Decomposing the Rise of the Populist Radical Right*

Oren Danieli, Noam Gidron, Shinnosuke Kikuchi, Ro'ee Levy

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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 (demographics and opinions), changes in voters' 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 play a minor role in the recent success of populist radical right parties. Rather, 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. Instead, voters—mainly older, non-unionized, low-educated men—increasingly prioritize nativist cultural issues. This allows populist radical right parties to tap into a pre-existing reservoir of culturally conservative voters. We provide a set of reduced-form evidence supporting these 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.

*Danieli: Tel Aviv University, orendanieli@tauex.tau.ac.il. Gidron: Hebrew University of Jerusalem, noam.gidron@mail.huji.ac.il. Kikuchi: MIT, skikuchi@mit.edu. Levy: Tel Aviv University, roeelevy@tauex.tau.ac.il. We are grateful to Daron Acemoglu, David Autor, Amir Beck, Nathan J. Canen, Eve Colson-Sihra, Natalia Emmanuel, Benjamin Enke, Makoto Fukumoto, Jeffry Frieden, Yotam Margalit, Vincent Pons, Giacomo A. M. Ponzetto, Moses Shayo, Carolyn Tsao, Ebonya Washington, and seminar participants at the ASSA meeting, the Tel Aviv University BMI Conference, Computational Political Psychology Network, CEPR Political Economy Programme and CEPR Research and Policy Network on Populism Joint Symposium, EIEF, Hebrew University, Japan Applied Econometrics Conference, Japanese Society for Quantitative Political Science Winter Meeting, the Populism Seminar, NBER Political Economy, Princeton, and UPF for helpful comments and suggestions. We thank Elad Guttman, Gilad Hurvitz, Elior Mihelashvili, Liam Miller, Leanne Morical, Ori Shoham, Shlomit Shtein, and Eran Yogev for excellent research assistance. Funding for this project was provided by ISF Grant 2319/21, the Foerder Institute for Economic Research, and the Pinhas Sapir Center for Development at Tel-Aviv University.

The rise of populist radical right parties (PRRP) is one of the most significant political developments in the last couple of decades. Once on the fringes of European politics, PRRP now capture around 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, they have led to significant erosion of democratic norms and institutions (McCoy and Somer, 2019).

While a growing literature has identified various factors affecting support for PRRP (Rodrik, 2018; Mudde, 2019; Noury and Roland, 2020), there is still no consensus on what is the main explanation for the extensive rise of PRRP across Europe and which factors are only idiosyncratic (Guriev and Papioannou, 2020). Moreover, there is no agreement on the broad mechanisms behind the rise of PRRP, including whether this trend is shaped by supply or demand forces (Golder, 2016). 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' *attributes* (opinions and demographics) have changed. For example, the support for PRRP may have increased because public opinion shifted in a more nativist direction (Hangartner et al., 2019). The alternative view argues that voters' have changed their *priorities* rather than opinions. Proponents of this view argue that a substantial share of the population has always held nativist opinions—and what explains the rise of PRRP is that these opinions now more strongly shape vote choice (Bartels, 2017; Bonikowski, 2017).

In this paper, we compare the explanatory power of these three classes of arguments: shifts in party positions, changes in voter attributes, and changes in priorities. To achieve this goal, we create a new dataset that links data on party positions and voter attributes and estimates voter priorities using a probabilistic voting model. We compare the three mechanisms using a novel decomposition method for voting behavior. 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 last two decades, voters have increasingly prioritized cultural issues over economic issues.

We start by outlining a multidimensional probabilistic voting model of how party posi-

tions, voter attributes, and voter priorities co-determine each voter's preferred party. 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).[1] Each weight corresponds to a different party position and can be positive or negative, depending on whether the voter supports or opposes the position. Weights on positions that are more important to the voter have larger magnitudes.

The two demand channels——voter attributes and voter priorities——affect the voting decision 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. 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, the utility function parameters, reflecting shifts in the salience of specific topics or the importance voters attach to them (e.g., some voters have always held nativist opinions but these opinions have become more consequential in shaping their 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 party platforms. The IVS includes a rich and consistent set of voter attributes. We analyze 101 attributes over three waves: 2005-2009, 2011-2013, and 2017-2020.[2] Our merged dataset includes approximately 60,000 respondents in 22 countries. We classify parties as PRRP based on the PopuList dataset.

We measure voter priorities using our estimation of the model parameters. We assume that each voting weight is a linear function of the voter attributes. The parameters of these functions define the voter priorities as they determine which party positions voters prioritize given their attributes. We include the rich set of voter attributes and party positions in our dataset and leverage machine-learning techniques to develop a computationally feasible method to estimate these parameters.

[1] In section 5, we show that our results are robust to an alternative bliss-point model.

[2] While 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 focus on the turnout margin, despite its importance (Guiso et al., 2017).

Combining 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 commonly applied to the analysis of income inequality (Fortin et al., 2011; 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 instance, 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, and only the priority parameters would change 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. In contrast, voter attributes and party positions explain only 7.1% and 0.05% of the overall change in PRRP support, respectively. The residual accounts for the reminder 48.0% and is driven mainly by the entry of new parties. These results remain robust across various specifications, models, estimation methods, and decomposition orders. To understand the mechanisms underlying this result, we complement the decomposition exercise with additional analyses focusing on each of these components.

We first focus on the change in the priorities and show that voters today are more likely to choose which party to vote for based on 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 among voters to reward or penalize parties based on their economic positions. In contrast, many voters and especially males, those 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, which uses an alternative outcome: voters' left-right self-identification. Consistently, we find that voters increasingly identify based on their cultural opinions rather than economic opinions.

We then inquire into our striking finding that changes in voter attributes contribute only 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 pre-existing reservoir of PRRP voters varies substantially across countries, which explains some of the geographical variation in PRRP support. We use a similar 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) PRRP could become the largest party and form governments, while in others (e.g., Germany) they are still a relatively small party with limited influence. This exercise also allows us to estimate the reservoir of potential PRRP supporters in countries, such as the US, where these parties struggle to compete due to the first-past-the-post system.

On the supply side, we find that while there are substantial changes in party positions over time, they are mostly inconsistent with the main supply-side hypotheses for the rise of PRRP. We rule out the hypothesis that PRRP gained substantial support across Europe by moderating some of their cultural positions (Lancaster, 2020). We also do not find support for the argument that the rise of PRRP is driven by an ideological convergence of the center-left and center-right (Berman and Kundnani, 2021), at least in the time period covered in our study. Finally, we show that the increase in the residual is largely a result of the entry of new parties.

This paper directly compares contrasting supply and demand theories regarding the rise of PRRP, which we discussed above. We establish new empirical facts on the channels through which support for PRRP increases and find that the priority channel better fits the data.

This paper also contributes to the literature on the causal effects of different shocks on PRRP support, including technological change (Anelli et al., 2019), financial crises (Funke et al., 2020) trade (Colantone and Stanig, 2018a,b; Autor et al., 2020; Dippel et al., 2020), and new media technology (Guriev et al., 2021; Manacorda et al., 2023). Our descriptive analysis complements these causal accounts by pointing 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 voters' priorities and their implications for vote choice. While priorities have been used in recent political economy theories (Bonomi et al., 2021; Enke et al., 2022), there have been relatively few studies attempting to estimate them across countries (Johns, 2010; De Vries et al., 2013; Kendall et al., 2015; Sides et al., 2019). Our decomposition allows us to quantify the role of changes in priorities over time. This decomposition method is not limited to the study of PRRP and can be used to analyze various other political trends. Moreover, our method allows us to analyze the voters' priorities on multiple party positions. Specifically, we provide descriptive empirical evidence to a recent theoretical literature discussing the growing importance 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 model of party support that provides a simple unifying framework for how party positions, voter attributes, and voter priorities co-determine 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 voters' utility:

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

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., utility increases when voting for 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 quality 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 qualities that affect voters' utility from supporting the party. Valence could capture factors such as the party leader's popularity or the party's historical reputation. Finally, ε_{ij} represents all unobserved idiosyncratic factors that affect voters' decisions.

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

$$w_i = x_i'\Phi + \beta \tag{1}$$

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 position. $\Phi_{ml} > 0$ means that a larger value of voter attribute x^m generates larger support for position z^l. For instance, 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.

Taken together, the utility is a function of the interactions between voter characteristics and party positions. We define a vector δ such that for each party j

$$\delta_j := \beta' z_j + \zeta_j \tag{2}$$

δ_j captures the utility gain from party j that is common across voters. Hence we can rewrite the utility as

$$U\left(x_i, z_j, \varepsilon_{ij}\right) = x_i'\Phi z_j + \delta_j + \varepsilon_{ij} \tag{3}$$

The parameterization of Equation 3 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 A. It also allows a more complex utility function, where voters vote based on multiple dimensions and where demographics, such as education, can also affect voting choices (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 3, this assumption allows us to write the conditional probability of voting for a party as

$$P(z_j|x_i) = \frac{\exp(x_i'\Phi z_j + \delta_j)}{\Sigma_{k\in\mathcal{J}_{c,t}} \exp(x_i'\Phi z_k + \delta_k)} \tag{4}$$

Where $\mathcal{J}_{c,t}$ is the set of all parties that are on the ballot in country c at time 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 parties' 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 which share of the manifesto is dedicated to each topic, and for many topics details the share of positive and negative mentions.[3] The dataset covers a large variety of topics, including economic issues, cultural issues, stands on globalization, national security, and foreign policy. Our analysis includes all 56 CMP main variables.[4] Appendix Table B.1 presents the full list of CMP party positions.

When aggregating results from various economic or cultural positions, we rely on two indices of party positions, created by the CMP. The economic index measures the overall party's position on the government intervention–free market scale. It incorporates 19 party positions including positions on the welfare state, economic systems, protectionism, and regu-

[3] An alternative data source on party positions is the Chapel Hill Expert Survey (CHES). We use CMP since the coverage of CHES is more limited than CMP 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).

[4] We use all three-digit category variables.

lation. 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, law and order, 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. Appendix Table B.1 shows which party positions are included in which index, as well as their sign.

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 instance, opposition to European integration may lie at the intersection of economic concerns (e.g., concerns over market regulation) and cultural concerns (e.g., concerns over national identities) (Kriesi et al., 2008). Still, distinguishing between economic and cultural dimensions 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. We focus on preexisting measures of economic and cultural positions to mitigate concerns over cherry-picking or multiple hypothesis testing. Since this division leaves room for discretion, we also verify the robustness of our results using multiple alternative indices.

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.[5] 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 for 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 database along with the

[5]This feature is critical for our decomposition analysis and typically does not exist in similar datasets, such as European Social Survey.

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 analysis. Appendix Table A.1 summarizes the IVS data and Appendix B.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 all variables that appear in all three survey waves. Appendix Table B.2 describes the 101 opinion, behavior, and demographic variables included in our data. We exclude six variables that either try to measure priorities (which we estimate more extensively), opinion on the government (which change when a new government is elected), or an alternative outcome (which we use for robustness), as detailed in Appendix B.1. 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.[6] We 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 data set that links voter attributes with the positions of the party they support. We link parties across the datasets using PartyFacts identifiers if they are available, or manually based on their names if not. Appendix Table A.2 shows that we are able to match 94% of respondents who expressed support for a party with CMP data.[7] This data can be useful for any future research that explores the relations between the voters' attributes and the positions of the parties they support.

By definition, the CMP data is measured around elections, while the IVS surveys are not necessarily conducted close to elections.[8] 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.

[6]Most 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.

[7]When estimating the model we exclude 25 respondents who support parties with fewer than five supporters to allow for the cross-validation exercise described in Section 3.1.

[8]The fact that the IVS is not conducted around elections may imply that IVS survey respondents are less informed about parties and their support may be different than the party they support around an election. On the other hand, a survey that is not conducted around an election is less likely to be affected by strategic voting and thus our sincere voting assumption is more likely to hold in the IVS data.

We discuss the process of merging the data in more detail in Appendix B.2.

2.4 Party Classification

PRRP share at least three common characteristics (Mudde, 2007). First is their nativism, which considers minorities as a threat to the purity of the 'real people'. Second, these parties are also authoritarian, understood as a "belief in a strictly ordered society, in which infringements on authority are to be punished severely" (Mudde, 2019, 29). Third, these parties are populist in the sense that their politics is predicated on a moral opposition between the corrupt elites and the unified people.

We determine whether a party is a PRRP 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 ever classified as radical-right parties in the PopuList data, since 2005.[9] The PopuList 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 seem to share similar attributes.[10] 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, or 'families' as they are often referred to in the political science literature (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 parties. Green and socialist parties are those that are coded as ecological or socialist, respectively.

Appendix Figure A.1 shows the similarities among voters of these party categories. We measure similarities between two 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

[9] There are three cases where the PopuList classification of a party changes over time. Since such changes are so rare, we define a party as a PRRP if the PopuList defined it as radical right in any time period.

[10] Populist and non-populist radical right voters share similar nativist opinions.

each voter and party. For every two parties with at least fifty supporters, we calculate the correlation between the fitted values among all voters in both of the parties' countries. Red colors indicate similarities between the attributes of the voters of the two parties, while purple indicates dissimilarities. For instance, 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 the AfD in Germany almost as well. We divide parties into the aforementioned 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 (0.21). In 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).

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. 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, using the same two IVS waves. Opinions are in standard deviation units. As expected, PRRP supporters are more likely to be males, live in rural areas, and are less likely to hold a college degree (Gidron and Hall, 2020). Over time, PRRP supporters hold more culturally traditional views.

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 4). 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 2, using the estimands for $\hat{\delta}$ from all three waves.

3.1 First Step: Estimation of Φ and δ

Since we use wide datasets, 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 solutions. Low-rank matrices 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 4:

$$\max_{\Phi,\delta} \mathcal{L}(\Phi,\delta) + \lambda \|\Phi\| = \max_{\Phi,\delta} \sum_i \log \frac{\exp\left[x_i \Phi z_{j(i)} + \delta_{j(i)}\right]}{\sum_{k \in \mathcal{J}_{c(i)}} \exp\left[x_i \Phi z_k + \delta_k\right]} + \lambda \|\Phi\| \tag{5}$$

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 each voting weight, and ζ, each party's residual. In this step, we combine information from all three waves. We write the residual $\zeta_{j,t}$ as the sum of a constant component η_j and a time-varying component $\nu_{j,t}$. Hence, we can rewrite Equation 2 as

$$\delta_{j,t} = \beta_t z_{j,t} + \eta_j + \nu_{j,t}$$

Taking the difference between two consecutive survey waves, we get the following equation:

$$\Delta_t^{t+1}\delta_j = \underbrace{\Delta_t^{t+1}\beta\bar{z_j}}_{\text{Voter Priorities}} + \underbrace{\bar{\beta}\Delta_t^{t+1}z_j}_{\text{Party Positions}} + \underbrace{\Delta_t^{t+1}\nu_j}_{\text{Residual}} \tag{6}$$

where $\bar{\beta}$ and $\bar{z_j}$ represent the average value over the two periods. This equation decomposes the overall changes in δ to the contribution of changes in voter priorities (β), party positions (z), and residuals (ν).[11] The coefficients $\Delta_t^{t+1}\beta$ and $\bar{\beta}$ can be estimated by regressing $\hat{\delta}$ on $\bar{z_j}$ and $\Delta_t^{t+1}z_j$.

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 over-fitting. 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 6 for Δ_t^{t+1} and Δ_{t+1}^{t+2} we get

$$\Delta_t^{t+2}\delta_j = \Delta_t^{t+2}\beta\bar{z_j} + \bar{\beta}\Delta_t^{t+2}z_j + \Delta_t^{t+2}\nu_j \tag{7}$$

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

Second, we use the estimation results from the first step to reduce the dimension of β. We assume that the combinations of party positions that generate differences in utility among voters are the same factors that determine the average utility across all voters.[12] We use the singular value decomposition of Φ_t to find the k linear combinations of party positions that

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

[12] This would be violated if all voters have a homogeneous taste for certain party positions. For instance, if all voters are equally more likely to support a party that proposes improving the education system. This assumption is plausible as voters typically support parties based on contested issues.

generate the largest utility differences. We then reduce the dimension of β_t to k by restricting it to be in the span of these linear combinations (see Appendix C for 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 values yield similar results.

3.3 Estimation Results: 2017-2020 Voting Weights

Combining the observed voter attributes with the estimated model parameters, we can calculate the voting weights placed on each party position for each voter in our data. In this section, we explore variations in voting weights in the 2017-2020 wave. In our main decomposition exercise in Section 5, we analyze the changes in these weights over time.

We calculate the weights each voter places on each party position. Each weight is a linear function of the voter attributes, based on Equation 1, using the estimated parameters $\hat{\Phi}_t, \hat{\beta}_t$. 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.[13]

We also compute aggregated weights for the two CMP indices: the economic and the cultural index. To do so, we take the average of the weights of all variables that comprise each index and flip the sign of the weights for variables that enter the index negatively.[14] Appendix Table A.3 presents the largest coefficients on voter attributes that comprise the two weight indices.[15] 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 instance, we find that all else equal, individuals who express confidence in unions tend to reward parties with left-wing economic positions (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 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 weights distribution separately for supporters of each party category in the 2017-2020 survey wave. The

[13] To provide some intuition for these units, with two parties the utility is the logarithm of the odds ratio. So, for example, an increase of one utility unit is equivalent to a change from a 50/50 vote share to 73/27.

