



The role of economic uncertainty in the rise of EU populism

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Abstract

Economic interests are assumed to be the leading driver of political preferences, and various empirical studies have examined how economic conditions affect political views and voting behavior. Meanwhile, populism is on the rise in European Union (EU) member countries. Against that backdrop, this paper aims to examine the effect of economic uncertainty on populist voting behavior based on a panel dataset of 24 EU countries from 1980 to 2020. We focus on whether total populist, right-wing populist, and left-wing populist votes are affected by a new indicator of economic uncertainty, namely, the World Uncertainty Index (WUI). Relying on a fixed-effects, bias-corrected least squares dummy variable estimator and instrumental variable estimations, we show that a higher WUI increases total populism and right-wing populist voting behavior. The baseline results remain consistent when dealing with potential issues of endogeneity and reverse causality, addressing omitted variable bias, and excluding outliers.

Keywords Populist attitudes in the European Union · Voting behavior · Right-wing populism · Left-wing populism · Economic uncertainty shocks · Economic policy uncertainty

JEL Classification D72 · D81 · C33

1 Introduction

Populism has been on the rise in Europe, and European Union (EU) member countries have witnessed extraordinary events that have helped illustrate the effects of populism. For instance, Matteo Renzi was defeated in a referendum to amend some Italian constitutional provisions in December 2016. Moreover, the coalition of Italy's far-right populist party, led by Matteo Salvini, achieved a clear victory in the European Parliament (EP) elections in May 2019 by obtaining more than 34% of the Italian vote. Although Norbert Hofer's nationalist/populist Freedom Party of Austria (FPOe) was defeated in the second round of Austria's presidential election, the FPOe has become a significant actor in Austrian

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politics, since its 46.7% vote share was its best national electoral performance to date. In France, despite its defeat in the May 2017 presidential election and loss to Emmanuel Macron, Marine Le Pen's far-right National Rally party (NRP) defeated President Emmanuel Macron's party coalition decisively in the May 2019 EP elections. The anti-immigrant Sweden Democrats (SD) also made significant gains in the 2018 general election, attracting approximately 18% of the Swedish vote. In Hungary, the nationalist Fidesz party led by Prime Minister Viktor Orbán obtained nearly 53% of the votes in the EP elections in May 2019. Similarly, left-wing political populism has risen, e.g., the Syriza Party in Greece.

Such electoral events show that populist attitudes in the EU have surfaced across the political spectrum. Because of those developments, this paper aims to understand the determinants of populist voting behavior in EU countries, as measured by the electoral shares of total populist, right-wing populist, and left-wing populist votes. Our panel dataset covers 24 EU countries from 1980 to 2020. Particular attention is paid to economic uncertainty, which is measured by the new World Uncertainty Index (WUI).

Economic interests are assumed to be the leading driver of political preferences (Alesina & La Ferrara, 2005). Thus, various empirical studies have examined how economic conditions affect political views and voting behavior. Moreover, in the last decade, the literature has begun incorporating various economic uncertainty shocks (e.g., being unemployed or a significant decline in public revenues) to study voting behavior, likely owing to the 2008–2009 global financial crisis (GFC).

In traditional political economy theory, voters who have been adversely affected by economic downturns should demand more social protection and a significant increase in income redistribution (Rodrik, 2018a). However, the events discussed above suggest a significant increase in support for populist parties. According to Moffitt (2016) and Mudde and Kaltwasser (2017), populism is a political "style" rather than a set of policy proposals. Populist politicians claim to represent the "true people" against "corrupt elites" and to adhere to the concept of the "will of the people" rather than the "will of the voters". In other words, populists refer to "the people" as singular. That definition implies not only that anti-immigration policy proposals are populist but also that populism has a broader appeal. Additionally, populists tend to favor the more active implementation of simple majority rule, and liberal institutions are viewed as being obstacles to the will of the people. Rodrik (2018a, 2020) also defines populism as a political viewpoint claiming to represent the "people's common interests." For right-wing populists, those common interests include opposition to minorities and foreigners, while for left-wing populists, they include opposition to the interests of financial elites. Pastor and Veronesi (2021) define populism as a "nationalist," "anti-immigrant," and "anti-elite" political ideology based on voters' optimal responses to rising income inequality.¹

The definitions above imply that economic uncertainty shocks may help explain populist party voting. The existing literature suggests that major macroeconomic events, financial crises (e.g., the Great Depression of the 1930s and first half of the 1940s and the 2008–2009 GFC), and globalization shocks significantly influence people's views on political parties and their voting behavior (Bartels, 2014; Kriesi et al., 2008). Theoretically, economic downturns promote populist voting.² The 2008–2009 GFC and the 2010–2011

¹ See Margalit (2019b) for a recent literature review of the definitions and causes of populism.

