel (using dimension 1) are indeed significantly more likely to choose policy platforms that conform to the second and third dimension. 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

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<sup>40</sup>An important factor determining entry incentives that we do not consider in this analysis is the reduction in entry costs determined by the technological changes concerning social media. See e.g. Campante et al. (2018).

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 15 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 15: 3D and Kessel

	(1) Rhetoric	(2) Protection	(3) Concealment	(4) Populist 3D
Populist party	2.834*** (0.208)	1.962*** (0.114)	1.324*** (0.0944)	37.07*** (1.808)
Left/Right control	Yes	Yes	Yes	Yes
Observations	767	633	853	633
Percentage of sample mean	63%	36%	26%	100%

*Notes:* The table shows OLS regressions of 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.

Independently of political orientation, populist parties as defined by van Kessel all score higher in each of the three indexes. The difference between populist and non-populist parties is sharpest on the anti elite/anti corruption dimension (63% above the sample average) but it is substantial for the other two (36% and 26% above average).

## 8.5 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 J 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 favour). 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 indexes are available for all surveys, the fourth for the last three waves.

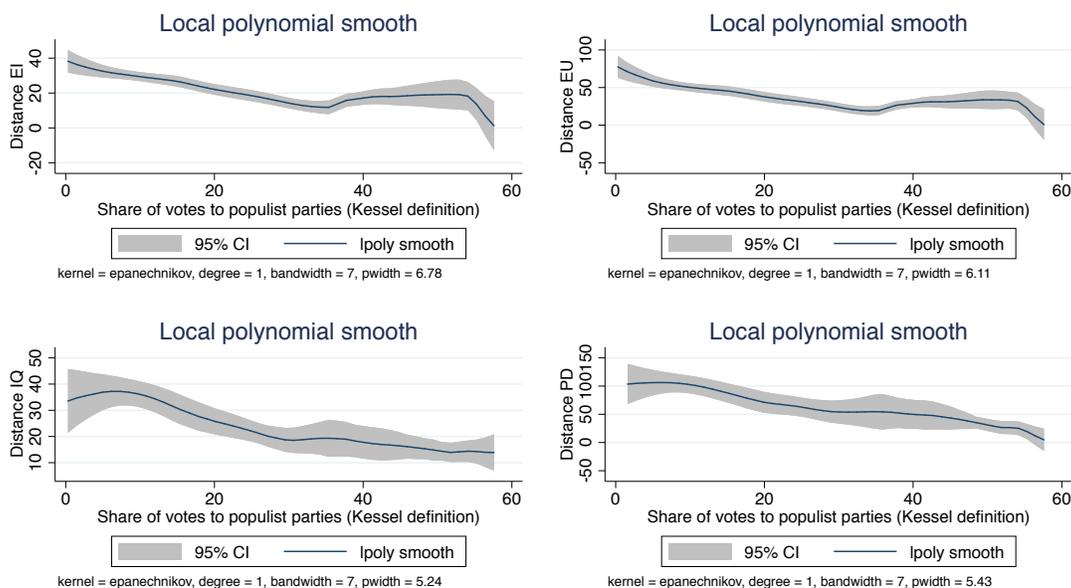
To compare platforms we proceed as follows. Let  $y_{icjt}$  denote the position of party  $i$  in country  $c$  on issue  $j$  (EI, EU, ID, PD) in year  $t$ . We distinguish between platforms of populist parties, P, and non-populist, NP, and let  $D_{ijct} = (y_{ijct}^{NP} - y_{jct}^P)^2$  denote the 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:

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

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. Most electoral competition models would predict 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.

Figure 8: Distance from populist platform and share of vote to populist parties



*Notes:* 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.

Figure 8 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 16 shows the estimates of the linear regression specified above, confirming the visual inspection of Figure 8: as populist parties gain support, their non-populist adversaries appear to adapt their platforms to reduce the distance from the populists. The effects, which account for endogenous presence of populist parties,<sup>41</sup> are substantial: increasing the share of votes

<sup>41</sup>We include in all regressions a Mill's ratio computed from a first stage Probit for the presence of a populist party using as instruments the controls in the third column of Table 12.

to the populist party by 1 standard deviation (15 percentage points) shortens the distance between the non-populist and populist platforms by 34%, 18%, 27%, and 28% of the sample mean of our issues EI, EU, ID, PD, respectively. Table 17 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 16: Distance from populist platform and populist share of the vote

Dependent variable	Coefficient	Std. Err.	Party FE	Year FE	Mills ratio	Obs.	R2
(1) P_EI	-0.514***	(0.121)	Yes	Yes	Yes	364	0.915
(2) P_EU	-0.456***	(0.174)	Yes	Yes	Yes	363	0.923
(3) P_IQ	-0.481**	(0.213)	Yes	Yes	Yes	364	0.891
(4) P_PD	-1.438*	(0.845)	Yes	Yes	Yes	264	0.900

*Notes:* 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. All regressions include year fixed effects and Mill's ratio computed from a first stage Probit for the presence of a populist party using as instruments the controls in the third column of Table 7. Robust standard errors are shown in parenthesis. \*\*\* significant 1% or less; \*\* significant at 5%; \* significant at 10% confidence level.

Table 17: Who Moves

Dependent variable	Coefficient	Std. Err.	Party FE	Year FE	Obs.	R2
(1) P_EI	0.0695*	(0.0382)	Yes	Yes	73	0.872
(2) P_EU	0.0501	(0.107)	Yes	Yes	73	0.887
(3) P_IQ	0.0771	(0.170)	Yes	Yes	73	0.807
(4) P_PD	0.191	(0.732)	Yes	Yes	59	0.790

*Notes:* The table shows the regression of the change in populist positions on four separate issues and the share of the vote that went to the populist parties in the last past election. 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.

## 9 Concluding remarks

We have shown that the financial crisis was a catalyst in the rise of populism in Europe. On the demand side, we have documented this with a novel methodology, while on the supply side a standard difference-in-differences methodology has revealed a consistent pattern of policy change both among long-lived parties and in the comparison between dead

and newborn parties. We have also complemented the supply-side analysis with expert surveys that suggest that even parties coded as non populist are shifting somewhat to "more populist" content and style.

The fact that, well after the crisis, populism continues to persist and thrive in Europe, could be interpreted in multiple ways. A simple argument is that the financial crisis has been the main crisis of many, and the accumulation of the various threats, from globalization to immigration, has created a low level of trust, in governments as well as in markets, that is difficult to rebuild. Since the focus here is the financial crisis as watershed of the rise of populism, it is worth discussing some potential sources of "persistence" that are specific to the financial crisis itself. A financial crisis destroys capital, which takes time to rebuild (in Italy the GDP per capita of 2008 has not yet been reached). Moreover, a financial crisis makes people who were relying on a functioning credit market change activity or simply abandon the optimistic "animal spirits" of pre-crisis investors. Moreover, even countries not touched by the financial crisis directly, like Germany, entered a phase of growing distrust towards European institutions and their likely involvement in bailouts, making the nationalist sentiments rise. Finally, an important and general source of persistence is the trust vicious circle: as we have seen theoretically and empirically, the crisis reduced trust in representative liberal democracy, and increased the appeal of simple protection commitments; but, as established in Bellodi et al. (2023), low trust can be kept and even further pushed down by the communication strategies of populist politicians and parties who do not want their commitments blocked. Hence there are definitely many political players that actively want to keep trust down.

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# Online Appendix

## A Formal Model and Proofs

### A.1 Environment and Notation

We consider a unit mass of voters indexed by  $i \in [0, 1]$ , each characterized by a belief  $p_i \in [0, 1]$  that she will be a *winner* in an open market economy. With probability  $1 - p_i$ , she will be a *loser*. Let  $q \in (0, 1)$  denote the probability that a losing voter is compensated by the government.

The expected utility of remaining in the open market status quo is:

$$U_i(s) = p_i + (1 - p_i)q.$$

Let  $r^j \in (0, 1)$  denote the fixed expected utility from a protectionist policy, where  $j \in \{l, r\}$  indicates the voter's ideology (left or right). We assume  $r^r > r^l$ . Each voter prefers the protectionist policy if:

$$r^j > p_i + (1 - p_i)q.$$

We assume  $p_i$  is distributed over  $[0, 1]$  with density  $f(p) = 1$  (i.e., uniform distribution).