[14] This is equivalent 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.

[15] The 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.

top two panels present results for the two CMP indices and the following 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 voters. In contrast, PRRP voters care more about conservative cultural positions compared to mainstream voters. For instance, 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 instance, Green voters place higher weights on environmental protection, while Socialist voters place higher weights on 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 at period t. This share is defined as the sum of the probabilities that each voter supports a PRRP:

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

where Π is the event of supporting a PRRP.[16] 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 at time t in country c.

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:

[16] Formally, $P(\Pi|x_i; \theta_t, Z_t^c, \zeta_t^c) = P(\arg\max_j U_{ij} \in \mathcal{P})$, with $\mathcal{P}$ noting the set of PRRP.

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

$$
\begin{aligned}
\Delta_t^{t+1} S_P^c \;=\; & \underbrace{\int P\left(\Pi|x_i;\theta_{t+1},Z_{t+1}^c,\zeta_{t+1}^c\right) f_{t+1}^c\left(x_i\right)\mathrm{d}x_i - \int P\left(\Pi|x_i;\theta_t,Z_{t+1}^c,\zeta_{t+1}^c\right) f_{t+1}^c\left(x_i\right)\mathrm{d}x_i}_{\text{Voter Priorities}} \\
+ \; & \underbrace{\int P\left(\Pi|x_i;\theta_t,Z_{t+1}^c,\zeta_{t+1}^c\right) f_{t+1}^c\left(x_i\right)\mathrm{d}x_i - \int P\left(\Pi|x_i;\theta_t,Z_{t+1}^c,\zeta_{t+1}^c\right) f_t^c\left(x_i\right)\mathrm{d}x_i}_{\text{Voter Attributes}} \\
+ \; & \underbrace{\int P\left(\Pi|x_i;\theta_t,Z_{t+1}^c,\zeta_{t+1}^c\right) f_t^c\left(x_i\right)\mathrm{d}x_i - \int P\left(\Pi|x_i;\theta_t,Z_t^c,\zeta_{t+1}^c\right) f_t^c\left(x_i\right)\mathrm{d}x_i}_{\text{Party Positions}} \\
+ \; & \underbrace{\int P\left(\Pi|x_i;\theta_t,Z_t^c,\zeta_{t+1}^c\right) f_t^c\left(x_i\right)\mathrm{d}x_i - \int P\left(\Pi|x_i;\theta_t,Z_t^c,\zeta_t^c\right) f_t^c\left(x_i\right)\mathrm{d}x_i}_{\text{Residual}}
\end{aligned}
\tag{8}
$$

This mathematical identity states that the overall rise in PRRP is the sum of the rise driven by each factor. 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 for each voter to support each party (Equation 4) and aggregate 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. Hence, we aggregate the contribution of each component to the rise of PRRP as a share of the overall PRRP support in that country in 2017-2020. 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 characteristics that are absent from our data (e.g., anti-elitism). The decomposition exercise may still capture some changes in these unobservables if they are correlated with other observable variables.

In order to accommodate parties' entry and exit, we include all parties that participated

in either time 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 would be set to zero. Therefore, changes in PRRP support that are related to entry and exit will be attributed to the residual component. In Appendix D we further decompose the residual components 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 8 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 the existing theories for 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 lead to increased support for PRRP even in the absence of shifts in either voters' 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 pre-existing reservoir of culturally conservative voters and not because of a shift of mass attitudes. This has been demonstrated in Italy (Magistro and Wittstock, 2021), the United Kingdom (Sobolewska and Ford, 2020), and Germany (Cantoni et al., 2020). 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.[17] Ballard-Rosa et al. (2017) argue that people who live in regions exposed to trade shocks adopted more authoritarian values—which, in turn, nudge 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; Dehdari, 2022; Guiso et al., 2017).

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 which 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 working-class voters, which switched to PRRP (Goodhart, 2017).[18]

Residual The last component captures changes in the residual ζ of all parties. Change in the residuals could generate an increase in support for PRRP in several ways. First, due to changes in unobserved party positions, either by the PRRP or their competitors. Second, due to an increase in the valence of PRRP, for example, if these parties had more charismatic leaders in recent years. Third, due to model misspecification. Fourth, and most importantly,

[17] Similar 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).

[18] Former 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 Belt" (Abou-Chadi and Wagner, 2020, 247).

the residual captures 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 instance, a shift towards 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 already participated in the elections in time t. Otherwise, the main three 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 position as the third component. We use manifestos from $t+1$ when the party did not exist at wave t.[19] Therefore, the party position component only captures changes in the position 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.[20]

We set voter priorities and voter attributes as the first and second components accordingly. As a result, our main component, priorities, can be interpreted as the counterfactual change in PRRP support when priorities change, while all other components are fixed at the same time period (2005-2009). In Section 5 we show that the decomposition results are qualitatively similar when the order of these two components changes.

[19] There is no need to impute party positions for parties that did not exist at wave $t+1$ (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 will be zero regardless of their position.

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

5 Decomposition Results

Figure 4 presents our key finding: the aggregated decomposition results. In order to focus on the change in PRRP support, we fix 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. 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 variation across countries, voter attributes, as well as party positions, explain only a small, and in some cases negative, share of the rise of PRRP in most countries.[21]

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. To address this concern, 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 only using data 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 using these parameters would fit the data. We then decompose the rise of PRRP in that country using these parameters in Equation 8. We aggregate the results from all 18 countries where PRRP received some support as before.

The results resemble those reported in our main analysis, as shown in Figure A.2: Panel A shows the decomposition results between the 2005-2009 and the 2017-2020 waves using the leave-country-out exercise. We find that the priorities component remained similar (44.3% compared to 44.9% in our baseline exercise). 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

[21] Negative values imply that PRRP support would have been expected to decrease during this period based only on the changes in this component.

model. Appendix A 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 Figure A.2 shows that the priority component now explains 45.7% of the overall rise in support of PRRP, similar to our main results.

The decomposition results are also robust for different choices of the parameter k. This parameter sets the number of dimensions we use in the second stage of the estimation (see Appendix C). In our main results, we chose $k = 5$. Panels C and D of 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 priority component accounts for 54.2% and 43.9% for $k = 3$ and 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 in Figure A.2 shows the results. 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 subsection 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, voter priorities remain a much more important driver of PRRP support.

Finally, the decomposition results are also similar when using 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. 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 in Figure A.2 shows that we find similar results to our baseline estimates.

6 Detailed Evidence By Component

In order 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 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 driven primarily not by a dramatic change in attitudes but rather by the "activation" of pre-existing 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.

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 priorities from the changes in voters' attributes, we fix voters' attributes to their value in the 2017-2020 survey wave and analyze the changes in weights that are driven only by changes in priorities. We aggregate weights into two indices based on the CMP party position indices as before. The left panel on Figure 5 shows that the distribution of the weights placed on the CMP economy index became more concentrated around zero in 2017-2020. In contrast, the right panel of Figure 5 shows that the weights on the CMP cultural index have not become more concentrated. Ceteris paribus, the economic positions of parties have become relatively less decisive in shaping vote choice.

The right panel of Figure 5 also shows a moderate shift to the right in the weights placed on the cultural index. Fewer voters now place a very negative weight on the cultural index, while more voters place a positive weight. 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.

Appendix Figure A.3 shows that the prioritization of cultural issues, compared to eco-

nomics, does not depend on the choice of particular position indices. Figures A.3a and A.3b repeat the exercise in Figure 5 using two alternative party position indices proposed by Prosser (2014) and Bakker and Hobolt (2013), respectively. The positions used in each index can be found in Appendix B.1. The results are qualitatively similar to those in Figure 5.

Figure 6 shows that there is substantial heterogeneity in how priorities change. For each subpopulation, we plot the 25th, 50th and 75th percentile of the weight distribution in each survey wave. As before, we plot the distributions in 2005-2009 (blue) and in 2017-2020 (yellow), 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 subpopulations, though there are some noticeable changes (e.g., the priorities college graduates place on economic positions shifted to the left). In contrast, changes in cultural weights differ across subgroups. The shift in the weights placed on conservative cultural positions is driven by voters who are without a college degree, males, above the age of 66, non-union members, and living in rural areas. In contrast, college graduates, females, 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 voters' 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.[22] Appendix Figure A.4 shows that the covariates most correlated with the PRRP score are thinking 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 in 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

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

apparent for these voters. In contrast, other voters have moderately shifted to the left.

6.1.2 Reduced-Form Evidence for Changing Priorities

Previous work analyzing survey data argues that cultural cleavages, and especially immigration, have gained importance over the last two decades (Gethin et al., 2021; Norris and Inglehart, 2019; Schmitt-Beck et al., 2022). However, scholars also recognize the limitations of using surveys to estimate changes in voters' priorities. Sides et al. (2022) show that survey questions about topic importance do not necessarily predict vote choice. Moreover, people may not directly connect what they think is important with how they vote: for instance, Kuziemko et al. (2015) find that exposing voters to information about inequality increases the chances they report inequality as an important problem, yet does not affect their 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.

Since direct questions on priorities at the ballot are not available and hard to interpret, we instead analyze the change 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 into a single dimension of ideology, which likely relates to their voting decision.

In order to link political identity to opinions, we construct indices of cultural and economic opinions based on IVS questions. We first define the list of IVS variables that would comprise the economic or cultural indices based on their content.[23] We then define the loading of each variable using principal component analysis (PCA) to capture the common variation between the variables composing 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 non-parametrically regress political ideology on the culture and economy 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 cultural and economic opinion indices. Finally, we subtract the differences in these predictions between 2005-2009 and 2017-2020 to examine how self-

[23] Our list of variables composing the economy and cultural indices are specified in Appendix Table B.2.

identification changed, conditional on opinions.

The results in Figure 7 show that between the 2005-2009 and the 2017-2020 waves, the cultural dimension has become more dominant in shaping political identification. Brighter colors mean that individuals in specific quantiles of the economic and culture indices are predicted to identify as more left-leaning and darker colors mean that they are predicted to identify as more right-leaning. We find that political identification changes are primarily based on voters' cultural position, with darker colors appearing toward the top and lighter colors at the bottom. This means that more culturally conservative voters (the top of the figure) are now defining themselves as more right-leaning and more culturally progressive voters are now defining themselves as more left-leaning (the bottom of the figure). In contrast, the economic index is very weakly associated with changes in left-right ideology. This result provides suggestive evidence supporting the argument that voters' social 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. These individuals' ideological identification is now 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.

We also use an alternative reduced-form method to show the increased importance of cultural issues in shaping voting behavior, using vote choice directly. Appendix Figure A.5 shows the correlation between the voters' opinions and the positions of their preferred parties, separately for economic and cultural issues. We use the same voter indices for economics and cultural issues as in the previous figure, and the same CMP indices for party position as before.[24] The correlation between voters' cultural opinions and parties positions on cultural issues has increased over time. In contrast, the correlation between voters' economic opinions and party positions on economic issues has remained stable. This figure provides intuition to the kind of variation our model uses when estimating Φ.[25]

[24]Both positions and opinions indices are standardized at the country-wave level.

[25]The parameters that solve the optimization problem (Equation 5) are set such that the observed correlations between voter attributes and their supported party positions (as the ones reported in Figure A.5) will be close to the expected correlations based on the model parameters (these are the first order conditions).

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. In the top left panel, we show this using 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 separately 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 voters' 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.

Moreover, PRRP are rising both in countries where opinions shift toward (e.g., Hungary) and further away (e.g., Germany) from the populist radical right. This is why the decomposition analysis finds that voter attributes explain only a small 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.

Examining trends in specific opinions yields similar results. We plot the change in the opinions that are most correlated with the PRRP score, such as confidence in the EU and not wanting immigrants as neighbors.[26] The remaining eight panels in Figure 8 present the evolution in each country and on aggregate for each of these opinions. Once again, we find that on average, opinions on these topics are relatively stable. In some topics (homosexuality not justifiable) attitudes have even moved away from the populist radical right.

Appendix Figure A.6 shows that within countries, the shifts in opinions are mostly homogeneous. Hypothetically, even if opinions are stable on aggregate, support for PRRP could still increase if there is polarization in opinions with cultural opinions shifting to the right among potential PRRP voters and shifting to the left among other voters. To test this, we

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

present the full distribution of the PRRP score in 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 is rising homogeneously in some countries (e.g. Hungary, Czech Republic) while decreasing homogeneously in others (e.g. Germany, UK).

Which opinions do change? In Appendix Figure A.7 we take into account all IVS opinion variables and present the opinions that changed the most between 2005 and 2020. 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. Overall, 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 their electoral success, there was a pre-existing reservoir of potential PRRP voters. The size of this reservoir could vary across countries, which could explain why these parties are more successful in some countries compared to 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. For example, it is challenging to directly compare a highly fragmented system, where PRRP parties can enter parliament relatively easily, with first-past-the-post systems with a higher barrier for entry (Norris, 2005).

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 as voters in France. In other words, we fix the parties, their positions, and the residuals, to the values in France and only allow 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:

$$\tilde{S}_P^{t,c} = \int P(\Pi|x_i; \theta_t, Z_t^{France}, \zeta_t^{France}) f_t^c(x_i) \mathrm{d}x_i \tag{9}$$

where t corresponds to the 2017-2020 IVS wave.

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 shows variations that are consistent with actual differences in PRRP support (see 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 differences in support across countries.

Figure 9 demonstrates that our method can even calculate the size of the reservoir for countries where the electoral system limits the strength of challenger parties. Unsurprisingly, in the U.K. we predict a much larger counterfactual support for PRRP than what is observed in practice. This is likely due to the first-past-the-post systems that put higher barriers for entry in 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 some non-PRRP.

Finally, our method allows us to calculate the reservoir of non-European countries, such as the United States.[27] Even though the two-party system in the US does not allow PRRP to gain votes, we can estimate their potential strength and we find that the PRRP reservoir is relatively high but lower than in Eastern Europe.

Appendix Figure A.8 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.

In addition to measuring the reservoir or PRRP support, the results in this section provide evidence that our data includes voter attributes that generate substantial variation in support for PRRP. Hence, our finding that attributes do not drive PRRP support is unlikely to stem from measurement problems or omitted variables.

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

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 over time in parties' positions. To guide the discussion, Figure 10 presents average changes in the two CMP indices for the five main party categories. Within each party category and year, we calculate the weighted average of the two indices. We weigh each party by its vote share within its country and then weigh 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 mainstream parties converged. This left dissatisfied voters without clear alternatives and may have pushed them 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 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 mainly distinguish PRRP from the other party categories, PRRP have only become more extreme, as shown in the bottom panel of Figure 10. In order to better understand the shift of PRRP to the cultural right, Appendix Figure A.9 shows the trends for the six positions with the largest distinction between PRRP and other parties. 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, compared to approximately 1%-3% among other party categories.

We find some support for the claim that the left parties shifted even further to the left, which may in turn have alienated working-class voters. During the period we study the socialists have shifted substantially to the left on cultural issues. However we do not see any similar shift by center parties, and therefore it is unlikely that this would increase support for PRRP.

Taken together, the reduced form evidence rules out the major supply-side hypotheses. It

[28] Closely relate, 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 topics.

is therefore not surprising that our decomposition results suggest that on aggregate, changes in party positions are not a significant driver of the increased support for PRRP.

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

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.[29] In Appendix D we show that most of the rise in this component is driven by new entries. However, we do not interpret these new entries as a supply change, since in most countries with new entries, some PRRP have already tried to enter before and were not successful. 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 D 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

[29] Previous research has shown that new parties can gain support by exploiting issues neglected by mainstream parties (Giannetti et al., 2022).

categories—changes in party positions, voter attributes, and voter priorities—and assessing their explanatory power.

Using decomposition methods to analyze a dataset that links voters' attributes and parties' 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 (2023) memorable phrasing: 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 pre-existing 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 multi-causal process (Gidron and Hall, 2017), which combines various potential factors: rising incomes may result in voters focusing more on moral goods (Inglehart, 1981; Enke et al., 2022); social media could allow political entrepreneurs to affect the public agenda and expose individuals to views that can promote tribalism (Manacorda et al., 2023); skill-biased technical change and trade shocks may amplify conflict between cultural groups (Bonomi et al., 2021); and national representatives have less power to set economic policy as more economic outcomes are determined by supranational organizations and non-government actors (Mounk, 2018). Whatever the reason, the changes in priorities dramatically shifted in ways that have reshaped the political map in Europe. Understanding its sources is a promising path for future research.

