Decomposing the Rise of the Populist Radical Right*

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Support for populist radical right parties in Europe has dramatically increased in recent years. We decompose the rise of these parties from 2005 to 2020 into four components: shifts in party positions, changes in voter attributes (opinions and demographics), changes in voter priorities, and a residual. We merge two wide datasets on party positions and voter attributes and estimate voter priorities using a probabilistic voting model. We find that shifts in party positions and changes in voter attributes do not play a major role in the recent success of populist radical right parties. Instead, the primary driver behind their electoral success lies in voters' changing priorities. Particularly, voters are less likely to decide which party to support based on parties' economic positions. Rather, voters—mainly older, nonunionized, low-educated men—increasingly prioritize nativist cultural positions. This allows populist radical right parties to tap into a preexisting reservoir of culturally conservative voters. Using the same datasets, we provide a set of reduced-form evidence supporting our results. First, while parties' positions have changed, these changes are not consistent with the main supply-side hypothesis for populist support. Second, on aggregate, voters have not adopted populist right-wing opinions. Third, voters are more likely to self-identify ideologically based on their cultural rather than their economic opinions.

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The rise of populist radical right parties (PRRP) is one of the most significant political developments in recent decades. Once on the fringes of European politics, PRRP now capture almost 20% of the vote, as shown in Figure 1. PRRP are increasingly present not only in parliaments but also in governments (Akkerman et al., 2016), impacting policy-making on multiple issues from immigration to welfare policies (Rathgeb and Busemeyer, 2021). In certain countries, populist governments have resulted in lower GDP and significant erosion of democratic norms and institutions (McCoy and Somer, 2019; Funke et al., 2022).

While a growing literature has identified various factors affecting PRRP support (Rodrik, 2018; Fetzer, 2019; Mudde, 2019; Manacorda et al., 2023), there is still no consensus on what is the primary factor for the extensive rise of these parties and which factors are only idiosyncratic (Guriev and Papaioannou, 2022). Moreover, there is no agreement on the broad mechanisms behind the rise of PRRP, including whether this trend is shaped by supply or demand (Golder, 2016; Guiso et al., 2017; Dal Bo et al., 2023). Scholars focusing on the supply side consider how shifts in party positions, such as the moderation of PRRP on certain issues, can explain the growing support for these parties (Akkerman, 2015). On the demand side, an ongoing debate centers on two potential explanations. A common view argues that voters' opinions have changed. For example, the support for PRRP may have increased because public opinion has become more nativist or authoritarian (Hangartner et al., 2019; Ballard-Rosa et al., 2021). The alternative view argues that voters have changed their priorities rather than their opinions. For example, many voters may have always held nativist or authoritarian opinions, and what explains the rise of PRRP is that these opinions now more strongly shape vote choice (Bartels, 2017; Bonikowski, 2017; Enke et al., 2022).

In this paper, we compare the explanatory power of these three classes of arguments: shifts in party positions, changes in voter attributes (opinions and demographics), and changes in voter priorities. We create a new dataset that links data on party positions and voter attributes and estimate voter priorities using a probabilistic voting model. To directly compare the arguments we develop a novel decomposition method for voting behavior, building on commonly used methods for wage decomposition (Fortin et al., 2011). This descriptive method shows that of the three channels, rising support for PRRP is mostly driven by changing priorities. Specifically, we find that over the past two decades, voters have increasingly

¹It is also possible that multiple factors contribute to the rise in populism, for example, a change in priorities could be accompanied by more extreme opinions (Bonomi et al., 2021).

prioritized cultural issues over economic issues.

We start by outlining a multidimensional probabilistic voting model of how party positions, voter attributes, and voter priorities codetermine which party each voter prefers. In the model, a voter's utility from supporting a specific party is a function of that party's positions (supply) weighted by the voter's individual "voting weights" (demand).² Each weight corresponds to a specific party position and can be positive or negative, depending on whether the voter supports or opposes the position.

The two demand channels—voter attributes and voter priorities—affect voting decisions through the voting weights. We allow the weights to vary across voters by assuming that they are a function of the voter attributes. The mapping between voter attributes and the weights is determined by the voter priorities, which correspond to the parameters of the utility function. We refer to these parameters as priorities since they determine which party positions voters prioritize given their attributes. This setting of the model allows us to separately evaluate the two categories of changes in demand discussed in the literature. The first is a change in attributes, reflecting a shift in voters' opinions or demographic composition (e.g., a shift toward more nativist attitudes). The second is a change in priorities, reflecting a shift in the salience of specific topics or the importance voters attach to them (e.g., nativist opinions become more consequential in shaping vote choice).

We measure party positions and voter attributes by creating a novel dataset that links the Comparative Manifesto Project (CMP) and the Integrated Values Survey (IVS). The CMP provides data on 56 party positions based on the parties' platforms. The IVS includes a rich and consistent set of voter attributes including their opinions and demographics. We analyze 101 attributes over three waves: 2005–2009, 2011–2013, and 2017–2020.³ Our merged dataset includes approximately 60,000 respondents in 22 European countries. We focus on Europe, where the PRRP fared exceptionally well in recent years, since the PRRP and their voters share similar traits across the continent.

We use our merged dataset to estimate voter priorities (the model parameters). Since this dataset includes a rich set of voter attributes and party positions, our parameter space is

²In Section 5, we show that our results are robust to an alternative bliss-point model.

³While the IVS survey data provides us with rich respondent-level information on voter attributes, it limits our ability to identify whether respondents would actually vote. Hence, we do not study turnout, despite its importance (Guiso et al., 2017). However, even without a precise measurement of turnout, we still measure a large increase in the support for PRRP in our data, as shown in Figure 1.

high-dimensional. Therefore, we leverage machine-learning techniques to develop a computationally feasible method to estimate the model parameters. The parameters are estimated separately for each survey wave, while assuming that they are the same across countries.⁴

Combining the data on parties and voters with the estimated priorities, we decompose the rise in support for the PRRP between 2005–2009 and 2017–2020 into four components: party positions, voter attributes, voter priorities, and a residual. Drawing from descriptive decomposition methods (DiNardo et al., 1996; Card et al., 2016; Kleven et al., 2019; Danieli, 2022), we quantify the contribution of each component to the rise in PRRP support. Specifically, using our model, we calculate partial-equilibrium counterfactual changes in support for PRRP when only one component shifts over time and the other three are held fixed. For example, to estimate the voter priorities component, we calculate the counterfactual rise in support for PRRP if party positions, voter attributes, and the residuals were held fixed to their values in 2017–2020, while only voter priorities changed from their values in 2005–2009 to their values in 2017–2020.

Aggregating results from all countries, changes in voter priorities drive 44.9% of the overall rise of PRRP. By contrast, changes in voter attributes and in party positions explain only 7.1% and 0.05%, respectively. The residual accounts for the remaining 48.0% and is driven mainly by the large growth of new parties. These results remain robust across various specifications, models, estimation methods, and decomposition orders.

To investigate the mechanism driving our results, we complement the decomposition exercise with additional analyses focusing on each of the components. These analyses also demonstrate that our data includes substantial variation in party positions and voter attributes that is relevant for PRRP support, both across countries and over time. Hence, our finding that voter attributes and party positions do not meaningfully contribute to the rise of PRRP is unlikely to be driven by data limitations.

We first show that voters today are more likely to prioritize parties' cultural positions rather than their economic positions. We use our model to examine how the changes in the estimated priority parameters affect voting decisions. We observe a declining tendency

⁴One contribution of our approach is the detailed estimation of the priorities shared across European voters. This detailed estimation is made possible by pooling data from many countries. In Section 2.4.1 we show that voters with similar attributes in different countries tend to support similar parties, consistent with our assumption that the parameters are the same across countries. Moreover, in Section 5 we show that our decomposition results are robust for using leave-country-out estimators, where the model parameters in each country are estimated using data from other countries.

among voters to reward or penalize parties based on their economic positions. By contrast, many voters, especially males, individuals without a college degree, older individuals, and non-union members, increasingly prioritize conservative cultural positions.

We complement these model-based results with independent reduced-form survey evidence on changing priorities. We use voters' left-right self-identification as an alternative outcome that is not included in our main estimation. Consistently, we find that voters increasingly identify based on their cultural opinions rather than on their economic opinions. Additionally, we find a growing correlation between voters' opinions on cultural issues and the cultural positions of the parties they support.

We then inquire into our striking finding that changes in voter attributes contribute only a little to the rise of PRRP. We analyze reduced-form trends in various voter opinions and find that while in some countries voters have adopted views that typically characterize the PRRP, in others, voters have moved in the opposite direction. In aggregate, we find almost no right-wing shift in public opinion on issues associated with PRRP. For example, in contrast to multiple media accounts, attitudes have not moved en masse toward greater opposition to immigration. This supports the hypothesis that a reservoir of populist radical right voters existed before the dramatic rise in PRRP support.

The size of this preexisting reservoir of PRRP voters varies substantially across countries and can explain some of the geographical variation in PRRP support. We use a spatial decomposition method to predict the counterfactual support that PRRP would have received in different countries if voters in all countries were facing the same choice set of parties. We find that the cross-country variation in voter attributes can partially explain why in some countries (e.g., Poland) the largest party is a PRRP, while in others (e.g., Germany) the populist radical right is still relatively small. Our exercise also allows us to estimate the PRRP reservoir in countries where populist parties struggle to compete due to the first-past-the-post system. For example, we extend our analysis to the U.S. and show that it has a relatively large PRRP reservoir.

On the supply side, we find that changes in party positions are not consistent with the main supply-side hypotheses explaining PRRP support. While we do observe substantial common trends in party positions across the continent, these changes are not expected to generate an increase in support for PRRP. For example, PRRP became more conservative

on cultural issues over time, in contrast to theories arguing that PRRP gained votes by moderating cultural positions (Lancaster, 2020).

Finally, we show that the increase in the residual is driven by new populist radical right parties entering later than expected. Using the party positions, voter attributes, and voter priorities from the 2005-2009 wave, our model predicts that PRRP that entered the political system in the 2010s should have already received support in 2005-2009. We discuss potential explanations for this belated entry, such as coordination failures.

This paper contributes to the literature on populism by directly comparing contrasting supply and demand theories regarding the rise of PRRP, which we discussed above. Using our decomposition, we establish new empirical facts on the channels through which support for PRRP increases and find that the priority channel better fits the data. The decomposition method we introduce is not limited to the study of PRRP and can be used to analyze various other political trends.

This paper also complements the literature on the causal effects of different shocks on PRRP support, including technological change (Anelli et al., 2019), globalization (Rodrik, 2020), financial crises and austerity policies (Fetzer, 2019; Guiso et al., 2021) trade (Colantone and Stanig, 2018a; Colantone and Stanig, 2018b; Autor et al., 2020; Dippel et al., 2020), and new media technology (Guriev et al., 2021; Manacorda et al., 2023). While our descriptive analysis is not intended to identify causal effects, it points to the channels through which these shocks might operate. For example, if trade shocks increased PRRP support, our results suggest these shocks had an effect by changing the priorities of voters rather than their opinions. Hence, our descriptive analysis highlights the importance of using priorities as the outcome variable when studying potential causes for the rise of PRRP.

Finally, we contribute to a small literature estimating voter priorities and their voting implications (Le Pennec and Pons, 2023). While priorities have been used in recent political economy theories (Bonomi et al., 2021; Enke et al., 2022), few studies have attempted to estimate the full set of voter priorities over time and across countries (Johns, 2010; De Vries et al., 2013; Kendall et al., 2015; Sides et al., 2019). Our analysis provides comprehensive empirical evidence supporting the recent theoretical literature discussing the prioritization of cultural issues (Kriesi et al., 2008; Enke, 2020; Gethin et al., 2021; Margalit et al., 2022).

1 Voting Model

In this section, we develop a voting model that provides a parsimonious unifying framework for how party positions, voter attributes, and voter priorities codetermine vote choice.

We assume a standard utility maximization framework where voters support the party that maximizes their utility. Voter i's utility from voting for party j is a function of the party's positions weighted by her individual voting weights. Specifically, we assume the following functional form for voter utility:

$$U_{ij} = w_i' z_j + \zeta_j + \varepsilon_{ij}. \tag{1}$$

The L-dimensional vector z_j represents party j's positions. w_i is an L-dimensional vector of the corresponding voting weights. Each individual weight w_i^l represents the impact of the corresponding party position z_j^l on voter i's utility. The sign of the weight is positive when the voter supports a position (i.e., the voter's utility increases when she supports a party with this position) and negative when she opposes it. The weight's magnitude (in absolute terms) measures how much the voter cares about this position compared to other positions. We use ζ_j to capture the residual common utility from voting for party j—an unobserved party property that increases the utility from supporting this party among all voters. This residual includes both the utility from unobserved party positions and the party's "valence"—other unobserved party properties that affect voters' utility from supporting the party. Valence could capture factors such as the party leader's charisma or the party's historical reputation. Finally, ε_{ij} represents all unobserved idiosyncratic factors that affect voting decisions.

We assume that the voting weights are a linear function of voter attributes:

$$w_i = x_i' \Phi + \beta. \tag{2}$$

The M-dimensional vector x_i represents the observed attributes (demographics and opinions) of voter i. The $M \times L$ matrix Φ determines how each voter attribute affects the weights voters place on every party position. $\Phi_{ml} > 0$ means that a larger value of voter attribute x^m generates larger support for party position z^l . For example, if x^m measures voter support for redistribution and z^l measures party support for larger welfare spending, we would expect

 Φ_{ml} to have a positive value. We standardize the distribution of x_i and therefore the *L*-dimensional intercept vector β represents the average weight of the full population.

Combining Equations 1 and 2 implies that the utility is a function of the interaction between voter attributes and party positions. We define a vector δ that captures the utility gain from each party j that is common across voters,

$$\delta_j := \beta' z_j + \zeta_j. \tag{3}$$

Hence we can rewrite the utility as

$$U(x_i, z_j, \varepsilon_{ij}) = x_i' \Phi z_j + \delta_j + \varepsilon_{ij}. \tag{4}$$

The parameterization of Equation 4 can capture the second-order approximation of any functional form. It nests the standard bliss-point utility functions where voters vote for the party closest to them ideologically as discussed in Appendix B. It also allows a more complex utility function, where voters vote based on multiple dimensions and where demographics, such as education, can also affect vote choice (Kriesi et al., 2008; Piketty, 2020; Abou-Chadi and Hix, 2021; Gidron, 2022).

To take this model to the data, we assume that the unobserved idiosyncratic shock ε_{ij} has a type-I extreme value distribution (Gumbel). Together with Equation 4, this assumption allows us to write the conditional probability of voting for a party as

$$P(z_j|x_i) = \frac{\exp(x_i'\Phi z_j + \delta_j)}{\sum_{k \in \mathcal{J}_{c,t}} \exp(x_i'\Phi z_k + \delta_k)},$$
(5)

where $\mathcal{J}_{c,t}$ is the set of all parties that are on the ballot in country c at period t. In Section 3 we use this expression to calculate the likelihood function of the model parameters.

2 Data

In this section, we discuss our data on party positions and voter attributes. We focus on Europe in order to analyze PRRP that have long defined themselves in opposition to similar political developments, such as European integration, and that have formed transnational networks of cooperation in supra-national institutions, such as the European Parliament (McDonnell and Werner, 2020). Analyzing PRRP in Europe also allows us to focus on a region where these parties have particularly gained strength in recent years (Rodrik, 2018).

2.1 Party Positions: Comparative Manifesto Project

We characterize party positions on various issues using the Comparative Manifesto Project (CMP) (Volkens et al., 2020). This dataset covers the manifestos (platforms) of parties running in elections for the lower house. The CMP codes what share of the manifesto is dedicated to each topic, and for many topics details the share of positive and negative mentions.⁵ The dataset covers a large variety of topics, including economic issues, cultural issues, and stands on globalization, national security, and foreign policy. Our analysis includes all 56 CMP main variables.⁶ Appendix Table B.1 presents the full list of CMP party positions.

When aggregating results for various economic or cultural positions, we rely on two indices of party positions, created by the CMP. The economic index measures the overall party positions on the government intervention-free market scale. It incorporates 19 party positions on issues including the welfare state, economic systems, protectionism, and regulation. The cultural index (originally called the society index) summarizes cultural positions on a progressive-conservative scale. It incorporates 11 party positions on issues including traditional morality, national way of life, multiculturalism, and democracy. Both indices are constructed by adding conservative party positions and subtracting liberal positions such that a higher value reflects more support for a free market or more conservative cultural values (the party positions included in each index are detailed in Appendix Table B.1). We focus on preexisting measures of economic and cultural positions to mitigate concerns over cherry-picking. Since this division leaves room for discretion, we verify the robustness of our results using multiple alternative indices in Section 5.

We note that the distinction between economic and cultural issues is imperfect and that not all political issues neatly fall into one of the two categories (Cramer, 2016). For example, opposition to European integration may lie at the intersection of economic concerns and cultural concerns (Kriesi et al., 2008). Still, distinguishing between economic and cultural

⁵An alternative dataset on party positions is the Chapel Hill Expert Survey (CHES). We use CMP since the coverage of CHES is more limited than CMP's and its position measures are more subjective. Previous work suggests that the CMP measures are strongly correlated with those of CHES (Adams et al., 2019).

⁶We use all three-digit category variables.

issues in politics is a common feature in electoral politics research (Kitschelt, 1994; Hooghe and Marks, 2018; Margalit, 2019; Norris and Inglehart, 2019) and is analytically useful for our purposes.

2.2 Voter Attributes: Integrated Values Survey

We measure voter attributes using the Integrated Values Survey (IVS). The IVS is composed of two large-scale cross-national repeated surveys: the World Values Survey (WVS) and the European Values Survey (EVS). This dataset provides several advantages for our analysis. First, it includes information on a variety of voter attributes including demographics, religious beliefs, social values, and opinions on various topics. Second, many of the questions in the IVS are consistently asked over time.⁷ Third, the data covers a broad range of countries.

We study the three most recent survey waves: 2005–2009, 2011–2013, and 2017–2020. We include in our study all 22 European countries that were surveyed in both the 2005–2009 and the 2017–2020 waves, and in which at least 70% of the voters support a party that can be matched to the CMP. Figure 2 presents the countries included in our dataset along with the support that PRRP received in the 2017–2020 survey and in the election closest to the survey year. The figure shows that we cover countries with a wide range of PRRP support, spanning from 0% to over 70%. We use sampling weights in all of our analyses. Appendix Table A.1 summarizes the IVS data and Appendix C.1 includes further details on data processing.

To estimate changes over time while providing our model with as much flexibility as possible, we include in our analysis nearly all variables that appear in all three survey waves. Appendix Table B.2 describes the 101 opinion and demographic variables included in our data. As detailed in Appendix C.1, we exclude only the following variables: two survey questions attempting to measure voter priorities (which we estimate more extensively), questions regarding voters' confidence in the parliament, parties, and government (which tend to change whenever a new government is elected), and one question on political ideology (which we use for robustness). Our outcome variable is the respondents' preferred party, defined as the party participants said they would vote for or the party that appeals to them most. We

⁷This feature is critical for our decomposition analysis and does not exist in various similar datasets, such as European Social Survey.

⁸Most surveys asked participants who they would vote for and if participants said they did not know, they were asked which party they support. In the last EVS wave, participants were only asked which party appealed to them most. We use both questions to define the outcome for as many respondents as possible.

do not analyze voter turnout, as it is not properly measured in this data.

2.3 Linking Party and Voter Data

For our main analysis, we create a novel dataset that links data on voter attributes with data on the positions of the parties they support. We link parties across the datasets using PartyFacts identifiers if they are available, and otherwise manually, based on their names. By definition, the CMP data is measured around elections, while the IVS surveys are not necessarily conducted close to elections. When merging the datasets, we assign to each party the CMP variables defined for the election closest to when the IVS survey was taken. Parties are included in the analysis if at least five respondents support them in the IVS and if we are able to match them with CMP data five years before or after the survey was conducted. We discuss the process of merging the data in more detail in Appendix C.2.