### A.2 Measure of Voters Preferring Protectionism

Define the cutoff  $\bar{p}_j(q)$  such that voters with  $p_i < \bar{p}_j(q)$  prefer protectionism. Solving:

$$r^j > p + (1 - p)q \quad \Leftrightarrow \quad p < \bar{p}_j(q) = \frac{r^j - q}{1 - q}.$$

**Lemma.** *Under the assumption  $f(p) = 1$  on  $[0, 1]$ , the share of voters of ideology  $j$  who prefer protectionism is:*

$$\mu_j(q) = \int_0^{\bar{p}_j(q)} f(p) dp = \bar{p}_j(q) = \frac{r^j - q}{1 - q}, \quad \text{provided that } \bar{p}_j(q) \in [0, 1].$$

**Proof.** Follows by substitution and integration under the uniform distribution. **QED**

**Proposition.** *The function  $\mu_j(q)$  is strictly decreasing in  $q$  and strictly increasing in  $r^j$ .*

**Proof.** Take derivatives:

$$\frac{d\mu_j}{dq} = \frac{-1}{(1 - q)^2} < 0, \quad \frac{d\mu_j}{dr^j} = \frac{1}{1 - q} > 0.$$

Therefore, as  $q$  decreases or  $r^j$  increases, the mass of voters preferring protectionism increases. □

### A.3 Aggregate Support and MEA

Under  $f(p) = 1$ , the average utility from the status quo is:

$$\int_0^1 [p + (1 - p)q] dp = \int_0^1 p dp + q \int_0^1 (1 - p) dp = \frac{1}{2} + q \left(1 - \frac{1}{2}\right) = \frac{1 + q}{2}.$$

**MEA:** The market efficiency assumption holds if:

$$\frac{1 + q}{2} > \hat{r} = \alpha r^l + (1 - \alpha)r^r.$$

This provides a threshold value of  $q$  above which MEA holds:

$$q > 2\hat{r} - 1.$$

This inequality provides a parametric threshold for  $q$  in terms of  $r^l$ ,  $r^r$ , and  $\alpha$ , and can

be used to characterize when MEA is expected to hold.

## A.4 Political Victory and Turnout

Let  $t_{\theta_j}(q) = |\theta + (1 - \theta)q - r^j|$  be the turnout for type  $(\theta, j)$ , and let  $\beta^j$  be the share of voters with high ability ( $\bar{p}$ ) in group  $j$ .

Then total expected turnout for protectionism is:

$$T^{\text{pop}}(q) = \sum_{j \in \{l, r\}} \left[ (1 - \beta^j)t_{\underline{p}, j}(q) + \beta^j t_{\bar{p}, j}(q) \right] \cdot (1 - \alpha_j),$$

where  $\alpha_j$  is the share of voters of ideology  $j$  whose expected utility satisfies  $r^j > p + (1 - p)q$ .

## A.5 Entry of Populist Parties

Let the average turnout among protectionist voters of ideology  $j$  be defined as:

$$\bar{t}_j(q) = (1 - \beta^j)t_{\underline{p}, j}(q) + \beta^j t_{\bar{p}, j}(q).$$

Let the expected electoral support for a party offering protectionist commitments be given by:

$$V(q) = \sum_{j \in \{l, r\}} \mu_j(q) \cdot \bar{t}_j(q).$$

Let the cost of entry for the party be  $C > 0$ . Then entry occurs if and only if:

$$V(q) > C.$$

**Proposition.** *Suppose  $q$  decreases while  $r^j$  is constant. Then  $V(q)$  increases, and the likelihood of entry increases.*

**Proof.** From Proposition above,  $\mu_j(q)$  increases as  $q$  decreases. From the turnout function  $t_{\theta_j}(q)$ , if  $r^j > \theta + (1 - \theta)q$ , then turnout also increases. Thus, both components of

$V(q)$  are increasing in this case. □

## A.6 Protectionist Victory under MEA

**Proposition.** *Suppose MEA holds. Then a protectionist party may still win if turnout is sufficiently higher among voters preferring protectionism than among those supporting the status quo.*

**Proof.** Let  $T^{\text{pop}}(q)$  and  $T^{\text{status quo}}(q)$  be the total expected turnout for protectionism and for the status quo, respectively. Even if

$$\int_0^1 U(s)f(p) dp > \hat{r},$$

it is possible that

$$T^{\text{pop}}(q) > T^{\text{status quo}}(q),$$

if the share of protectionist supporters is small but highly motivated (i.e., high  $t_{\theta_j}(q)$ ), while the majority in favor of openness has low turnout due to indifference. □

## A.7 Generalization to Arbitrary Distributions $f(p)$

This section provides the most general version of our theoretical results, showing that all main findings—including the effects of  $p$  and  $q$  on protectionist support and the Market Efficiency Assumption—hold across arbitrary continuous distributions of  $p$ .

### A.7.1 Formal Derivations with General $f(p)$

Let  $r^j$  be the expected utility from protectionism for a voter of ideology  $j$  and  $q$  be the probability of government compensation in the open market. Define:

$$\bar{p}_j(q) = \frac{r^j - q}{1 - q}.$$

The share of voters preferring protectionism is:

$$\mu_j(q) = \int_0^{\bar{p}_j(q)} f(p) dp.$$

**Lemma.** *If  $f$  is differentiable, then  $\mu_j(q)$  is differentiable and satisfies:*

$$\frac{d\mu_j}{dq} = -\frac{f(\bar{p}_j(q))}{(1-q)^2}, \quad \frac{d\mu_j}{dr^j} = \frac{f(\bar{p}_j(q))}{1-q}.$$

**Proof.** By the Leibniz rule and the derivative of  $\bar{p}_j(q)$ . □

The expected utility from the open market is:

$$\mathbb{E}[U(s)] = \int_0^1 [p + (1-p)q]f(p) dp = \mathbb{E}[p] + q(1 - \mathbb{E}[p]).$$

**MEA generalized:**

$$\mathbb{E}[U(s)] > \hat{r} \quad \Leftrightarrow \quad q > \frac{\hat{r} - \mathbb{E}[p]}{1 - \mathbb{E}[p]}.$$

### A.7.2 Stochastic Dominance and Comparative Statics

**Proposition.** *Let  $f_1$  and  $f_2$  be two continuous densities on  $[0, 1]$ , and suppose  $F_1(p) \leq F_2(p)$  for all  $p$  (i.e.,  $f_1$  first-order stochastically dominates  $f_2$ ). Then:*

$$\mu_j^{f_1}(q) \leq \mu_j^{f_2}(q),$$

*and the threshold  $q$  such that MEA holds is lower under  $f_1$  than under  $f_2$ .*

**Proof.** By FOSD:

$$\int_0^{\bar{p}_j(q)} f_1(p) dp \leq \int_0^{\bar{p}_j(q)} f_2(p) dp,$$

and since  $\mathbb{E}_{f_1}[p] \geq \mathbb{E}_{f_2}[p]$ ,

$$q_{\text{MEA}}^{f_1} = \frac{\hat{r} - \mathbb{E}_{f_1}[p]}{1 - \mathbb{E}_{f_1}[p]} \leq \frac{\hat{r} - \mathbb{E}_{f_2}[p]}{1 - \mathbb{E}_{f_2}[p]} = q_{\text{MEA}}^{f_2}. \quad \square$$

## B Additional data information

In this section, we provide additional details about the data used in the analysis.

**ESS data.** Data has been collected by means of face-to-face interviews biannually since September 2002, where a random sample of individuals is surveyed each time. Sample size varies by country, ranging from 1,000 for smaller countries to 3,000 for larger ones. Hence, the ESS is a sequence of cross-sections, one for each participating country. The ESS questionnaire consists of a core module, which is fixed from round to round, and smaller-scale rotating modules on selected topics that are repeated at intervals. We focus on the core module, which covers a wide range of social, economic, political, psychological and demographic variables.

**Voter choice and turnout.** An important characteristic of the ESS repeated cross-section data is that each individual is asked which party (s)he voted for in the *last* parliamentary election, as well as her/his *current* level of economic insecurity. Since ESS interviews are performed every two years, some adjustments are needed. In particular, two problems might arise: (i) cases in which multiple waves are associated with the same election, and (ii) cases in which the election happened too far in advance of the survey. For these reasons, we attach to each election in each country only one wave of interviews, with a maximum lag of 2 years between the wave and the election. See Appendix C for details and examples of this problem in the data. In the same appendix, we test the robustness of our analysis to modifications of this correction method.