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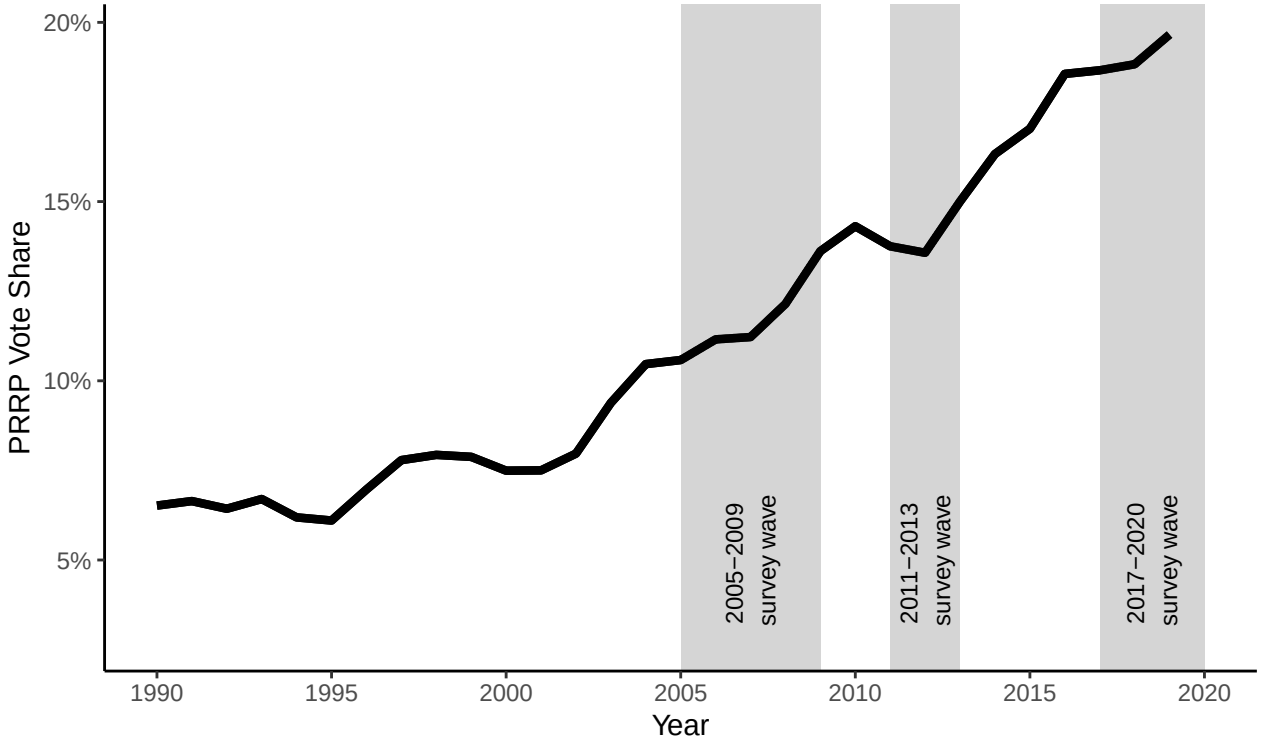
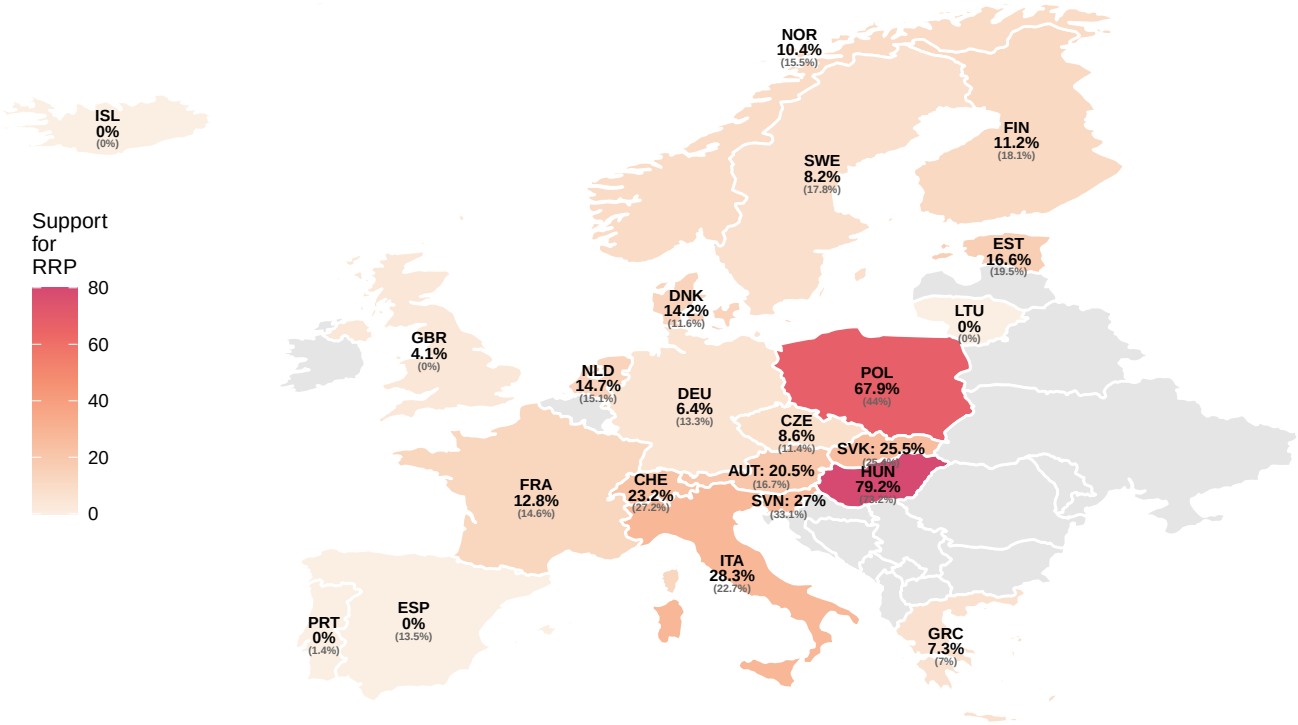
Figures and Tables

Figure 1: Support for Populist Radical Right Parties Over Time



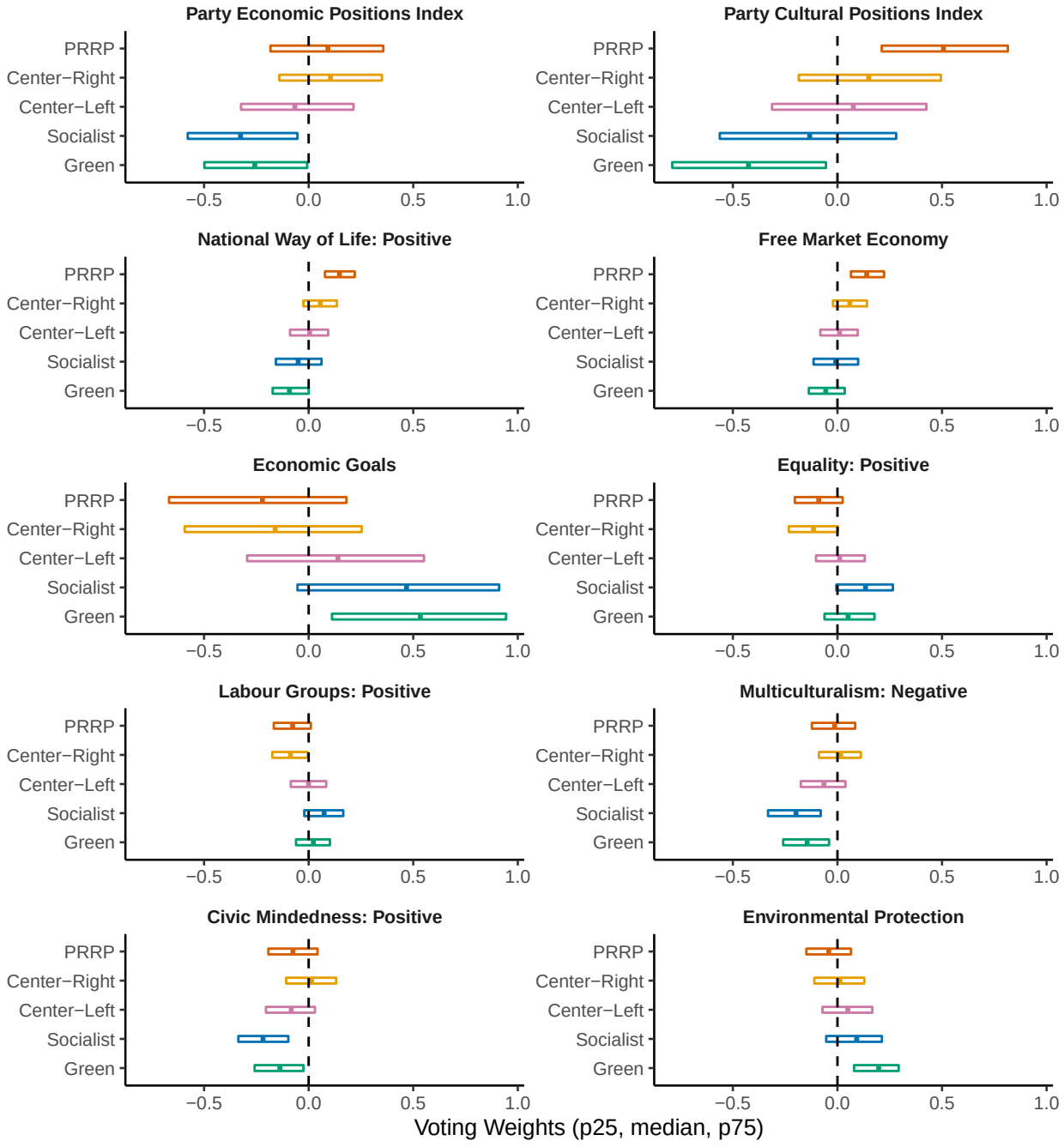
Note: This figure shows the average vote share of PRRP in the 22 European countries in our data. Within each country, the vote share every year is calculated as the average PRRP vote share among all parties appearing in the CMP dataset in all parliamentary elections in the five years window centered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

Figure 2: Support for Radical Right Parties by Country, 2017-2020 IVS Survey Wave



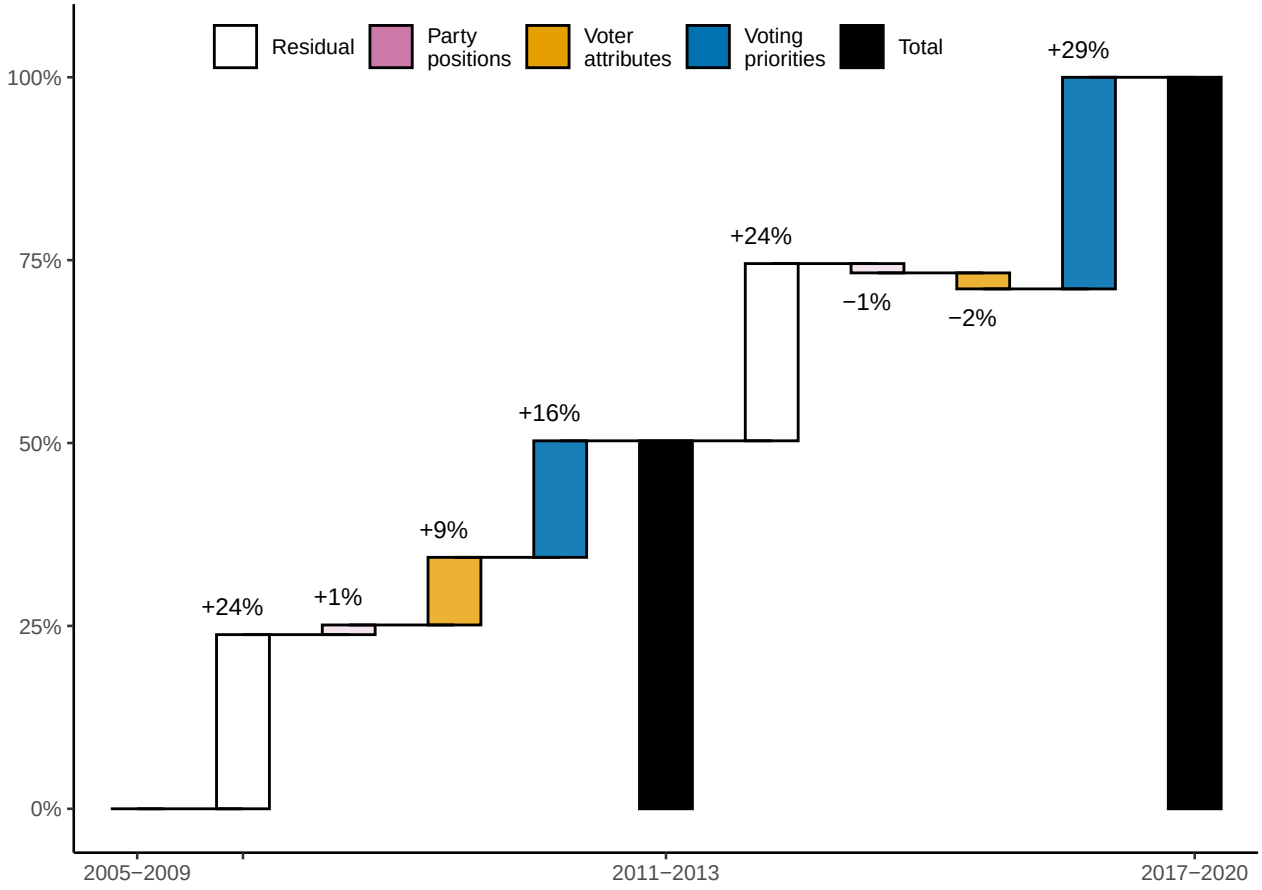
Note: This figure shows the average PRRP support in the 2017-2020 IVS Wave for the 22 included in our analysis. The actual vote share in the closest election appears in gray in parenthesis. Note that the closest elections can occur several years before or after the survey, which can generate large gaps 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.

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



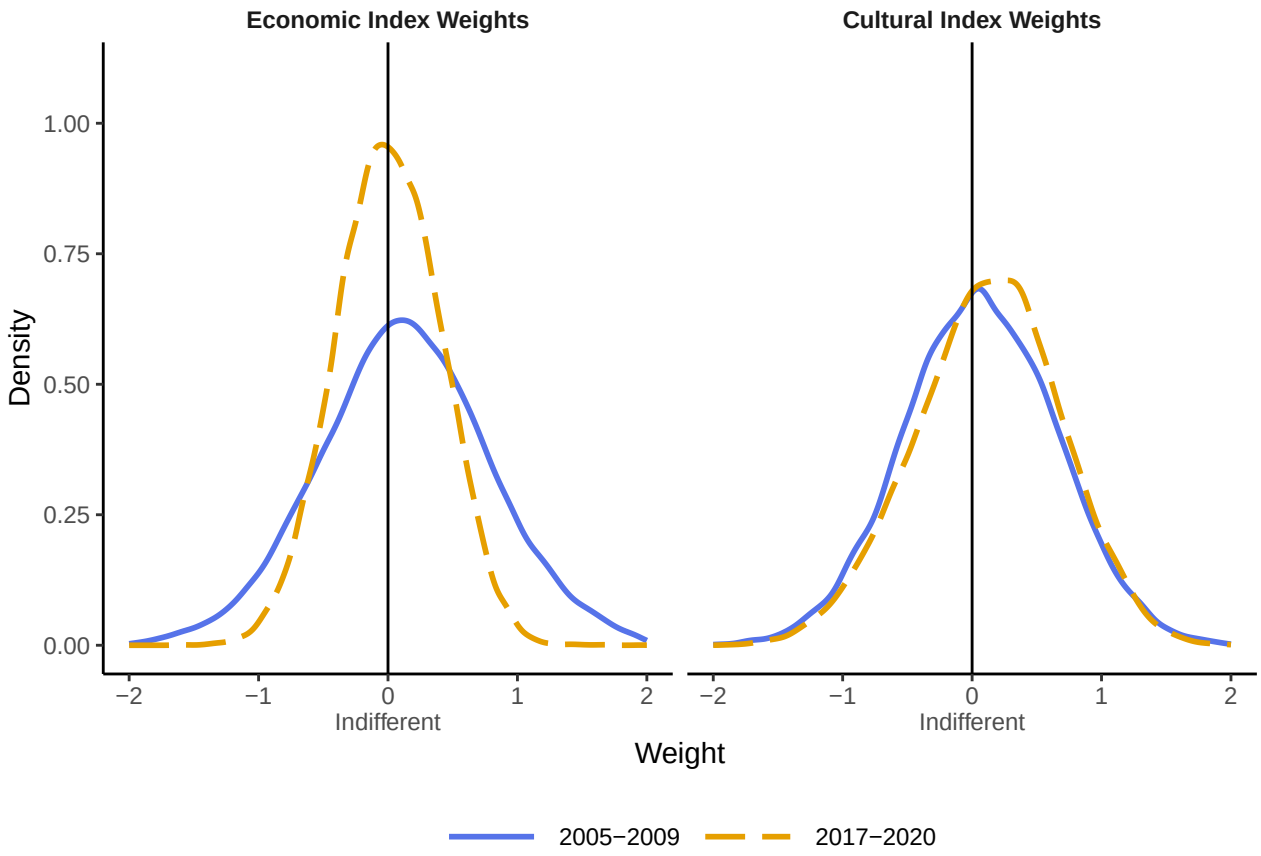
Note: This figure shows the distribution of weights voters place on the two party position indices and eight individual manifesto positions in the most recent survey wave (2017-2020) separately for supporters of different party categories. For each combination of party category and index/position, we present the 25th, 50th, and 75th percentiles of the corresponding weights distribution. We estimate the model on the 2017-2020 survey wave and for each voter calculate the weights based on her attributes using Equation 1. Weights are in standard deviation to utility units – the increase in utility for an increase of one standard deviation in the position. We aggregate individual weights into indices based on the CMP party position 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 presented positions are the ones with the largest variance in weights between supporters of the different party categories. The party categories are described in Section 2.4.