Appendix Table A.2 shows that we are able to match 94% of respondents who expressed support for a party with CMP data. This data can be useful for any future research that explores the relations between voter attributes and the positions of the parties they support.

2.4 Party Classification

PRRP share at least three common characteristics (Mudde, 2007). First, these parties are nativist; i.e., they consider minorities as a threat to the purity of the "real people". Second, these parties are authoritarian; i.e., they hold a "belief in a strictly ordered society, in which infringements on authority are to be punished severely" (Mudde, 2019, p. 29). Third, these parties are populist; i.e., their politics is predicated on a moral opposition between corrupt elites and the unified people.

We determine whether a party is a populist radical right party according to PopuList, a comprehensive dataset that is updated periodically (Rooduijn et al., 2019). The dataset classifies European parties since 1989 based on experts' judgment. We define PRRP as parties that were classified as radical right parties in the PopuList data since 2005. The PopuList

⁹The fact that the IVS is not conducted close to elections may imply that IVS survey respondents are less informed about parties. Moreover, the party they support in the survey may be different from the party they support close to an election. On the other hand, a survey that is not conducted close to an election is less likely to be affected by strategic voting, such as voters taking into account polling results (Bursztyn et al., 2023), and thus our sincere voting assumption is more likely to hold in the IVS data.

¹⁰There are three cases where the PopuList classification of a party changes over time. Since such changes

also classifies parties as populist and non-populist. However, we include both populist and non-populist radical right parties in our PRRP definition for three reasons. First, voters of these parties share similar attributes. Second, these parties are often close substitutes and therefore, in some countries (e.g., Greece), voters shifted from populist to non-populist radical right parties. Third, only a handful of parties, which represent less than 1% of the overall radical right support share in the IVS, are non-populist. Therefore, our results are substantively unchanged if non-populist radical right parties are excluded from our definition.

We use CMP data to classify parties into other categories (Mair and Mudde, 1998). Specifically, we define parties as center-left if the CMP codes them as social democratic, and center-right if the CMP codes them as liberal, Christian democratic, or conservative. Green and socialist parties are those that are coded as ecological and socialist, respectively. These categories, along with the PRRP, account on average for 89% of the vote share of all parties coded in the CMP data.

2.4.1 Cross-Country Similarities in Voting Decision

We use the party classification to examine whether voters with similar attributes tend to support similar parties, even across countries. This analysis tests the cross-country consistency of our party categories. Moreover, it tests our estimation assumption that voter priorities (the model parameters) change over time but not across the countries we study.

Appendix Figure A.1 shows the similarities between voters across these party categories. We measure similarities between voters of different parties based on how well we can predict voting for one party using a prediction model that was trained for another party. We regress the support for each party on voter attributes using IVS data. We then predict the fitted value for each voter and party. For every two parties with over fifty supporters, we calculate the correlation between the fitted values of all voters in both of the parties' countries. Red squares indicate similarities between the attributes of the voters of the two parties, while purple indicates dissimilarities. For example, UKIP voters (right column) are particularly similar to AfD voters, such that a model that predicts support for UKIP in the UK can predict support for AfD in Germany almost as well. We classify parties into the aforementioned

are rare, we define a party as a populist radical right party if the PopuList defined it as a radical right party in any time period.

¹¹Populist and non-populist radical right voters share similar nativist opinions.

categories and report the average correlations between and within each category. For this exercise, we also include an additional category for other populists, based on the PopuList classification.

Our classification generates cohesive categories, with positive correlations between parties in the same category. The correlation between different PRRP is relatively high (0.22). By contrast, the correlations between PRRP and parties from other categories are negative on average. PRRP are not correlated on average with other (non-right) populist parties, supporting our decision to focus only on right-wing populism (Rooduijn, 2018).

These results are fairly consistent with our simplifying assumption that voter priorities are equal across countries. We find that a simple linear model that was trained on one party can yield satisfactory predictions of the voting decision for parties in other countries and in the same category. This suggests that using the same model parameters across countries in our richer model should yield a good description of voting choices across the continent.

2.5 Summary Statistics

Panel A of Table 1 presents summary statistics of party positions for PRRP and all other parties, based on manifestos that correspond to the 2005–2009 and 2017–2020 IVS waves. The first two rows show the average values for the economic and cultural CMP indices. Positive index values denote that a larger share of the manifesto is dedicated to right-wing positions. As expected, PRRP are more conservative, particularly on cultural issues. The table also presents the average percentage share of the manifestos dedicated to five positions that most strongly distinguish between PRRP and non-PRRP and demonstrates clear differences between them: PRRP dedicate a substantial and increasing amount of their platforms to nationalistic topics (e.g., positive mentions of "national way of life"), which other parties rarely mention.

Panel B of Table 1 presents summary statistics for the demographics and the five most distinctive opinions between PRRP and non-PRRP voters, based on the same two IVS waves. Opinions are measured in standard deviation units. As expected, PRRP supporters are more likely to be males and live in rural areas, and are less likely to hold a college degree (Gidron and Hall, 2020). Over time, PRRP supporters hold more culturally conservative opinions.

3 Estimation

In this section, we describe how we estimate the model parameters using a two-step procedure. We first estimate the matrix Φ mapping voter attributes to voting weights and the vector δ of the common utility from each party. These parameters fully determine the likelihood of voting for each party (Equation 5). We estimate them using a penalized MLE, separately for each IVS wave. We then estimate β , the average voting weights placed on each position, and ζ , the residuals, based on Equation 3, using the estimands for $\hat{\delta}$ from all three waves.

We assume that the model parameters are changing over time, but are equal across all countries. This is consistent with our results in Section 2.4.1 showing that voting choices are fairly similar across the continent. We test this assumption in Section 5 by estimating the model parameters excluding one country each time, and show the results remain similar when analyzing the excluded country.

3.1 First Step: Estimation of Φ and δ

Since we use a wide dataset on voter attributes and party positions, our parameter space is high-dimensional and, therefore, we rely on machine-learning techniques to avoid overfitting. Our dataset is large as we prefer not to make any prior assumptions regarding which combination of variables is important for explaining party support. Instead, we use all available variables and let the data determine which variables are relevant. As a result, the dimension of matrix Φ is approximately 5,000 (the number of voter attributes multiplied by the number of party positions). To avoid overfitting, we restrict the support of Φ such that $\|\Phi\| < c$ for some constant c. We follow recent econometric research (Athey et al., 2021), and use the nuclear norm as our matrix norm for two reasons. First, the nuclear norm is known to generate low-rank matrices, which are easier to interpret and imply that the voters decide which party to support based on relatively few dimensions, as suggested in the literature (Kitschelt, 1994; Poole and Rosenthal, 2001; Kriesi et al., 2008). Second, the nuclear norm generates a convex optimization problem that is computationally easier to solve.

Specifically, we estimate Φ and δ using a penalized maximum likelihood estimator. We

obtain the following maximization problem using the likelihood derived in Equation 5:

$$\max_{\Phi, \delta} \mathcal{L}(\Phi, \delta) - \lambda \|\Phi\| = \max_{\Phi, \delta} \sum_{i} \log \frac{\exp\left[x_{i} \Phi z_{j(i)} + \delta_{j(i)}\right]}{\sum_{k \in \mathcal{J}_{c(i)}} \exp\left[x_{i} \Phi z_{k} + \delta_{k}\right]} - \lambda \|\Phi\|.$$
 (6)

We estimate the parameters separately for each IVS wave. We solve this maximization problem using proximal gradient descent (Hastie et al., 2019) and choose the value of the penalization parameter λ using cross-validation.

3.2 Second Step: Estimation of β and ζ

In the second step, we use the estimands of $\hat{\delta}$ from the first step to estimate β , the mean value for the weight placed on each position, and ζ , each party's residual. In this step, we combine information from all three waves.

We estimate these parameters based on Equation 3. Taking the difference between two consecutive survey waves, we get the following equation:

$$\Delta_t^{t+1} \delta_j = \underbrace{\Delta_t^{t+1} \beta \bar{z}_j}_{\text{Voter Priorities}} + \underbrace{\bar{\beta} \Delta_t^{t+1} z_j}_{\text{Party Positions}} + \underbrace{\Delta_t^{t+1} \zeta_j}_{\text{Residual}}, \tag{7}$$

where $\bar{\beta}$ and \bar{z}_j represent the average values over the two periods. This equation decomposes the overall changes in δ to the contribution of changes in voter priorities $(\Delta\beta)$, party positions (Δz) , and the residual $(\Delta\zeta)$.¹² The coefficients $\Delta_t^{t+1}\beta$ and $\bar{\beta}$ are estimated by regressing $\hat{\delta}$ on \bar{z}_j and $\Delta_t^{t+1}z_j$. Once $\Delta_t^{t+1}\beta$ and $\bar{\beta}$ are estimated, we calculate the estimates for $\hat{\beta}_t, \hat{\beta}_{t+1}$ and plug those in Equation 3 to calculate $\hat{\zeta}$.

Since the number of party positions is relatively large compared to the overall number of observations (the total number of parties in each wave) we make two additional assumptions to avoid overfitting. First, we assume that for countries that appear in the 2011–2013 intermediate wave, the change in beta is constant over time such that $\beta_{t+2} - \beta_{t+1} = \beta_{t+1} - \beta_t$. This implies that if we sum Equation 7 for Δ_t^{t+1} and Δ_{t+1}^{t+2} we get

$$\Delta_t^{t+2}\delta_j = \Delta_t^{t+2}\beta \bar{z_j} + \bar{\beta}\Delta_t^{t+2}z_j + \Delta_t^{t+2}\zeta_j, \tag{8}$$

¹²Voter attributes do not affect δ since δ is defined as the common utility all voters receive from a party.

where the averages $(\bar{\beta}, \bar{z_j})$ are taken over all three periods.

Second, we assume that the combinations of party positions that generate the most differences in utility among voters are the same factors that determine the average utility across all voters.¹³ We use the singular value decomposition of the matrix Φ estimated in the first stage, $\Phi = U\Sigma V^T$, and calculate the first k columns of matrix V ($[V]_k$). Intuitively, these are the k linear combinations of party positions that generate the largest utility differences across voters. We then reduce the dimension of β to k by restricting it to be in the span of these linear combinations. Appendix D provides more details. We choose k=5 for our main analysis to allow for multiple dimensions of party positions while avoiding overfitting. Section 5 shows that other k values yield similar results.

3.3 Estimation Results: 2017–2020 Voting Weights

In this section, we explore the variations in voting weights in the 2017–2020 wave.¹⁴ We calculate the weights each voter places on each party position by combining the observed voter attributes with the estimated model parameters using Equation 2. The weights are measured in units of standard deviation to utility units, defined as how a one standard deviation increase in this position would affect voter utility.¹⁵

We also compute aggregated weights for the two CMP indices: the economic and cultural indices. To do so, we take the average of the weights of all variables included in each index and flip the sign of the weights for variables that enter the index negatively. Appendix Table A.3 presents the voter attributes with the largest coefficients in the two weight indices. For each index, we show the values of the ten largest coefficients in the 2017–2020 wave. The patterns we uncover provide face validity to our analyses. For example, we find that all else equal, individuals who express confidence in unions tend to reward parties with left-wing economic positions (i.e., they put a large negative weight on an index of right-wing economic positions). Moving to the cultural index, individuals who believe jobs should prioritize natives reward

¹³This assumption is likely to hold since voters typically support parties based on contested issues. However, it would be violated if all voters have a homogeneous taste for certain party positions.

¹⁴In our main decomposition exercise in Section 5, we analyze the changes in these weights over time.

 $^{^{15}}$ To provide some intuition for these units, with two parties the utility is the logarithm of the odds ratio. For example, an increase of one utility unit is equivalent to a change from a 50/50 vote share to a 73/27.

¹⁶This is equivalent to a single weight on the index (the utility from a change in the index), assuming that a change in the index is driven by all index positions equally.

¹⁷The weight indices are linear functions of the voter attributes, where the coefficients are linear combinations of the columns of matrix Φ that correspond to the positions comprising the CMP indices.

parties with right-wing cultural positions.

Figure 3 shows that PRRP voters put more weight on conservative cultural issues compared to economic issues. We plot the 25th, 50th, and 75th percentiles of the weight distribution separately for supporters of each party category in the 2017–2020 survey wave. The top two panels present results for the two CMP indices and the subsequent panels present the weights on the positions with the largest variation in weights across party categories. The weights PRRP voters place on the economy index are similar to that of mainstream right-wing voters. By contrast, PRRP voters care more about conservative cultural positions compared to mainstream voters. For example, PRRP voters put large positive weights on positive mentions of a national way of life. Reassuringly, Figure 3 also shows that voters of other party categories put more weight on positions in the core of their party's agenda. For example, green voters place large positive weights on environmental protection, while socialist voters place large positive weights on support for labor groups.

4 Decomposition

We now turn to the decomposition of the rise of PRRP. The statistic that we decompose is $S_P^{t,c}$, the share of PRRP supporters in country c in period t. This share is defined as the sum of the probabilities that each voter supports a PRRP:

$$S_P^{t,c} := \int P(\Pi|x_i; \theta_t, Z_t^c, \zeta_t^c) f_t^c(x_i) dx_i$$
(9)

where Π is the event of supporting a party of the populist radical right.¹⁸ We use $\theta_t = (\Phi_t, \beta_t)$ to note the set of utility parameters. $Z_t^c = \{z_{j,t}\}_{j \in \mathcal{J}_{c,t}}$ is the matrix of observed party positions, and $\zeta_t^c = \{\zeta_{j,t}\}_{j \in \mathcal{J}_{c,t}}$ is the vector of residuals for all parties in the option set $(\mathcal{J}_{c,t})$. Finally, f_t^c is the density of voter attributes in country c in period t.

Using this notation, the change in PRRP support between periods t and t+1 is

$$\Delta_{t}^{t+1} S_{P}^{c} = \int P\left(\Pi | x_{i}; \theta_{t+1}, Z_{t+1}^{c}, \zeta_{t+1}^{c}\right) f_{t+1}^{c}\left(x_{i}\right) \mathrm{d}x_{i} - \int P\left(\Pi | x_{i}; \theta_{t}, Z_{t}, \zeta_{t}^{c}\right) f_{t}^{c}\left(x_{i}\right) \mathrm{d}x_{i}.$$

This parameterization allows us to decompose $\Delta_t^{t+1}S_P^c$ into the sum of four components:

¹⁸Formally, $P(\Pi|x_i; \theta_t, Z_t^c, \zeta_t^c) = P(\arg\max_j U_{ij} \in \mathcal{P}^{t,c})$, where $\mathcal{P}^{t,c}$ denotes the set of PRRP.

voter priorities, voter attributes, party positions, and a residual. Formally:

$$\Delta_{t}^{t+1}S_{P}^{c} = \underbrace{\int P\left(\Pi|x_{i};\theta_{t+1},Z_{t+1}^{c},\zeta_{t+1}^{c}\right)f_{t+1}^{c}\left(x_{i}\right)\mathrm{d}x_{i}}^{c} - \int P\left(\Pi|x_{i};\theta_{t},Z_{t+1}^{c},\zeta_{t+1}^{c}\right)f_{t+1}^{c}\left(x_{i}\right)\mathrm{d}x_{i}}^{c} - \underbrace{\int P\left(\Pi|x_{i};\theta_{t},Z_{t+1}^{c},\zeta_{t+1}^{c}\right)f_{t+1}^{c}\left(x_{i}\right)\mathrm{d}x_{i} - \int P\left(\Pi|x_{i};\theta_{t},Z_{t+1}^{c},\zeta_{t+1}^{c}\right)f_{t}^{c}\left(x_{i}\right)\mathrm{d}x_{i}}^{Voter Priorities} + \underbrace{\int P\left(\Pi|x_{i};\theta_{t},Z_{t+1}^{c},\zeta_{t+1}^{c}\right)f_{t}^{c}\left(x_{i}\right)\mathrm{d}x_{i} - \int P\left(\Pi|x_{i};\theta_{t},Z_{t}^{c},\zeta_{t+1}^{c}\right)f_{t}^{c}\left(x_{i}\right)\mathrm{d}x_{i}}^{Voter Attributes} + \underbrace{\int P\left(\Pi|x_{i};\theta_{t},Z_{t+1}^{c},\zeta_{t+1}^{c}\right)f_{t}^{c}\left(x_{i}\right)\mathrm{d}x_{i} - \int P\left(\Pi|x_{i};\theta_{t},Z_{t}^{c},\zeta_{t+1}^{c}\right)f_{t}^{c}\left(x_{i}\right)\mathrm{d}x_{i}}^{Party Positions} + \underbrace{\int P\left(\Pi|x_{i};\theta_{t},Z_{t}^{c},\zeta_{t+1}^{c}\right)f_{t}^{c}\left(x_{i}\right)\mathrm{d}x_{i} - \int P\left(\Pi|x_{i};\theta_{t},Z_{t}^{c},\zeta_{t}^{c}\right)f_{t}^{c}\left(x_{i}\right)\mathrm{d}x_{i}}^{Party Positions}}_{Residual}$$

$$(10)$$

This mathematical identity states that the overall rise in PRRP support is the sum of the rise driven by each of the four factors. Each component represents a partial-equilibrium counterfactual increase in PRRP support when only one input changes, while the others are held fixed (Juhn et al., 1993; DiNardo et al., 1996). We simulate these counterfactuals by calculating the probability with which each voter is expected to support each party (Equation 5) and aggregating across all voters.

After decomposing the trends in PRRP support in each country separately, we aggregate the results using a weighted average of all countries. The weights are the inverse of the share of PRRP support in the 2017–2020 wave. This weighting guarantees that the results are not driven entirely by countries with very high levels of PRRP support (e.g., Hungary).

Quantifying the contribution of party positions, voter attributes, and voter priorities, relies on our ability to measure them properly in the data. In Section 2.5 we show that the CMP and IVS include variables on party positions and voter opinions that clearly distinguish both populist radical right parties and their voters, respectively. In Section 6 we show that we are also able to capture trends in these variables. Moreover, we show that the opinion variables explain a large share of the variation in PRRP support across countries. Still, one limitation we face is that there could always be additional party or voter attributes that are absent from our data such as the demographics of candidates (Dal Bo et al., 2023) or their canvassing efforts (Pons, 2018). The decomposition exercise may still capture some changes in these unobservables if they are correlated with observable variables.

To accommodate parties' entry and exit, we include all parties that participated in either

period t or t+1. We then set the residual $\zeta_{j,t}$ to $-\infty$ if party j does not participate or is too small to appear in our data in period t. This assures that the predicted voting share for this party is set to zero. Therefore, changes in PRRP support that are related to entry and exit are attributed to the residual component. In Appendix E we further decompose the residual component to calculate the share of the residual driven by entry.

We calculate standard errors using bootstrap. In each of our 1,000 bootstrap iterations, we repeat our two-stage estimation for the resampled data. We then decompose the rise of PRRP for the resampled data, using the parameters estimated in each iteration.

4.1 Interpretation

The decomposition in Equation 10 allows us to describe how PRRP gained support in Europe. Decomposition methods inherently follow a partial-equilibrium approach (Fortin et al., 2011). In our case, each component represents a partial-equilibrium counterfactual increase in PRRP support when only one input changes. While the counterfactuals do not take into account strategic responses between the components (Canen and Song, 2023), learning which broad mechanisms drive the increased support for PRRP substantially narrows down the set of potential explanations for this rise. The rest of this section elaborates on what mechanisms each component measures, and how they relate to existing theories on the rise of PRRP.

Voter Priorities This demand component captures changes in the parameters Φ and β . These parameters determine whether voters support or oppose each party position and how they prioritize the different party positions, given their opinions and demographics.