**Trust in traditional politics and institutions.** The ESS provides several proxies for confidence in institutions, governments, and political parties, all scaled to between 0 (no trust) and 10 (full trust). These indicators tend to be closely correlated and thus hard to distinguish. In order to capture the response to economic insecurity we use the proxy for trust in political parties, which speaks directly to our narrative. The results remain unchanged when using the alternatives, namely trust in parliament, trust in politicians, or a principal component of the three.

**Controls.** Two proxies for voters' ability to understand the pitfalls of the populist platforms are used as controls: education and a measure of attention devoted to politics. The first is education, as measured by four dummies indicating quartiles of the education distribution. The second is a measure of attention devoted to politics, as captured by two variables: hours per week devoted to watching TV in general, and the portion of those hours spent watching news or programs about politics and current affairs.<sup>42</sup> Watching TV in general is taken as a proxy for low interest in politics, and thus being poorly informed about political platforms. The portion of hours spent watching the news and programs about politics, is used to proxy information level.

**Manifesto.** The seven domains are: External Relations; Freedom and Democracy; Political System; Economy; Welfare and Quality of Life; Fabric of Society; Social Groups. Each variable is assigned a score that increases with the party's support of that issue. There are sometimes separate scores measured for positive and negative mentions in the parties' manifestos.<sup>43</sup>

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<sup>42</sup>For the eighth wave of the ESS, we use the variables "internet use time" and "time spent watching/listening to/reading the news", as the questions on media use have been slightly changed in this wave.

<sup>43</sup>For example, the variable "Traditional Morality: Positive" measures a party's "Favourable mentions of traditional and/or religious moral values" in its manifesto while "Traditional Morality: Negative" measures "Opposition to traditional and/or religious moral values".

## C ESS waves selection

In this Appendix, we first explain in details the selection of ESS waves in order to avoid problematic inconsistencies between the years of the interviews and political election years. Then, we show that our results are completely robust if we consider different strategies, or even if we ignore this selection using a different dependent variable.

In the ESS data, each individual is asked who she/he voted for in the *last* parliamentary election, on top of her/his *current* economic insecurity. ESS interviews are performed on a two years basis, therefore, we need to ensure that we avoid: (i) cases in which multiple waves are associated with the same election, and (ii) cases in which the election happened too far in advance with respect to the survey. These two cases are, for example, present in Belgium, where we had elections in 1999, 2003, and 2007. Without adjustments, (i) both waves 2 (2004) and 3 (2006) would refer to the same election in 2007, and (ii) wave 1 (2002) would refer to an election which took place 4 years before. For these reasons, we associate to each election in each country only one wave of interviews, with a maximum lag of 2 years between the wave and the election. In Figure A1 we show the ESS waves considered for each country (yellow) and those we exclude for the above mentioned reasons (yellow-red).

One could argue that the second condition above (a maximum lag of 2 years between the wave and the election) could be somehow arbitrary. In Table A1 we first test the sensitivity of our result with respect to this condition, and then we relax this correction using a different dependent variable. In column 1, we restrict the selection of ESS interviews to those where the election happened with max 1 year lag with respect to the survey. In columns 2 and 3 we change this condition with a 3 years lag and 4 years lag maximum, respectively. As we can see, our results are always positive and well identified. In column 4 we use a different dependent variable, which allows us to avoid the selection of ESS waves. The respondents are asked two questions, specifically “*Is there a particular political party you fell closer to than all other other parties?*” and, if they respond yes, “*Which one?*”.

With these questions we can identify whether the party towards which the respondent feels closer to is populist or not (using the same definition as in the rest of the paper). As we can see from column 4 of Table A1, also this specification confirms our main result.

Figure A1: ESS waves and elections

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
AT				E				E		E					E			
BE	E				E				E			E				E		
BG			E				E				E				E	E		
CY			E					E					E					E
CZ				E				E				E			E			
DE				E			E				E				E			
DK			E				E		E				E				E	
EE	E				E				E				E				E	
ES		E				E				E			E				E	E
FI	E				E				E				E				E	
FR				E					E					E				
GB			E				E					E					E	
GR		E				E			E		E			E			E	
HR					E				E				E				E	E
HU				E				E				E				E		
IE				E					E				E					E
IL	E							E			E				E		E	
IS	E				E				E		E				E			E
IT			E					E		E					E			
LT		E				E				E				E				E
LU	E					E					E				E			
LV				E				E				E				E		
NL				E	E			E				E			E			
NO			E				E				E				E			
PL			E				E		E				E				E	
PT	E			E			E				E		E				E	
RO		E				E				E				E				E
SE				E				E				E				E		
SI		E				E				E			E			E		
SK				E				E				E		E				E

E	National election
	ESS wave
	Repeated ESS data

Notes: The table presents for each country and year the ESS waves available (yellow), the years with an election (E), and the ESS waves we exclude from our analysis (yellow-red).

Table A1: ESS waves and elections - Robustness

Dep. Variable	(1)	(2)	(3)	(4)
		Populist vote		Populist closer party
Estimation	2SLS			2SLS
Economic Insecurity	0.796** (0.319)	0.837*** (0.158)	0.554*** (0.0928)	0.839*** (0.228)
Importance Adventure	-0.0135 (0.00870)	-0.0345*** (0.00743)	-0.0296*** (0.00570)	-0.0518*** (0.00843)
Second Quartile Education	0.0283*** (0.0100)	0.0102* (0.00554)	0.00454 (0.00429)	0.00435 (0.00574)
Third Quartile Education	0.0400** (0.0151)	0.0138* (0.00768)	0.00537 (0.00647)	0.0140* (0.00798)
Fourth Quartile Education	0.0479** (0.0209)	0.0179* (0.00973)	0.00656 (0.00764)	0.0104 (0.00927)
Fourth Quartile Age	-0.0123 (0.0196)	-0.0118 (0.0135)	-0.0135 (0.0103)	-0.0205 (0.0167)
Second Quartile Age	-0.00209 (0.00866)	0.00129 (0.00501)	-0.00182 (0.00348)	0.0101 (0.00801)
Third Quartile Age	-0.000101 (0.0136)	-0.00750 (0.00864)	-0.00867 (0.00678)	-0.00396 (0.0117)
Regional Population	-3.29e-08*** (3.97e-09)	1.68e-09 (1.64e-09)	1.17e-09 (1.49e-09)	-4.17e-09** (1.92e-09)
Hours Watching TV	-0.00446 (0.00422)	0.00812*** (0.00231)	0.00808*** (0.00209)	0.00899* (0.00472)
Hours Watching Politics	-0.00151 (0.00859)	-0.000205 (0.00649)	0.000148 (0.00533)	0.00445 (0.00892)
Placement on left right scale	0.0367*** (0.00665)	0.0340*** (0.00231)	0.0310*** (0.00245)	0.0538*** (0.00454)
Obs	1,224	3,028	3,852	3,688
Wave, Country, Cohort FE FE	YES	YES	YES	YES
Years of Lag	1	3	4	0
KP F	8.836	18.33	24.16	23.13

Notes: 2SLS estimations. Dependent variable: *Populist vote* in columns 1 to 3, *Populist closer party* in column 4, which is a dummy indicating whether the party the respondent feels closer to is a populist party. *Economic insecurity* is the survey-based measure of economic insecurity. In column 1 we include a maximum lag of 1 year between the wave and the election, in column 2 the maximum lag is of 3 years, in column 3 of 4 years. Note that in column 4 the maximum lag between the wave and the election is 0 year because the question on which party the respondent feels closer to is available for each wave. In all regressions we control for cohort, country, wave fixed effects, and cohort-level time-varying controls described in section 3. Errors are clustered at the cohort level. Kleibergen-Paap F-statistic are reported at the bottom of the table.

## D Populist parties

Table A2: Populist parties - 1/2

Country	Party name
Austria	Alliance for the Future of Austria Freedom Party of Austria Hans-Peter Martin's List Team Stronach
Belgium	National Front Libertarian, Direct, Democratic People's Party Flemish Interest
Bulgaria	Attack Reload Bulgaria / Bulgaria Without Censorship Bulgarian Business Bloc Citizens for European Development of Bulgaria National Front for the Salvation of Bulgaria National Movement Simeon II Order, Law and Justice IMRO - National Bulgarian Movement Will
Croatia	Croatian Civic Party Croatian Democratic Alliance of Slavonia and Baranja Croatian Labourists - Labour Party Bridge of Independent Lists Human Shield
Cyprus	Citizens' Alliance
Czech Republic	Action of Dissatisfied Citizens Coalition for Republic - Republican Party of Czechoslovakia Sovereignty – Jana Bobosikova Bloc Freedom and Direct Democracy Tomio Okamura Dawn-National Coalition Public Affairs
Denmark	Danish People's Party Progress Party The New Right
Estonia	Estonian Citizens Estonian Conservative People's Party Independent Royalists
Finland	Blue Reform Finns Party
France	Republic Arise   France Arise National Front / Rally France Unbowed
Germany	Alternative for Germany The Left (Germany)
Greece	Independent Greeks Democratic Social Movement Greek Solution European Realistic Disobedience Front [MeRa25] Popular Orthodox Rally Political Spring Syriza - The Coalition of the Radical Left Synaspismos - The Coalition of the Left
Hungary	Fidesz - Hungarian Civic Alliance Fidesz – Hungarian Civic Party / Christian Democratic People's Party Jobbik, the Movement for a Better Hungary Hungarian Justice and Life Party Our Homeland Movement
Iceland	Civic Movement – The Movement People's Party Centre Party

*Notes:* The table presents the list of populist parties from PopuList.