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



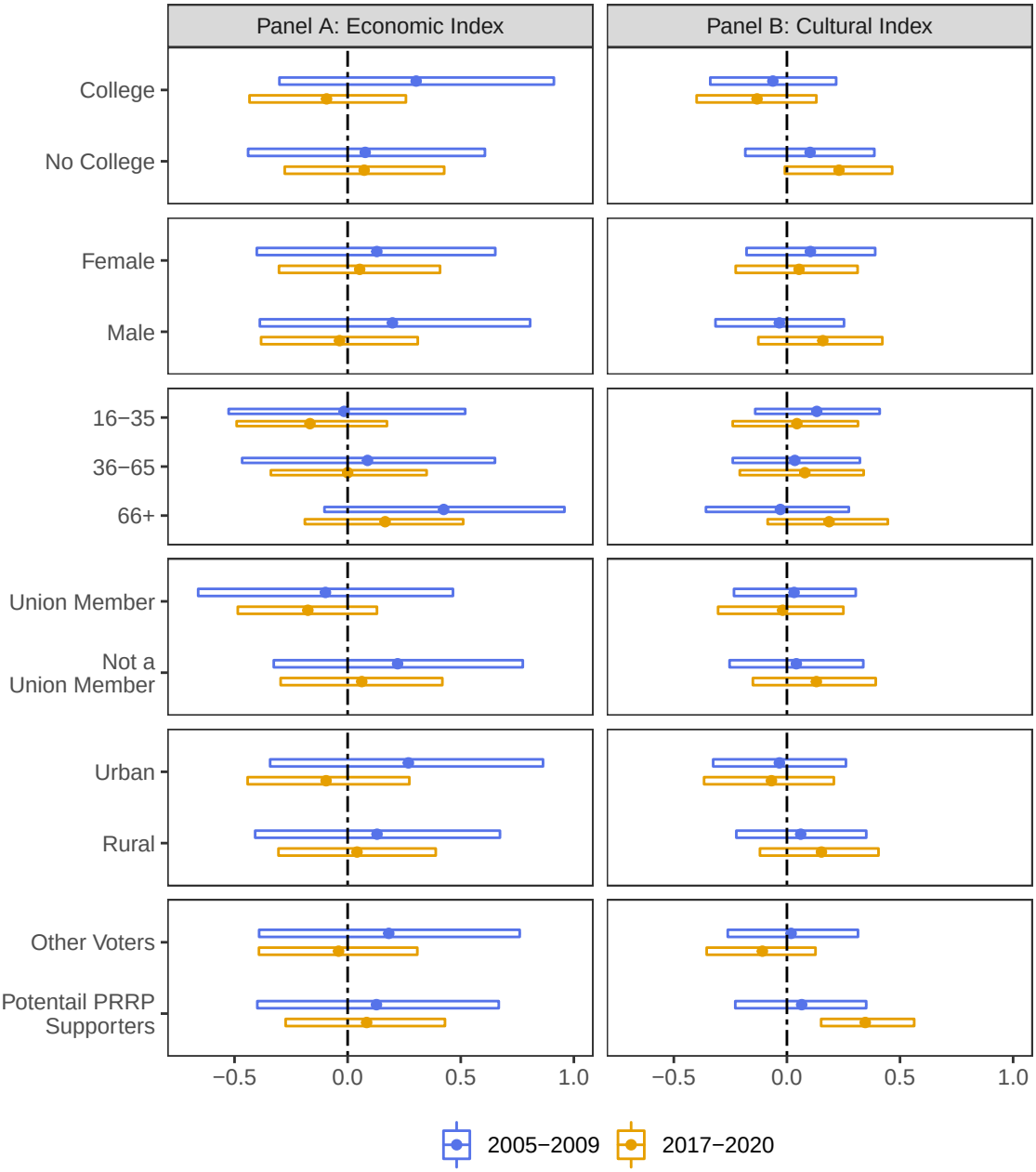
Note: This figure presents the result of our main decomposition exercise. The black bars present the overall increase in PRRP support between 2005-2009 and 2017-2020, which we pin to 100%. We aggregate across all countries with a PRRP support in our data by using a weighted average of their decomposition results (that appear in Table A.4). Weights are the inverse of the share of PRRP support in the 2017-2020 wave.

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



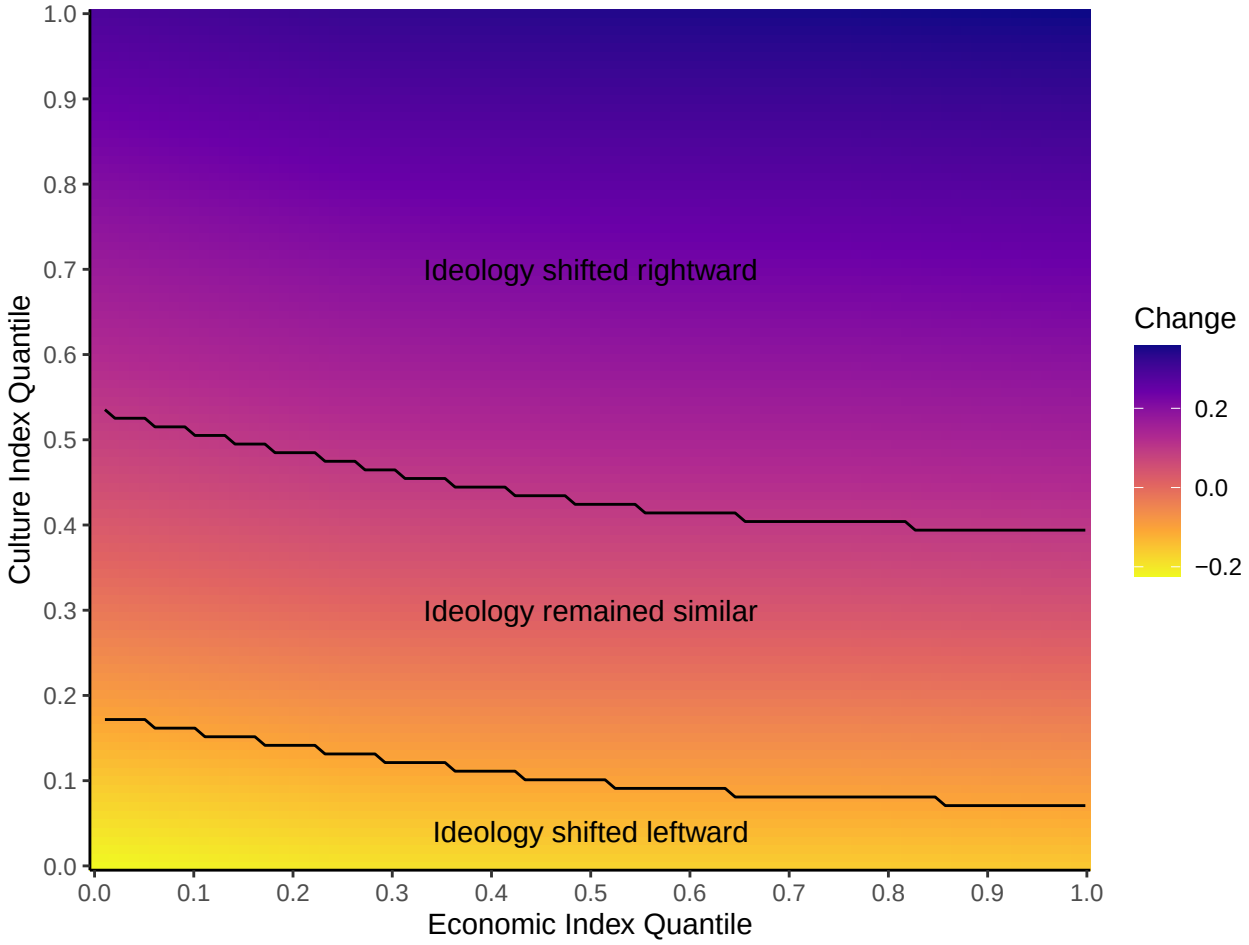
Note: This figure shows the distribution of the weights voters place on the economic and cultural indices of party positions for different waves, holding voters' characteristics fixed at their level in 2017-2020. We use the CMP party position indices that are described in Section 2.1 and their manifesto components are described in Appendix Table B.1. Weights are calculated based on Equation 1, using voter attributes from the 2017-2020 IVS survey, and the estimated utility parameters for the 2005-2009 wave (blue) and 2017-2020 wave (yellow). The weight placed on an index is the average weight corresponding to each party position that comprises the CMP index, where weights for positions that enter the index with a negative sign are multiplied by -1. Weights are in standard deviation to utility units – the increase in utility for an increase of one standard deviation in the index.

Figure 6: Voting Weights by Sub-Populations, Holding Attributes Fixed



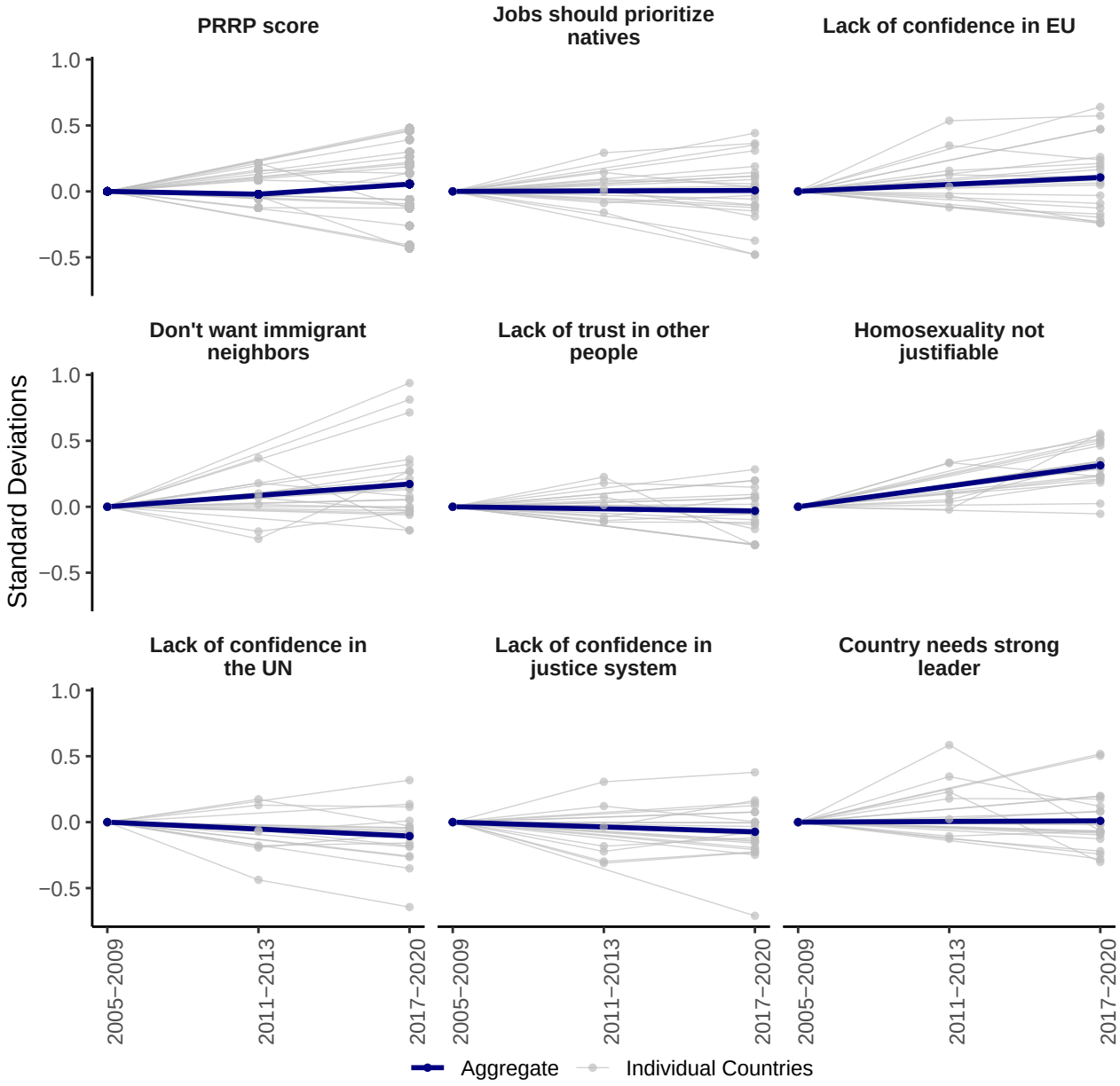
Note: This figure shows the sub-population distribution of the weights voters place on the economic and cultural indices of party positions for different waves. We use the CMP party position indices that are described in Section 2.1 and their manifesto components are described in Appendix Table B.1. Weights are calculated based on Equation 1, using the estimated utility parameters for the 2005-2009 wave (blue) and 2017-2020 wave (yellow). The voter attributes are fixed to their distribution in 2017-2020 so the weights only change due to a change in priorities. Weights are in standard deviation to utility units – 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 that comprises 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 PRRP score.

Figure 7: Change in Predicted Self Ideological Identification



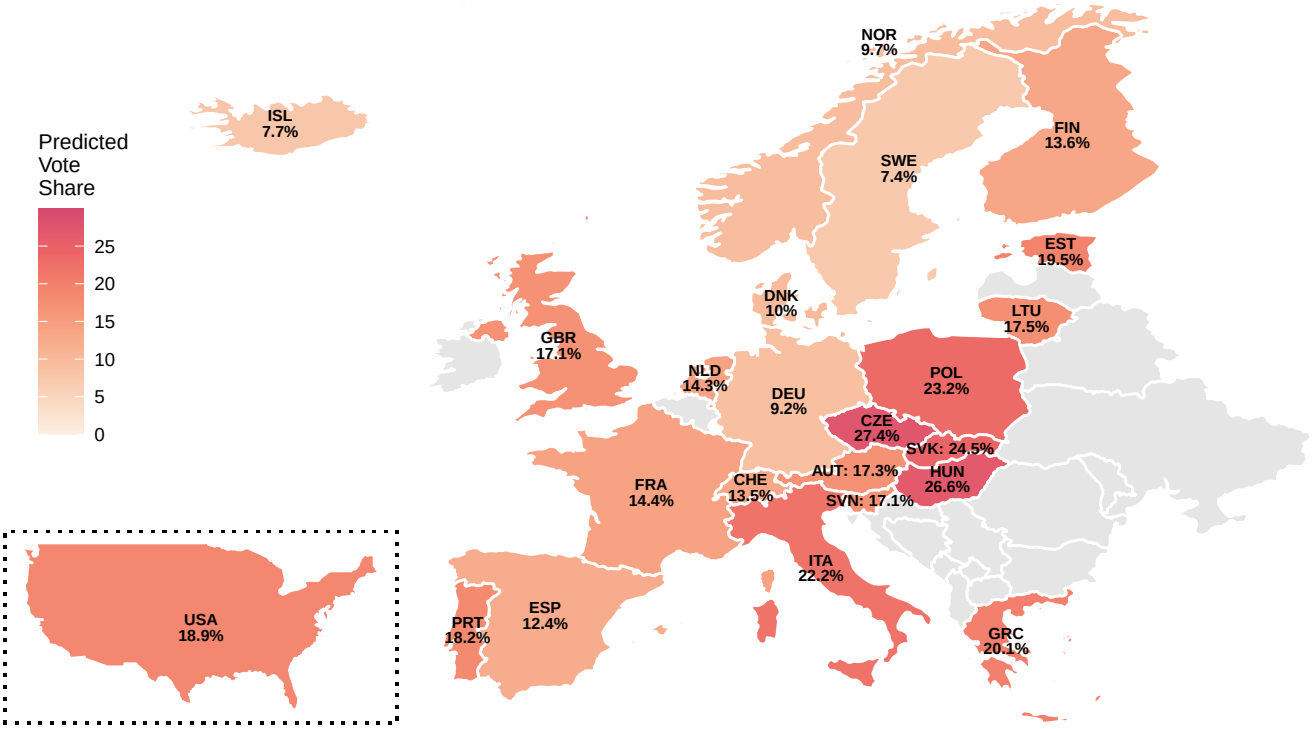
Note: The figure shows the change in the predicted self-ideological identification between the 2005-2009 survey wave to the 2017-2020 wave as a function of voters' culture and economic opinions. Economic and cultural opinions are aggregated into two indices based on the IVS variables. The list of variables composing each index appears in B.2. The indices are created using the first principal component of each variable list. For each wave separately, we use a non-parametric regression model to predict self-ideological identification (higher values are associated with more right-wing positions), based on the voter's economic and cultural indices. 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