Changes in priorities may increase PRRP support even in the absence of shifts in voter attributes or party positions. Specifically, a common argument is that cultural issues increasingly shape political identities and voting behavior (De Vries et al., 2013; Norris and Inglehart, 2019; Noury and Roland, 2020). According to Bartels (2023), PRRP gained support by activating a preexisting reservoir of voters with culturally conservative attitudes and not because of a dramatic change in attitudes. This has been demonstrated in Italy (Magistro and Wittstock, 2021), the United Kingdom (Sobolewska and Ford, 2020), and Germany (Cantoni et al., 2019). However, there is limited cross-country evidence of changing priorities or analyses comparing the priorities channel to other potential channels of PRRP support.

Voter Attributes This demand component captures changes in f, the distribution of voter attributes x_i . This component is associated with the dominant image of the rise of the populist radical right as a political tsunami: a swift and powerful shift in public opinion toward the ethnonationalism and authoritarianism of these parties.

Such shifts in public opinion were identified in specific contexts. Hangartner et al. (2019) show that greater exposure to refugees in Greece fueled opposition to immigration.¹⁹ Ballard-Rosa et al. (2021) argue that people who live in regions exposed to trade shocks adopted more authoritarian values—which, in turn, pushed voters toward PRRP and related causes (e.g., Brexit). In addition, changes in voter attributes include demographic changes, such as an increase in unemployment, that have been associated with anti-immigration attitudes and greater PRRP support (Algan et al., 2017; Guiso et al., 2017; Dehdari, 2022).

Party Positions This component captures changes in the supply of party positions Z. One set of supply-side hypotheses focuses on changes in the PRRP, which may have moderated their cultural positions in order to appeal to mainstream voters (Akkerman, 2015; Lancaster, 2020). Alternatively, PRRP could have shifted their economic positions toward welfare chauvinism, understood as generous welfare benefits that exclude those who are deemed as unauthentic members of the nation (Schumacher and Van Kersbergen, 2016).

An alternative set of hypotheses focuses on position changes in other parties. Berman (2021) argues that the convergence of center-left and center-right parties on economic issues in the 1990s opened a space for the PRRP parties. In contrast to this convergence hypothesis, others claim that the left's turn toward progressive cultural positions has alienated some working-class voters, which switched to PRRP (Goodhart, 2017).²⁰

Residual The last component captures changes in the residual ζ of all parties. Changes in the residual could reflect several channels in which support for PRRP might increase. First, the increase in the residual component could reflect a change in unobserved party positions, either by the PRRP or their competitors. Second, it could reflect an increase in the valence of PRRP (e.g., if these parties had more charismatic leaders in recent years).

¹⁹Similar findings have been documented in Austria (Rudolph and Wagner, 2021) and Norway (Nordø and Ivarsflaten, 2021) although not in some other contexts (Cools et al., 2021; Schaub et al., 2021).

²⁰Former leader of the German Social Democrats, Sigmar Gabriel, argued that "Winning over the hipsters in California cannot make up for losing the workers of the Rust Bel" Abou-Chadi and Wagner, 2020, p. 247.

Third, the residual component can include an unexplained increase in PRRP due to model misspecification. Fourth, and most importantly, the residual could capture the entry and exit of parties from the political system, which we model as having $\zeta_{j,t} = -\infty$.

The order of the four components in the decomposition can affect the results as it determines whether to fix the other components to their level at the start (t) or end (t+1) of the period. This order matters when an interaction of several factors also contributes to the rise of PRRP. For example, a shift toward more nativist opinions would have a larger impact when nativist voters put a higher priority on nationalist issues.

We set the residual as the last component, such that when calculating the counterfactuals for party positions, voter attributes, and voter priorities, the residual component is fixed to its value at t + 1. This implies that we quantify the impact of changes in our three main components as if the new entrants had already participated in the elections in period t. We choose this order because otherwise the three main components would be mechanically zero for new entrants, as support cannot grow for a party that has not entered yet $(\zeta_{j,t} = -\infty)$.

We set party positions as the third component. We use manifestos from period t+1 when the party did not exist in period t.²¹ Therefore, the party positions component only captures changes in the positions of parties that existed in both waves. Setting party positions as the third component guarantees that when calculating the counterfactuals for voter attributes and voter priorities all party positions are taken from the same time period.²²

We set voter priorities and voter attributes as the first and second components, respectively. As a result, the change driven by priorities can be interpreted as the counterfactual change in PRRP support when only priorities change and all other components are fixed to their value in the same time period (2017–2020). In Section 5, we show that the decomposition results are qualitatively similar when we flip the order of these two components.

²¹There is no need to impute party positions for parties that did not exist in period t+1 (exits), as in all counterfactuals in which positions are set to their value at t+1, residuals are also set to their value at t+1, which is $-\infty$. Hence the counterfactual support for exits is zero regardless of their position.

²²Choosing a different decomposition order would fix party positions to their value at period t. Since we impute the positions for new entrants based on their value in period t + 1, we prefer fixing other party positions to their value in the same time period and not mixing manifestos from period t + 1 for new entrants and period t for other parties.

5 Decomposition Results

Figure 4 presents our key finding: the aggregated decomposition results. We focus on the change in PRRP support by fixing the initial value to 0% and the final value to 100%. For countries that are unavailable in the 2011–2013 wave, we impute their decomposition values as the average of the 2005–2009 and 2017–2020 waves.

Figure 4 shows that voter priorities explain 44.9% of the overall increase in PRRP support between 2005–2009 and 2017–2020. Party positions and voter attributes explain only 0.05% and 7.1%, respectively, and in some periods, their contribution is even negative.²³ The remainder of the increase is driven by the residual.

Appendix Table A.4 shows the results by country. Each column presents the counterfactual increase driven by a specific component in raw units. While there is some variation across countries (e.g., voter attributes matter more in Hungary), in most countries, voter priorities are a much more important driver of PRRP support than voter attributes and party positions.

Robustness We conduct a series of analyses to confirm the robustness of our decomposition results. One possible concern is that despite our usage of machine-learning techniques, we are overfitting the model parameters. If this were the case, we would wrongly conclude that changes in the overfitted priority parameters explain a large share of the rise of PRRP. An additional concern might be that priorities are in fact different across countries. Hence, using the same parameters for all countries could yield misleading results. To address both of these concerns, we perform a leave-country-out exercise. For each country, we estimate all model parameters without data on that country $(\hat{\Phi}_{-c}, \hat{\beta}_{-c})$. Hence, the priority parameters for each country are estimated using data only from other countries such that overfitting is not possible. We calculate the vectors of residuals $(\hat{\zeta}_{-c})$ for each party in that country, such that the predicted voting shares under these parameters fit the data. We then decompose the rise of PRRP in that country under these parameters using Equation 10. We aggregate the results from all countries as before.

Panel A of Appendix Figure A.2 shows that the results of the leave-country-out decom-

²³A negative value implies that PRRP support would have been expected to decrease during this period based only on the change in the component with the negative value.

position resemble those reported in our main analysis. We find that the priorities component remains similar (44.3% compared to 44.9% in our baseline exercise). Hence, changes in priorities that were estimated in other countries could predict a large share of the increase in support for PRRP in the remaining country. The residual component is larger in this exercise (71.1%) compared to our baseline (48.0%), as the model fits the data better within sample.

Our results also remain similar when we replace our baseline model with a bliss-point model. Appendix B describes a model where voters have an optimal party position (bliss point) and vote for the party whose positions are closest to that optimal point. As explained in the Appendix, this model is similar to the model we describe in Section 1. Panel B of Appendix Figure A.2 shows that the priorities component now explains 45.7% of the overall rise in support for PRRP, similar to our main results.

The decomposition results are also robust to different choices of the parameter k. This parameter sets the number of dimensions we use in the second stage of the estimation (see Appendix D). In our main results, we chose k = 5. Panels C and D of Appendix Figure A.2 present the results when we repeat our decomposition analysis using k = 3 and k = 7 in our estimation. In these specifications, the priorities component accounts for 54.2% and 43.9% for k = 3 and k = 7, respectively, while other components also remain similar.

We next examine the degree to which our results depend on the order of the decomposition. Following the discussion in Section 4, we maintain the order of party positions and residuals, and alternate the order of voter attributes and priorities. Panel E of Appendix Figure A.2 shows that while our results remain qualitatively similar, there is an increase in the importance of voter attributes when we switch the order of attributes and priorities. This result implies that there is some interaction between changes in priorities and changes in attributes. For example, if nationalist issues do not matter for voting decisions, then changes in the opinions of voters on immigration will not matter. However, when voters start prioritizing nationalist issues at the ballot (as we show in Section 6.1), then changes in opinions on immigration could increase PRRP support. Therefore, if these opinions change, the results depend on whether we fix the priorities to their values in 2005–2009 or 2017–2020. Still, regardless of the order of voter attributes and priorities, voter priorities remain a much more important driver of PRRP support.

Finally, the decomposition results are also similar when we use only opinions, and not

demographics, as voter attributes. Hypothetically, it is possible that while overall changes in attributes contribute only little to the rise of PRRP, changes in opinions and demographics operate in opposite directions and cancel each other out. To test whether opinions specifically may be contributing to the rise of PRRP, we estimate the model parameters and run the decomposition while excluding the demographic variables. Panel F of Appendix Figure A.2 shows that we find similar results to our baseline estimates.

6 Detailed Evidence By Component

To understand what drives the trend we documented in our decomposition exercise, in this section we turn to a more detailed analysis of the change in each component.

6.1 Changes in Voter Priorities

Our decomposition results show that a large share (44.9%) of the increase in support for PRRP is driven by changes in voter priorities. These are changes in the utility parameters, which shift the voting weights given voters' demographics and opinions. These results are consistent with the hypothesis that the rise in PRRP support is primarily driven not by a dramatic change in attitudes but rather by the "activation" of preexisting attitudes (Bartels, 2023). In this section, we analyze in more detail how priorities changed during this period. We first analyze the changes in the estimated model parameters and then complement our findings with reduced-form evidence. The combination of our model-based and reduced-form evidence portrays a consistent story of voters prioritizing cultural issues over economic issues.

6.1.1 Which Priorities Changed? Model-Based Evidence

Figure 5 shows that since the early 2000s, voters have come to place more weight on cultural issues relative to economic issues. To isolate changes in voter priorities from changes in voter attributes, we fix voter attributes to their value in the 2017–2020 survey wave and analyze the changes in weights that are driven only by changes in voter priorities. We aggregate weights into two indices based on the CMP party position indices as before. The left panel of Figure 5 shows that the distribution of the weights placed on the CMP economy index became more concentrated around zero in 2017–2020. By contrast, the right panel of

Figure 5 shows that the distribution of the weights placed on the CMP cultural index did not become more concentrated. Ceteris paribus, the economic positions of parties became relatively less decisive in shaping vote choice. This result provides empirical evidence for the claim that cultural issues became more important than economic issues, which has important ramifications for trade policy (Grossman and Helpman, 2020), redistribution (Shayo, 2020), and polarization (Gennaioli and Tabellini, 2023).

Appendix Figure A.3 shows that the prioritization of cultural issues, compared to economic issues, does not depend on the choice of particular party position indices. Figures A.3a and A.3b repeat the exercise in Figure 5 using two alternative party position indices proposed by Bakker and Hobolt (2013) and Prosser (2014), respectively. The party positions used in each index can be found in Appendix B.1. The growing importance of cultural issues is robust to using these alternative indices.

The right panel of Figure 5 also shows a moderate shift to the right in the distribution of the weights placed on the cultural index. This implies that there are now more voters who reward parties for holding conservative cultural positions, and fewer voters who penalize parties for holding conservative cultural positions.

Figure 6 shows that there is substantial heterogeneity in how priorities change. For each subpopulation, we plot the 25th, 50th, and 75th percentiles of the weight distribution in each survey wave. As before, we plot the distributions in 2005–2009 (blue) and in 2017–2020 (yellow), while holding voter attributes fixed to their value in 2017–2020. Panel A shows the shifts in the weight distribution of the CMP economic index and Panel B shows the same for the CMP cultural index. The trends in the economic weights are broadly similar across sub-populations, though there are some noticeable changes (e.g., the priorities college graduates place on economic positions shifted to the left). By contrast, changes in cultural weights systematically differ across subgroups. The shift in the weights placed on conservative cultural positions is driven by men, voters without a college degree, above the age of 66, without a union membership, and living in rural areas. College graduates, women, younger voters, union members, and urban residents did not experience a similar shift to the right and, in some cases, their voting weights shifted to the left.

We then directly examine whether prioritizing conservative cultural issues is driven by a reservoir of populist voters. We construct a "PRRP score" that aggregates opinions that are associated with PRRP support at the individual level. We first run a LASSO regression and predict support for PRRP in the 2017–2020 survey wave based on voter attributes. We then predict for each voter in each wave whether they would vote for a PRRP based on their attributes and define the standardized fitted value as their PRRP score.²⁴ Appendix Figure A.4 shows that the covariates most correlated with the PRRP score are the belief that jobs should prioritize natives, low confidence in the EU, and distaste for immigrant neighbors.

We find that the prioritization of conservative cultural issues is driven entirely by potential PRRP supporters. In the bottom facets of Panels A and B of Figure 6 we split the sample in two based on the PRRP score. We define potential PRRP supporters as voters with an above-median PRRP score and find that the shift to the right of the cultural weights is only apparent for these voters.

6.1.2 Reduced-Form Evidence for Changing Priorities

Previous work analyzing survey data has argued that the cultural cleavage, and especially immigration, gained importance over the past two decades (De Vries et al., 2013; Norris and Inglehart, 2019; Gethin et al., 2021; Schmitt-Beck et al., 2022; Gennaioli and Tabellini, 2023). However, scholars also recognize the limitations of using direct survey questions to estimate priorities. Sides et al. (2022) show that survey questions about the most important problems facing the country do not necessarily predict vote choice. Moreover, people may not directly connect what they think is important with how they vote. For example, Kuziemko et al. (2015) find that information about inequality increases the chances that voters report inequality as an important problem, yet does not affect policy preferences. Finally, the survey questions that do ask respondents what issues they prioritized at the ballot are not asked consistently over time and across many countries.

For these reasons, we propose an alternative method to measure changes in priorities using political identities. We analyze responses to the political ideology question in the IVS, which asks participants where they place themselves on a left-right political scale ranging from 1 (left) to 10 (right). This question forces voters to reduce their opinions on a variety of topics to a single dimension of ideology, which likely relates to their voting decision.

²⁴We ensure that all the country indicators are taken into account in the LASSO regression by not allowing the model to penalize these variables. However, we do not use the country indicators when calculating the PRRP score in order to allow for cross-country comparisons.

To link political identities to opinions, we construct indices of cultural and economic opinions based on IVS questions. We first define a list of economic and cultural IVS variables (the variables are specified in Appendix Table B.2). We then define the loading of each variable using principal component analysis in order to capture the common variation between the variables included in the index.

Using these indices, we compare the link between economic and cultural attitudes and political identities over time (De Vries et al., 2013). We first nonparametrically regress political ideology on the economic and cultural indices, separately for the 2005–2009 and 2017–2020 survey waves. Using the regression results, we predict the reported ideology for any combination of quantiles of the economic and cultural opinion indices. Finally, we subtract the differences in these predictions between 2005–2009 and 2017–2020 to examine how self-identification changed, conditional on opinions.

The results in Figure 7 show that between the 2005–2009 and the 2017–2020 waves, the cultural dimension became more dominant in shaping political identities. Darker colors mean that individuals in specific quantiles of the economic and cultural indices in 2017–2020 are expected to identify as more right-leaning compared to individuals in similar quantiles in 2005-2009. We find that political identity changes are primarily based on voters' cultural opinions, with darker colors appearing toward the top and lighter colors at the bottom. This means that voters holding more conservative cultural opinions (the top of the figure) now define themselves as more right-leaning and voters holding more progressive cultural opinions now define themselves as more left-leaning (the bottom of the figure). By contrast, the economic index is very weakly associated with changes in left-right ideology. This result provides suggestive evidence supporting the argument that voters' identities shifted from class to culture (Gennaioli and Tabellini, 2023).

The increased importance of cultural issues is most salient for voters who have conflicting views on culture and economics (the top-right and bottom-left corners of Figure 7). Over time, these individuals' ideological identification became more associated with their cultural views rather than their economic views. Considering that the dependent variable, left-right ideology, is not used in our model estimation, this figure provides independent evidence that voters are increasingly prioritizing cultural issues over economic issues.

As an alternative reduced-form method to show the increased importance of cultural

issues in shaping voting decisions, we use vote choice directly. Appendix Figure A.5 shows the correlation between voter opinions and the positions of their preferred parties, separately for economic and cultural issues. We use the same voter opinions indices for economic and cultural issues as in the previous figure, and the same CMP indices for party positions as before. All indices are standardized at the country-wave level. The correlation between the cultural opinions of voters and the cultural positions of parties has increased over time. By contrast, the correlation between the economic opinions of voters and the economic positions of parties remained stable. This figure provides intuition for the kind of variation our model uses when estimating Φ .²⁵

6.2 Changes in Voter Attributes

Our finding that both changes in opinions and changes in demographics explain a relatively small share of the increases in PRRP support challenges common narratives, which we presented in Section 4. In this section, we explore this finding in more detail using reduced-form analyses of the IVS data.

Figure 8 shows that on average, voters did not move closer to the positions of PRRP since 2005. The top left panel shows the changes in the PRRP score defined in Section 6.1.1, which aggregates opinions that are associated with PRRP support at the individual level. The thick blue line shows the average value of the PRRP scores across all countries, whereas the thin gray lines show the trends in each country. While in specific countries there are some significant idiosyncratic changes in public opinion, there has not been a substantial shift in voter attributes toward opinions associated with PRRP on aggregate. The average PRRP score difference between the 2005–2009 and 2017–2020 waves is only 0.055 standard deviations, which is 7% of the difference between the average PRRP score of PRRP supporters and other voters.

Examining trends in specific voter opinions yields similar results. The remaining eight panels of Figure 8 plot the change in the voter opinions that are most correlated with the PRRP score, such as confidence in the EU and not wanting immigrants as neighbors, in

 $^{^{25}}$ The estimated parameters solve the first-order conditions of Equation 6, which imply that the observed correlations between the attributes of voters and the positions of the parties they support (as reported in Appendix Figure A.5) are close to the correlations predicted by the model.

each country and on aggregate.²⁶ Once again, we find that on average, voter opinions on these cultural issues are relatively stable. For some cultural issues (homosexuality is not justifiable), opinions have even moved away from the populist radical right.

Moreover, the rise in PRRP support has been documented not only in countries where opinions are shifting toward the populist radical right (e.g., Hungary) but also in countries where they are shifting away from it (e.g., Germany). Indeed, Appendix Figure A.6 shows that with the exception of Hungary, there is virtually no correlation between the change in the PRRP score and the change in PRRP support between 2005 and 2017. This is why our decomposition analysis finds that voter attributes explain only a small share of the rise of PRRP. This finding demonstrates the importance of broad comparative perspectives in the study of electoral developments such as the rise of PRRP.

Looking within countries, Appendix Figure A.7 shows that the shifts in voter opinions are mostly homogeneous. Hypothetically, even if voter opinions are stable on aggregate, support for PRRP could still increase if there is polarization where voter cultural opinions are shifting to the right among potential PRRP voters and shifting to the left among other voters. To test this, we present the distribution of PRRP scores for each country in both the 2005–2009 and 2017–2020 waves. Similar to Figure 8, there are differences across countries. However, within countries, the trends are similar across the distribution. The PRRP score increases homogeneously in some countries (e.g., Hungary and the Czech Republic) and decreases homogeneously in others (e.g., Germany and the UK).

Which voter opinions do change? In Appendix Figure A.8 we take into account all IVS opinion variables and present the opinions that changed the most between the 2005–2009 and 2017–2020 survey waves. Interestingly, some of the most important changes move in the opposite direction of PRRP positions. For example, voters developed less conservative opinions on traditional morality issues, such as abortion and divorce. This result is consistent with our decomposition finding that the rise of PRRP is not driven by a shift in public opinion.