Table A3: Populist parties - 2/2

Country	Party name
Ireland	Sinn Fein
Italy	The People of Freedom / Forza Italia (FI)
	Brothers of Italy
	The People of Freedom / Forza Italia (FI)
	(Northern) League
	Southern Action League
	Venetian League
	Five Star Movement
Latvia	Who owns the state?
	Reform Party
Lithuania	Labour Party
	The Way of Courage
	Young Lithuania
	Lithuanian Centre Party
	Lithuanian Liberty Union
	National Resurrection Party
	Order and Justice
Luxembourg	Alternative Democratic Reform Party
Netherlands	Centre Democrats
	Forum for Democracy
	Livable Netherlands
	Fortuyn List
	Party for Freedom
	Socialist Party (Netherlands)
Norway	Progress Party (Norway)
	Coastal Party
Poland	Kukiz '15
	League of Polish Families
	Party X
	Law and Justice
	Self-Defense of the Republic Poland
Portugal	Enough!
Romania	People's Party Dan Diaconescu
	Greater Romania Party
	United Romania Party
	Romanian National Unity Party
Slovakia	Alliance of the New Citizen
	Ordinary People
	Real Slovak National Party
	Slovak National Party
	We are family
	Direction - Social Democracy
	Party of Civic Understanding
	Association of Workers of Slovakia
Slovenia	The Left
	List of Marjan Sarec
	Slovenian Democratic Party
	Slovenian National Party
	United Left / The Left
Spain	In Common We Can
	In Tide
	Podemos
	Voice
Sweden	New Democracy
	Sweden Democrats
Switzerland	Automobile Party   Freedom Party of Switzerland
	Federal Democratic Union of Switzerland
	Ticino League
	Geneva Citizens' Movement
	Swiss People's Party
United Kingdom	Respect – The Unity Coalition
	Sinn Fein
	United Kingdom Independence Party

*Notes:* The table presents the list of populist parties from PopuList.

## E Age earning profile

Table A4 presents the estimated values of  $\beta^k$ . These are obtained from equation (5), as explained in details in section 5.1.

Table A4: Income elasticity w.r.t. age

$\beta_k$	ISCO88 occupation
1.987	Skilled agricultural and fishery workers
2.234	Managers of small enterprises
2.613	Corporate managers
2.886	Office clerks
2.886	Life science and health associate professionals
2.896	Precision, handicraft, craft printing and related trades workers
2.922	Teaching associate professionals
2.937	Extraction and building trades workers
2.964	Other associate professionals
3.016	Physical, mathematical and engineering science professionals
3.054	Other professionals
3.059	Physical and engineering science associate professionals
3.059	Drivers and mobile plant operators
3.065	Machine operators and assemblers
3.065	Sales and services elementary occupations
3.093	Personal and protective services workers
3.315	Teaching professionals
3.339	Customer services clerks
3.345	Metal, machinery and related trades workers
3.424	Agricultural, fishery and related labourers
3.462	Stationary plant and related operators
3.477	Labourers in mining, construction, manufacturing and transport
3.651	Other craft and related trades workers
3.871	Models, salespersons and demonstrators
4.346	Life science and health professionals
4.374	Legislators and senior officials

*Notes:* The table presents the estimated values of  $\beta^k$ , from equation (5). Details are explained in section 5.1.

## F Trust in political parties

Columns 1 and 2 of Table A5 show the effect of economic insecurity on trust in political parties. The OLS estimation results show that trust in political parties dropped more in cohorts that were experiencing greater economic uncertainty, after controlling for cohort fixed effects as well as country and time effects common to all cohorts and time-varying characteristics of the cohort. The results of 2SLS estimation indicate that as in the case of voter choice and voter turnout, the IV estimate of the effect of economic insecurity on trust – apart from being more precisely estimated – is much larger than the OLS estimate (-13.8 as compared to -2.8), lending support to the idea that OLS estimates are biased downwards due to measurement error in economic insecurity. From an economic perspective, an increase of one standard deviation in economic insecurity lowers trust in political parties by as much as 35% of the sample mean, clearly a non-negligible effect. Columns 3-6 show that the effect of economic insecurity is strong also on other trust variables, namely trust in politicians and trust in the legislature.

Table A5: Economic Insecurity and Trust

Dep. Variable Estimation	(1)	(2)	(3)	(4)	(5)	(6)
	Trust on Parties		Trust on Politicians		Trust on Parliament	
	OLS	2SLS	OLS	2SLS	OLS	2SLS
Economic insecurity	-2.795*** (0.255)	-13.77*** (3.037)	-2.967*** (0.219)	-11.80*** (2.278)	-3.367*** (0.317)	-15.31*** (2.584)
Obs	1,981	1,981	2,310	2,310	2,310	2,310
Wave, Country, Cohort FE	Yes	Yes	Yes	Yes	Yes	Yes
Controls	Yes	Yes	Yes	Yes	Yes	Yes
KP F		14.37		18.10		18.10

*Notes:* OLS estimation in columns 1, 3, and 5, 2SLS estimation in columns 2, 4, and 6. Dependent variable: Trust in political parties in columns 1 and 2, Trust in politicians in columns 3 and 4, and Trust in Parliament in columns 5 and 6. *Economic insecurity* is the survey-based measure of economic insecurity. In all regressions we control for cohort, country, and wave fixed effects, together with cohort-level time-varying controls described in section 3. Table A14 in Appendix I includes control variables' coefficients. Errors are clustered at the cohort level. Kleibergen-Paap F-statistic are reported for columns 2, 4, and 6.

## G Robustness

The measure of economic insecurity we have used so far has the important advantage of being drawn from the same sample as the outcome political variables. One potential limitation is that it is self-reported, rather than being based on observed data. To check whether this is a problem, we follow Guvenen et al. (2014, pp. 621-660) in comparing it to a data-driven measure of economic insecurity obtained from the EU-SILC panel. In section G.1, we replicate the IV estimation for the three outcomes (voting populist, voter turnout, and trust in political parties) using this non-self-reported, alternative measure, in order to validate our results. In the same appendix we test the robustness of our results when using an alternative estimation method (Tobit).

As pointed out by Borusyak and Hull (2020), a problem encountered when using the shift-share identification strategy is that the exogeneity of the shares may fail to hold even when they are measured prior to the relevant experiment (the financial crisis shock in our case). To assess the robustness of our results to the exogeneity issue, we perform a falsification analysis in Appendix G.2 (in the spirit of a placebo test). Another concern is potential non-random exposure to the shocks, which could give rise to omitted variable bias. To alleviate this concern, we show that the 2SLS results are robust when using the re-centering methodology proposed by Borusyak and Hull (2020).

Finally, we test the robustness of the results to different clusterings of the standard errors and/or different fixed effect schemes. Specifically, the results remain unchanged if: (i) we cluster standard errors at the country-cohort level, instead of cohort level; (ii) we replace country and cohort fixed effects with country  $\times$  cohort fixed effects; or (iii) we carry out both (i) and (ii) simultaneously. Notice that the specification we used in the estimations minimizes the Kleibergen-Paap Wald  $F$  statistic, which is the most demanding test in terms of the instrument's power.