Figure 8: Evolution of Voters' Opinions



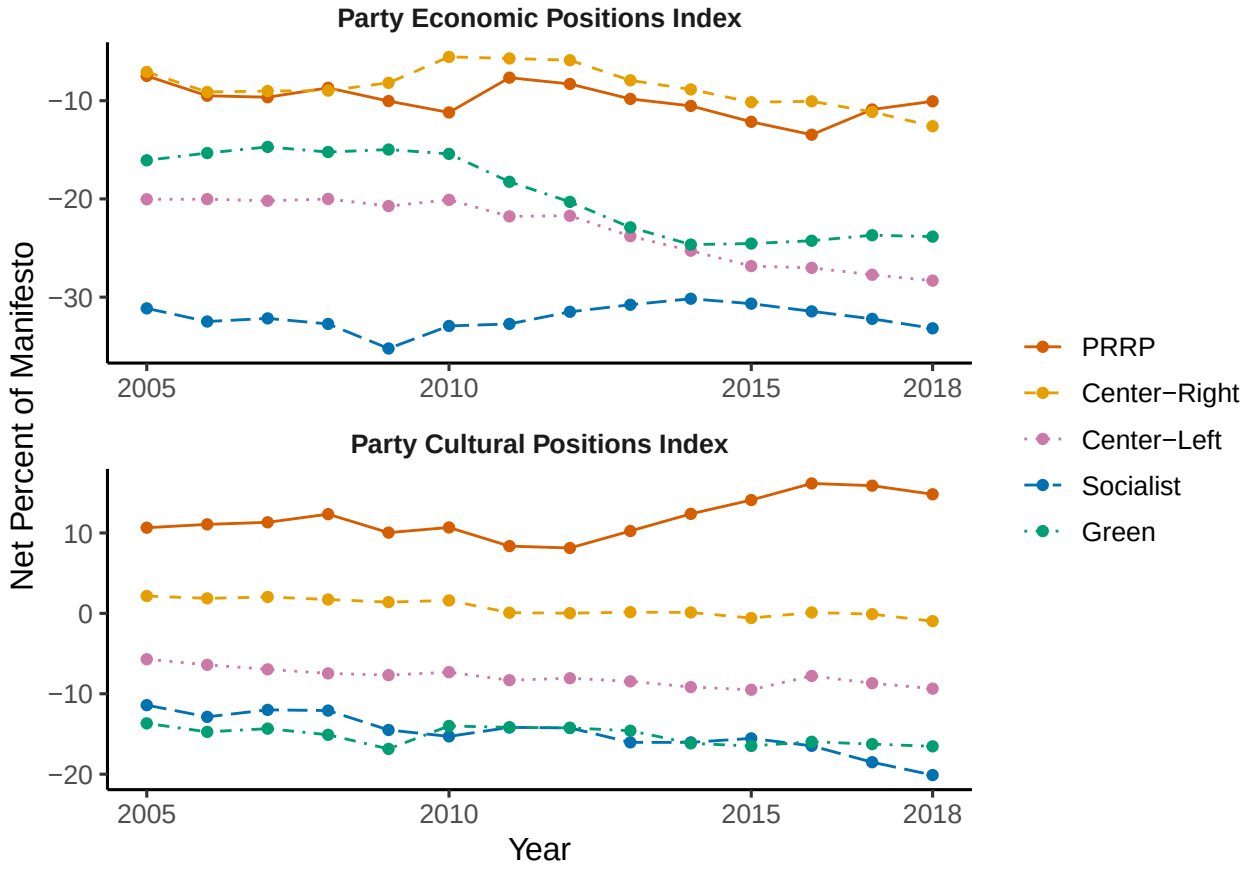
Note: This figure presents the average voters' opinions by survey wave on eight cultural issues that are most strongly associated with PRRP support, and the PRRP score. The gray thin lines show the trend in each country, while the blue thick line is the average across all 22 countries. The PRRP score 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. 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 question regarding the justifiability of homosexuality since it was not asked in the country in 2005-2009. In all panels, we pin 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



Note: 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 separately for each country based on the formula in Equation 9. 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 for the IVS question related to the European Union based on the sample average.

Figure 10: Changes in Party Positions Over Time



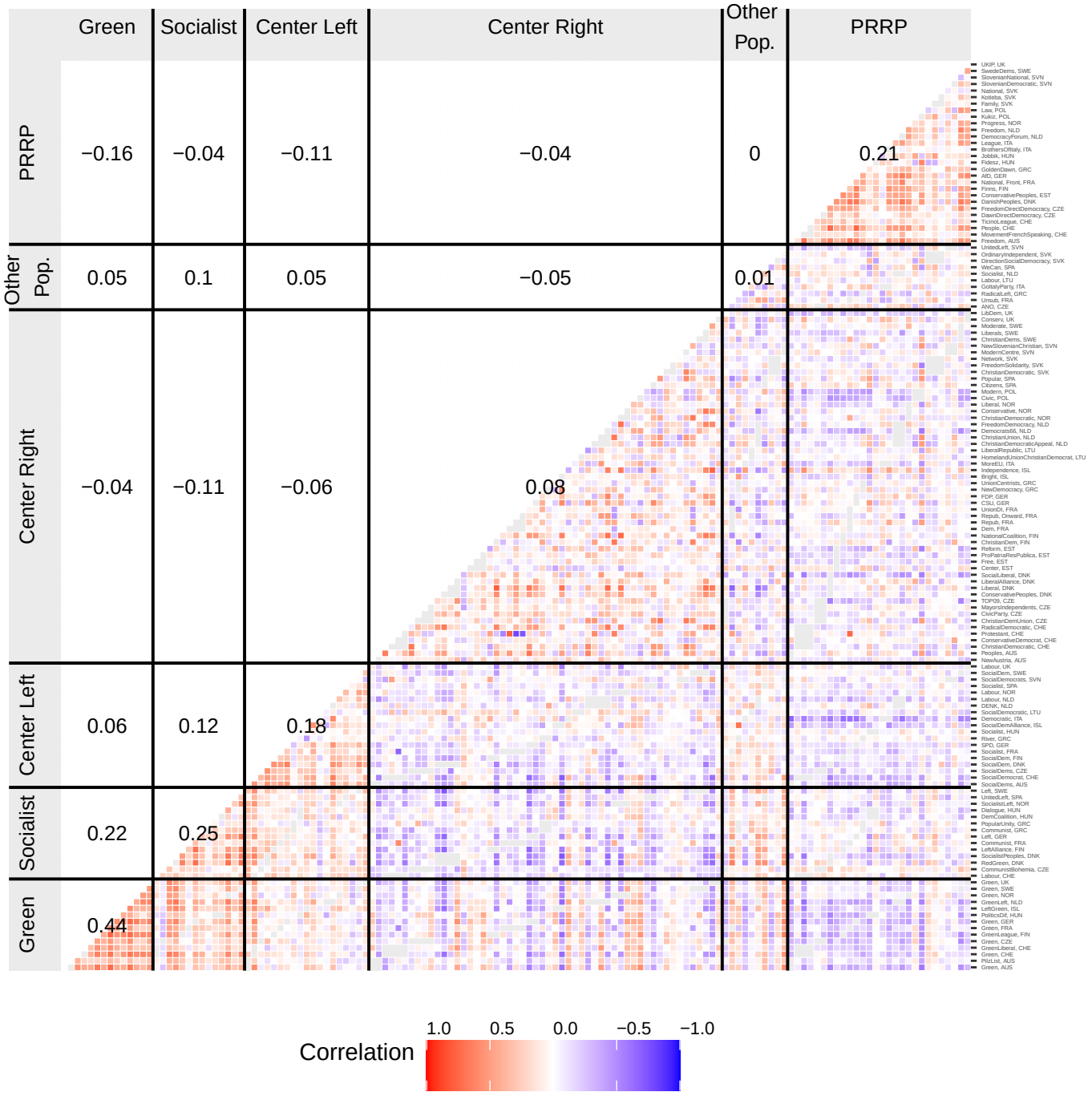
Note: This figure shows the changes in party position indices for five party categories (PRRP, Center-Right, Center-Left, Socialist, and Green) since 2005 using the CMP data (see Section 2.4 for classification details). Indices measure the net share of the manifesto dedicated to right-wing positions. 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 indices are discussed in Section 2.1 and their manifesto components are described in Appendix Table B.1. The figure presents the moving average values for each index and group of parties for five-year periods. Each country is weighted equally, and parties within each country are weighted by their voting shares. Parties that do not fall in these categories are excluded. They account on average for 11% of the vote share out of all parties coded in CMP.

Table 1: CMP - IVS Descriptive Statistics

	2005-2009		2017-2020	
	PRRP	Other Parties	PRRP	Other Parties
Panel A: Comparative Manifesto Project				
CMP Position Indices				
Party Economic Positions Index	-5.90	-8.70	-6.50	-16.00
Party Cultural Positions 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 Value Survey				
Demographics				
College education	0.16	0.29	0.17	0.34
Age	45.89	48.28	48.30	49.47
Male	0.54	0.49	0.56	0.48
Urban	0.21	0.28	0.17	0.25
Most Distinctive Opinions				
Confidence in EU	-0.13	0.07	-0.53	0.04
Jobs should prioritize natives	0.45	-0.03	0.55	-0.13
Don't want immigrant neighbors	0.14	-0.08	0.55	-0.05
Confidence in UN	-0.14	0.06	-0.42	0.03
Confidence in press	-0.10	0.06	-0.35	0.04

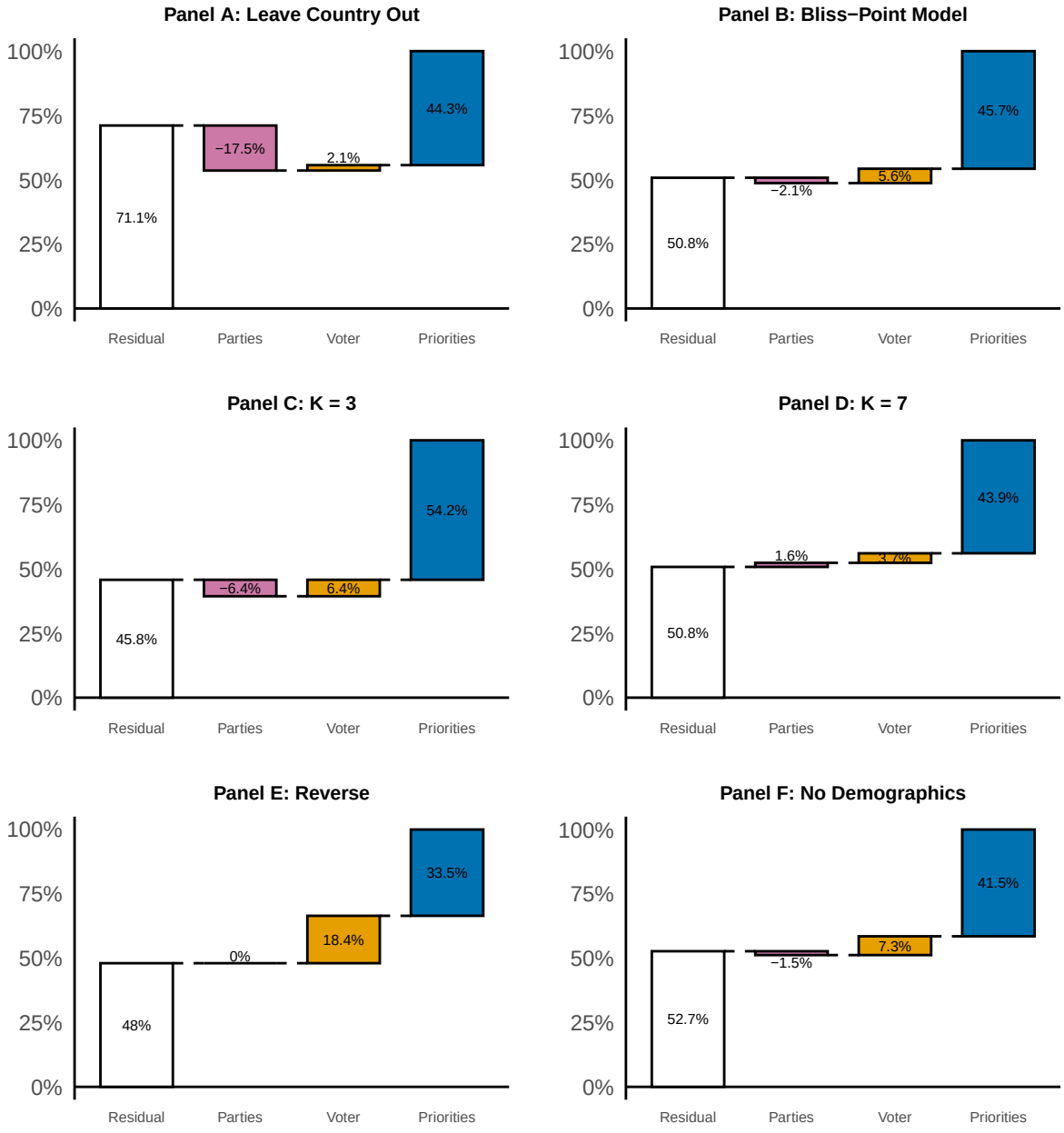
Note: This table provides descriptive statistics on party positions in the CMP data (Panel A) and voter attributes in the IVS data (Panel B). The first two columns present the averages of each variable in 2005-2009 and the last two columns present the averages in 2017-2020. In Panel A, the first two rows show the averages of the two party position indices. The indices measure net shares: 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. Each variable represents the share of the platform mentioning that position. In Panel B, the first four rows show the main 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 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 support share. We define the most distinctive opinions/positions based on the largest standardized differences, across both waves.

Figure A.1: Similarities Between Party Voters



Note: This figure presents the similarities between voters of different parties. For each party, we use a linear regression to predict support for that party based on each voter's attributes, using data from the 2017-2020 IVS wave. 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 will support AfD and the fitted probability that those voters will 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 populists" category. We classify the remaining parties into categories based on the CMP data as explained in Section 2.4. We present all parties in our data that received support from at least 50 respondents.

Figure A.2: Decomposition Robustness

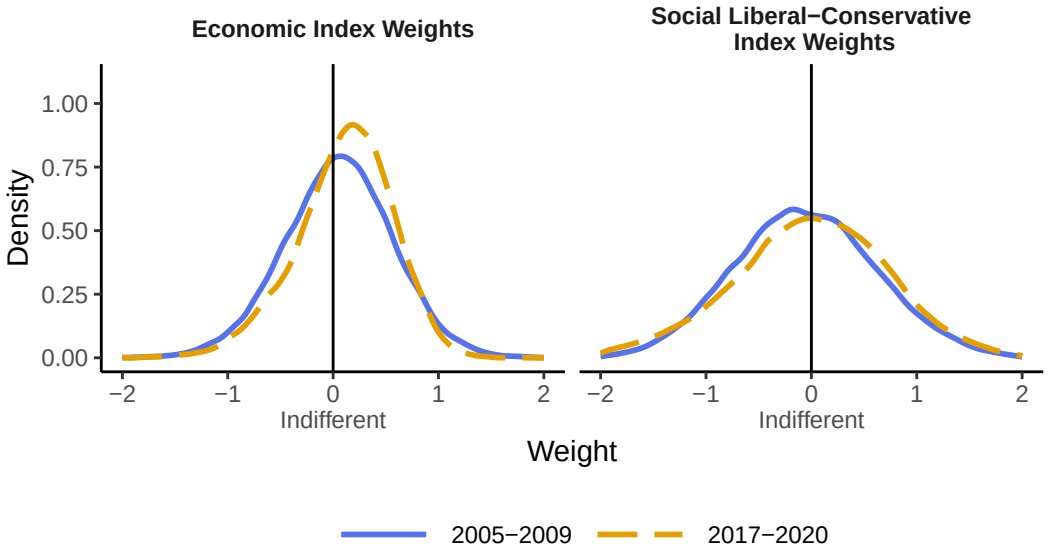


Note: These figures plot the decomposition results for changes in PRRP support between the 2005-2009 and the 2017-2020 waves under different specifications. All figures aggregate results from all 18 countries with any PRRP support, weighting each country by the inverse share of PRRP support in the 2017-2020 wave. Panel A shows results from a leave-country-out exercise, where for each country, we estimate the model parameters using data from the other countries in our data.. Panel B shows the decomposition results when we use a bliss-point model, as described in Appendix A. Panel C and D estimate the parameters β_t (Equation 6) 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 8 between voter attributes and voter priorities. Panel F repeats the entire exercise, excluding demographic variables from the voter attributes. See further details in Section 5

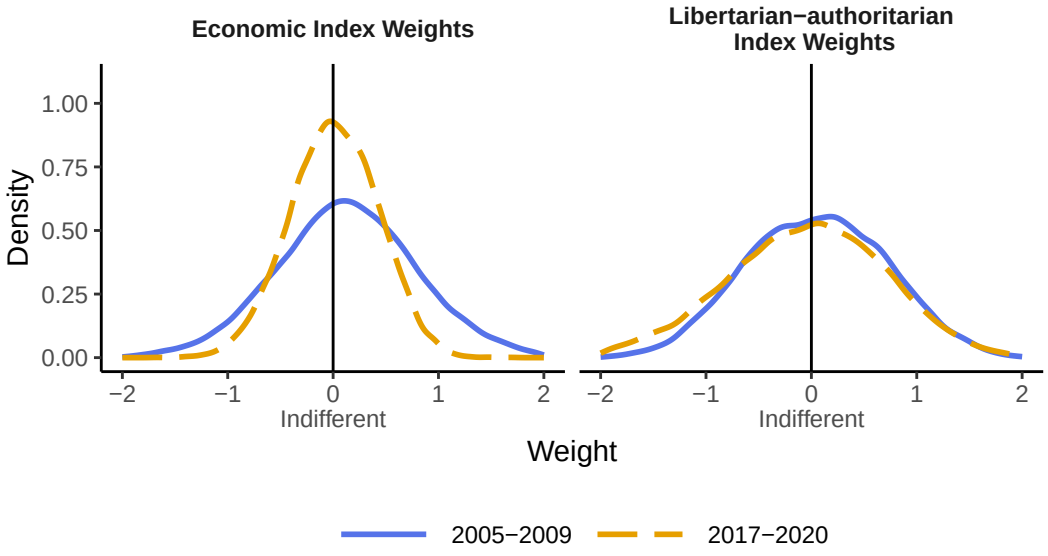
.