6.2.1 The Reservoir of Potential PRRP Voters across Countries

The stability of public opinion on issues associated with PRRP suggests that even before the electoral success of PRRP, there was a preexisting reservoir of potential PRRP voters.

²⁶The correlations are shown in Appendix Figure A.4.

The size of this reservoir varies across countries, which could explain why these parties are more successful in some countries than in others. However, measuring the number of potential PRRP voters across countries is challenging because voters in different countries face different options of parties they can vote for, nested in different political systems.

In this section, we use a similar decomposition exercise, across space instead of over time, to measure the size of the PRRP reservoir across countries. We focus on the 2017–2020 survey wave. For voters in each country, we simulate their counterfactual support for the National Front, had they faced the same choice set of parties they could vote for as voters in France. In other words, we fix the parties, their positions, and their residuals to the values in France and allow only the voter attributes to differ across countries. Fixing all other components allows us to consistently compare the size of the reservoir of potential PRRP voters across countries. Formally, we calculate the following counterfactual for every country (c) in the 2017–2020 IVS wave (t) based on Equation 9:

$$\tilde{S}_{P}^{c,t} = \int P(\Pi|x_i; \theta_t, Z_t^{France}, \zeta_t^{France}) f_t^c(x_i) dx_i, \tag{11}$$

We find substantial cross-national variations in the size of the reservoir of potential PRRP voters. Figure 9 presents the counterfactual support for the National Front and finds geographical patterns that are consistent with the actual support for PRRP shown in Figure 2. Potential support for PRRP is smallest in the Nordic countries and largest in Eastern Europe. While differences in voter attributes do not explain the increase in support for PRRP over time, they do explain some of the variation in support across countries.

In some countries, the electoral system limits the number of parties, and therefore, the full strength of PRRP may not be observed directly. Figure 9 demonstrates that our method can calculate the size of the reservoir of potential PRRP supporters even in such countries. For example, we predict a much larger share of counterfactual support for PRRP in the U.K. than what is observed in practice. This is likely due to the first-past-the-post system that puts higher barriers for entry to parliament (Norris, 2005; Fujiwara et al., 2011). This suggests that the U.K. has a large reservoir of potential PRRP voters within the voter base of other parties.

Finally, our method allows us to calculate the reservoir of potential PRRP voters in non-

European countries, such as the United States.²⁷ Even though the two-party system in the U.S. impedes PRRP from gaining votes, we can estimate their potential latent support. We find that the PRRP reservoir is relatively large but smaller than in Eastern Europe.

As a robustness test, Appendix Figure A.9 conducts a similar exercise using German parties and presents the counterfactual support for the AfD. The results are similar, demonstrating that our finding in this section is not unique to France.

To conclude, this section presents the estimated size of the reservoir of PRRP support across countries and finds substantial variation in this reservoir. This finding also has implications for our main decomposition results. Since voter attributes generate variation in PRRP support across countries, our finding that voter attributes do not drive the rise of PRRP support over time is unlikely to stem from measurement problems or omitted variables.

6.3 Changes in Party Positions

Our decomposition estimates reveal that changes in party positions contribute rather little to the rise in PRRP support since 2005, in contrast to several theories discussed in Section 4.²⁸ In this section, we further investigate changes in party positions over time. To guide the discussion, Figure 10 presents average changes in the two CMP indices for our five main party categories: PRRP, center-left, center-right, Green, and socialists. Within each party category and year, we calculate the weighted average of the two indices. We weight each party by its vote share within its country and then weight all countries equally. Since elections are typically held every few years, we present five-year moving averages.

We find no evidence for convergence in the economic positions of center-left and center-right parties. Previous work has found that in the 1990s, the economic positions of main-stream parties converged. This may have pushed some dissatisfied left-wing voters toward PRRP (Berman, 2021). The top panel of Figure 10 shows that in the time period we study, the economic positions of the center-left and center-right parties have in fact slightly diverged.

There is also no evidence that PRRP gained votes by moderating their positions. On economic issues, PRRP positions remained stable over time. On cultural issues, which particularly distinguish PRRP from the other party categories, PRRP became even more ex-

²⁷For the U.S., we impute the variable related to the EU to its average level in our sample.

²⁸Relatedly, Vasilopoulou and Zur (2022) argue that PRRP have little to gain from changes in positions and more to gain from changes in the salience of cultural topics.

treme, as shown in the bottom panel of Figure 10. To better understand the shift of PRRP to the cultural right, Appendix Figure A.10 shows the trends for six party positions with the largest distinction between PRRP and non-PRRP. The most substantial change occurred in positive mentions of a national way of life. The PRRP today dedicate almost 10% of their manifestos to this issue, while the other parties dedicate approximately 1%–3%.

We find some support for the claim that left-wing parties shifted even further to the left on cultural issues, which may in turn have alienated working-class voters. However, the substantial shift to the left occurred among socialist parties and we do not see a similar shift among centrist parties. Therefore, it is unlikely that this change would dramatically increase support for PRRP.

One concern with Figure 10 is that the trend we present could reflect changes in demand. The weighted average of each party position could also change as a result of a change in the vote share, which we use as weights within countries. To isolate changes in supply, Appendix Figure A.11 repeats the same exercise, allowing only the party positions to change over time. For every five years, we estimate the average change in each party's positions, weighting parties within countries by their initial support in that five-year period (while keeping equal weights for each country). We then plot the cumulative change for each party category. The results are similar to those reported in Figure 10, suggesting that the trends we find in party positions occurred mainly within existing parties.

To conclude, the reduced-form results rule out the major supply-side hypotheses. This provides intuition for why our decomposition suggests that on aggregate, changes in party positions are not a significant driver of the increased support for PRRP.

6.4 Changes in Residuals

The second substantial component in our decomposition is the residual, which accounts for 48.0% of the overall increase in support for PRRP. As discussed in Section 4, this component captures factors such as changes in unobserved party positions or valence, model misspecification, and entry of new parties. In Appendix E we show that most of the increase in this component is driven by new entries. However, we do not interpret these new entries as a supply change. In most countries with new entries, there were already previous unsuccessful attempts by PRRP to enter parliament. Hence, the option to vote for a PRRP has already

existed. Based on the other three components, our model predicts that PRRP should have been able to enter earlier. Therefore, the large increase in support for new entries more likely reflects strategic considerations and coordination failures, such as voters coalescing around a party only when they anticipate that the party will have substantial support and perhaps pass the threshold needed to enter parliament (Fredén, 2014). Appendix E further discusses this interpretation.

7 Conclusions

There is no lack of explanations for the rise of the populist radical right. Our goal in this manuscript is not to introduce another factor that may have contributed to these parties' electoral success but rather to provide a framework for organizing existing factors into distinct categories—changes in party positions, voter attributes, and voter priorities—and assessing their explanatory power.

Using decomposition methods to analyze a dataset that links voter attributes and party positions, we find that growing priorities attached to the issues owned by the PRRP most strongly explain their growing electoral appeal. We provide comprehensive empirical evidence for Bartels's (2023) memorable argument that PRRP are not surfing into power on a wave of growing nativism and authoritarianism in public opinion; instead, these parties have proved apt at mobilizing preexisting reservoirs of potential support. This implies that significant electoral changes can occur not only when people change their minds but also when certain issues become more consequential in shaping vote choice.

Lastly, we find that the priorities voters place on cultural issues grew in comparison to economic issues. This result raises an open question, which is beyond the scope of this paper: why did cultural issues become more important? The answer is most likely a multicausal process (Gidron and Hall, 2017) that combines various potential factors: rising incomes may have resulted in voters focusing more on moral goods (Inglehart, 1981; Enke et al., 2022); social media may have allowed political entrepreneurs to affect the public agenda and expose individuals to views that promote tribalism (Manacorda et al., 2023); skill-biased technical change and trade shocks may have amplified conflict between cultural groups (Bonomi et al., 2021); the decreasing power of national representatives to set economic policy compared to

supranational organizations and non-government actors may have led voters to focus less on economic issues (Mounk, 2018). Whatever the reason, voter priorities dramatically shifted in ways that have reshaped the political map in Europe. Understanding the sources of this shift is a promising path for future research.

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Tables and Figures

Table 1: CMP and IVS Descriptive Statistics

	2005	-2009	2017	-2020
	PRRP	Other Parties	PRRP	Other Parties
Panel A: Comparative M	anifesto	Project		
CMP Position Indices				
Economic Index	-5.90	-8.70	-6.50	-16.00
Cultural Index	13.50	-7.80	20.20	-8.00
Most Distinctive Positions				
European Community/Union: Negative	3.00	0.30	3.60	0.60
Internationalism: Negative	1.40	0.10	1.20	0.10
Multiculturalism: Negative	3.40	0.60	2.80	0.90
National Way of Life: Positive	5.30	1.50	11.10	2.40
Traditional Morality: Positive	2.80	1.20	3.10	0.70
Panel B: Integrated V	Value Su	irvey		
Demographics				
Age	45.56	47.95	48.44	49.99
Male	0.54	0.49	0.55	0.48
Urban	0.21	0.26	0.20	0.27
College education	0.15	0.28	0.17	0.33
Full time employment	0.50	0.51	0.53	0.51
Most Distinctive Opinions				
Confidence in EU	-0.15	0.04	-0.55	0.01
Jobs should prioritize natives	0.38	-0.11	0.48	-0.21
Confidence in UN	-0.13	0.07	-0.41	0.04
Do not want immigrant neighbors	0.08	-0.13	0.46	-0.10
Confidence in the press	-0.10	0.05	-0.35	0.04

Notes: This table provides descriptive statistics on party positions in the CMP data (Panel A) and voter attributes in the IVS data (Panel B). The first two columns present the average of each variable in the 2005–2009 wave and the last two columns present their average in the 2017–2020 wave. In Panel A, the first two rows show the averages of the CMP economic and cultural indices. The indices measure net shares, i.e., the difference between the share of platforms dedicated to right-wing positions and left-wing positions. See Appendix Table B.1 for further details on each position, as well as a list of variables included in the two indices. The next five rows show the positions with the largest difference between PRRP and non-PRRP across both waves. Each variable represents the share of the platform mentioning that position in percentile terms. In Panel B, the first five rows show key demographic variables. We define urban as living in a city with more than 100,000 people. The next five rows focus on the opinions with the largest difference between PRRP and non-PRRP supporters. Opinions are measured in units of standard deviations from the mean. In both panels, averages are calculated with equal weight for each country. In Panel A, within countries, parties are weighted based on their vote share. In Panel B, within countries, we use the IVS sampling weights.

2005–2009 survey wave 2011–2013 survey wave 2017–2020 survey wave

Figure 1: Support for Populist Radical Right Parties over Time

Notes: This figure shows the average vote share of PRRP in the 22 European countries in our data. Within each country, the vote share every year is calculated as the average PRRP vote share among all parties appearing in the CMP dataset in all parliamentary elections in the five-year window centered around that year. We then calculate the average share across all 22 countries. The gray bars mark when the surveys of the three IVS waves used throughout the paper were held.

2005

Year

2010

2015

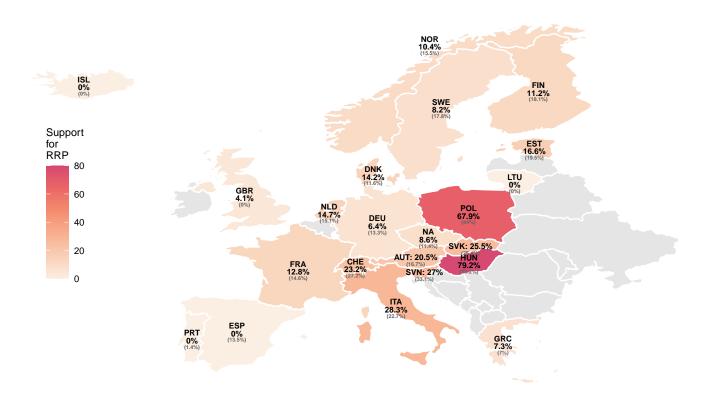
2020

2000

1995

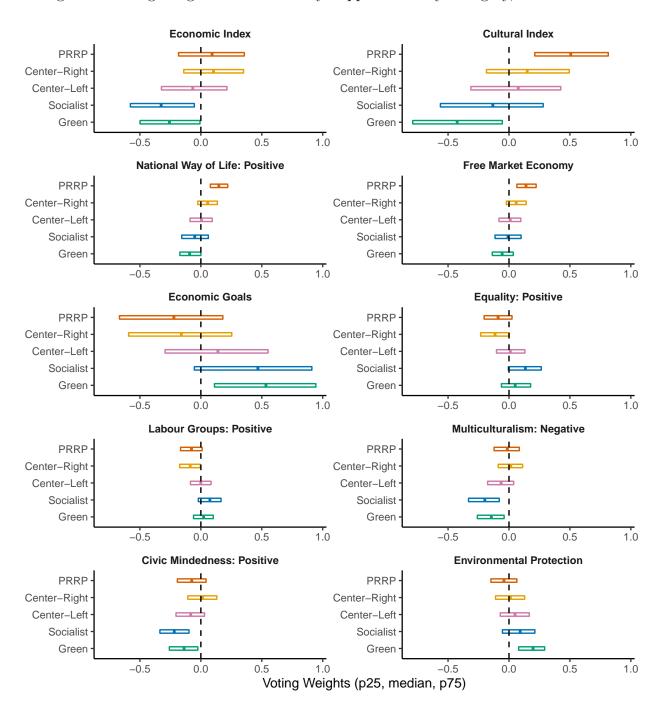
1990

Figure 2: Support for Populist Radical Right Parties by Country, 2017–2020 IVS Wave



Notes: This figure shows the average PRRP support in the 2017–2020 IVS wave for the 22 countries covered in our analysis. The actual vote share in the closest election appears in gray in parentheses. Note that the closest elections can occur several years before or after the survey, which can generate large gaps between the two numbers in some countries (e.g., Spain). The PRRP support and vote share are calculated as a share of all parties supported or voted for that appear in the data. IVS sampling weights are used.

Figure 3: Voting Weights Distribution by Supported Party Category, 2017–2020



Notes: This figure shows the distribution of weights voters place on the economic and cultural position indices and eight individual manifesto positions in the most recent survey wave (2017–2020) separately for supporters of different party categories. For each combination of party category and index/position, we present the 25th, 50th, and 75th percentiles of the corresponding weight distribution. We estimate the model on the 2017–2020 survey wave and for each voter calculate the weights based on her attributes using Equation 2. Weights are measured in units of standard deviation to utility units, i.e., the increase in utility for an increase of one standard deviation in the position. We aggregate individual weights into indices based on the CMP economic and cultural indices (Section 2.1, Appendix Table B.1). Specifically, we take a simple average of the weights on all positions used in the CMP index, multiplied by -1 for left-wing positions. The eight individual positions presented are the ones with the largest variance in weight between supporters of the different party categories. We use IVS sampling weights within countries and equally weight each country. The party categories are described in Section 2.4.

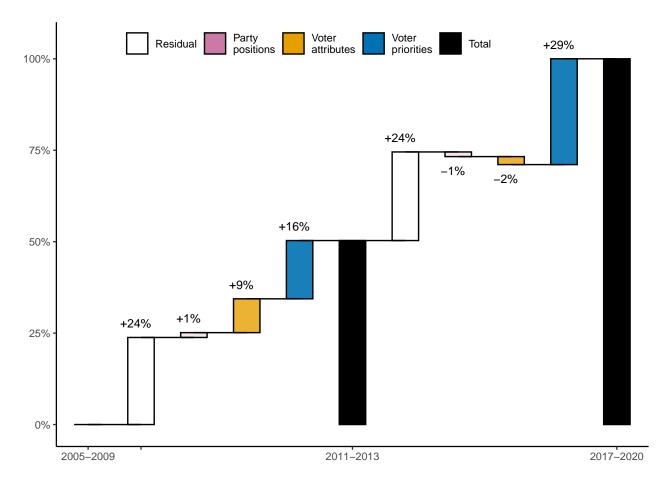
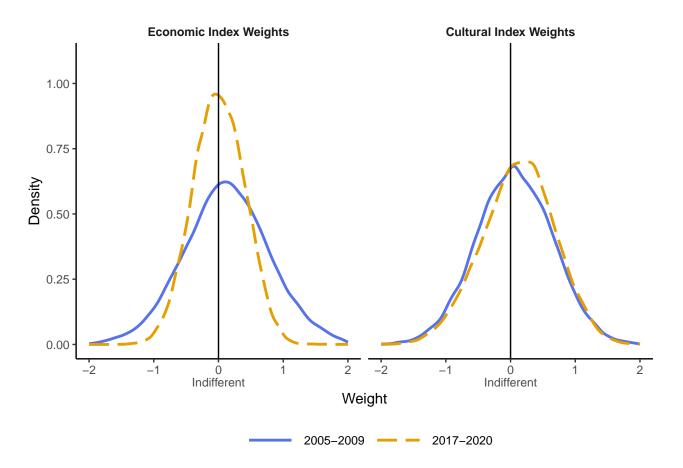


Figure 4: Decomposition of the Rise in Populist Radical Right Support

Notes: This figure presents the results of our main decomposition exercise. The black bars mark the overall increase in PRRP support between 2005-2009 and 2017-2020, which we set to 100%. We aggregate across all countries with PRRP support in our data by using a weighted average of each country's decomposition results (see Appendix Table A.4). Weights are the inverse of the share of PRRP support in the 2017-2020 wave. We use IVS sampling weights within countries.

Figure 5: Changes in the Distribution of Voting Weights, Holding Attributes Fixed



Notes: This figure shows the distribution of the weights voters place on the economic and cultural indices of party positions for different waves, holding voter attributes fixed at their level in 2017–2020. We use the CMP economic and cultural indices that are described in Section 2.1 and their manifesto components are described in Appendix Table B.1. Weights are calculated based on Equation 2 using estimated utility parameters for the 2005–2009 wave (solid blue lines) and 2017–2020 wave (dashed yellow lines). The voter attributes are fixed to their distribution in 2017–2020 so that weights only change due to a change in priorities. The weight placed on an index is the average weight corresponding to each party position included in the CMP index, where weights for positions that enter the index with a negative sign are multiplied by -1. Weights are measured in units of standard deviation to utility units, i.e., the increase in utility for an increase of one standard deviation in the index. We use IVS sampling weights within countries and equally weight each country.

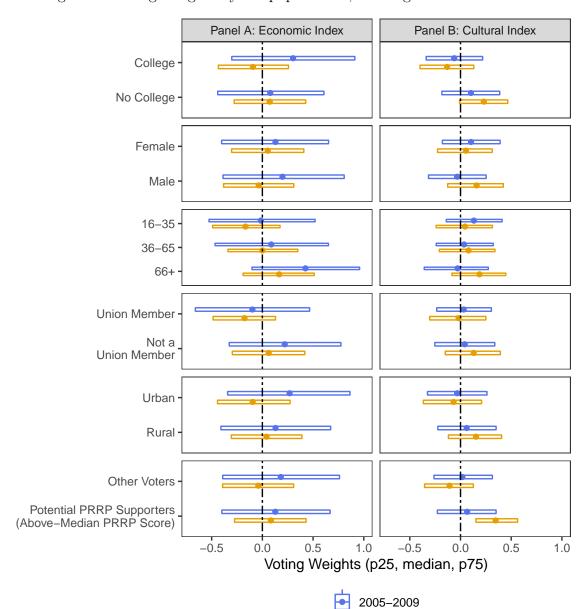


Figure 6: Voting Weights by Subpopulations, Holding Attributes Fixed

Notes: This figure shows the subpopulation distribution of the weights voters place on the economic and cultural indices of party positions for different waves. We use the CMP economic and cultural indices that are described in Section 2.1. Their manifesto components are described in Appendix Table B.1. Weights are calculated based on Equation 2, using the estimated utility parameters for the 2005–2009 wave (top blue bars) and 2017–2020 wave (bottom yellow bars). The voter attributes are fixed to their distribution in 2017–2020 so that weights only change due to a change in priorities. Weights are measured in units of standard deviation to utility units, i.e., the increase in utility for an increase of one standard deviation in the index. The weight placed on an index is the average weight corresponding to each party position included in the index, where weights for positions that enter the index with a negative sign are multiplied by -1. Potential PRRP supporters (other voters) are voters with a PRRP score above (below) the median. See Section 6.1 for further details on the PRRP score. We use IVS sampling weights within countries and equally weight each country.