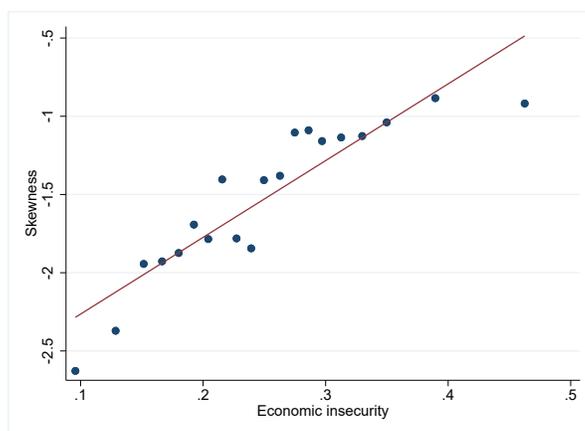
## G.1 Alternative Measures of Economic Insecurity

The measure of economic insecurity we introduced has the great advantage that it is obtained from the same sample that we use to obtain our outcome political variables and we use it as our reference measure. One potential limitation is that it is self reported, rather than being based on hard, observed data. To check whether this is an issue we validate our reference measure comparing it with a data-driven measure of economic insecurity obtained from the EU-SILC panel. Following Guvenen et al. (2014), we use the EU-SILC panel data to estimate a process for log-labor income, from which we retrieve the estimated residual and compute measures of its variance and skewness for each cohort and wave in our ESS sample. As discussed by Guvenen et al. (2014), more than the variance of labor income shocks it is the skewness of the left tail that best characterizes income risk and moves counter cyclically. In recessions, the distribution of shocks to labor income gains mass on the left tail when large drops in earnings become more likely. Besides a measure of skewness we also compute the fraction of cohort members that in each wave/year experience negative shocks to their labor income and the fraction with a large negative shock (below the 25th percentile). These measures, even more than the skewness, can capture the spirit of Guvenen et al. (2014) measure of uncertainty. Figure A2 shows plots of the skewness of the residuals, panel (a), the fraction of cohort members with negative shocks, panel (b), and the fraction with large negative shocks to labor income, panel (c), against the average value of our survey-based measure of economic insecurity. Interestingly, the Guvenen et al. (2014) measures all correlate positively and strongly with our measure of economic insecurity based on self reported data. This suggests that: (i) what people report very likely reflects their actual experiences; and (ii) that drops in income is what really shakes people economic insecurity.<sup>44</sup>

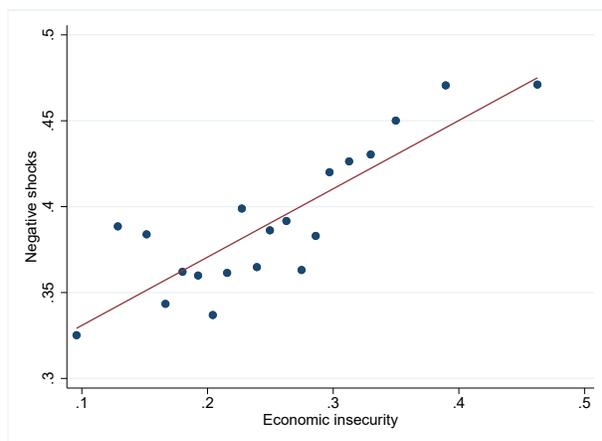
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<sup>44</sup>Consistent with Guvenen et al. (2014), the correlation between the variance of the residuals and the survey measure of economic insecurity is positive but not as strong as that between the share of cohort members that suffer a drop in income and our measure of economic insecurity. Further, while skewness and the share suffering negative (and strongly negative) income shocks is strongly countercyclical, the variance shows less action over the cycle.

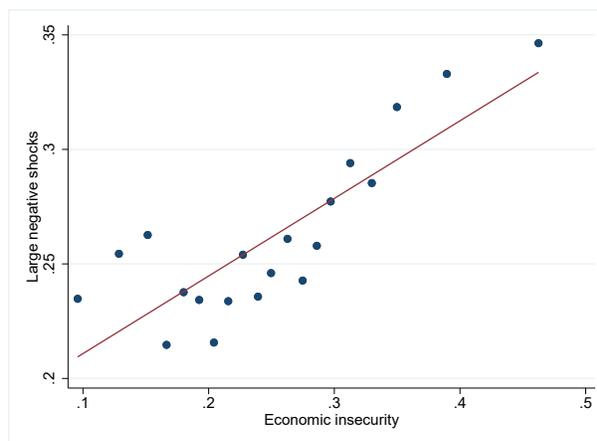
Figure A2: Labour income shocks and economic insecurity



(a) Skewness



(b) Negative shocks



(c) Large negative shocks

*Notes:* This figure compares data-driven measures of economic insecurity with our survey-based measure of economic insecurity. For the former, we follow the spirit of Guvenen et al. (2014), estimating the skewness of labour income shocks. In all figures, on the horizontal axis we have our survey-based measure of economic insecurity. On the vertical axis we have: in Panel (a), the skewness of the residuals of the labour income shock estimation (details in Section 5.1, equation 6); in Panel (b) the fraction of cohort members with negative shocks to labor income; in Panel (c) the fraction with large negative shocks (lower than the 25%) to labor income.

Table A6 re-runs our IV estimates for our three outcome measures (voting populist, turnout, and trust in political parties) using this time the Guvenen et al. (2014) measure of economic insecurity, captured either by the fraction of cohort members experiencing a drop in income or the fraction of cohort members experiencing a large drop (in the top quartile of drops for the whole sample in the country-year) in labor income.<sup>45</sup>

Even using these non-self reported, alternative measures, an increase in economic insecurity causes an increase in the share of votes to populist parties, a decrease in turnout and in trust in political parties, confirming the results obtained with our reference measure. This reassures us that what we are capturing is truly the effect on people political decisions and beliefs caused by economic uncertainty. In the last two columns of Table A6 we test the robustness of our result on populist vote to the fact that our classification of populist parties only applies to parties that gain at least one seat in parliament. Hence, in some countries populist votes may be zero even if one or more such parties are present but none gains a seat. To account for this possibility we use a Tobit estimator. We obtain very similar results: the simple Tobit regression shows a positive and significant effect of economic insecurity; the IV Tobit estimate is much larger, consistent with the difference between the OLS and IV estimates in the other tables.

## G.2 Falsification analysis and Omitted Variable Bias

In this Appendix, we perform two tests to check the robustness of our identification strategy. First, as pointed out by Borusyak and Hull (2020), one issue with the shift-share identification strategy is that the exogeneity of the shares may fail to hold even when shares are measured before the relevant experiment (the financial crisis shock in our case). To assess the robustness of our results to this issue, we perform a falsification analysis. First, we replace the shift component in the shift-share instrument (that is the actual changes in

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<sup>45</sup>To be more precise, the first percentage is the percentage of the cohort members who have a negative residual when comparing their labor income with the one predicted by her characteristics up to that moment; the second percentage is the percentage of the cohort members with a residual in the worst quartile of residuals in such a regression, for all the data in the country and year.

Table A6: Robustness

Dep. variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Populist vote		Turnout		Trust on parties		Populist vote	
Estimator	2SLS	2SLS	2SLS	2SLS	2SLS	2SLS	Tobit	IV Tobit
Share Income Drop	0.218*** (0.0620)		-0.357*** (0.0958)		-5.055*** (0.746)			
Share Large Income Drop		0.209*** (0.0598)		-0.344*** (0.0931)		-4.863*** (0.801)		
Economic Insecurity							0.198*** (0.0392)	1.769*** (0.325)
Importance Adventure	-0.00303 (0.00905)	-0.00259 (0.00902)	-0.00409 (0.0182)	-0.00482 (0.0169)	-0.156 (0.106)	-0.166* (0.0889)	-0.0310*** (0.0111)	-0.0372*** (0.0115)
Second Quartile Education	-0.0130 (0.00923)	-0.00884 (0.00863)	0.0111 (0.0115)	0.00428 (0.0106)	-0.0308 (0.139)	-0.128 (0.115)	0.0150 (0.0104)	0.0293** (0.0125)
Third Quartile Education	-0.0237*** (0.00847)	-0.0179** (0.00757)	0.0283** (0.0137)	0.0187 (0.0123)	0.0715 (0.174)	-0.0641 (0.131)	0.00822 (0.0153)	0.0355** (0.0171)
Fourth Quartile Education	-0.0262** (0.0119)	-0.0205* (0.0109)	0.0569*** (0.0186)	0.0476*** (0.0169)	0.169 (0.212)	0.0365 (0.156)	0.0188 (0.0184)	0.0530** (0.0215)
Fourth Quartile Age	-0.0215 (0.0240)	-0.0262 (0.0231)	0.0468 (0.0415)	0.0546 (0.0409)	-0.0366 (0.495)	0.0741 (0.485)	0.0174 (0.0192)	-0.00827 (0.0273)
Second Quartile Age	-0.00888 (0.0124)	-0.0109 (0.0111)	-0.0308* (0.0176)	-0.0276* (0.0159)	-0.264 (0.176)	-0.218 (0.149)	0.0123 (0.00911)	0.00256 (0.0123)
Third Quartile Age	-0.0116 (0.0150)	-0.0138 (0.0134)	-0.0309 (0.0269)	-0.0273 (0.0251)	-0.461* (0.228)	-0.410** (0.196)	0.0126 (0.0123)	-0.00247 (0.0176)
Regional Population	1.36e-08*** (4.52e-09)	1.27e-08*** (4.02e-09)	-1.32e-08** (5.55e-09)	-1.18e-08** (5.32e-09)	-3.08e-07*** (6.10e-08)	-2.87e-07*** (5.52e-08)	8.44e-09*** (1.73e-09)	5.91e-09** (2.87e-09)
Hours Watching TV	0.00652 (0.00891)	0.00852 (0.00872)	-0.000307 (0.0100)	-0.00359 (0.00926)	0.0650 (0.105)	0.0186 (0.0961)	0.00455 (0.00317)	-0.000748 (0.00497)
Hours Watching Politics	0.0210* (0.0121)	0.0158 (0.0121)	0.00588 (0.0158)	0.0143 (0.0149)	0.102 (0.117)	0.222* (0.115)	-0.00899 (0.00949)	0.000736 (0.0112)
Placement on left right scale	0.0120** (0.00503)	0.0124** (0.00496)	0.0182*** (0.00587)	0.0176** (0.00663)	0.0113 (0.0676)	0.00289 (0.0592)	0.0344*** (0.00434)	0.0435*** (0.00448)
Obs	724	724	724	724	724	724	2,310	2,310
Wave, Country, Cohort FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
KP F	98.21	82.45	98.21	82.45	98.21	82.45		