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

(a) Prosser (2014)

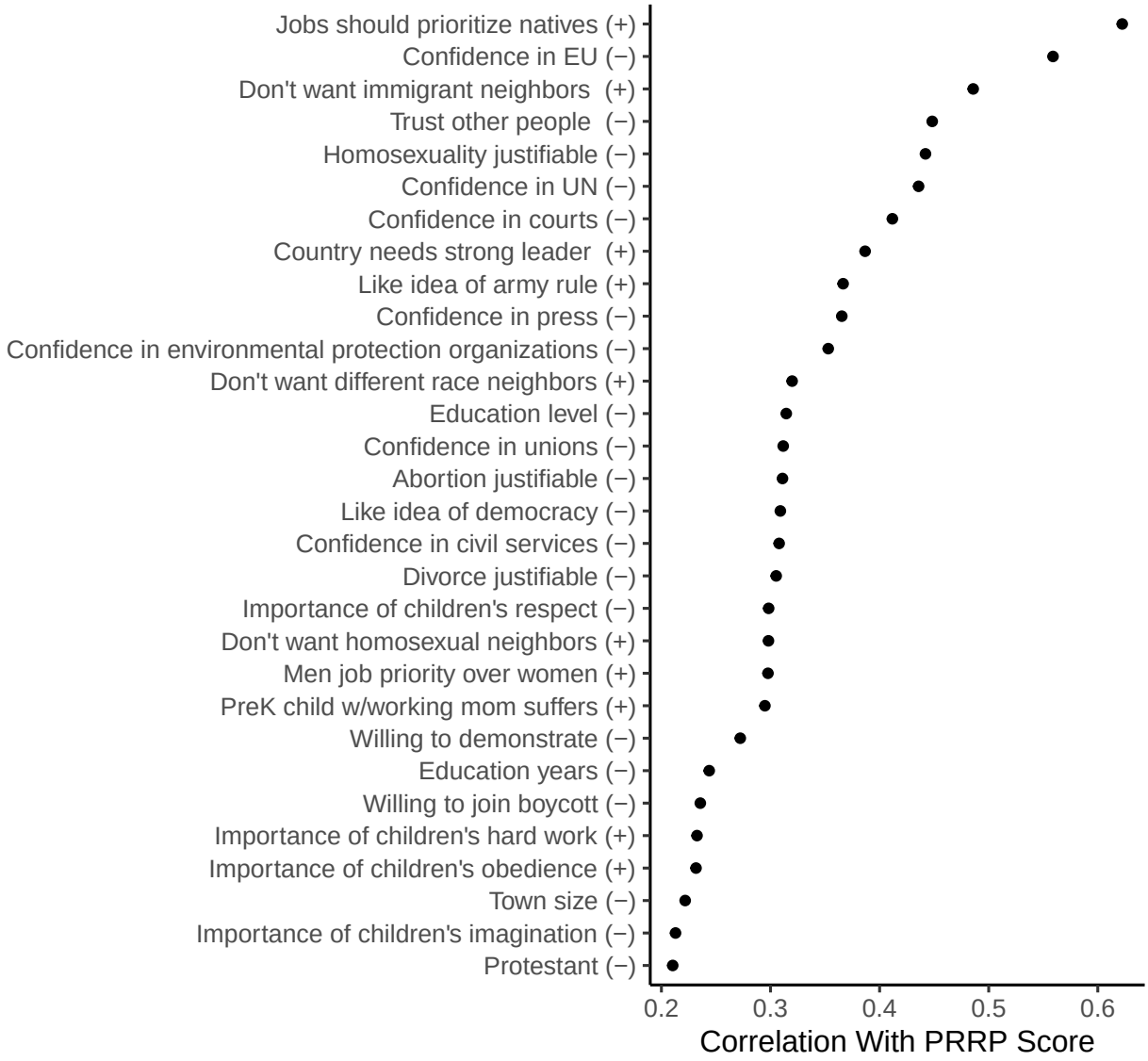


(b) Bakker and Hobolt (2013)



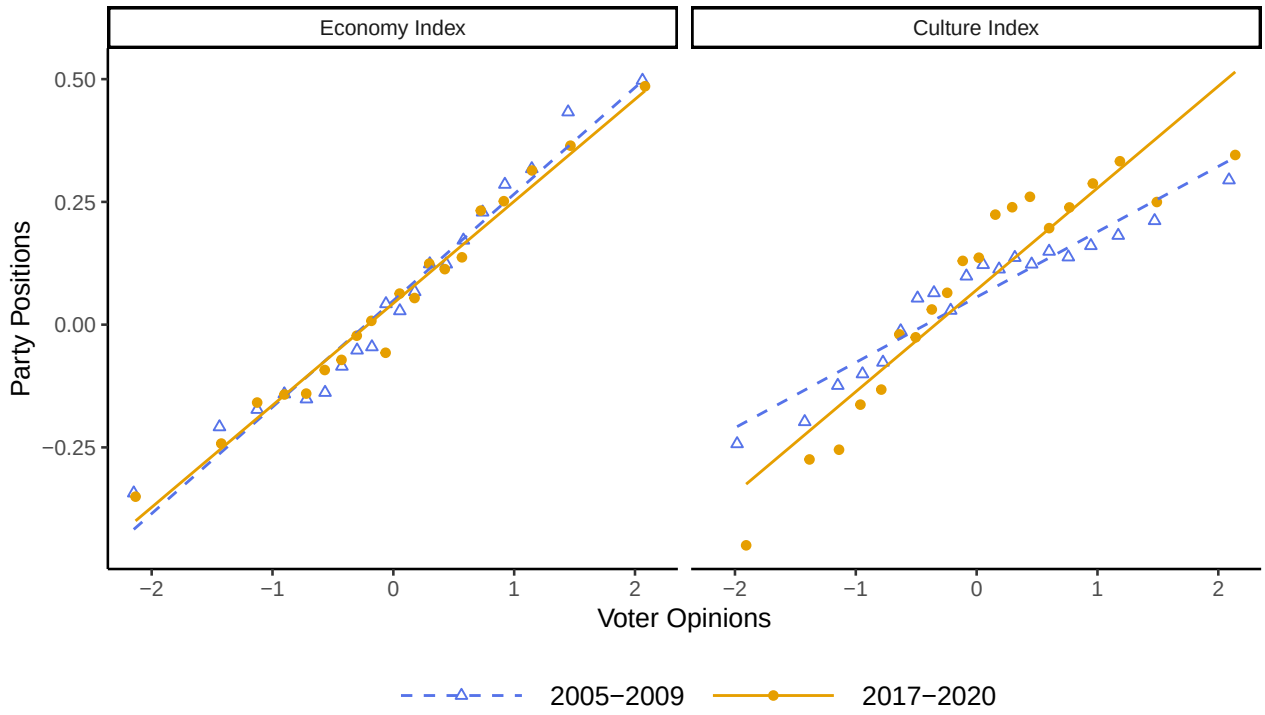
Note: This figure shows the distributions of the weights voters place on two alternative party position indices proposed by (a) Prosser (2014) and (b) Bakker and Hobolt (2013). Weights are calculated based on Equation 1, using voter attributes from the 2017-2020 IVS survey, and the estimated priority parameters for the 2005-2009 wave (solid blue) and 2017-2020 wave (dashed yellow). The weight placed on an index is the average weight corresponding to each party position that comprises the index, where weights for positions that enter the index with a negative sign are multiplied by -1. Table B.1 describes the variables that comprise each index. Weights are in standard deviation to utility units—the increase in utility for an increase of one standard deviation in the index.

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



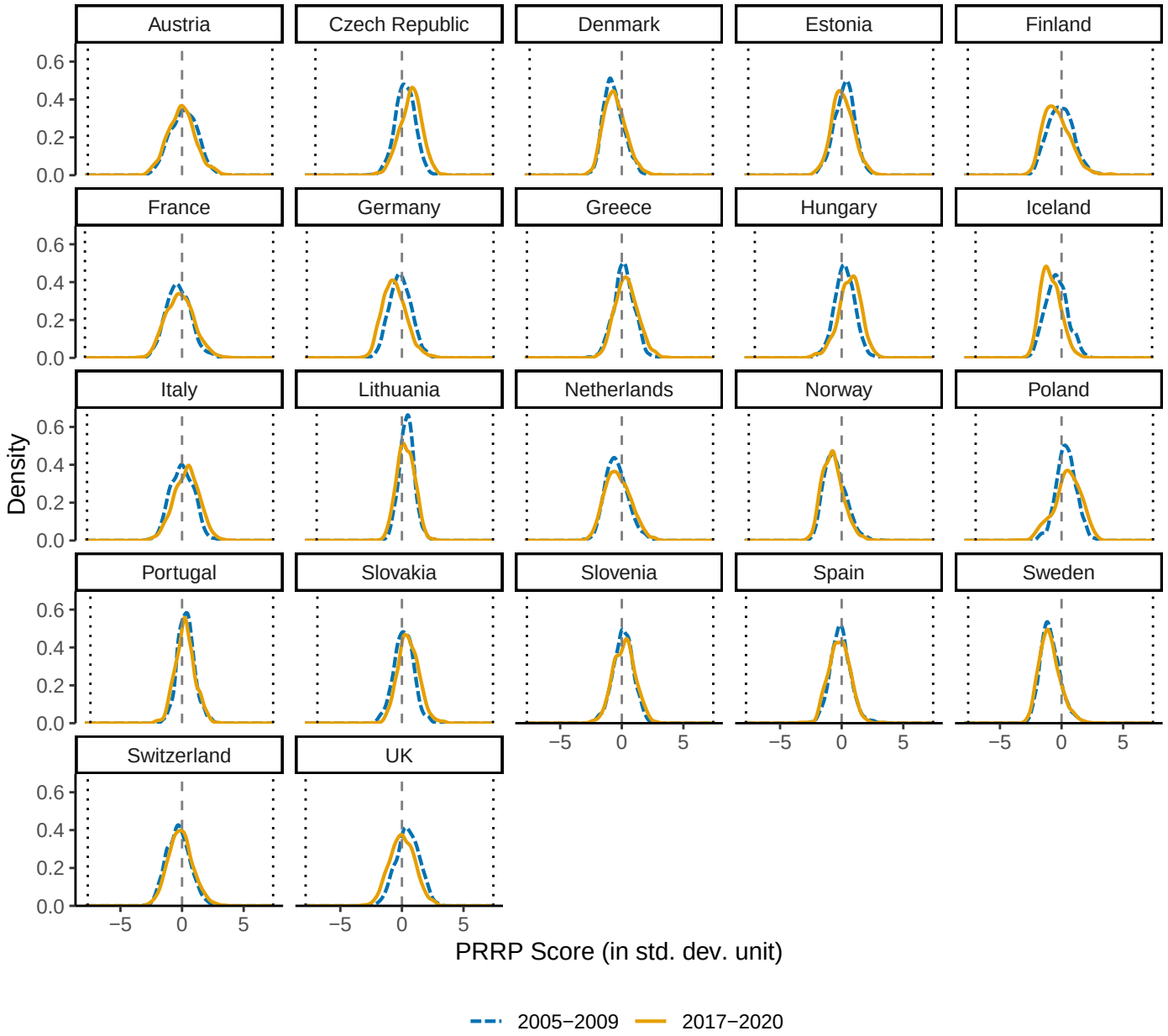
Note: This figure presents the voter attributes most strongly correlated with the PRRP score. The score is calculated by running a LASSO regression predicting PRRP support. The regression is run on the 2017-2020 survey wave and includes all IVS variables in our final dataset, along with country fixed 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-wave weighted equally.

Figure A.5: Correlations of Voters' Opinions and the Positions of their Preferred Party Over Time



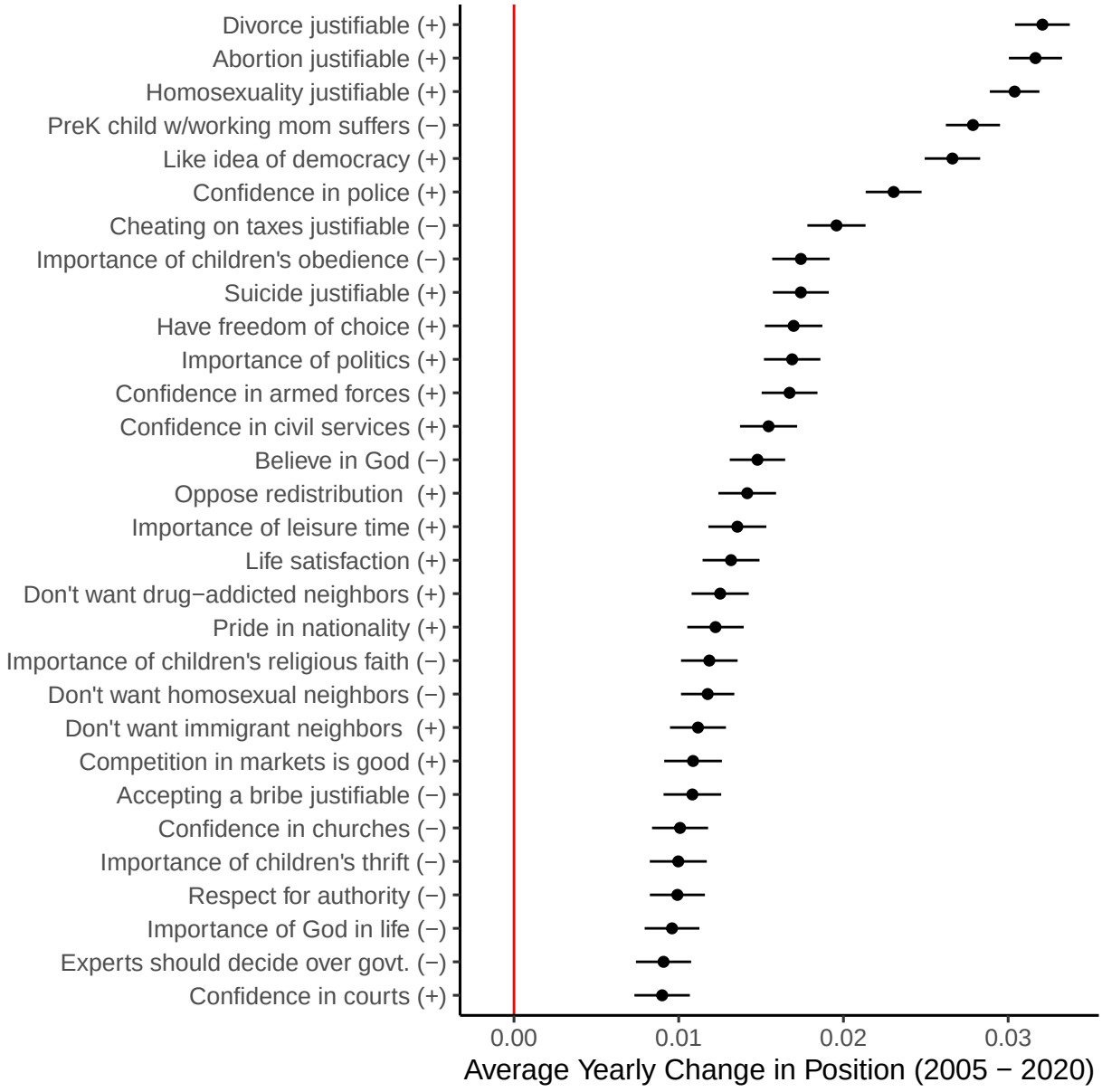
Note: This figure displays a binned scatter plot of the correlation between the opinions of voters and the positions of the parties they supported in the 2005-2009 and 2017-2020 survey waves. The positions of parties are based on the Comparative Manifesto Project economic and social indices. The components of these indices are shown in 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 PCA analysis appear in Table B.2. We use sample weights such that each country has the same total weight.