2017-2020

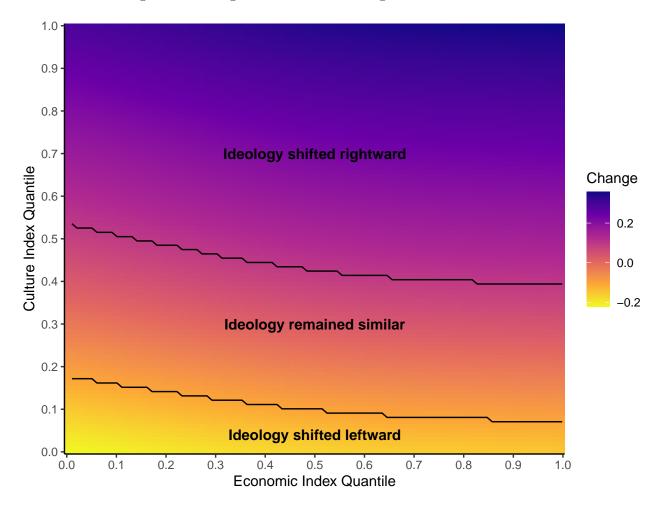
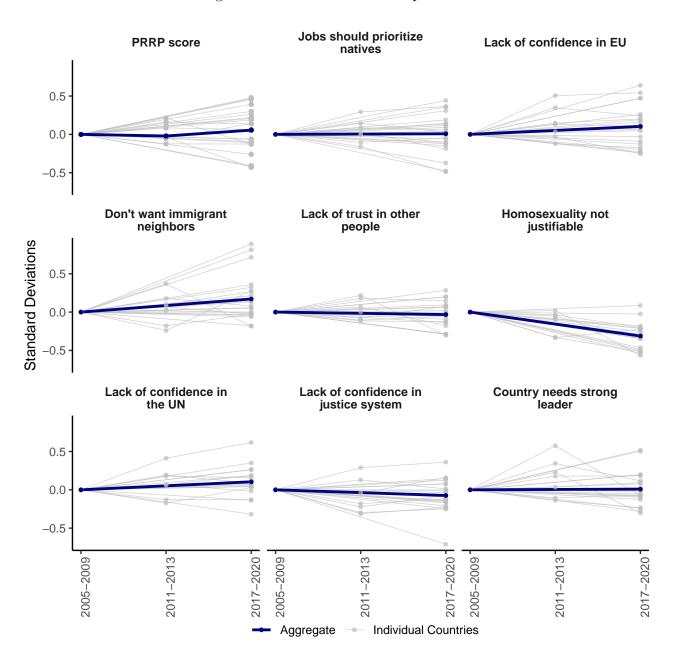


Figure 7: Change in Predicted Ideological Self-Identification

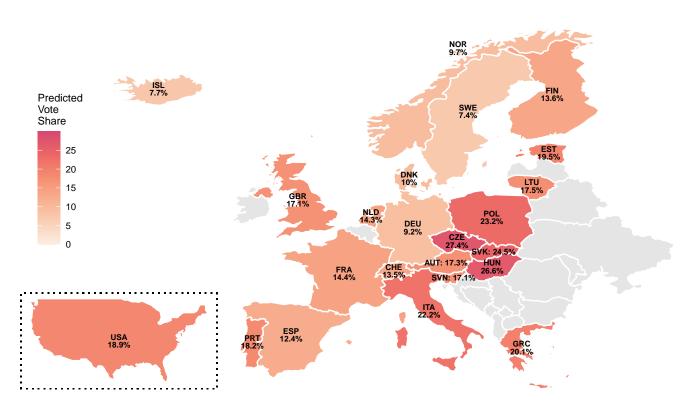
Notes: The figure shows the change in the predicted ideological self-identification, on a 1-10 scale, between the 2005–2009 survey wave and the 2017–2020 survey wave as a function of voters' economic and cultural opinions. Economic and cultural opinions are aggregated into two indices using the first principal component. The list of IVS variables included in each index appears in Appendix Table B.2. We use a nonparametric regression model to predict ideological self-identification (higher values are associated with more right-wing positions), based on the voter's economic and cultural opinion indices, for each survey wave separately. We then subtract the prediction of the earlier wave from the latter. The two contour lines mark the values of -0.1 and 0.1. We use IVS sampling weights within countries and equally weight each country.

Figure 8: Evolution of Voter Opinions



Notes: This figure presents the average of voters' opinions by survey wave on eight cultural issues that are most strongly associated with PRRP support, and the PRRP score. The thin gray lines show the trends in each country, while the thick blue line is the average across all 22 countries. We use IVS sampling weights. The PRRP score is calculated by running a LASSO regression predicting PRRP support. The regression is run on the most recent survey and includes all IVS variables in our final dataset, along with country fixed effects, with no penalty on the country coefficient. We then standardize the fitted value based on the regression coefficients (excluding country fixed effects). In the eight opinion variables, we standardize the variables within each country using standard deviations from the 2005–2009 IVS wave. We omit Italy from the analysis regarding the justifiability of homosexuality since this survey question was not asked in the country in 2005–2009. In all panels, we set the mean value in the 2005–2009 wave to zero in all countries. For more details on each variable see Appendix Table B.2.

Figure 9: Counterfactual Support for the National Front by Voter Attributes



Notes: This figure calculates the counterfactual support for the National Front in the 2017–2020 wave if French voters had the attributes of voters in other countries. We calculate the counterfactual support for the National Front separately for each country based on the formula in Equation 11. In all countries, we use the party positions of French parties in the 2017–2020 wave (Z_t^{France}) along with the estimated residuals for French parties (ζ_t^{France}) and the model parameters that were estimated for this wave $(\hat{\Phi}_t, \hat{\beta}_t)$. For each country, we predict the share of National Front supporters according to the voter attributes in that country $(f_t^c(x_i))$. For the U.S. sample, we impute the responses to the IVS question pertaining to the European Union based on the sample average. For all countries, we use IVS sampling weights.

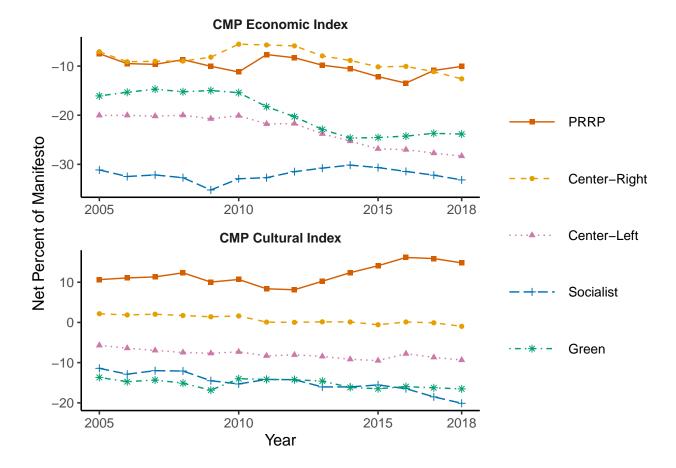


Figure 10: Changes in Party Positions over Time

Notes: This figure shows the changes in the CMP economic and cultural indices for five party categories—PRRP, center-right, center-left, socialist, and green—since 2005. Indices measure the net share of the manifesto dedicated to right-wing positions. Each index is constructed by adding the manifesto shares of conservative positions and subtracting the shares of liberal positions such that positive values reflect more support for a free market or more conservative cultural values. The figure presents five-year moving averages for each index and each party category. Each country is weighted equally, and parties within each country are weighted by their voting share. The indices are discussed in Section 2.1, their manifesto components are described in Appendix Table B.1, and the party classification is described in Section 2.4

Appendix

A Additional Tables and Figures

Table A.1: IVS Data

IVS Wave	Countries	Parties	PRRP	Observations	PRRP Support Share
2005-2009	22	147	19	26,140	0.11
2010-2014	7	51	6	6,373	0.12
2017-2021	22	170	28	27,097	0.18

Notes: This table provides descriptive statistics on the final dataset analyzed. Each row represents an Integrated Values Survey wave. The observations include only respondents who were successfully matched with the Comparative Manifesto Project data. PRRP support share is the average support for PRRP across the 22 countries. We use IVS sampling weights within countries and equally weight each country.

Table A.2: IVS Data Matched with CMP

	Unique Parties	Unique PRRP	Observations	PRRP Supporters
1) All data		•	91,425	
2) Respondents supporting a party	353		63,187	
3) Respondents matched with CMP	205	32	59,610	7,934

Notes: This table provides descriptive statistics on the Integrated Values Survey data. The first row shows the total number of respondents in the country waves we analyzed. The second row presents descriptive statistics on the subset of respondents supporting a specific party. The third row presents statistics on respondents who supported a party that could be matched with the CMP and that was supported by at least five participants.

Table A.3: Voter Attributes With the Largest Coefficients in the Weight Indicies

Economic Ind	ex	Cultural Index		
Variable	Coefficient	Variable	Coefficient	
Confidence in unions	-0.189	Jobs should prioritize natives	0.162	
Government ownership of business should be increased	-0.108	Confidence in environmental organizations	-0.147	
Willing to demonstrate	-0.101	Confidence in armed forces	0.142	
Confidence in churches	0.100	Pride in nationality	0.139	
Muslim	-0.095	Confidence in EU	-0.109	
Pride in nationality	0.091	Oppose redistribution	0.097	
Accepting a bribe justifiable	0.088	Confidence in the press	-0.096	
Confidence in environmental organizations	-0.086	Don't want homosexual neighbors	-0.089	
Confidence in courts	0.085	Willing to demonstrate	-0.087	
Income decile	0.082	Member of religious organization	0.082	

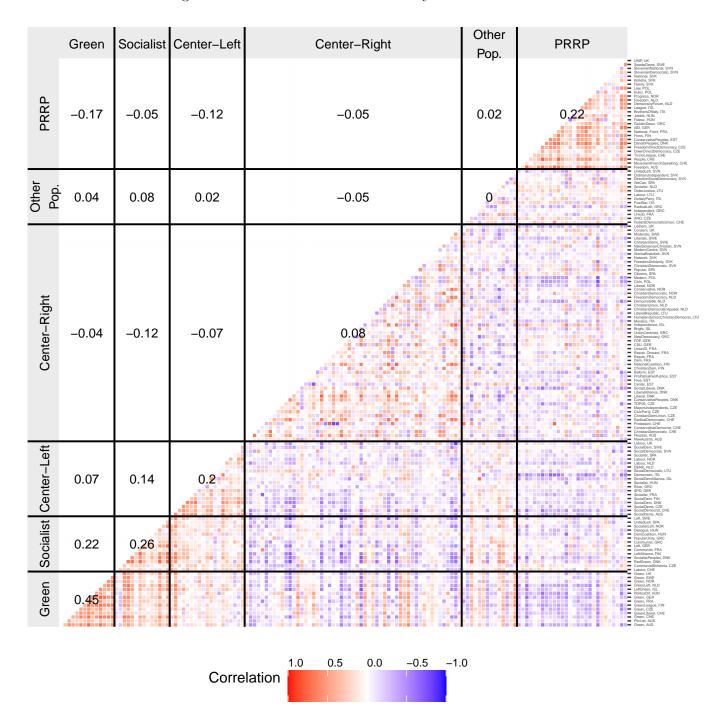
Notes: This table presents the largest coefficients (in absolute terms) on the IVS variables generating the economic and cultural weight indices. We calculate weights on individual party positions using Equation 2. We aggregate individual weights into indices based on the economic and cultural party position indices suggested by the CMP (Section 2.1). Specifically, we take a simple average of the weights on all positions used in the CMP index, multiplied by -1 for left-wing positions. Taken together, this procedure generates two linear functions from the voter attributes to their weights on both indices. For each index, we present the ten largest coefficients.

Table A.4: Decomposition of the Rise in PRRP Support by Country

	Voter Priorities	Voter Attributes	Party Positions	Residuals	Agg.
Austria	0.0848 (0.006)	-0.0208 (0.005)	-0.0034 (0.004)	-0.0776 (0.009)	-0.017
Czech Republic	$0.0308 \ (0.003)$	0.0087 (0.003)	-0.001 (0.002)	0.0552 (0.005)	0.0937
Denmark	0.0197 (0.007)	0.0229 (0.006)	0.0012 (0.006)	$0.0075 \\ (0.007)$	0.0513
Estonia	-0.0257 (0.019)	0.0119 (0.009)	-0.0153 (0.004)	0.2196 (0.023)	0.1905
Finland	0.0219 (0.004)	-0.0026 (0.002)	-0.0143 (0.003)	-0.015 (0.005)	-0.01
France	0.0105 (0.006)	0.0287 (0.007)	0.0237 (0.005)	0.0295 (0.003)	0.0924
Germany	0.0392 (0.003)	-0.0194 (0.003)	0.0133 (0.003)	0.028 (0.003)	0.0611
Greece	0.0458 (0.007)	-0.027 (0.005)	0.0012 (0.003)	0.0146 (0.006)	0.0346
Hungary	0.1066 (0.013)	0.0508 (0.013)	0.0042 (0.008)	-0.0011 (0.01)	0.1605
Italy	0.0554 (0.009)	0.054 (0.006)	-0.0923 (0.01)	0.1822 (0.009)	0.1993
Netherlands	0.0398 (0.007)	0.0354 (0.005)	$0.0064 \\ (0.004)$	0.0416 (0.005)	0.1232
Norway	-0.0366 (0.008)	0.0166 (0.007)	0.0481 (0.004)	-0.1303 (0.005)	-0.1022
Poland	0.2349 (0.013)	-0.0648 (0.01)	-0.1762 (0.015)	0.2806 (0.012)	0.2745
Slovakia	-0.0471 (0.015)	$0.0406 \\ (0.01)$	0.0521 (0.007)	0.1106 (0.01)	0.1562
Slovenia	-0.0117 (0.008)	0.0183 (0.01)	$0.0069 \\ (0.007)$	-0.0387 (0.005)	-0.0252
Sweden	-0.0021 (0.003)	0.012 (0.002)	0.0034 (0.004)	0.0439 (0.003)	0.0572
Switzerland	0.0949 (0.008)	$0.019 \\ (0.005)$	-0.0532 (0.006)	-0.0505 (0.008)	0.0102
UK	0.025 (0.002)	-0.0116 (0.002)	-0.0066 (0.002)	0.049 (0.005)	0.0558
Total (0-1 scale)	0.4486 (0.041)	0.0706 (0.022)	0.0005 (0.017)	0.4803 (0.042)	1

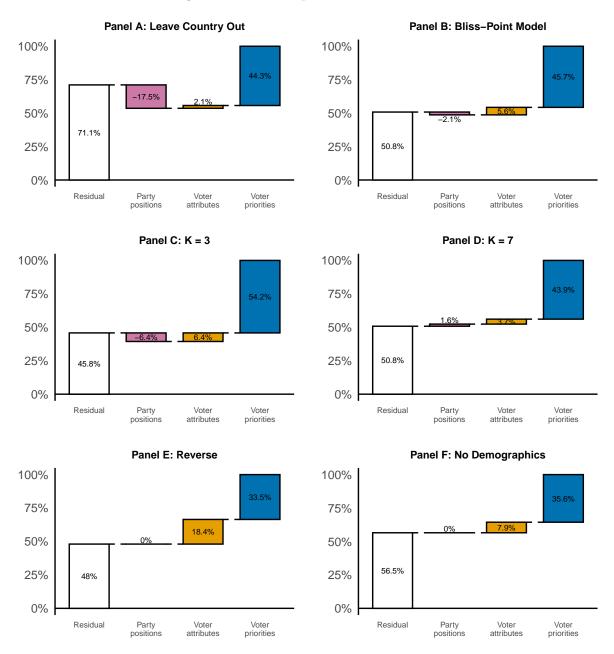
Notes: This table presents decomposition results for the 18 countries in our data that had any PRRP support in one of our survey waves (2005–2009, 2011–2013, 2017–2020). Columns (1)-(4) present the counterfactual increase in the share of support for the PRRP in that country between the 2005–2009 and the 2017–2020 waves, based on Equation 10. Column (5) sums Columns (1)-(4) to show the overall increase in the share of support for PRRP in that country in our data. The last row presents aggregated results from all countries, weighting each country by the inverse share of support for PRRP in the last wave, as in Figure 4. Standard errors are calculated using 1,000 bootstrap simulations. We use the IVS sampling weights within countries.

Figure A.1: Similarities between Party Voters



Notes: This figure presents the similarities between voters of different parties across countries. For each party, we use a linear regression to predict support for that party based on voter attributes, using data from the 2017–2020 IVS wave in the relevant country. IVS sampling weights are used in all regressions. Then for every two parties, we calculate the correlation between the fitted values among all voters in both of the parties' countries. For example, to find the correlation between AfD and the National Front, we estimate the correlation between the fitted probability that voters in both France and Germany would support AfD and the fitted probability that those voters would support the National Front, where both fitted probabilities are a linear prediction based only on their attributes. The labels show the average correlation between all parties in each category. We determine whether a party is PRRP based on the PopuList dataset classification of radical-right parties. We use the PopuList definition of populism for the "other populist parties" category. We classify the remaining parties into categories based on the CMP data as explained in Section 2.4. The figure is based on all parties in our data that received support from over 50 respondents.

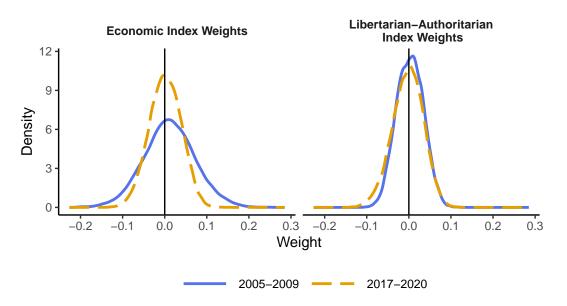
Figure A.2: Decomposition Robustness



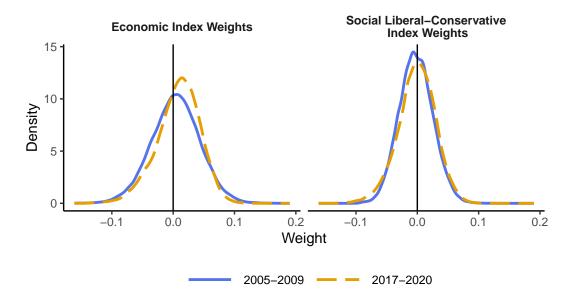
Notes: These figures plot the decomposition results for changes in PRRP support between the 2005–2009 and 2017–2020 survey waves under different specifications. Panel A shows results from a leave-country-out exercise, where for each country, we estimate the model parameters using data from all other countries. Panel B shows the decomposition results when we use a bliss-point model, as described in Appendix B. Panels C and D estimate the β_t parameters (Equation 7) using a higher (k=7) and lower (k=3) number of dimensions for β_t , compared to our original specification (k=5). Panel E reverses the order of the decomposition in Equation 10 between voter attributes and voter priorities. Panel F repeats the entire exercise, excluding demographic variables from the voter attributes. All figures aggregate results across countries, weighting each country by the inverse share of PRRP support in the 2017–2020 wave. We use the IVS sampling weights within countries. See further details in Section 5.