² For example, for theoretical models, see Acemoglu Egorov and Sonin (2013), Berliant and Konishi (2005), Binswanger and Prüfer (2012), Maskin and Tirole (2004), Prato and Wolton (2018), and Wintrobe (2018). Following the model of Berliant and Konishi (2005), Kishishita (2018) also shows that greater uncertainty rather than risk is a leading driver of populist support.

European debt crisis (EDC) resulted in job losses and significant drops in pensions, subsidies, and transfer payments (Eichengreen, 2018). Economic downturns also trigger social controversy because voters believe that the ruling elites responsible for the crises are not suffering the consequences. Populist politicians argue that financial sector managers and corporate shareowners profit during prosperous times, while taxpayers finance bailouts for crisis-related losses. The GFC also strengthened support for the popular view that ruling elites protect their interests during such crises, while losses are borne by the "common people" (Rodrik, 2021).

For example, Funke et al. (2016) relied on data from 1870 to 2014 to investigate the political consequences of economic crises. The authors found that economic crises typically lead to stronger political support for extreme right-wing parties. The effects of economic crises on right-wing populism were more significant empirically in Central and Eastern European (CEE) countries during the post-2008–2009 GFC than in other countries, especially Western European ones.

Various scholars have studied the effects of macroeconomic shocks on voting behavior.³ However, economic downturns often are identified by entering simple dummy variables (pre-crisis versus post-crisis analysis) or regression-based event studies. For example, Golder (2016) argues that voters will turn against elites and limit the rights and benefits of immigrants and minorities "due to the economic slowdown and rising household debts." Our paper distinguishes economic uncertainty from the economic scarcity, grievances, and crises discussed by Golder (2016). We also control for several factors associated with the latter (economic growth, transfer payments, and unemployment); our measure of economic uncertainty remains the driver of populist voting.

Another contribution of our study is that we consider a new uncertainty index, the WUI, which measures economic uncertainty across countries over time rather than confining it to a single event. To the best of our knowledge, our paper is the first in the literature to examine the impact of economic uncertainty on populist voting behavior across the EU. In doing so, we rely on multiple econometric estimation techniques, namely, fixed-effects, bias-corrected least squares dummy variable (LSDVC) estimator and instrumental variable (IV) estimations, to address potential endogeneity and reverse causality issues. We also enter various controls to address omitted variable bias. Finally, we run various robustness checks, e.g., excluding outliers. All of our analyses show that economic uncertainty increases populist voting behavior in EU countries.

The rest of this paper is organized as follows. Section 2 reviews the theoretical approaches and previous contributions to studying the effects of economic uncertainty on voting behavior. Section 3 explains the estimation procedures, empirical models, and data. Section 4 reports the empirical findings. Section 5 discusses the results of the robustness checks as well as some anecdotal evidence. Section 6 concludes the paper.

³ Other contributions to the literature have studied the impact of economic shocks on individual-level voting behavior (e.g., Ahlquist, Copelovitch and Walter 2020). However, most of those analyses have explored the impact of economic uncertainty shocks on political attitudes, without investigating actual voting behavior. For more discussion, see Margalit (2019b).

2 Literature review: economic uncertainty shocks and voting behavior

Four main theoretical approaches have been taken to explain voting behavior in terms of significant economic uncertainty shocks. First, the traditional approach, also known as the “economic insecurity hypothesis,” holds that voters will vote for leftist parties in times of economic uncertainty, since they demand more income redistribution and more social expenditures (Hibbs, 1977). The second approach holds that voters who have experienced a significant economic uncertainty shock are less interested in politics and prefer to abstain (Schlozman & Verba, 1979). The third approach holds that voters who have experienced a significant economic shock are pragmatic and will vote against the ruling party, regardless of their political opinions (Anderson, 2007).

The final theoretical conjecture aligns with our research question. We expect that in times of economic downturn, electorates will be eager to vote for populist candidates and political parties (Golder, 2016). That conjecture implies that electorates will vote for right-wing populist parties because the rhetoric of those parties is anti-establishment. As a result, voters will punish corrupt elites. Similarly, voters will demand reductions in the rights and financial resources of immigrants and minorities. In addition, in contrast to the economic insecurity hypothesis, economic crises will cause populist movements to be promoted over leftist movements. Such an outcome is anticipated because voters want to punish the establishment when the economy slows and household debt rises. They also tend to blame globalization and immigrants as unemployment rates rise. Therefore, voters will vote for populist movements or populist leaders who support anti-globalization and nationalism, particularly in times of economic distress (Norris & Inglehart, 2019). Moreover, economic uncertainty may be the driving factor behind the rise of populism in Europe, which emphasizes anti-immigrant sentiments and is triggered by individual economic concerns (Daigle et al., 2018).