Figure A.6: Voters' PRRP Score By Country



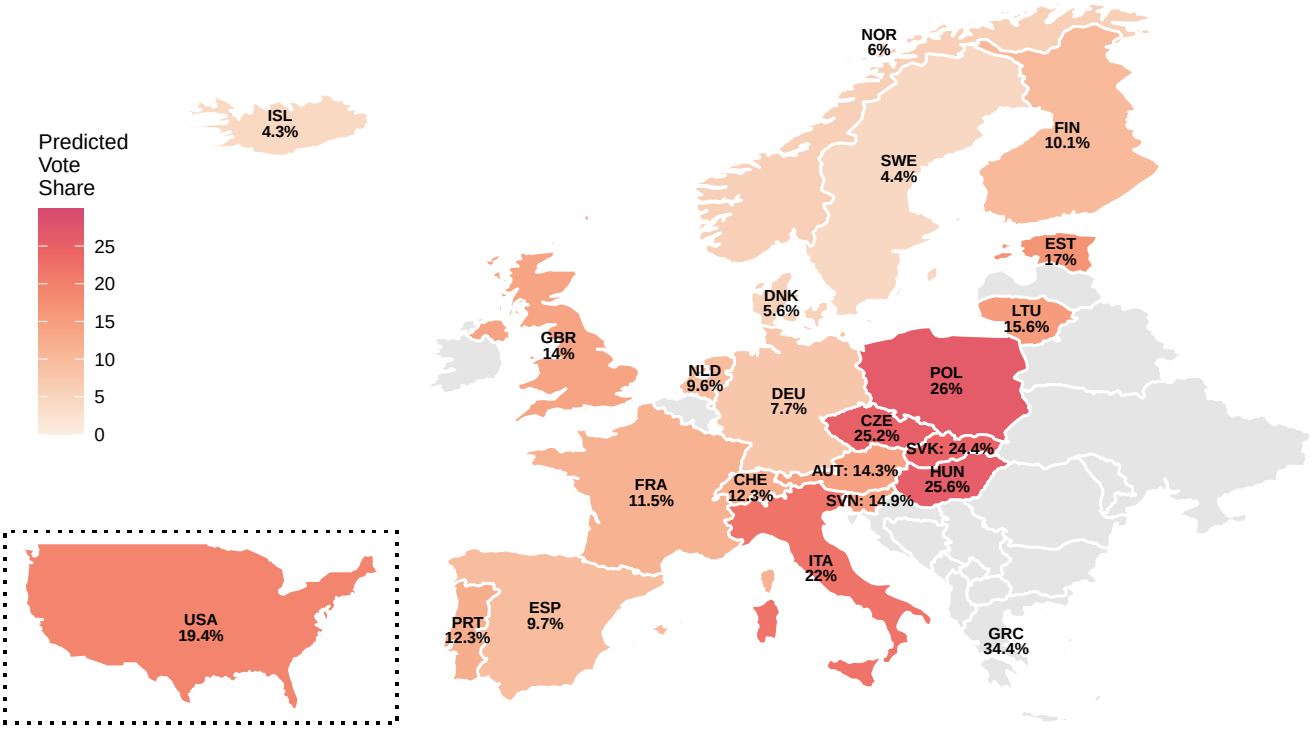
Note: This figure presents the voters' PRRP score by country and survey wave, along with the average score for the voters with the highest score. The PRRP score is calculated by running a LASSO regression predicting PRRP support. The regression is run on the most recent survey and includes all IVS variables 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.

Figure A.7: Opinions that Changed the Most, 2005-2020



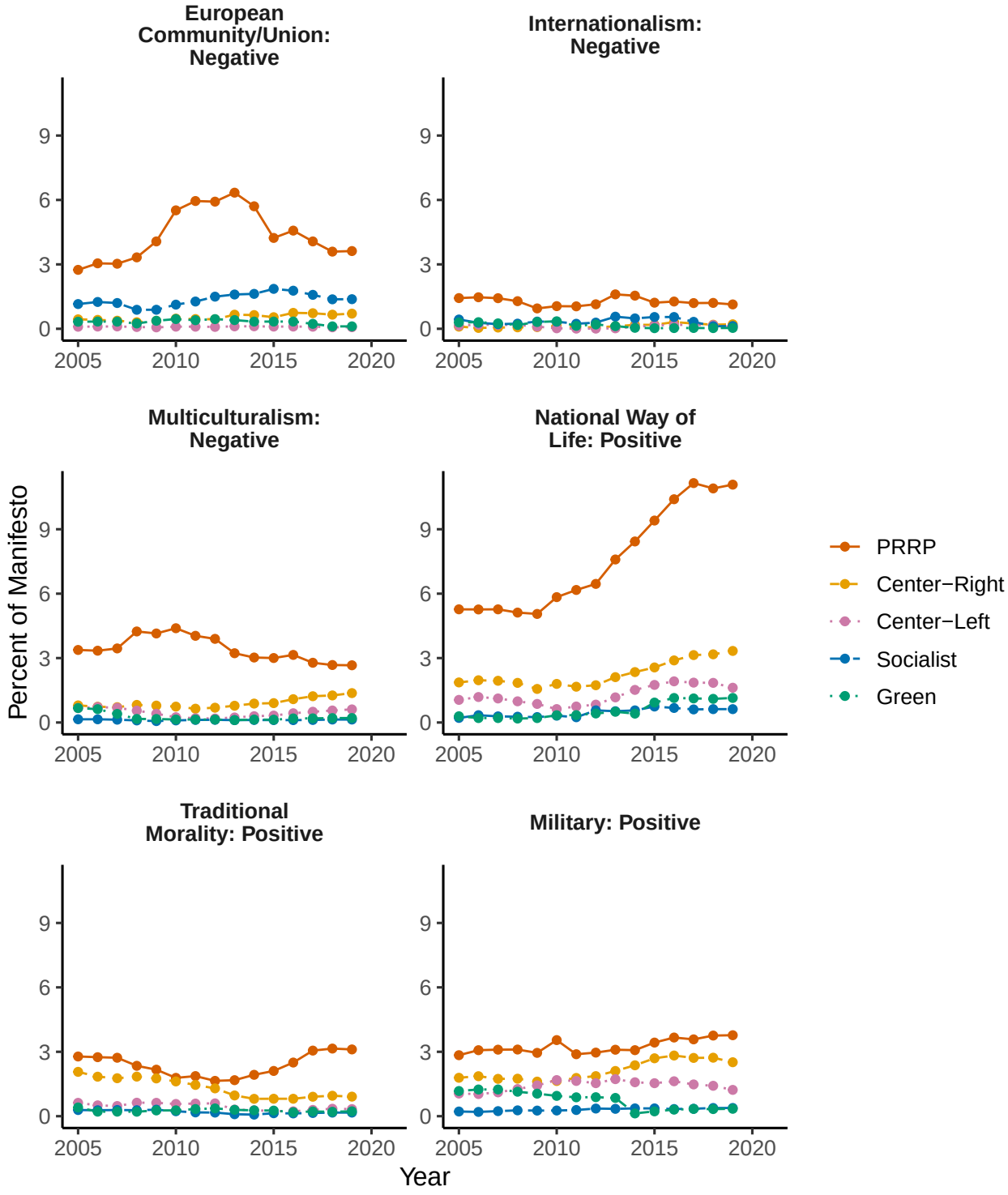
Note: This figure shows the opinions that changed the most between 2005 and 2020. We run a separate regression of every opinion variable on the survey year and country fixed effects. Opinions are in standard deviation units. Each dot represents the time coefficient in this regression. 95% confidence intervals are reported.

Figure A.8: Counterfactual Support for the AfD by Voter Attributes



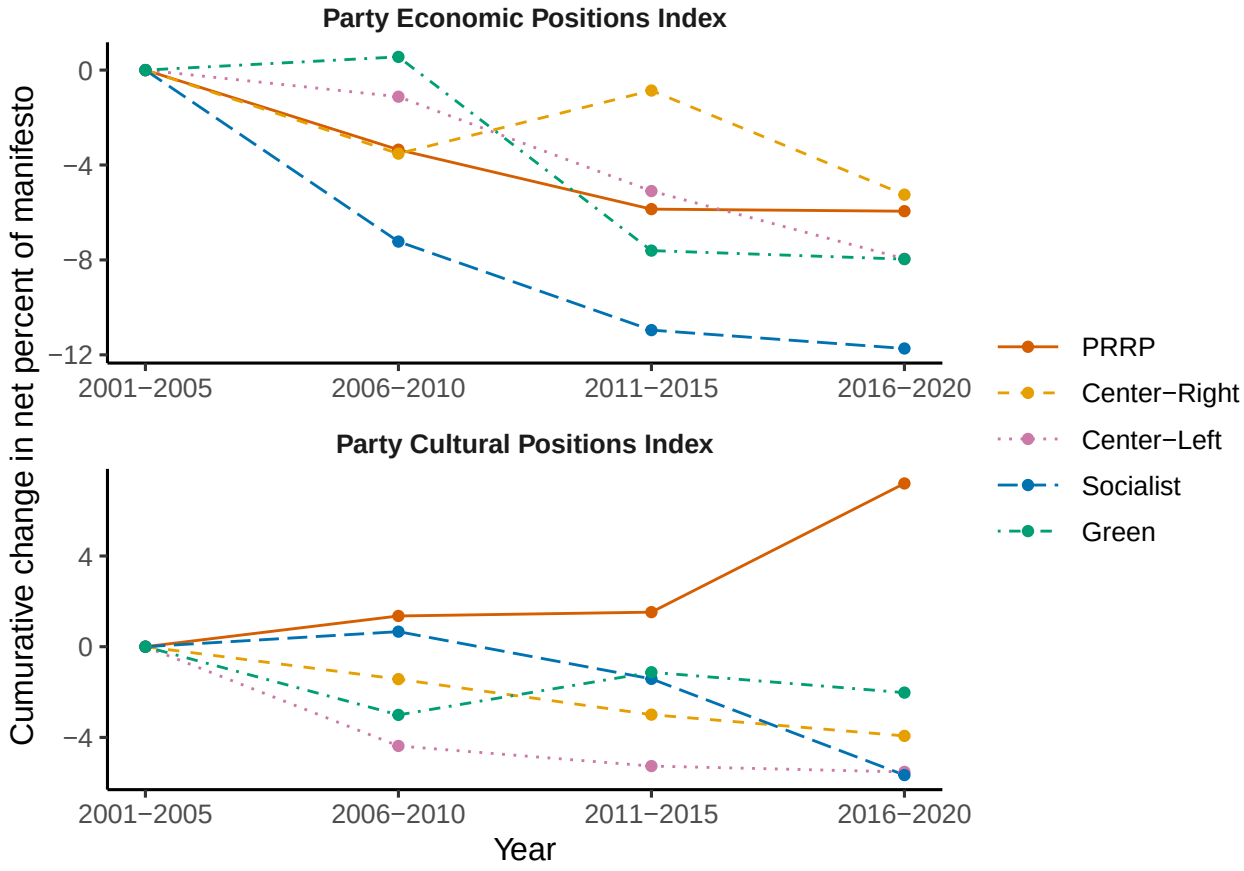
Note: This figure calculates the counterfactual support for the AfD in the 2017-2020 wave if German voters had the attributes of voters in other countries. We calculate the counterfactual separately for each country based on a formula similar to Equation 9. For more details see Figure 9.

Figure A.9: Changes in Most Distinctive Party Positions Over Time



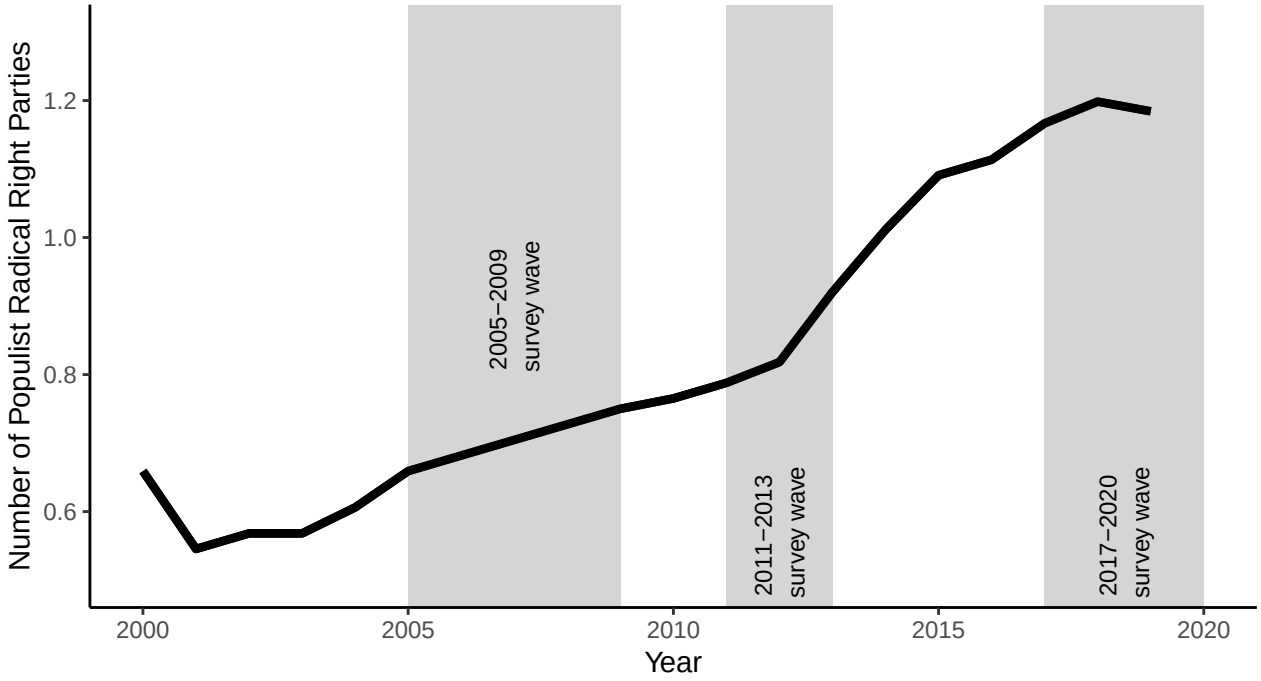
Note: This figure shows the average position by party category for the six positions with the largest difference between PRRP and other parties. Each position is measured as the average percentage of the platform that is dedicated to the position by parties in that category. The manifesto variables are described in Appendix Table B.1. The figure presents the moving average values for each position for five-year periods for each party category. Each country is weighted equally, and parties within each country are weighted by their voting shares. Parties that do not fall in these categories, which on average represent 11% of the vote share out of all parties coded in CMP, are excluded.

Figure A.10: Within-Party Position Changes



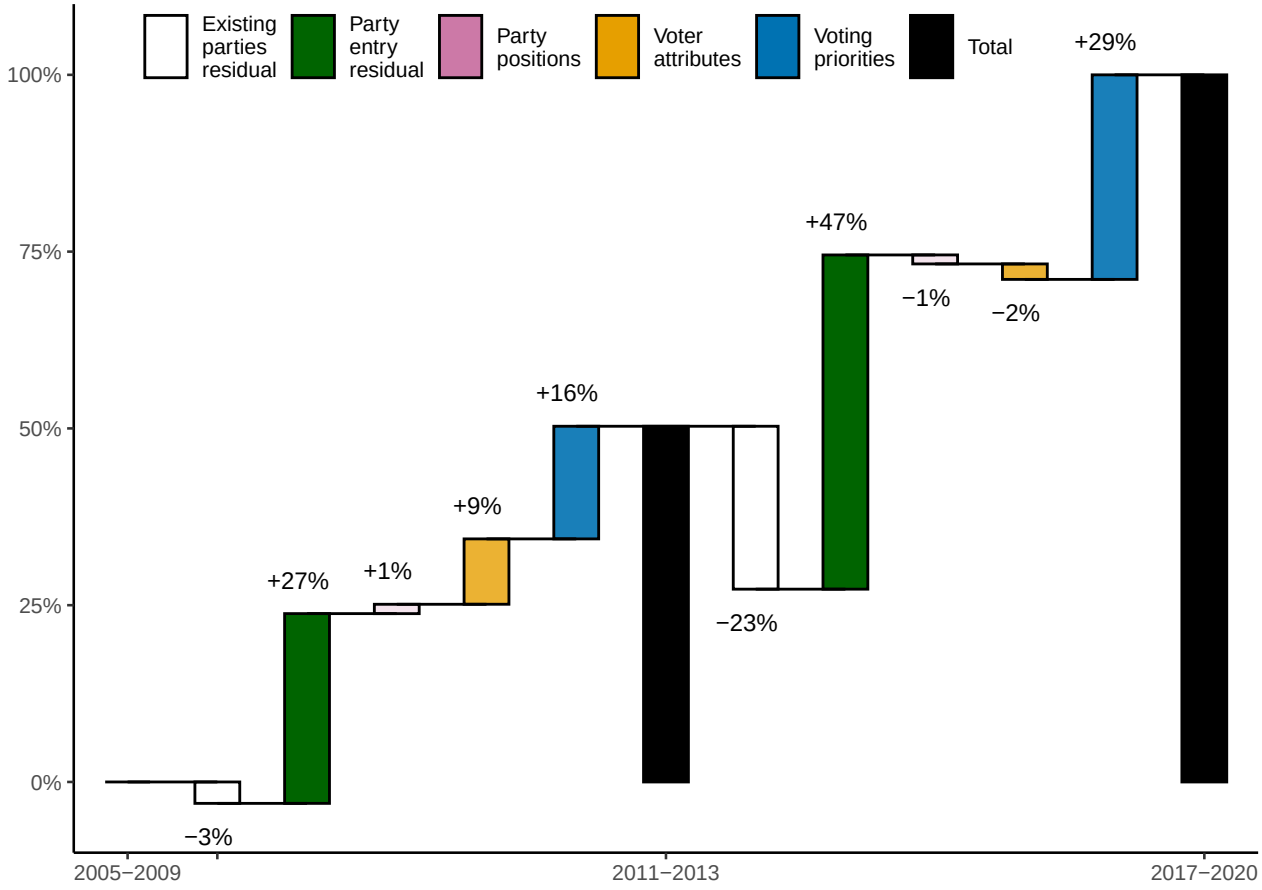
Note: This figure shows the cumulative within-party changes of the two CMP party position indices by party category. The manifesto components that comprise each index are described in Appendix Table B.1. The figure presents cumulative average changes within each party since 2005. In particular, for each 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 shares in the initial period. We present the cumulative change, summarizing all changes since 2005. Note that the set of parties is not identical across periods. Parties that do not fall in these categories, which on average represent 11% of the vote share out of all parties coded in CMP, are excluded.

Figure A.11: Average Number of PRRP by Country



Note: 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 years 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.