Figure A.3: Changes in the Distribution of Voting Weights, Holding Attributes Fixed:
Alternative Economic and Cultural Indices

(a) Bakker and Hobolt (2013)

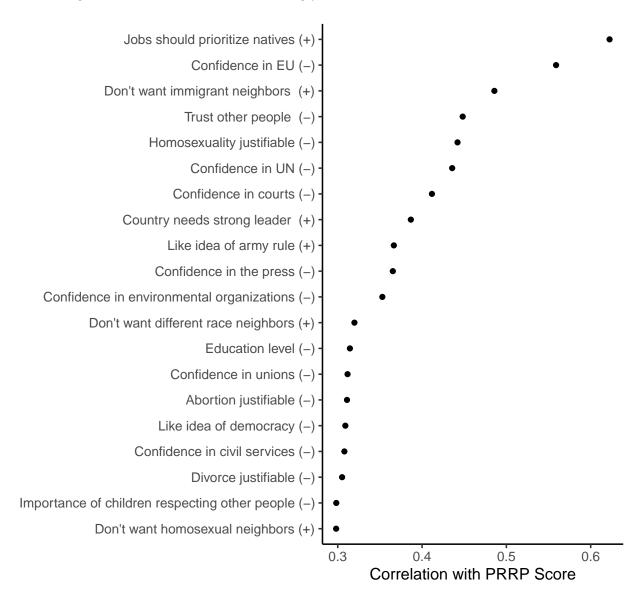


(b) Prosser (2014)



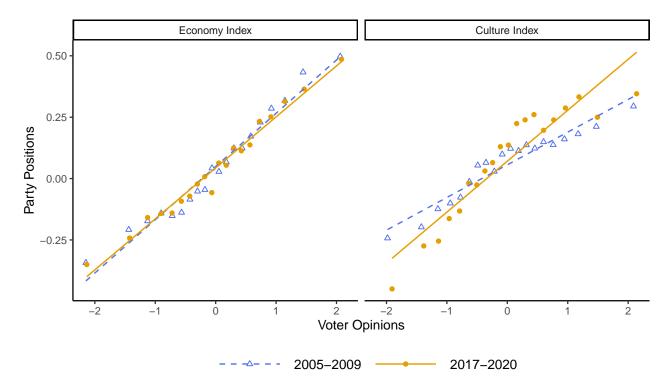
Notes: This figure shows the distributions of the weights voters place on two alternative economic and cultural party position indices proposed by (a) Bakker and Hobolt (2013) and (b) Prosser (2014). Weights are calculated based on Equation 2 using estimated utility parameters for the 2005–2009 wave (solid blue lines) and 2017–2020 wave (dashed yellow lines). The voter attributes are fixed to their distribution in 2017–2020 so that weights only change due to a change in priorities. The weight placed on an index is the average weight corresponding to each party position included in the index, where weights for positions that enter the index with a negative sign are multiplied by -1. Appendix Table B.1 describes the variables included in each index. Weights are measured in units of standard deviation to utility, i.e., the increase in utility for an increase of one standard deviation in the index. We use IVS sampling weights within countries and equally weight each country.

Figure A.4: Covariates Most Strongly Correlated with the PRRP Score



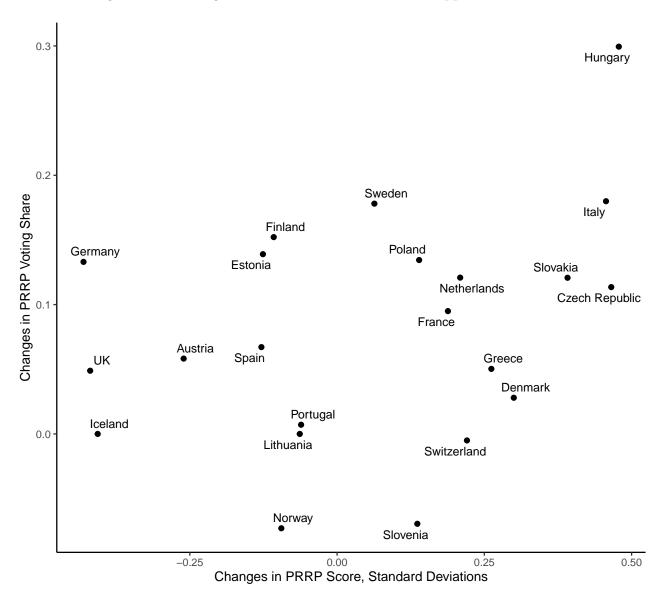
Notes: This figure presents the voter attributes most strongly correlated with the PRRP score. We use IVS sampling weights within countries and equally weight each country. The score is calculated by running a LASSO regression predicting PRRP support. The regression is run on the 2017–2020 survey wave and includes all IVS variables in our final dataset, along with country fixed effects, with no penalty on the country coefficient. To calculate the PRRP score we standardize the fitted value based on the regression coefficients (excluding country fixed effects) with each country weighted equally.

Figure A.5: Correlations of Voter Opinions and the Positions of their Preferred Party



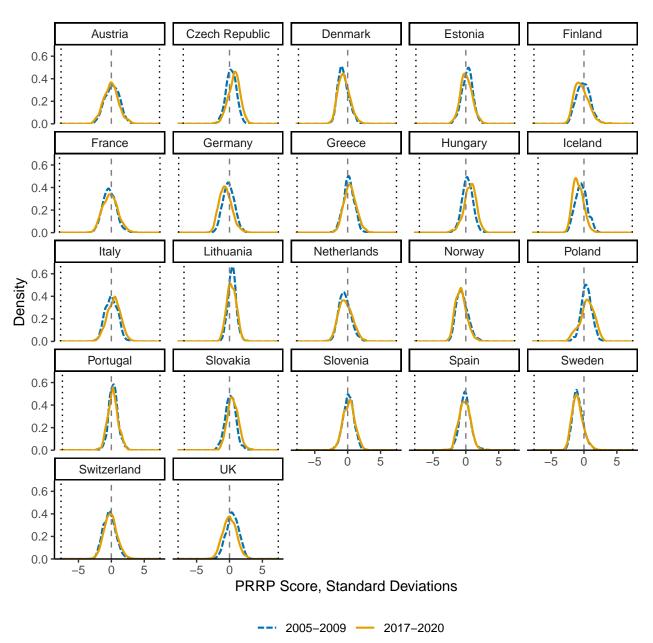
Notes: This figure displays a binned scatter plot of the correlation between the opinions of voters and the positions of the parties they supported in the 2005–2009 and 2017–2020 survey waves. We use IVS sampling weights within countries and equally weight each country. The positions of parties are based on the Comparative Manifesto Project economic and cultural indices. The components of these indices are shown in Appendix Table B.1. The voter opinion indices are created using a principal component analysis of IVS variables related to economics and culture. The variables included in the principal component analysis appear in Appendix Table B.2.

Figure A.6: Changes in PRRP Score and PRRP Support, 2005–2017



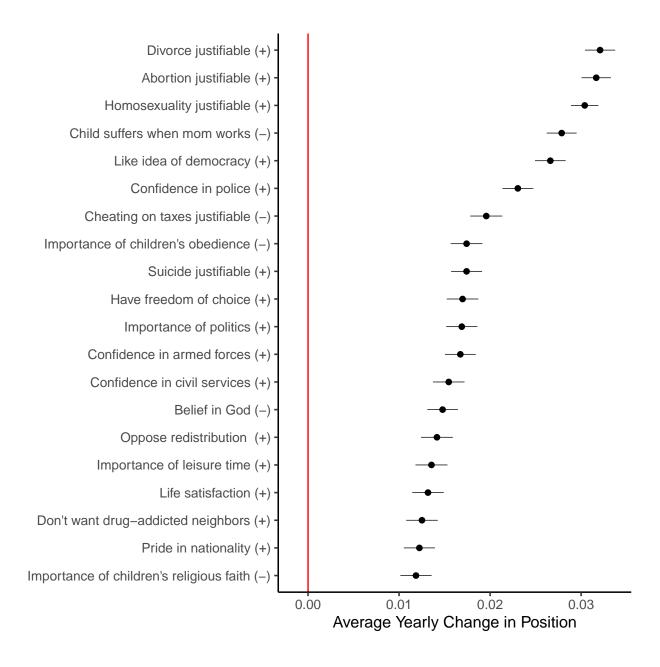
Notes: This figure plots the changes in the average voters' PRRP score and the changes in the PRRP voting share by country. Changes in PRRP score are between the 2005–2009 survey wave and the 2017–2020 survey wave. Changes in PRRP voting share are between 2005 and 2017. For both years (2005 and 2017) we take the average of all elections held in a five-year window centered around that year. The PRRP score aggregates opinions that are associated with PRRP support at the individual level and is described in Section 6.1.1. The change in PRRP score is normalized by the standard deviation of the score in the 2005–2009 survey for each country. IVS sampling weights are used. PRRP vote shares are calculated as the vote share among all parties appearing in the CMP dataset in all the parliamentary elections in the five-year window.

Figure A.7: Voters' PRRP Score by Country



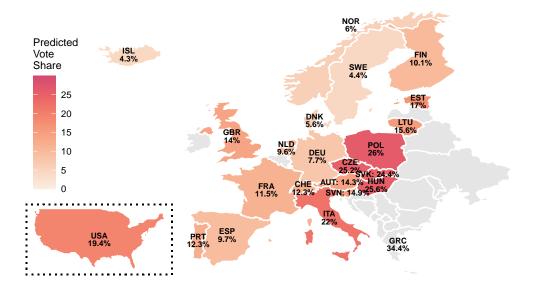
Notes: This figure presents the distribution of voters' PRRP score by country and survey wave. The PRRP score is calculated by running a LASSO regression predicting PRRP support. The regression is run on the most recent survey and includes all IVS variables in our final dataset, along with country fixed effects, with no penalty on the country coefficient. To calculate the PRRP score we standardize the fitted value based on the regression coefficients (excluding country fixed effects) with each country wave weighted equally. The dashed lines are the average values (normalized to 0) and the dotted lines are the minimum and maximum possible values. IVS sampling weights are used.

Figure A.8: Opinions that Changed the Most, 2005–2017



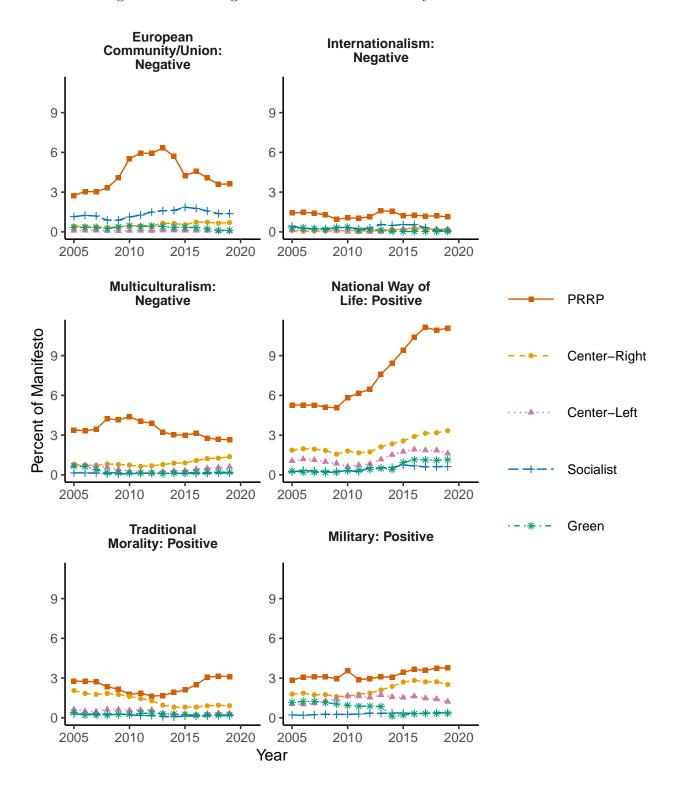
Notes: This figure shows the opinions that changed the most between the 2005–2009 and 2017–2020 survey waves. We run a separate regression of every opinion variable on the survey year and country fixed effects. Opinions are measured in standard deviation units. Each dot represents the time coefficient in this regression. 95% confidence intervals are reported. We use IVS sampling weights within countries and equally weight each country.

Figure A.9: Counterfactual Support for the AfD by Voter Attributes



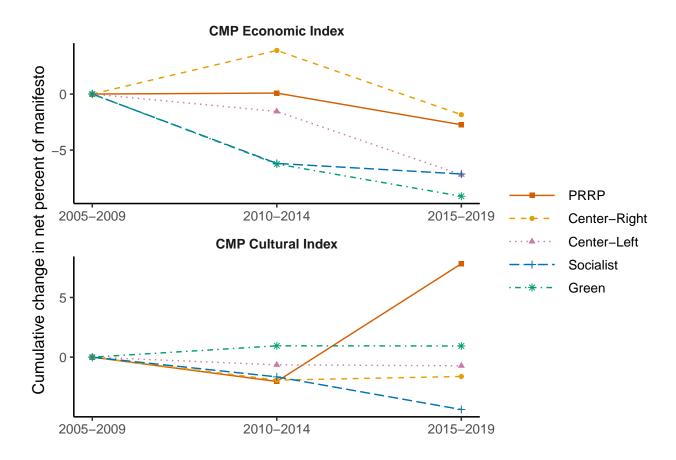
Notes: This figure calculates the counterfactual support for the AfD in the 2017–2020 wave if German voters had the attributes of voters in other countries. We calculate the counterfactual support for the AfD separately for each country based on a formula similar to Equation 11. We use IVS sampling weights. For more details see Figure 9.

Figure A.10: Changes in Most Distinctive Party Positions over Time



Notes: This figure shows the average position by party category for the six positions with the largest difference between PRRP and the other parties. Each position is measured as the average percentage of the platform that is dedicated to the position by parties in that category. The manifesto variables are described in Appendix Table B.1. The figure presents five-year moving averages for each position and each party category. Each country is weighted equally, and parties within each country are weighted by their voting shares.

Figure A.11: Within-Party Position Changes



Notes: This figure shows the cumulative within-party changes of the CMP economic and cultural indices by party category. The manifesto components included in each index are described in Appendix Table B.1. The figure presents cumulative average changes within each party since 2005. In particular, for each five-year period, we first compute position changes at the party level. We then aggregate the change across parties and countries. Each country is weighted equally, and parties within each country are weighted by their average voting share in the initial period. Thus, changes in the vote share do not affect the change in positions between consecutive periods. We present the cumulative change aggregating all changes since 2005. Note that the set of parties is not identical across periods.

Number of Populist Radical Right Parties

survey wave

2015

2011-2013

survey wave

2020

2017-2020

Figure A.12: Average Number of PRRP by Country

Notes: This figure shows the average number of PRRP that received at least 1% of the vote share by country. Within each country, the number of PRRP in each year is calculated as the average number of PRRP receiving at least 1% of the vote in all parliamentary elections in the five-year window centered around that year, based on the CMP data. We then calculate the average number across all 22 countries, with all countries weighted equally.

2010

Year

survey wave

2005-2009

2005

2000

Existing Party Party Voter Voter +29% parties Total entry positions attributes priorities . residual residual 100% +44% 75% -1% -2% +16% 50% +9% +1% +25% -20% 25% 0% -2% 2005-2009 2011-2013 2017-2020

Figure A.13: Decomposition with New Entries

Notes: This figure presents the results of our decomposition exercise, where the residual component is further decomposed into the residual of new PRRP entries and the remaining residuals (Equation 13). We calculate the residual component in Equation 10 separately for PRRP that appeared in our data in the first wave (2005–2009) and those that did not. The black bars present the share of the increase in PRRP support between 2005–2009 and 2017–2020, which we set to 100% overall. We aggregate across all countries with PRRP support by using a weighted average of their decomposition results. The value for each bar is a weighted average of the decomposition results in each country with the weights defined as the inverse of the share of radical right support in the 2017–2020 wave. We use the IVS sampling weights within countries.

B Bliss-Point Model

In this section, we discuss the similarities between our model and a simple bliss-point model and explain how we estimate the parameters of the bliss-point model for our robustness analysis in Section 5.

Assume that voters have a bliss point that is an affine transformation of their observables, $Ax_i + b$. Voters support parties that are closest to their bliss point. Formally, define the distance between two vectors of party positions as

$$dist(u,v)^2 = (u-v)'D(u-v),$$

where D is a diagonal matrix with a weakly positive diagonal representing the relative importance of different party positions. Using this distance function, we can define the bliss-point utility function as

$$U_{ij} = dist(z_j, Ax_i + b)^2 + \zeta_j + \varepsilon_{ij}.$$

We define $\Phi = -2A^TD$, and define $\delta_j = (z_j - 2b)'Dz_j + \zeta_j$. We can then write the utility function as

$$U_{ij} = x_i \Phi z_j' + \delta_j,$$

which is exactly the utility function we estimate in the first stage (Equation 4). Therefore, our estimation of the first stage will be identical to the case of a bliss-point model.

This equivalence between the two models implies that any counterfactual change to voter attributes would be invariant to which of the two models we use. Any counterfactual changes in the distribution of the attributes depend only on the first-stage parameters Φ, δ . Since these parameters would be the same in both models, the counterfactual support of any party would be the same in both models.²⁹

By contrast, we need to adjust our estimation of the second stage to accommodate the quadratic terms. Specifically, we rewrite δ as

$$\delta_{j,t} = \gamma_t z_{j,t}^2 + \beta_t z_{j,t} + \zeta_{j,t},$$

where $z_{j,t}^2 = ((z_{j,t}^1)^2, ..., (z_{j,t}^L)^2)$ is the vector of party positions squared. Similar to Section 3.2, we take the difference between two consecutive survey waves and get the following equation that extends Equation 7 to the quadratic case:

$$\Delta_t^{t+1} \delta_j = \underbrace{\Delta_t^{t+1} \gamma \bar{z_j}^2 + \Delta_t^{t+1} \beta \bar{z_j}}_{\text{Voter Priorities}} + \underbrace{\bar{\gamma} \Delta_t^{t+1} z_j^2 + \bar{\beta} \Delta_t^{t+1} z_j}_{\text{Party Positions}} + \underbrace{\Delta_t^{t+1} \zeta_j}_{\text{Residual}}.$$

We follow a similar procedure to reduce the dimensionality of the party position vectors, as described in Section 3.2 and Appendix D. We use the same dimension reduction technique for $z_{j,t}$ and $z_{j,t}^2$: we first reduce the dimension of $z_{j,t}$ to k as before, and then take the squares of the reduced dimension vector. We choose k=3, such that, in total, $\Delta_t^{t+1}\delta_j$ is a linear function of 2k=6 variables, similar to the five-dimensional z vectors we had in the linear case.

In Section 5, we present decomposition results using the bliss-point model described in

²⁹Our results for voter attributes in Panel B of Appendix Figure A.2 are close but not identical to the results in Figure 4 because of different randomization seeds.

this appendix. We estimate the parameters $\theta_t = (\Phi_t, \beta_t, \gamma_t)$ as explained here and then decompose the rise of PRRP using Equation 10 as in our main decomposition. The only difference from our original decomposition is that the priority component now includes the parameter vector γ as well.

C Data Appendix

C.1 IVS Data Processing

We clean categorical variables in the IVS data to keep the number of potential categories reasonable and merge similar variables when possible. For example, we aggregate the answers to the question asking the respondent about her religion to the following variables: Protestant, Catholic, other Christian, Muslim, Jew, Hindu, Buddhist, and other.

For all variables, we impute missing values using random forests for each country-wave combination separately. When a value is missing for an entire country-wave combination, we typically exclude the variable from our final dataset. In rare cases where the variable is available for almost all other countries in all survey waves, we impute the values for the specific missing country-wave combination using the nearest survey waves for that country. When the variable is available in both a preceding and a succeeding wave, we impute the variable as a linear interpolation of the mean values in each of these waves, according to the year when each survey was taken. When the variable is available in only a preceding or a succeeding wave, we impute the missing data as the mean value of the available wave. For the imputation process, we also use survey waves conducted before 2005. The full list of IVS variables along with the way they were coded is described in Appendix Table B.2.