Notes: 2SLS estimation in columns 1-6, Tobit in column 7 and IV Tobit in column 8. Dependent variable: Populist vote in columns 1, 2, 7, and 8, Turnout in columns 3 and 4, Trust in political parties in columns 5 and 6. *Share Income Drop* is the fraction of cohort members experiencing a drop in income. *Share Large Income Drop* is the fraction of cohort members experiencing a large drop (in the top quartile of drops for the whole sample in the country-year) in labor income. *Economic insecurity* is the survey-based measure of economic insecurity. In all regressions we control for cohort, country, and wave fixed effects, together with cohort-level time-varying controls described in section 3. Errors are clustered at the cohort level. Kleibergen-Paap F-statistic are reported for columns 1-6.

GDP at the country level -  $y_{ct}$  in equation 5) with randomly generated instruments. We generate these counterfactual GDP shocks from a distribution with mean and standard deviation equal to the corresponding moments of the historical GDP distribution. We then show that the counterfactual shift share instruments (we create 1,000 of them) have no predictive power when used in the voting, participation, and trust regressions. Second, one may be concerned about non-random exposure to the shocks, which could give rise to an omitted variable bias. To deal with this concern, we show that the 2SLS results are robust when applying the re-centering methodology proposed by Borusyak and Hull (2020).<sup>46</sup> Details of these two exercises are presented below.

First, to check the validity of the presented instrumental strategy, we construct counterfactual shocks by randomly choosing country-level measures of GDP. More specifically, starting from the distribution of the actual shifter ( $y_{ct}$ ) at the country level, we conduct 1,000 independent random draws assigning a random value for the shock to each country. We then obtain 1,000 placebo instruments  $z_{jct}^P$  and estimate the baseline regression on them. Among our 1,000 randomizations, the number of significant coefficients is well below 5% thus confirming that substituting the real instrument with this “simulated instrument” provides no significant effects.<sup>47</sup>

Second, we address omitted variable concerns. Even if the shares capturing heterogeneous exposure to the shocks are constructed using data from the first years available, namely 2003-2005, one may be still concerned about non-random exposure to the shocks, which could give rise to an omitted variable bias (OVB) in the IV estimates. In a recent work, (Borusyak and Hull 2020) explain how to effectively purge OVB from non-random exposure to the shocks, without having to impose further assumptions, such as parallel trends. Their methodology, called “recentering”, proposes to control for the simulated in-

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<sup>46</sup>“Re-centering” consists in subtracting the mean of the counterfactual instruments from the IV, or adding it as a control variable. Borusyak and Hull (2020) show that recentering effectively removes the bias from non-random shock exposure, without having to impose further assumptions (like parallel trends). All our results are robust when we apply the recentering methodology.

<sup>47</sup>Considering the large number of results, these results are available upon request.

strument described above (or subtracting it from the IV) in order to remove the bias from non-random shock exposure.

We apply the recentering methodology by averaging across the 1,000 randomizations described above, therefore obtaining an average simulated instrument  $\bar{z}_{jct}^P$ . In Table A7, we include the simulated instruments constructed based on the randomization in our main specifications (Table 7, column 4; Table 8, column 2; Table A5, column 2). The coefficient of *Economic insecurity* is always positive and significant, and very similar in magnitude to the corresponding estimates in our main specifications, therefore confirming that our results on the impact of economic insecurity on populist vote, turnout, and trust are robust to addressing OVB concerns.

Table A7: Omitted Variable Bias

Dep. Variable	(1)	(2)	(3)
	Populist vote	Turnout	Trust on parties
Estimation	2SLS	2SLS	2SLS
Economic Insecurity	0.889*** (0.110)	-0.820*** (0.219)	-13.37*** (1.801)
Average Simulated Instrument	0.00374 (0.0147)	0.0146 (0.0117)	0.0331 (0.155)
Importance Adventure	-0.0218*** (0.00644)	0.0198 (0.0154)	-0.0714 (0.103)
Second Quartile Education	0.0156** (0.00705)	0.0166** (0.00729)	-0.154*** (0.0498)
Third Quartile Education	0.0182* (0.0100)	0.0137 (0.00924)	-0.230*** (0.0741)
Fourth Quartile Education	0.0252* (0.0132)	0.0223* (0.0115)	-0.138 (0.111)
Fourth Quartile Age	-0.00336 (0.0161)	0.0211 (0.0294)	0.0445 (0.154)
Second Quartile Age	0.00305 (0.00680)	0.0146 (0.00993)	-0.0177 (0.0422)
Third Quartile Age	-0.00110 (0.0104)	0.0245 (0.0209)	-0.101 (0.104)
Regional Population	9.73e-10 (1.93e-09)	7.58e-09** (3.30e-09)	8.43e-09 (2.00e-08)
Hours Watching TV	0.00131 (0.00308)	0.00791* (0.00388)	0.0641* (0.0349)
Hours Watching Politics	-0.00224 (0.00720)	-0.00578 (0.00810)	-0.00431 (0.0400)
Placement on left right scale	0.0350*** (0.00330)	0.00874** (0.00390)	-0.00266 (0.0323)
Obs	2,310	2,310	1,981
Wave, Country, Cohort FE	Yes	Yes	Yes
KP F	56.32	56.32	60.18

Notes: 2SLS estimations. Dependent variable: Populist vote in column 1, Turnout in column 2, Trust in parties in column 3. *Economic insecurity* is the survey-based measure of economic insecurity. *Average simulated instrument* is the average of the 1,000 placebo instruments ( $\bar{z}_{jct}^P$ ). In all regressions we control for cohort, country, and wave fixed effects. In columns 2 and 4 we add also cohort-level time-varying controls described in section 3. Errors are clustered at the cohort level. Kleibergen-Paap F-statistic are reported at the bottom of the table.

## H Lasso analysis

In this section we first show that populist parties are not only far-right parties and, therefore, focusing only on them would bias the analysis. Then, we use lasso regressions to identify the most relevant policies for populist parties.

Table A8 below summarizes the distribution of Populist v. Nationalist and Socialist or other left parties. The classification “Nationalist” / “Socialist or other left parties” / “Other” is taken directly from variable “party family” in the Manifesto dataset.

As we can see from the Table, 54% of populist parties in our dataset are neither nationalist nor socialist/left. Also, we can see that 30 out of 45 nationalist parties are also populist whereas only 7 out of 57 socialist/left parties are also populist.

Table A8: Parties’ families

	Populist		Total
	0	1	
<b>Party Family (Manifesto)</b>			
0 (Other)	324 83%	43 54%	367 78%
1 (Nationalist)	15 4%	30 38%	45 10%
2 (Socialist or other left party)	50 13%	7 9%	57 12%
Total	389 100%	80 100%	469 100%

*Notes:* Authors’ computation from the Manifesto Project dataset.