Figure A.12: Decomposition With New Entries



Note: This figure presents the result of our decomposition exercise, where the residual component is further decomposed into residual of new PRRP entries, and the remaining residuals (Equation 10). We calculate the residual component in Equation 8 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 pin 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.

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

Note: 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 taken over the 22 countries.

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	210	32	59,635	7,934

Note: 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 for the subset of respondents supporting a specific party. The third row presents statistics for participants who supported a party that could be matched with the CMP.

Table A.3: Largest Coefficients Placed on the Economic and Cultural Index

Economic Index		Culture Index	
Varaible	Coefficient	Varaible	Coefficient
Confidence in unions	-0.189	Jobs should prioritize natives	0.162
Government ownership of business should be increased	-0.108	Confidence in environmental protection 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 press	-0.096
Confidence in environmental protection 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

Note: This table presents the largest coefficients (in absolute terms) on the IVS variables generating the weights for the economic and cultural index. We calculate weights on individual party positions using Equation 1. We aggregate individual weights into indices based on the 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. Together, this 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	-0.0208	-0.0034	-0.0776	-0.017
	(0.006)	(0.005)	(0.004)	(0.009)	
Czech Republic	0.0308	0.0087	-0.001	0.0552	0.0937
	(0.003)	(0.003)	(0.002)	(0.005)	
Denmark	0.0197	0.0229	0.0012	0.0075	0.0513
	(0.007)	(0.006)	(0.006)	(0.007)	
Estonia	-0.0257	0.0119	-0.0153	0.2196	0.1905
	(0.019)	(0.009)	(0.004)	(0.023)	
Finland	0.0219	-0.0026	-0.0143	-0.015	-0.01
	(0.004)	(0.002)	(0.003)	(0.005)	
France	0.0105	0.0287	0.0237	0.0295	0.0924
	(0.006)	(0.007)	(0.005)	(0.003)	
Germany	0.0392	-0.0194	0.0133	0.028	0.0611
	(0.003)	(0.003)	(0.003)	(0.003)	
Greece	0.0458	-0.027	0.0012	0.0146	0.0346
	(0.007)	(0.005)	(0.003)	(0.006)	
Hungary	0.1066	0.0508	0.0042	-0.0011	0.1605
	(0.013)	(0.013)	(0.008)	(0.01)	
Italy	0.0554	0.054	-0.0923	0.1822	0.1993
	(0.009)	(0.006)	(0.01)	(0.009)	
Netherlands	0.0398	0.0354	0.0064	0.0416	0.1232
	(0.007)	(0.005)	(0.004)	(0.005)	
Norway	-0.0366	0.0166	0.0481	-0.1303	-0.1022
	(0.008)	(0.007)	(0.004)	(0.005)	
Poland	0.2349	-0.0648	-0.1762	0.2806	0.2745
	(0.013)	(0.01)	(0.015)	(0.012)	
Slovakia	-0.0471	0.0406	0.0521	0.1106	0.1562
	(0.015)	(0.01)	(0.007)	(0.01)	
Slovenia	-0.0117	0.0183	0.0069	-0.0387	-0.0252
	(0.008)	(0.01)	(0.007)	(0.005)	
Sweden	-0.0021	0.012	0.0034	0.0439	0.0572
	(0.003)	(0.002)	(0.004)	(0.003)	
Switzerland	0.0949	0.019	-0.0532	-0.0505	0.0102
	(0.008)	(0.005)	(0.006)	(0.008)	
UK	0.025	-0.0116	-0.0066	0.049	0.0558
	(0.002)	(0.002)	(0.002)	(0.005)	
Total	0.4486	0.0706	0.0005	0.4803	1
	(0.041)	(0.022)	(0.017)	(0.042)	

Note: This table presents decomposition results for the 18 countries in our data that had any PRRP support in one of our survey waves (2005-2009,2010-2014,2017-2021). Columns (1)-(4) present the counterfactual increase in the share of support for the PRRP in that country between the 2005-2009 and the 2017-2021 waves, based on Equation 8. Column (5) is the sum of columns (1)-(4) which is 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 at the last wave, as in Figure 4. Standard errors are calculated using 1,000 bootstrap simulations.

A 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 which 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 $\Phi = -2A^T D$, 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 3). Therefore, our estimation of the first stage will be identical to the case of a bliss-point model.

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

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

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, taking the difference between two consecutive survey waves, we get the following equation that extends Equation 6 to the quadratic case:

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

We follow a similar procedure to reduce the dimensionality of the party positions vectors, as described in Section 3.2 and Appendix C. 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 we 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 5-dimensional z vectors we had in the linear case.

In section 5 we present decomposition results using the above bliss-point model. In that exercise, we estimate the parameters $\theta_t = (\Phi_t, \beta_t, \gamma_t)$ as explained. We then decompose the rise of PRRP using Equation 8 as before. The only difference from our original decomposition is that the priority component now includes the parameter vector γ as well.

B Data Appendix

B.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 separately. When a value is missing for an entire country-wave, 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 using the nearest survey waves for that country. When the variable is available in both a proceeding 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 proceeding or a succeeding wave, we impute the missing data as the mean value of the available wave. For the imputation process, we also use three additional 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. Respondents are asked to position themselves on a left-right scale. Instead, we use this question as an alternative outcome in Section 6.1.

There is a concern is that voters' opinions may be affected by the party they support, instead of voters choosing a party based on their opinions (Barber and Pope, 2019). This is especially common when a new government is elected and, as a result, 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 (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.

B.2 Merging Datasets

We merge party data across the various datasets using PartyFacts (Döring and Regel, 2019) when possible and manually in other cases. In order 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 country-year and the date when the election was conducted. We define the party position as missing if no CMP data is available five years before or after the survey.

Although an IVS wave may be composed of both an EVS wave and a WVS wave that were not necessarily conducted at same year we assign each IVS wave a single date for the merge. We do so in order to assign a single manifesto to each party. However, calculating the mean date at the EVS/WVS wave level would have changed the assigned manifesto of a party only 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.

Overall we match 94% of the IVS respondents who supported a specific party with a manifesto within 5 years from the survey date and 92% are matched with a manifesto in the closest election to the survey date. We do not match all parties due to the following reasons: a party may not publish a manifesto, the manifesto of the party may not be coded in CMP,[30] 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 runs in a different name or constellations. 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 the successor parties appear in our data and therefore we do not merge predecessor and successor parties.

C Estimation Appendix

In this section, we discuss the dimension reduction in our second step estimation of the β parameter. We assume that the 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 1. Using $\Phi_t = U_t \Sigma_t V_t^T$ to describe the singular value decomposition of matrix Φ_t, this can be written as $w_t(x_i) = x_i U_t \Sigma_t V_t^T + \beta_t$. Defining $\tilde{\beta} = \beta V$ we can write $w_t(x) = (x_i U_t \Sigma_t + \tilde{\beta}_t) V_t^T$. Since we restrict the nuclear norm of Φ in the first stage, the last components of $x_i U \Sigma$ would be close 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_t has to be a linear combination of the first k components in matrix V, such that $\beta_t \in \text{span}\{[V_t]_k\}$.[31] We choose $k = 5$ though other values yield similar results.

We estimate the parameters of Equation 7 using a linear regression. The independent variables are the k linear combinations $([V_t]_k)$ of $\bar{z_j}, \Delta_t^{t+2} z_j$. The average is taken on all survey waves available for this party, and the difference is between the 2017-2020 and 2005-2009 survey waves. We weight each party by its overall vote share. Applying the transpose

[30] CMP 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.

[31] 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.

linear transformation on the regression coefficients yields the parameters $\bar{\beta}, \Delta_t^{t+2}\beta$.

D Results Appendix - Residual Component

In this section, we focus on the entrance of new PRRP and how they contribute to the rise of the residual component. During the period we study, the number of PRRP in Europe has increased dramatically. Figure A.11 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 the entry of 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.[32] We then separate the overall support in PRRP (Π) to support for new PRRP entries (Π_{new}) and PRRP that already existed in our data in the 2005-2009 wave (Π_{exist}). Formally, we decompose the residual component to the following two components:

$$\underbrace{\int P\left(\Pi_{new}|x_i;\theta_t,Z_t^c,\zeta_{t+1}^c\right) f_t^c\left(x_i\right)\mathrm{d}x_i - \int P\left(\Pi_{new}|x_i;\theta_t,Z_t^c,\zeta_t^c\right) f_t^c\left(x_i\right)\mathrm{d}x_i}_{\text{New Entries}}$$
$$+\underbrace{\int P\left(\Pi_{exist}|x_i;\theta_t,Z_t^c,\zeta_{t+1}^c\right) f_t^c\left(x_i\right)\mathrm{d}x_i - \int P\left(\Pi_{exist}|x_i;\theta_t,Z_t^c,\zeta_t^c\right) f_t^c\left(x_i\right)\mathrm{d}x_i}_{\text{Remaining Residual}} \tag{10}$$

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 a residual of $-\infty$ that we assigned.

Figure A.12 shows that the rise of the residual component is more than fully driven by new parties. We find that on aggregate 74% 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 PRRP that recently entered is substantially larger than what we would expect based only on party positions, voter attributes, and voter priorities. In contrast, for existing parties, the residual is negative. Hence, based on party positions, voter attributes, and voter priorities we would have expected these parties to grow less. This could reflect the fact that in some countries such as Norway or Switzerland, PRRP have gained popularity earlier (Mudde, 2007).

One interpretation for the residual rise of new entries is an idiosyncratic shock, not directly driven by either supply or demand. 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

[32] Party positions are based on the first available platform for these parties, as before.

Czech Republic, and Estonia, while the current PRRP were formed more recently, other far-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. This unexplained rise of new entries could be driven by strategic considerations and coordination failures, such as voters coalescing around a party only when they anticipate that the party will have substantial support (Fredén, 2014).

Table B.1: CMP Party Positions

		CMP		Prosser (2014)		Bakker and Hobolt (2013)	
Variable	Description	Econ.	Soc.	Econ.	Soc.	Econ.	Lib.-Auth.
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				+		+
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	-		-		-	

Table B.1: CMP Party Positions *(continued)*

		CMP		Prosser (2014)		Bakker and Hobolt (2013)	
Variable	Description	Econ.	Soc.	Econ.	Soc.	Econ.	Lib.-Auth.
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		+		+		+
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		+				+

Table B.1: CMP Party Positions *(continued)*

		CMP		Prosser (2014)		Bakker and Hobolt (2013)	
Variable	Description	Econ.	Soc.	Econ.	Soc.	Econ.	Lib.-Auth.
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				-		-

Note: 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 economic and cultural indices. The CMP indices are the primary indices used in the paper and refer to the economic and social indices suggested by the comparative Manifesto Project. Prosser refers to the economic and Social index proposed in (Prosser, 2014), Bakker and Hobolt refers to the Economic and Libertarian-Authoritarian indices proposed in (Bakker and Hobolt, 2013).

Table B.2: IVS Variables

Variable	Description	Coding and notes	Index
Demographics			
Religious	"Independently of whether you go to church or not, would you say you are..." A religious person, Not a religious person, A convinced atheist	1 = A religious person, 0 = {All other options}	
Athiest		1 = A convinced atheist, 0 = {All other options}	
Male	Respondent's sex	1 = Male, 0 = Female	
Age	"This means you are _____ years old (write in age in two digits)."	Open numeric response	
Married or living together	"Are you currently...": Married, Living together as married, Divorced, Separated, Widowed, Single	1 = {Married; Living together as married; Living apart but steady relation (married,cohabitation)}, 0 = {All other options}	
Divorced, separated, or widow		1 = {Divorced; Separated; Widowed; Divorced, Separated or Widow}, 0 = {All other options}	
Single		1 = {Single/Never married}, 0 = {All other options}	
Number of children	"How many children have you ever had", "How many children do you have - deceased children not included" (EVS 2008-2010)	Open numeric response. For the US, the 2005-2009 wave is imputed based on the 1999-2004 and 2011-2013 waves.	
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, has paid employment = {Full time employee (30 hours a week or more); Part time employee (less than 30 hours a week); Self employed}. No, no paid employment = {Retired/pensioned; Housewife not otherwise employed; Student; Unemployed}	2 = {Full time; Self employed}, 1 = Part time, 0 = {Retired; Housewife; Students; Unemployed}	
Self-employed		1 = Self employed, 0 = {All other options}	
Retired		1 = Retired, 0 = {All other options}	
Housewife		1 = Housewife, 0 = {All other options}	
Student		1 = Student, 0 = {All other options}	
Unemployed		1 = Unemployed, 0 = {All other options}	
Other employment		1 = Other, 0 = {All other options}	
Income decile	"On this card is an income scale on which 1 indicates 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, pensions and other incomes that come in."	1 = Lowest income group, 2...9, 10 = Highest income group. For Portugal, the 2017-2020 wave is imputed based on the 2005-2009 wave.	
Protestant	"Do you belong to a religion or religious denomination?. If yes, which one?"	1 = Protestant, 0 = {All other options}	
Catholic		1 = Roman Catholic, 0 = {All other options}	
Muslim		1 = Muslim, 0 = {All other options}	
Other type of Christian		1 = {Other Christian (Evangelical/Pentecostal/Free church/etc.); Orthodox (Russian/Greek/etc.)}, 0 = {All other options}	
Jew		1 = Jew, 0 = {All other options}	
Other religion		1 = {Other; Buddhist; Hindu}, 0 = {All other options}	
No religion/atheist		1 = Do not belong to a denomination, 0 = {All other options}	

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}, 4 = {Some university without degree/higher education - lower-level tertiary; ISCED 4; ISCED 5; Post-secondary non tertiary; 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 equivalent}.	
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?"	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; 5,000-20,000; 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 2017-2020 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.	
Behavioral			

Table B.2: IVS Variables *(continued)*

Variable	Description	Coding and notes	Index
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.	
Member of environment 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?" In the 1989-1993 and 1999-2000 Waves, possible answers were Mentioned and Not mentioned. Environmental organization.	1 = {Active member; Mentioned}, 0 = {Not a member; Inactive member; Not mentioned}	
Member of labor union	Labour union		
Member of religious organization	Church or religious 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 organization	Professional association		
Member of other organization	Other organization	Same as above. For Germany, the 2011-2013 wave is imputed based on the 2005-2009 and 2017-2020 waves.	
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	Same as above. For the US, the 2005-2009 wave is imputed based on the 1999-2004 and 2011-2013 waves.	
Opinions			
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	Cul.
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	Cul.
Men job priority over women	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.	Cul.
Prefer private business ownership	"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.

Table B.2: IVS Variables *(continued)*

Variable	Description	Coding and notes	Index
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 income differences as incentive.	Econ.
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	Cul.
Experts should decide over 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	Having a democratic political system		
Pride in nationality	"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/ Has not [country] nationality	Cul.
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? Please use this card to help with your answer."	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		
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 = Very good	
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.	Cul.
Importance of children's independence	Independence	Same as above.	Cul.
Importance of children's responsibility	Feeling of responsibility		Cul.
Importance of children's imagination	Imagination		Cul.
Importance of children's respect	Tolerance and respect for other people		Cul.

Table B.2: IVS Variables *(continued)*

Variable	Description	Coding and notes	Index
Importance of children's thrift	Thrift saving money and things		Cul.
Importance of children's determination	Determination, perseverance		Cul.
Importance of children's religious faith	Religious faith		Cul.
Importance of children's unselfishness	Not being selfish (unselfishness)		Cul.
Importance of children's obedience	Obedience		Cul.
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.	Cul.
Don't want different race neighbors	People of a different race		Cul.
Don't want immigrant neighbors	Immigrants/foreign workers		Cul.
Don't want homosexual neighbors	Homosexuals		Cul.
Don't want heavy-drinking neighbors	Heavy drinkers		Cul.
PreK child w/working mom suffers	"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.	Cul.
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 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	Cul.
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	The churches (mosque, temple etc.)		Cul.
Confidence in civil services	The civil services		
Confidence in major companies	Major companies		
Confidence in environmental protection organizations	Environmental organizations		
Confidence in EU	The European Union		Cul.
Confidence in armed forces	The armed forces	0 = None at all, 1 = Not very much, 2 = Quite a lot, 3 = A great deal. For Iceland, the 2017-2020 wave is imputed based on the 2005-2009 wave	Cul.
Believe 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	
Believe 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	

Table B.2: IVS Variables *(continued)*

Variable	Description	Coding and notes	Index
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, using this card." Avoiding a fare on public transport	1 = Never justifiable, 2...9, 10 = Always justifiable	
Abortion justifiable	Abortion		Cul.
Divorce justifiable	Divorce		Cul.
Accepting a bribe justifiable	Someone accepting a bribe in the course of their duties		
Suicide justifiable	Suicide		Cul.
Cheating on taxes 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, using this card." Cheating on taxes if you have a chance	0 = Never justifiable, 1...8, 9 = Always justifiable. For Germany, the 2011-2013 wave was imputed based on the 2005-2009 and 2017-2020 waves	
Homosexuality justifiable	Homosexuality	0 = Never justifiable, 1...8, 9 = Always justifiable. For Italy, the 2005-2009 wave was imputed based on the 1999-2000 and 2017-2020 waves	Cul.
Prostitution justifiable	Prostitution	0 = Never justifiable, 1...8, 9 = Always justifiable. 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	Cul.

Note: This table presents all IVS variables included in our data. The third column provides information on how variables were processed.