We exclude two variables that ask directly about priorities as we capture priorities separately in the decomposition exercise. These two questions ask respondents to prioritize policy topics from a given subset of options. Since the subset of available options does not include the topics we estimate as most important (e.g., immigration policy, size of the welfare state, etc.) we do not use these questions to estimate priorities directly. We exclude an additional question on general political identity in which respondents are asked to position themselves on a left-right scale. Instead of using it in our main analysis, we use this question as an alternative outcome in Section 6.1.

While our estimation relies on the assumption that voters choose a party based on their opinions, in some cases the reverse could be true and the support for a party might shape some of the voters' opinions (Barber and Pope, 2019). This is especially common when a new government is elected and, as a result of this change in power, voters immediately change their opinions on the government (Hetherington and Rudolph, 2015). Therefore, we test which opinions tend to change once parties join the governing coalition. For each opinion in our data, we run a linear regression where the dependent variable is the opinion and the independent variable is whether the party supported by the respondent is part of the governing coalition, as determined by the ParlGov dataset (Döring and Manow, 2020). We include party fixed effects and country-wave fixed effects. We exclude from our data the three variables most strongly affected by a party's coalition status: confidence in parliament, confidence in political parties, and confidence in government.

We use the survey weights in all of our analyses with minor modifications. We multiply the weights by a normalizing constant for each country, such that every country would have equal weight on aggregate. In countries that had two surveys in the same wave (i.e., both EVS and WVS) we multiply the weights in all observations by a different constant for each survey, such that both surveys will have equal weight on aggregate for this country-wave combination.

C.2 Merging Datasets

We merge party data across the various datasets using PartyFacts (Döring and Regel, 2019) when possible and manually in other cases. To assign party positions to parties in the IVS data, we first match each party with a party in the CMP data and then in each survey wave assign the party positions from the closest election. The closest election is determined based on the distance between the mean date when a survey was conducted in a specific country and wave and the date when the election was held. We exclude IVS observations if no CMP data is available five years before or after the survey.³⁰ We also exclude 25 respondents who support parties supported by fewer than five respondents in the IVS. We use this threshold to allow for the cross-validation exercise described in Section 3.1.

Overall, we are able to match 94% of the IVS respondents who supported a party with a manifesto in the CMP data within five years of the survey date. Moreover, 92% are matched with a manifesto in the closest election to the survey date. We do not match all parties for the following reasons: a party may not publish a manifesto, the manifesto of the party may not be coded in the CMP data,³¹ a party may run in an alliance, and a party may have existed when the survey was conducted but not during the election.

When parties change names or run in various coalitions, it is often not clear if a new party was established or whether the same party ran under a different name or as part of an alliance. We follow the CMP to deal with this issue and define unique parties according to their CMP ID. The CMP also indicates when one party is a successor of another. However, there are only three pairs of parties where both the predecessor and successor parties appear in our data and therefore we do not merge predecessor and successor parties.

D Estimation Appendix

In this section, we discuss the dimension reduction in our second-step estimation which estimates the β parameter. We assume that combinations of party positions that generate differences in utility among voters are the same factors that determine the average utility across all voters. Formally, the voting weights for every voter are given by Equation 2. Using $\Phi = U\Sigma V^T$ to describe the singular value decomposition of matrix Φ , this can be written as $w(x_i) = x_i U\Sigma V^T + \beta$. Defining $\tilde{\beta} = \beta V$ we can write $w(x) = (x_i U\Sigma + \tilde{\beta})V^T$. Since we restrict the nuclear norm of Φ in the first stage, the last components of $x_i U\Sigma$ would be close

³⁰Although an IVS wave may be composed of both an EVS wave and a WVS wave that were not necessarily conducted in the same year, we assign to each IVS wave and country combination a single date when merging with party positions. We do so in order to assign a single manifesto to each party in each survey wave. However, calculating the mean date separately for the EVS and WVS waves would have only changed the assigned manifesto of a party in a handful of cases and would not have changed the set of observations we are able to match to CMP data within five years.

³¹CMP codes manifestos for parties receiving at least 1 seat in the elections for the lower house in Western Europe and 2 seats in elections in Central and Eastern Europe. In some cases, the platforms of parties that met these conditions in the past are also coded.

to zero (assuming the diagonal of Σ is ordered). Similarly, we restrict $\tilde{\beta}$ such that only the first k components are different from zero. Therefore, β has to be a linear combination of the first k components in matrix V, such that $\beta \in \text{span}\{[V]_k\}^{32}$

We estimate β with a constrained least squares estimator based on Equation 8:

$$\hat{\beta} = \arg\min_{(\beta_t, \beta_{t+2}) \in \operatorname{span}\{[V]_k\}} (\Delta_t^{t+2} \hat{\delta}_j - \Delta_t^{t+2} \beta \bar{z}_j - \bar{\beta} \Delta_t^{t+2} z_j)^2.$$
(12)

To solve this equation we first estimate the following equation using ordinary least squares:

$$\Delta_t^{t+2}\delta_j = \kappa([V]_k \bar{z}_j) + \rho([V]_k \Delta_t^{t+2} z_j) + \epsilon.$$

The dependent variable is the estimated change in δ ($\Delta_t^{t+2}\hat{\delta}_j$). The independent variables are the k linear combinations of the average position ($[V]_k\bar{z}_j$) and the change in positions ($[V]_k\Delta_t^{t+2}z_j$). We calculate V based on our estimation of $\hat{\Phi}$ in the 2017-2020 wave. We calculate the average party position (\bar{z}_j) using all survey waves available for this party, and the change in party positions ($\Delta_t^{t+2}z_j$) is the difference between the 2017–2020 and 2005–2009 survey waves. We weight each observation by the aggregate vote share of that party in all survey waves. The estimated parameters $\hat{\kappa}, \hat{\rho}$ are two k-dimensional vectors. We can then retrieve β with a linear transformation.

$$\begin{bmatrix} \hat{\beta}_t \\ \hat{\beta}_{t+2} \end{bmatrix} = \begin{bmatrix} 2\hat{\kappa} - \hat{\rho} \\ 2\hat{\kappa} + \hat{\rho} \end{bmatrix} [V]_k.$$

These values are the solution for Equation 12. We choose k = 5 for our main specification. In Section 5, we show that other values yield similar results.

E Results Appendix: Residual Component

In this section, we focus on the entry of new PRRP into the political system and how they contribute to the increase in the residual component. Appendix Figure A.12 shows that the average number of PRRP doubled during the period of our study. To create this figure, we use CMP data to count the average number of radical right parties that received at least 1% of the vote across all elections in the past five years and then average the result over all the countries in our sample.

We decompose the residual component to measure how much of its rise is explained by new parties. We calculate the same counterfactual as before, where only the residual component changes over time, and other components are held fixed at their initial level in 2005–2009. We then separate the overall support in PRRP (Π) into support for new PRRP entries (Π_{new}) and PRRP that already existed in our data in the 2005–2009 wave (Π_{exist}). Formally, we

 $^{^{32}}$ Using the first k components in an SVD of a matrix yields the best approximation for the matrix for the Frobenius norm based on the Eckart–Young–Mirsky Theorem.

decompose the residual component into the following two components:

$$\underbrace{\int P\left(\Pi_{new}|x_{i};\theta_{t},Z_{t}^{c},\zeta_{t+1}^{c}\right)f_{t}^{c}\left(x_{i}\right)dx_{i} - \int P\left(\Pi_{new}|x_{i};\theta_{t},Z_{t}^{c},\zeta_{t}^{c}\right)f_{t}^{c}\left(x_{i}\right)dx_{i}}_{\text{New Entries}} + \underbrace{\int P\left(\Pi_{exist}|x_{i};\theta_{t},Z_{t}^{c},\zeta_{t+1}^{c}\right)f_{t}^{c}\left(x_{i}\right)dx_{i} - \int P\left(\Pi_{exist}|x_{i};\theta_{t},Z_{t}^{c},\zeta_{t}^{c}\right)f_{t}^{c}\left(x_{i}\right)dx_{i}}_{\text{Remaining Residual}} . \tag{13}$$

In contrast to the decomposition in Equation 10, which represents four different counterfactuals, this additional decomposition calculates the impact of the same counterfactual (change in the residuals) on two different sets of parties.

We calculate the counterfactual rise of new and existing PRRP in each country and aggregate the results as before. The "New Entries" component measures the counterfactual support for new entries, if they had the same residual as the later waves, instead of the residual of $-\infty$ that we assigned.

Appendix Figure A.13 shows that the rise of the residual component is more than fully driven by new parties. We find that on aggregate 69% of the overall rise of PRRP is driven by the residual growth of new parties. This is larger than the overall contribution of the residual component. This large residual for new PRRP implies that the actual growth in support for new PRRP entries is substantially larger than what we would expect based only on party positions, voter attributes, and voter priorities. By contrast, for existing PRRP, the residual is negative. Hence, based on party positions, voter attributes, and voter priorities we would have expected the growth of these parties to be lower. This could reflect the fact that due to idiosyncratic reasons, in some countries (e.g., Norway and Switzerland) PRRP gained popularity earlier and therefore might not have had as much potential for additional growth (Mudde, 2007).

The residual rise of new parties is unlikely to be the result of supply or demand factors. The unexplained rise of new entries is less likely to be a supply shock since voters already had the option of supporting PRRP. There are only five countries in our data where the share of support for PRRP was virtually zero in 2005–2009 and rose to a positive value by 2017–2020: Sweden, the UK, Germany, the Czech Republic, and Estonia. In both Sweden and the UK, the Sweden Democrats and UKIP, respectively, participated in elections in the past and failed to garner substantive support. In Germany, the Czech Republic, and Estonia, while the current PRRP were formed more recently, other radical-right parties attempted to enter the parliament and failed (Mudde, 2007). On the demand side, our counterfactual analysis suggests that demand for such parties already existed in 2005–2009. Yet, these parties still failed to enter.

One possible explanation for the residual increase of new entries is strategic considerations and coordination failures. It has been shown that many voters coalesce around a party only when they anticipate that the party will have substantial support (Fredén, 2014). Therefore, one plausible hypothesis is that some voters did not support PRRP in their early stages since they were lacking sufficient support. The prioritization of cultural issues has potentially generated a critical mass of support for PRRP. This solved the coordination problem, and therefore, increased the support for new PRRP, even beyond the direct expected increase from the change in priorities. Such excessive support would be attributed to the residual component.

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F Supplementary Data Tables

Table B.1: CMP Economic and Cultural Indices

		CM	IP	Bakker	and Hobolt (2013)	Prosser (2014)	
Variable	Description (from the CMP codebook)	Econ.	Soc.	Econ.	LibAuth.	Econ.	Soc.
Foreign Special Relationships: Positive (per101)	Favourable mentions of particular countries with which the manifesto country has a special relationship; the need for co-operation with and/or aid to such						
,	countries						
Foreign Special Relationships: Negative (per102)	Negative mentions of particular countries with which the manifesto country has a special relationship						
Anti-Imperialism (per103)	Negative references to imperial behaviour and/or negative references to one state exerting strong influence over other states						
Military: Positive (per104)	The importance of external security and defence						
Military: Negative (per105)	Negative references to the military or use of military power to solve conflicts						-
Peace (per106)	Any declaration of belief in peace and peaceful means of solving crises absent reference to the military						-
Internationalism: Positive (per107)	Need for international co-operation, including co-operation with specific countries other than those coded in Foreign Special Relationships						-
European Community/Union: Positive (per108)	Favourable mentions of European Community/Union in general						
Internationalism: Negative (per109)	Negative references to international co-operation						+
European Community/Union: Negative (per110)	Negative references to the European Community/Union						
Freedom and Human Rights (per201)	Favourable mentions of importance of personal freedom and civil rights in the manifesto and other countries		-		-		-
Democracy (per202)	Favourable mentions of democracy as the only game in town		-		-		-
Constitutionalism: Positive (per203)	Support for maintaining the status quo of the constitution						
Constitutionalism: Negative (per204)	Opposition to the entirety or specific aspects of the manifesto country's constitution						
Decentralization (per301)	Support for federalism or decentralisation of political and/or economic power						-
Centralisation (per302)	General opposition to political decision-making at lower political levels						+
Governmental and Administrative Efficiency (per303)	Need for efficiency and economy in government and administration and/or the general appeal to make the process of government and administration cheaper and more efficient						
Political Corruption (per304)	Need to eliminate political corruption and associated abuses of political and/or bureaucratic power						
Political Authority (per305)	References to the manifesto partys competence to govern and/or other partys lack of such competence				+		+

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Table B.1: CMP Economic and Cultural Indices (continued)

		CN	1P	Bakker	and Hobolt (2013)	Prosser	r (2014)
Variable	Description (from the CMP codebook)	Econ.	Soc.	Econ.	LibAuth.	Econ.	Soc.
Free Market Economy (per401)	Favourable mentions of the free market and free market capitalism as an economic model	+		+		+	
Incentives: Positive (per402)	Favourable mentions of supply side oriented economic policies	+		+			
Market Regulation (per403)	Support for policies designed to create a fair and open economic market	-		-		-	
Economic Planning (per404)	Favourable mentions of long-standing economic planning by the government	-		-			
Corporatism/Mixed Economy (per405)	Favourable mentions of cooperation of government, employers, and trade unions simultaneously	-		-			
Protectionism: Positive (per406)	Favourable mentions of extending or maintaining the protection of internal markets	-		-			
Protectionism: Negative (per407)	Support for the concept of free trade and open markets	+		+		+	
Economic Goals (per408)	Broad and general economic goals that are not mentioned in relation to any other category						
Keynesian Demand Management (per409)	Favourable mentions of demand side oriented economic policies	-		-			
Economic Growth: Positive (per410)	The paradigm of economic growth	+		+			
Technology and Infrastructure: Positive (per411)	Importance of modernisation of industry and updated methods of transport and communication					-	
Controlled Economy (per412)	Support for direct government control of economy	-		-		-	
Nationalisation (per413)	Favourable mentions of government ownership of industries, either partial or complete; calls for keeping nationalised industries in state hand or nationalising currently private industries	-		-		-	
Economic Orthodoxy (per414)	Need for economically healthy government policy making	+		+		+	
Marxist Analysis (per415)	Positive references to Marxist-Leninist ideology and specific use of Marxist-Leninist terminology by the manifesto party	-		-			
Anti-Growth Economy: Positive (per416)	Favourable mentions of anti-growth politics				-		-
Environmental Protection (per501)	General policies in favour of protecting the environment, fighting climate change, and other green policies				-		-
Culture: Positive (per502)	Need for state funding of cultural and leisure facilities including arts and sport				-		-
Equality: Positive (per503)	Concept of social justice and the need for fair treatment of all people		-	-		-	
Welfare State Expansion (per504)	Favourable mentions of need to introduce, maintain or expand any public social service or social security scheme	-		-		-	
Welfare State Limitation (per505)	Limiting state expenditures on social services or social security	+		+		+	
Education Expansion (per506)	Need to expand and/or improve educational provision at all levels	-		-		-	
Education Limitation (per507)	Limiting state expenditure on education	+		+		+	
National Way of Life: Positive (per601)	Favourable mentions of the manifesto country's nation, history, and general appeals		+		+		+

Table B.1: CMP Economic and Cultural Indices (continued)

		CN	ſΡ	Bakker	and Hobolt (2013)	Prosser	r (2014)
Variable	Description (from the CMP codebook)	Econ.	Soc.	Econ.	LibAuth.	Econ.	Soc.
National Way of Life: Negative (per602)	Unfavourable mentions of the manifesto country's nation and history		-		-		-
Traditional Morality: Positive (per603)	Favourable mentions of traditional and/or religious moral values $$		+		+		
Traditional Morality: Negative (per604)	Opposition to traditional and/or religious moral values		-		-		
Law and Order: Positive (per605)	Favourable mentions of strict law enforcement, and tougher actions against domestic crime		+		+		
Civic Mindedness: Positive (per606)	Appeals for national solidarity and the need for society to see itself as united				+		
Multiculturalism: Positive (per607)	Favourable mentions of cultural diversity and cultural plurality within domestic societies		-		-		-
Multiculturalism: Negative (per608)	The enforcement or encouragement of cultural integration		+		+		+
Labour Groups: Positive (per701)	Favourable references to all labour groups, the working class, and unemployed workers in general	-		-		-	
Labour Groups: Negative (per702)	Negative references to labour groups and trade unions	+		+		+	
Agriculture and Farmers: Positive (per703)	Specific policies in favour of agriculture and farmers						
Middle Class and Professional Groups (per704)	General favourable references to the middle class		+				-
Underprivileged Minority Groups (per705)	Very general favourable references to underprivileged minorities who are defined neither in economic nor in demographic terms				-		-
Non-economic Demographic Groups (per706)	General favourable mentions of demographically defined special interest groups of all kinds				-		-

Notes: This table presents the descriptions of all major (three-digit) CMP positions. All of these positions were included in the decomposition exercise. The third and fourth columns show which positions are part of the CMP economic and cultural indices (the culture index is termed "Society" in the CMP). These are the primary party position indices used in the paper. The next four columns refer to alternative constructions of economic and social indices using CMP positions. These indices are only used in Figure A.3.