Subsequently, we used a Lasso regression to identify which variables are the most likely to predict populist party (according to PopuList definition) for both Manifesto. We focus on the Manifesto data because, being available for each year, it allows to study the changes before/after the crisis.

In table A9, we study for each variable its relevance before (column 1) and after (column 2) the crisis for all populist parties. Then, we replicate this exercise for the 4 sub-groups populist far-right nationalist (FR NA), populist far-right not nationalist (FR noNA), populist not far-right nationalist (noFR NA), and populist not far-right and not nationalist (noFR noNA). A variable which is relevant before and after the crisis for all populist parties

and also for all sub-groups, will appear 10 times in these lassos. We order these variables according to their frequency, and we keep those appearing at least in 8 out of the 10 lassos. When a policy appears two times in the lasso (one positive and one negative), we choose only one of them. This process selects six variables: anti-multiculturalism, national way of live, anti-EU, protectionism, anti-political corruption, anti-internationalism.

Table A9: Lasso analysis

Variable	P		P FR NA		P FR noNA		P noFR NA		P noFR noNA		Relevance
	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	
EU (-)	0.243	0.271	0.111	0.145	0.197	0.233	0.266	0.260	0.401	0.388	10
Protectionism (+)	0.182	0.168	0.165	-0.030	0.220	0.156	0.198	0.175	0.221	0.220	10
Internationalism (-)	0.160	0.264	0.091	0.149	0.070	0.188	0.146	0.277	0.427	0.352	10
Multiculturalism (+)	-0.097	-0.389		-0.056	-0.040	-0.172	-0.069	-0.279	-0.086	-0.765	9
National way of live (+)	0.108	0.324		0.174	0.076	0.242	0.098	0.188	0.184	0.559	9
Multiculturalism (-)	0.126	0.271			0.154	0.288	0.128	0.295	0.279	0.292	8
Political Corruption (-)	0.013	0.170		0.109	0.045	0.148	0.014	0.196		0.110	8
EU (+)	-0.259	-0.106	-0.055		-0.349	-0.042	-0.208	-0.081	-0.141		8
Law and Order (+)	0.187	0.056	0.021		0.196		0.158	0.098	0.239		7
Environment (+)	-0.065	-0.215			-0.217	-0.141	-0.009	-0.102		-0.379	7
Labour Groups (+)	-0.335		-0.287	-0.004	-0.350		-0.361		-0.141	-0.011	7
Corporatism/Mixed Economy (+)	-0.119	-0.077			-0.283	-0.017	-0.056	-0.073	-0.010		7
Democracy (+)	-0.096	-0.029	-0.067		-0.075		-0.046	-0.020			6
Governmental and Administrative Efficiency (+)		0.290		0.206		0.141		0.304	0.188	0.220	6
Constitutionalism (-)		0.107				0.089		0.123	0.154	0.021	5
Imperialism (-)		0.065		0.059		0.026		0.011	-0.114		5
Agriculture and Farmers (+)		0.219		0.083		0.169		0.178		0.227	5
Equality (+)		-0.132		-0.016		-0.066		-0.181		-0.315	5
Peace (+)	-0.093				-0.007		-0.076		-0.656	-0.102	5
Traditional Morality (-)		-0.106			0.021			-0.082	0.180	-0.382	5
Military power and expenses (+)	0.018				0.037		0.023		0.270		4
Economic Growth (+)		-0.069				-0.013		-0.046		-0.297	4
Controlled Economy (+)	0.079				0.059		0.087		0.301		4
Free Market Economy (+)	0.049				0.083		0.028		0.104		4
Economic Planning (+)		-0.068						-0.102	0.001		3
Internationalism (-)		0.081	0.109			0.071		0.018			3
Non-economic Demographic Groups (+)	-0.077						-0.030		-0.183		3
Labour Groups (-)	0.015				0.040				0.063		3
Economic Orthodoxy (+)		-0.108			-0.054			-0.223			3
Market Regulation (+)		0.146						0.173	-0.096		3
Culture (+)		0.088						0.105		0.018	3
Civic Mindness (+)	0.001									0.063	2
Anti-Growth Economy (+)		-0.008						-0.009		-0.045	2
Welfare State Expansion (+)		-0.047		-0.003							2
Economic Goals (+)	-0.005									-0.062	2
Decentralization (+)					-0.203					-0.114	2
National way of live (-)		0.075						0.053			2
Nationalisation (+)		-0.015								-0.106	2
Military power and expenses (-)									-0.078		1
Political Authority (+)									0.053		1
Traditional Morality (+)			0.052						0.133		1
Keynesian Demand Management (+)									-0.013		1
Underprivileged Minority Groups (+)					0.023						1
Centralisation (+)									-0.042		1
Military (-)										-0.207	1
Constitutionalism (+)					0.021						1
Marxist Analysis		-0.012									1
Foreign Special Relationship (-)										-0.037	1

Notes: The table presents the results from 10 different lasso regressions. Each column represents one regression. The first two columns show the coefficients each item in the Manifesto Project database scores in a regression where the dependent variable is a dummy = 1 if the party is a populist party (P), respectively pre- and post-crisis. For example, from column 1 we can see that negative mentions of the EU has a coefficient of 0.243 in the lasso explaining populist parties (P) before the crisis. P FR NA is = 1 when the party is a populist far-right nationalist. P FR noNA is = 1 when the party is a populist far-right non-nationalist. P noFR NA is = 1 when the party is a populist non-far-right nationalist. P noFR noNA is = 1 when the party is a populist non-far-right not-nationalist. Relevance is an index measuring for how many columns the items are significant for each Manifesto Project item.

# I Full Tables

In this section we include all the Tables where we use control variables, including the coefficients of the latter.

Table A10: Abstention growth - Full

Dependent variable Estimation	(1)	(2)
	Abstentionism growth rate	
	OLS	
New populist party	-0.561** (0.271)	
New populist party same orientation		-0.784*** (0.225)
Importance Adventure	0.278 (0.233)	0.183 (0.233)
Second Quartile Education	0.0194 (0.319)	0.00696 (0.317)
Third Quartile Education	-0.650* (0.350)	-0.693* (0.367)
Fourth Quartile Education	-1.099*** (0.340)	-1.090*** (0.350)
Fourth Quartile Age	-1.297** (0.558)	-1.271** (0.555)
Second Quartile Age	-0.216 (0.329)	-0.185 (0.331)
Third Quartile Age	-0.757 (0.503)	-0.732 (0.514)
Regional Population	-1.92e-08 (3.66e-08)	-3.16e-09 (2.71e-08)
Hours Watching TV	-0.209 (0.126)	-0.180 (0.124)
Hours Watching Politics	0.724*** (0.245)	0.649*** (0.229)
Placement on left right scale	-0.178 (0.203)	-0.0339 (0.179)
Obs	659	659
Wave FE	Yes	Yes

*Notes:* OLS estimation. Dependent variable: Abstentionism growth rate (comparing the first election after the financial crisis with the last before). *New populist party* is a dummy equal one if the country-year there is an increase in the number of populist parties. *New populist party same orientation* is a dummy equal one if the country-year there is an increase in the number of populist parties of the same orientation of the cohort. In all regressions we control for wave fixed effects, together with cohort-level time-varying controls described in section 3. Errors are clustered at the cohort level.

Table A11: Economic insecurity and populist vote - First stage - Full

Dep. Variable	(1)	(2)
	Economic Insecurity	
Estimation:	OLS	
Instrument	-0.0380*** (0.00876)	-0.0368*** (0.00865)
Importance Adventure		0.00429 (0.00421)
Second Quartile Education		-0.00529* (0.00274)
Third Quartile Education		-0.0125*** (0.00366)
Fourth Quartile Education		-0.0159** (0.00587)
Second Quartile Age		0.00596 (0.00402)
Third Quartile Age		0.00926 (0.00685)
Fourth Quartile Age		0.0159* (0.00911)
Regional Population		5.21e-10 (1.05e-09)
Hours Watching TV		0.00383* (0.00197)
Hours Watching Politics		-0.00552* (0.00276)
Placement on left right scale		-0.00609** (0.00234)
Obs	2,310	2,310
Wave, Country, Cohort FE	Yes	Yes

*Notes:* OLS estimation. Dependent variable: Economic insecurity. *Instrument* is the variable computed as in equation 7. In both regressions we control for cohort, country, and wave fixed effects. In column 2 we add also cohort-level time-varying controls described in section 3. Errors are clustered at the cohort level.