Table B.2: IVS Variables

Employment status "Are you employed now or not? If yes, about how many hours a week? If more than one job: only for the main job." Scale: Yes, paid employment = {Full time employee (30 hours a week or more); Part-time employee (18 sthan 30 hours a week); Self-employed}. No, no paid employment = {Retired / pensioned; Housewife not otherwise employee, elses than 30 hours a week); Self-employed}. Self-employed 1 = Self-employed, Student; Unemployed 1 = Retired, 0 = {All other options} 1 = Retired, 0 = {All other options} 1 = Housewife, 0 = {All other options} 1 = Student, 0 = {All other options} 1 = Student, 0 = {All other options} 1 = Unemployed, 0 = {All other options} 1 = Unem	Variable	Description	Coding and notes	Index
would you say you are" A religious person, Not a religious person, A convinced atheist and religious person, Not a religious person, A convinced atheist and religious person, Not a religious person, Not a religious person, Not a religious person, Not a religious person, Not and the religious person, Not and the religious person, Not and religious person are religious person, Not and religious person are religious person, Not are seeded; and religious persons are religious persons and other incomes that come are religious persons and other incomes that come in "On this card is an income scale on which 1 indicates the lowest income group and 10 the highest income group, Personal religious persons and other incomes that come in "On this card is an income scale on which 1 indicates the lowest income group and 10 the highest income group, Personal religious personal rel	Demographics			
Male Respondent's sex "This means you are age in two digits)." Married or living together as married, Divorced, Separated, Widowed, Single Divorced, separated, or widowed Single Divorced, separated, or widowed Single Number of children "How many children have you ever had?", "How many children do you have, deceased children not included?" (EVS 2008-2010) Employment status "Are you employed now or not? If yes, about how many hours a week? If more than one job: only for the main job." Scale Yes, paid employment [Full time employee (Bes than 30 hours a week) many hours a week? If more than one job: only for the main job." Scale Yes, paid employment [Full time employee (Bes than 30 hours a week) self-employed. Yes paid employment [Full time employee (Bes than 30 hours a week) self-employed. Yes posid employment [Full time employee (Bes than 30 hours a week) self-employed. Yes posid employment [Full time employee (Bes than 30 hours a week) self-employed. Yes posid employment [Full time employee (Bes than 30 hours a week) self-employed. Yes posid employment [Full time employee (Bes than 30 hours a week) self-employed. Yes posid employment [Full time employee (Bes than 30 hours a week) self-employed. Yes posid employment [Full time employee] Student; Unemployed. Yes posid employment [Full time employee] Yes positions and other income group and 10 the highest income group. For Portugal, the positions of the propriate number, counting all wages, salaries, persions and other income flat come in." Protestant "On this card is an income scale on which 1 indicates the lowest income group. For Portugal, the 2012-2009 wave is imputed based on the 2005-2009 wave. 1 = Protestant, 0 = {All other options} 1 = Other, 0 = {All other options} 1 = Nother Others of the propriate number, counting all wages, salaries, persions and other incomes flat come in." 1 = Protestant, 0 = {All ot	Religious	would you say you are" A religious person, Not a		
Age "This means you are age in two digits)." Married or living together as married, Divorced, Separated, Widowed, Single Divorced, separated, or widowed or widowed Divorced, separated, or widowed Single Number of children "How many children have you ever had?", "How many children do you have, deceased children not included?" (EVS 2008-2010) Employment status "Are you employed now or not? If yes, about how many hours a week? If more than one job: only for the main job." Scale: Yes, paid employment = {Full time employee (30 hours a week) remployee (30 hours a week); Self-employed}. No, no paid employment = {Retired/pensioned; Housewife on totherwise employee (30 hours a week); Self-employed No, no paid employment = {Retired/pensioned; Housewife on totherwise employeed; Student; Unemployed Other employment Income decile "On this card is an income scale on which 1 indicates the lowest income group and 10 the highest income group. For Portugal, the appropriate number, counting all wages, salaries, pensions and other incomes that come in." Protestant "Do you belong to a religion or religious denomination? If yes, which one?" Protestant "Do you belong to a religion or religious denomination? If yes, which one?" Protestant "Do you belong to a religion or religious denomination? If yes, which one?" Protestant "Do you belong to a religion or religious denomination? If yes, which one?" Protestant "Do you belong to a religion or religious denomination? If yes, which one?" Protestant "Do you belong to a religion or religious denomination? If yes, which one?" Protestant "Endit of the religion of the re	Atheist			
Age "This means you are age in two digits)." Married or living together as married, Divorced, Separated, Widowed, Single Divorced, separated, or widowed or widowed or widowed Divorced, separated, or widowed or widowed Single Number of children "How many children have you ever had?", "How many children do you have, deceased children not included?" (EVS 2008-2010) "Are you employed now or not? If yes, about how many hours a week? If more than one job: only for the main job." Scale: Yes, paid employment = {Fall time employee (3 hours a week) remote employee (4 hours a week) remote remote proposed) remote employee (4 hours a week) remote employee (4 hours a week) remote remote employee (4 hours a week) remote remote proposed) remote employee (4 hours a week) remote remote proposed) remote remote proposed remote remote proposed remote remot	Male	Respondent's sex	- ,	
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Housewife $1 = \text{Housewife}, 0 = \{\text{All other options}\}$ Student $1 = \text{Student}, 0 = \{\text{All other options}\}$ Unemployed $1 = \text{Unemployed}, 0 = \{\text{All other options}\}$ Other employment $1 = \text{Other, 0} = \{\text{All other options}\}$ Income decile $ \text{"On this card is an income scale on which 1 indicates} \\ \text{the lowest income group and 10 the highest income} \\ \text{group in your country. We would like to know in} \\ \text{what group your household is. Please specify the} \\ \text{appropriate number, counting all wages, salaries,} \\ \text{pensions and other incomes that come in."}$ Protestant $ \text{"Do you belong to a religion or religious} \\ \text{denomination? If yes, which one?"} \\ \text{1 = Roman Catholic, 0 = } \{\text{All other options}\} \\ \text{1 = Roman Catholic, 0 = } \{\text{All other options}\} \\ \text{1 = Roman Catholic, 0 = } \{\text{All other options}\} \\ \text{1 = Roman Catholic, 0 = } \{\text{All other options}\} \\ \text{1 = {Other Christian (Evangelical/Pentecostal/Free church/etc.); Orthodox} \\ \text{(Russian/Greek/etc.)}, 0 = {\text{All other options}} \\ \text{Other religion} \\ \text{1 = Jew, 0 = } \{\text{All other options}\} \\ \text{1 = Jew, 0 = } \{\text{All other options}\} \\ \text{1 = Houslim, 0 = } \{\text{All other options}\} \\ \text{1 = Jew, 0 = } \{\text{All other options}\} \\ \text{1 = Jew, 0 = } \{\text{All other options}\} \\ \text{1 = Houslim, 0 = } \{\text{All other options}\} \\ \text{1 = Jew, 0 = } \{\text{All other options}\} \\ \text{1 = Jew, 0 = } \{\text{All other options}\} \\ \text{1 = Houslim, 0 = } \{\text{All other options}\} \\ \text{1 = Jew, 0 = } \{\text{All other options}\} \\ \text{1 = Jew, 0 = } \{\text{All other options}\} \\ \text{1 = Do not belong to a denomination, } \\ \text{1 = Do not belong to a denomination, } \\ \text{1 = Do not belong to a denomination, } \\ \text{1 = Do not belong to a denomination, } \\ \text{1 = Do not belong to a denomination, } \\ \text{1 = Do not belong to a denomination, } \\ \text{1 = Do not belong to a denomination, } \\ \text{1 = Do not belong to a denomination, } \\ \text{1 = Do not belong to a denomination, } \\ \text{1 = Do not belong to a denomination, } \\ \text{1 = Do not belong to a denomination, } \\ 1 = Polatical Policy of the policy of the policy of the policy $	Self-employed			
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Income decile "On this card is an income scale on which 1 indicates the lowest income group and 10 the highest income group. Ye would like to know in what group your household is. Please specify the appropriate number, counting all wages, salaries, pensions and other incomes that come in." Protestant "Do you belong to a religion or religious denomination? If yes, which one?" Catholic "Use of Christian "Other type of Christian Other type of Christian Other type of Christian Other religion Other religion Other religion Other religion Other religion Other religion No religion/atheist "On this card is an income scale on which 1 indicates the lowest income group, 2,,9, 10 = Highest income group. Pror Portugal, the 2017-2020 wave is imputed based on the 2005-2009 wave. 1 = Protestant, 0 = {All other options} 1 = Roman Catholic, 0 = {All other options} 1 = Muslim, 0 = {All other options} 1 = Qother Christian (Evangelical/Pentecostal/Free church/etc.); Orthodox (Russian/Greek/etc.)}, 0 = {All other options} 1 = Jew, 0 = {All other options} 1 = Qother; Buddhist; Hindu}, 0 = {All other options} 1 = Do not belong to a denomination,	Other employment		- ,	
Protestant "Do you belong to a religion or religious denomination? If yes, which one?"	Income decile	the lowest income group and 10 the highest income group in your country. We would like to know in what group your household is. Please specify the appropriate number, counting all wages, salaries,	1 = Lowest income group, 2,,9, 10 = Highest income group. For Portugal, the 2017-2020 wave is imputed based	
$\begin{array}{lll} & & & & & & & \\ \text{Muslim} & & & & & 1 = \text{Muslim, 0} = \{\text{All other options}\} \\ \text{Other type of} & & & 1 = \{\text{Other Christian} \\ \text{Christian} & & & (\text{Evangelical/Pentecostal/Free ehurch/etc.}); \text{ Orthodox} \\ & & & & (\text{Russian/Greek/etc.})\}, \ 0 = \{\text{All other options}\} \\ \text{Jew} & & & 1 = \text{Jew, 0} = \{\text{All other options}\} \\ \text{Other religion} & & & 1 = \{\text{Other; Buddhist; Hindu}\}, \ 0 = \\ & & & \{\text{All other options}\} \\ \text{No religion/atheist} & & 1 = \text{Do not belong to a denomination,} \\ \end{array}$	Protestant	"Do you belong to a religion or religious		
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Other religion $1 = \{ \text{Other; Buddhist; Hindu} \}, 0 = \\ \{ \text{All other options} \} $ No religion/atheist $1 = \text{Do not belong to a denomination},$	Other type of		1 = {Other Christian (Evangelical/Pentecostal/Free church/etc.); Orthodox (Russian/Greek/etc.)}, 0 = {All other	
$ \{ \text{All other options} \} $ No religion/atheist $ 1 = \text{Do not belong to a denomination}, $				
	~		{All other options}	
	No religion/atheist			

Table B.2: IVS Variables (continued)

Variable	Description	Coding and notes	Index
Education level	"What is the highest educational level that you have attained?"	The possible answers to this question depend on the survey wave. We coded education into six levels: 0 = {Inadequately completed elementary education; Not applicable/No formal education; ISCED 0/ no education; Less than primary}, 1 = {Completed (compulsory) elementary education; ISCED 1; Primary}, 2 = {Incomplete secondary school: technical/vocational type; Incomplete secondary: university-preparatory type/Secondary; ISCED 2; Lower secondary}, 3 = {Complete secondary school: technical/vocational type/secondary; Complete secondary: university-preparatory type/full secondary; ISCED 3; Upper secondary; ISCED 3; Upper secondary}, 4 = {Some university without degree/higher education - lower-level tertiary; ISCED 4; ISCED 5; Postsecondary nontertiary; Short-cycle tertiary}, 5 = {University with degree/higher education - upper-level tertiary; ISCED 6, ISCED 7; ISCED 8; Bachelor or equivalent; Master or equivalent; Doctoral or	
Education years	"At what age did you (or will you) complete your full-time education, either at school or at an institution of higher education?"	equivalent}. Open numeric response. Winsorized at 70. For Greece, the 2017-2020 wave is imputed from the 2005-2009 wave. For the US, the 2017-2020 wave is imputed from the 2011-2013 wave.	
Town size	Size of town where the interview was conducted	The possible answers depended on the exact survey: {2,000 and less; under 5,000; 2,000-5,000; 5,000-10,000; 10,000-20,000; 5,000-10,000; 20,000-50,000; 50,000-100,000; 20,000-100,000; 100,000-500,000; 500,000 and more}. For every range of town size we use the log of the average of the two bounds. For the top category, for which we have no upper bound, we calculated the log of the minimum value multiplied by 8.35 (Rosen and Resnick, 1980). For Germany, the 2011-2013 wave is imputed based on the 2005-2009 and 2017-2020 waves. For Iceland, the 2005-2009 wave is imputed based on the 1999-2004 and 2017-2020 waves. For the Netherlands, the 2017-2020 wave is imputed based on the 2011-2013 wave. For the UK, the 2011-2013 wave is imputed based on the 2005-2009 wave is imputed based on the 2005-2009 wave is imputed based on the 2011-2013 wave. For the UK, the 2011-2013 wave is imputed based on the 2005-2009 wave is imputed based on the 2005-2009 wave. For the US, the 2011-2013 wave is imputed based on the 2005-2009 and 2017-2020 waves.	
Frequency of attending religious services	"Apart from weddings, funerals and christenings, about how often do you attend religious services these days?"	0 = Never practically never, 1 = Less often, 2 = Once a year, 3 = Other specific holy days, 4 = Only on special holy days/Christmas/Easter days, 5 = Once a month, 6 = Once a week, 7 = More than once a week.	

Table B.2: IVS Variables (continued)

Variable	Description	Coding and notes	Index
Member of environmental organization	"Now I am going to read out a list of voluntary organizations; for each one, could you tell me whether you are a member, an active member, an inactive member or not a member of that type of organization?"	$1 = \{ \text{Active member} \}, 0 = \{ \text{Not a} $ member; Inactive member}	
Member of labor union Member of religious	Labor union Church or religious organization		
organization	, , , , , , , , , , , , , , , , , , ,		
Member of sports organization	Sport or recreational organization, football, baseball, rugby team		
Member of artistic organization	Art, music or educational organization		
Member of political party	Political party		
Member of professional proganization	Professional association		
Member of other organization	Other organization	For Germany, the 2011-2013 wave is imputed based on the 2005-2009 and 2017-2020 waves.	
State of health	"All in all, how would you describe your state of health these days? Would you say it is"	0 = Very poor, 1 = Poor, 2 = Fair, 3 = Good, $4 = \text{Very good}$	
Opinions	WNow Tel libe you to be held the all the	0 Would not be 1 1 Mr. 14 1 2	
Willing to sign petition	"Now I'd like you to look at this card. I'm going to read out some different forms of political action that people can take, and I'd like you to tell me, for each one, whether you have actually done any of these things, whether you might do it or would never, under any circumstances, do it." Signing a petition	0 = Would never do, 1 = Might do, 2 = Have done	
Willing to join boycott	Joining in boycotts		
Willing to demonstrate	Attending peaceful demonstrations		
Willing to join strike	Joining strikes	For the US, the 2005-2009 wave is imputed based on the 1999-2004 and 2011-2013 waves.	
Respect for authority	"Here is a list of various changes in our way of life that might take place in the near future. Please tell me for each one, if it were to happen whether you think it would be a good thing, a bad thing, or don't you mind?:" Greater respect for authority	0 = Bad thing, 1 = Don't mind, 2 = Good thing	Cult.
Jobs should prioritize natives	"Do you agree, disagree or neither agree nor disagree with the following statements?" When jobs are scarce, employers should give priority to people of this country over immigrants	0 = Disagree, 1 = Neither, 2 = Agree	Cult.
Jobs should prioritize men	When jobs are scarce, men should have more right to a job than women	0 = Disagree, 1 = Neither, 2 = Agree. For Greece the 2017-2020 wave is imputed based on the 2005-2009 wave.	Cult.
Government ownership of business should be ncreased	"Now I'd like you to tell me your views on various issues. How would you place your views on this scale? 1 means you agree completely with the statement on the left; 10 means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between." Private vs state ownership of business	1 = Private ownership of business should be increased, 2,,9, 10 = Government ownership of business should be increased	Econ.
Personal over govt. responsibility	Government responsibility	1 = The government should take more responsibility, 2,,9, 10 = People should take more responsibility	Econ.
Competition in markets is good	Competition good or harmful	1 = Competition is harmful, 2,,9, 10 = Competition is good	Econ.
Oppose redistribution	Income equality	1 = Incomes should be made more equal, 2,,9, 10 = We need larger	Econ.

Table B.2: IVS Variables (continued)

Variable	Description	Coding and notes	Index
Country needs strong leader	"I'm going to describe various types of political systems and ask what you think about each as a way of governing this country. For each one, would you say it is a very good, fairly good, fairly bad or very bad way of governing this country?" Having a strong leader who does not have to bother with parliament and elections	0 = Very bad, 1 = Fairly bad, 2 = Fairly good, 3 = Very good	Cult.
Expert should make decisions, not govt.	Having experts, not government, make decisions according to what they think is best for the country		
Like idea of army rule	Having the army rule		
Like idea of democracy Pride in nationality	Having a democratic political system "How proud are you to be of nationality of this country?"	0 = Not at all proud, 1 = Not very proud, 2 = Quite proud, 3 = Very proud, missing = Not applicable/ Foreigner	Cult.
Happiness	"Taking all things together, would you say you are:"	0 = Not at all happy, $1 = Not$ very happy, $2 = Quite$ happy, $3 = Very$ happy	
Trust other people	"Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?"	0 = Can't be too careful, $1 = Most$ people can be trusted	
Life satisfaction	"All things considered, how satisfied are you with your life as a whole these days?"	0 = Dissatisfied, 1,,8, 9 = Satisfied	
Have freedom of choice	"Some people feel they have completely free choice and control over their lives, while other people feel that what they do has no real effect on what happens to them. Please use this scale where 1 means 'none at all' and 10 means 'a great deal' to indicate how much freedom of choice and control you feel you have over the way your life turns out."	1 = None at all, 2,,9, 10 = A great deal	
Importance of family	"For each of the following aspects, indicate how important it is in your life. Would you say it is very important, rather important, not very important or not important at all?" Family	0 = Not at all important, $1 = Not$ very important, $2 = Rather$ important, $3 = Very$ important	
Importance of friends	Friends		
Importance of leisure time	Leisure time		
Importance of politics	Politics		
Importance of work	Work		
Importance of religion	Religion		G. II
Importance of children's hard work	"Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important? Please choose up to five." Hard work	0 = Not mentioned, 1 = Important.	Cult.
Importance of children's independence	Independence	Same as above.	Cult.
Importance of children's responsibility	Feeling of responsibility		Cult.
Importance of children's imagination	Imagination		Cult.
Importance of children respecting other people	Tolerance and respect for other people		Cult.
Importance of children's thrift	Thrift saving money and things		Cult.
Importance of children's determination	Determination, perseverance		Cult.
Importance of children's religious faith	Religious faith		Cult.

Table B.2: IVS Variables (continued)

Variable	Description	Coding and notes	Index
Importance of children's unselfishness	Not being selfish (unselfishness)		Cult.
Importance of children's obedience	Obedience		Cult.
Don't want drug-addicted neighbors	"On this list are various groups of people. Could you please mention any that you would not like to have as neighbors?" Drug addicts	0 = Not mentioned, 1 = Mentioned.	Cult.
Don't want different race neighbors	People of a different race		Cult.
Don't want immigrant neighbors	Immigrants/foreign workers		Cult.
Don't want homosexual neighbors	Homosexuals		Cult.
Don't want heavy-drinking neighbors	Heavy drinkers		Cult.
Child suffers when mom works	"When a mother works for pay, the children suffer"	0= Strongly disagree, $1=$ Disagree, $2=$ Agree, $3=$ Agree strongly. For the US, the 2005-2009 wave is imputed from the wave 2011-2013 wave.	Cult.
Level of political interest	"How interested would you say you are in politics?"	0 = Not at all interested, 1 = Not very interested, 2 = Somewhat interested, 3 = Very interested	
Confidence in the press	"I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?" The press	0 = None at all, 1 = Not very much, 2 = Quite a lot, 3 = A great deal	Cult.
Confidence in unions	Labor unions		Econ
Confidence in police	The police		
Confidence in courts	The courts		
Confidence in UN	The United Nations		
Confidence in churches Confidence in civil	The churches (mosque, temple, etc.) The civil services		Cult.
services Confidence in major companies	Major companies		
Confidence in environmental organizations	Environmental organizations		
Confidence in EU	The European Union	For the U.S. sample, values are impute based on the sample average	Cult.
Confidence in armed forces	The armed forces	For Iceland, the 2017-2020 wave is imputed based on the 2005-2009 wave	Cult.
Belief in God	"In which of the following things do you believe, if you believe in any?" God	0 = No, $1 = Yes$. For the US, the 2005-2009 wave is imputed based on the 1999-2004 and 2011-2013 waves	
Belief in hell	Hell		
Importance of God in life	"How important is God in your life?" Please use this scale to indicate. 10 means 'very important' and 1 means 'not at all important'"	1 = Not at all important, 2,,9, 10 = Very important	
Avoiding public transit fare justifiable	"Please tell me for each of the following statements whether you think it can always be justified, never be justified, or something in between." Avoiding a fare on public transport	1 = Never justifiable, 2,,9, $10 =$ Always justifiable	
Abortion justifiable	Abortion		Cult.
Divorce justifiable	Divorce		Cult.
Accepting a bribe	Someone accepting a bribe in the course of their		
justifiable	duties Suicide		Cult
Suicide justifiable Cheating on taxes justifiable	Cheating on taxes if you have a chance	For Germany, the 2011-2013 wave was imputed based on the 2005-2009 and	Cult.
		2017-2020 waves	

Table B.2: IVS Variables (continued)

Variable	Description	Coding and notes	Index
Homosexuality justifiable	Homosexuality	For Italy, the 2005-2009 wave was imputed based on the 1999-2000 and 2017-2020 waves	Cult.
Prostitution justifiable	Prostitution	For Spain, the 2011-2013 wave was imputed based on the 2005-2009 and 2017-2020 waves. For the US the 2011-2013 wave is imputed based on the 2005-2009 and 2017-2020 waves	Cult.

Notes: This table presents all IVS variables included in our data. The third column provides information on how variables were processed. The fourth columns show which variables are part of the economic and culture opinions indices used in Figure 7 and Appendix Figure A.5.