Table A12: Economic insecurity and populist vote - Full

Dep. Variable	(1)	(2)	(3)	(4)
	Populist vote			
Estimation	OLS		2SLS	
Economic Insecurity	0.0956*** (0.0301)	0.128*** (0.0234)	0.790*** (0.149)	0.850*** (0.193)
Importance Adventure		-0.0185*** (0.00603)		-0.0216*** (0.00671)
Second Quartile Education		0.00992 (0.00600)		0.0155** (0.00698)
Third Quartile Education		0.00696 (0.00917)		0.0177* (0.00995)
Fourth Quartile Education		0.0106 (0.0113)		0.0245* (0.0131)
Second Quartile Age		0.00729 (0.00556)		0.00326 (0.00692)
Third Quartile Age		0.00585 (0.00817)		-0.000754 (0.0107)
Fourth Quartile Age		0.00898 (0.0126)		-0.00269 (0.0163)
Regional Population		2.50e-09 (1.52e-09)		1.05e-09 (1.92e-09)
Hours Watching TV		0.00406* (0.00224)		0.00148 (0.00314)
Hours Watching Politics		-0.00728 (0.00607)		-0.00252 (0.00741)
Placement on left right scale		0.0303*** (0.00313)		0.0347*** (0.00309)
Obs	2,310	2,310	2,310	2,310
Wave, Country, Cohort FE	Yes	Yes	Yes	Yes
KP F			18.80	18.10

Notes: OLS estimation in columns 1 and 2, 2SLS estimation in columns 3 and 4. Dependent variable: Populist vote. *Economic insecurity* is the survey-based measure of economic insecurity. In all regressions we control for cohort, country, and wave fixed effects. In columns 2 and 4 we add also cohort-level time-varying controls described in section 3. Kleibergen-Paap F-statistic are reported for columns 3 and 4.

Table A13: Economic Insecurity and Turnout - Full

Dep. Variable Estimation	(1)	(2)	(3)	(4)
	OLS	2SLS	2SLS	2SLS
Economic Insecurity	-0.383*** (0.0514)	-0.972*** (0.306)	-0.962*** (0.306)	-0.976*** (0.313)
Economic insecurity × New populist same orientation			0.203 (0.188)	0.354* (0.179)
Economic insecurity × New populist same orientation post crisis				0.354* (0.179)
New Populist same orientation			-0.0426 (0.0486)	
New Populist same orientation post crisis				-0.0788* (0.0438)
Importance Adventure	0.0181 (0.0144)	0.0206 (0.0160)	0.0205 (0.0159)	0.0205 (0.0160)
Second Quartile Education	0.0208*** (0.00691)	0.0162** (0.00727)	0.0162** (0.00729)	0.0166** (0.00749)
Third Quartile Education	0.0207*** (0.00735)	0.0119 (0.00947)	0.0119 (0.00950)	0.0123 (0.00968)
Fourth Quartile Education	0.0312*** (0.00922)	0.0198 (0.0121)	0.0200 (0.0119)	0.0201 (0.0122)
Fourth Quartile Age	0.0142 (0.0278)	0.0238 (0.0313)	0.0241 (0.0310)	0.0238 (0.0308)
Second Quartile Age	0.0122 (0.00942)	0.0155 (0.0105)	0.0157 (0.0105)	0.0152 (0.0104)
Third Quartile Age	0.0205 (0.0197)	0.0259 (0.0220)	0.0259 (0.0219)	0.0252 (0.0216)
Regional Population	6.69e-09** (3.12e-09)	7.88e-09** (3.48e-09)	7.37e-09** (3.56e-09)	7.66e-09** (3.50e-09)
Hours Watching TV	0.00649* (0.00369)	0.00860** (0.00405)	0.00791* (0.00422)	0.00799* (0.00399)
Hours Watching Politics	-0.00301 (0.00819)	-0.00689 (0.00836)	-0.00622 (0.00814)	-0.00574 (0.00830)
Placement on left right scale	0.0111** (0.00429)	0.00749* (0.00429)	0.00628 (0.00429)	0.00625 (0.00441)
Obs	2,310	2,310	2,310	2,310
Wave, Country, Cohort FE	Yes	Yes	Yes	Yes
KP F		18.10	8.969	8.936

Notes: OLS estimation in column 1, 2SLS estimation in columns 2-4. Dependent variable: Populist vote. *Economic insecurity* is the survey-based measure of economic insecurity. *New populist same orientation* is a dummy equal one if a new populist party exists in the country and whether it is of the same orientation as that of the voters in the cohort. *New populist same orientation post crisis* is a dummy assuming value one when the new populist appears just after the burst of the financial crisis. In all regressions we control for cohort, country, and wave fixed effects, together with cohort-level time-varying controls described in section 3. Errors are clustered at the cohort level. Kleibergen-Paap F-statistic are reported for columns 2-4.

Table A14: Economic Insecurity and Trust - Full

Dep. Variable	(1)	(2)	(3)	(4)	(5)	(6)
	Trust on Parties		Trust on Politicians		Trust on Parliament	
Estimation	OLS	2SLS	OLS	2SLS	OLS	2SLS
Economic Insecurity	-2.795*** (0.255)	-13.77*** (3.037)	-2.967*** (0.219)	-11.80*** (2.278)	-3.367*** (0.317)	-15.31*** (2.584)
Importance Adventure	-0.103 (0.0610)	-0.0699 (0.108)	0.0328 (0.0395)	0.0709 (0.0481)	-0.0128 (0.0617)	0.0388 (0.0966)
Second Quartile Education	-0.0283 (0.0364)	-0.157*** (0.0548)	-0.00448 (0.0347)	-0.0732* (0.0423)	0.0228 (0.0440)	-0.0701 (0.0478)
Third Quartile Education	-0.0226 (0.0531)	-0.236*** (0.0834)	-0.0117 (0.0397)	-0.144** (0.0536)	0.0682 (0.0405)	-0.110 (0.0651)
Fourth Quartile Education	0.108* (0.0631)	-0.147 (0.121)	0.102** (0.0495)	-0.0689 (0.0764)	0.240*** (0.0585)	0.00968 (0.106)
Fourth Quartile Age	-0.0553 (0.0874)	0.0492 (0.158)	-0.102 (0.0846)	0.0406 (0.123)	-0.0835 (0.114)	0.109 (0.156)
Second Quartile Age	-0.0423 (0.0401)	-0.0166 (0.0436)	-0.0497 (0.0380)	-0.000404 (0.0369)	-0.0591 (0.0445)	0.00755 (0.0463)
Third Quartile Age	-0.126* (0.0667)	-0.0993 (0.106)	-0.130** (0.0615)	-0.0493 (0.0806)	-0.161* (0.0840)	-0.0513 (0.106)
Regional Population	-3.78e-08** (1.77e-08)	1.02e-08 (1.87e-08)	8.96e-09 (1.42e-08)	2.67e-08 (1.79e-08)	-8.30e-09 (1.48e-08)	1.57e-08 (1.94e-08)
Hours Watching TV	0.0214 (0.0250)	0.0660* (0.0379)	0.0243 (0.0188)	0.0559** (0.0256)	-0.00826 (0.0251)	0.0344 (0.0231)
Hours Watching Politics	0.0434 (0.0444)	-0.00629 (0.0399)	-0.0391 (0.0587)	-0.0973 (0.0578)	0.0359 (0.0388)	-0.0428 (0.0589)
Placement on left right scale	0.0648*** (0.0222)	-0.00608 (0.0341)	0.0666*** (0.0207)	0.0124 (0.0309)	0.0736*** (0.0217)	0.000434 (0.0390)
Observations	1,981	1,981	2,310	2,310	2,310	2,310
Wave, Country, Cohort FE	Yes	Yes	Yes	Yes	Yes	Yes
KP F		14.37		18.10		18.10

Notes: OLS estimation in columns 1, 3, and 5, 2SLS estimation in columns 2, 4, and 6. Dependent variable: Trust in political parties in columns 1 and 2, Trust in politicians in columns 3 and 4, and Trust in Parliament in columns 5 and 6. *Economic insecurity* is the survey-based measure of economic insecurity. In all regressions we control for cohort, country, and wave fixed effects, together with cohort-level time-varying controls described in section 3. Errors are clustered at the cohort level. Kleibergen-Paap F-statistic are reported for columns 2, 4, and 6.

# J Political Platforms CHES

Table A15: 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 states 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 position</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 ves 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

*Notes:* 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..