Several empirical studies are available to justify our approach to populist voting, namely, work examining the impact of economic uncertainty shocks on political attitudes and policy views. In general, most previous empirical studies have found significant effects of adverse economic conditions on the vote shares of leftist parties associated with the demand for more generous social protection (Margalit, 2019a, 2019b). Such findings support the validity of the economic insecurity hypothesis.⁴

In general, economic downturns lead to more household debt, unemployment, and income stagnation; hence, economic downturns lead to voting for populist movements over leftist movements. For example, relying on the European Social Survey dataset, Guiso et al. (2019) find that higher unemployment rates were associated with populist support in EU countries from 2002 to 2014. The same conclusion is reached by Algan et al. (2017). Finally, in line with the findings of Algan et al. (2017), Lechler (2019) reports more Euro-scepticism and populist politician support among unemployed and low-skilled EU workers (the so-called losers of globalization).

Furthermore, Guriev (2018) identifies economic variables as important determinants of populist support. Specifically, the author finds that a rise in unemployment during the 2008–2009 GFC, inequality of opportunity, and skill-biased trade shocks were among the main drivers of populist party support. Relying on data from parliamentary elections in

⁴ Note that more economic uncertainty tends to reduce the rates of participation in elections (Guiso et al., 2019). However, evidence on the impact of economic uncertainty shocks on turnout remains scarce.

nearly 8000 Italian municipalities between 1992 and 2013, Barone and Kreuter (2021) observe that trade globalization shocks strengthen electoral support for populist parties. Pastor and Veronesi (2021) also find that countries become more populist following increases in income inequality, financial innovations, and trade deficits. Furthermore, more risk-averse and inequality-averse voters are more likely to be populist. Bergh and Kärnä (2021) also consider data on right-wing and left-wing populist parties in 33 European countries from 1980 to 2017 to conclude that no significant relationship exists between the globalization indices introduced by Gygli et al. (2019) and populist vote shares.

To some extent, our research task is based on testing the economic insecurity hypothesis. Specifically, we explore the validity of the various hypotheses, e.g., whether more economic uncertainty (as measured by the WUI) leads to more populist support in EU countries.

Notably, several other theoretical approaches and empirical studies examine the link between economic uncertainty and the rise in populism.⁵ For instance, the evolutionary psychology literature shows that humans tend to organize around a dominant leader, especially in situations of environmental uncertainty or threat. In line with that view, Kakkar and Sivanathan (2017) report robust evidence from a global dataset consisting of 140,596 participants from 69 countries. The authors report that economic uncertainty (as measured by unemployment, housing vacancies, and poverty rates) affects individuals' psychological feelings of a "lack of personal control," which leads to stronger preferences for dominant leaders. Hogg (2021) relies on "uncertainty-identity theory" to examine the role of induced self-uncertainty in supporting populist and autocratic leaders. Greater self-uncertainty leads to demands for strong leadership, especially autocratic and populist leaders. Thus, in line with uncertainty-identity theory, economic uncertainty increases self-uncertainty and leads to stronger support for autocratic and populist politicians. However, relying on survey data from the Belgian Dutch-speaking population, Elchardus and Spruyt (2016) observe that populist voting is an outcome of feelings of anomie, i.e., belonging to a group of individuals who are treated unfairly by society, rather than economic uncertainty.

3 Data, models, and methodology

3.1 Empirical models and econometric methodology

Equation (1) is estimated to investigate the impact of economic uncertainty shocks on the share of populist votes:

$$PopulismVote_{i,t} = \gamma_0 + \gamma_1 PopulismVote_{i,t-1} + \gamma_2 Uncertainty_{i,t} + \gamma_3 X_{i,t-1} + \vartheta_t + \vartheta_i + \varepsilon_{i,t} \quad (1)$$

$$PopulismVote_{i,t} = \gamma_0 + \gamma_1 PopulismVote_{i,t-1} + \gamma_2 Uncertainty_{i,t-1} + \gamma_3 X_{i,t-1} + \vartheta_t + \vartheta_i + \varepsilon_{i,t}, \quad (2)$$

where $PopulismVote_{i,t}$ and $PopulismVote_{i,t-1}$ are the current and lagged measures of populist voting (as measured by the vote shares of all populist parties, right-wing populists,

⁵ It is worth recalling Frank Knight's distinction between risk (measurable in principle) and uncertainty (not reducible to explicit probabilities). The WUI captures uncertainty but not risk, because it is a country analyst's subjective assessment of economic conditions rather than a quantifiable measure of the distribution of income outcomes.

and left-wing populists) in country i at times t and $t - I$, respectively. The lagged dependent variable captures the persistence effect; that is, voters who voted for populist parties and politicians previously tend to support populist parties and politicians in the next election. $Uncertainty_{i,t}$ and $Uncertainty_{i,t-1}$ represent the WUI in country i at times t and $t - I$, respectively. $X_{i,t-1}$ denotes the "vector of controls" in lagged form.⁶ Furthermore, ϑ_t , ϑ_i , and $\varepsilon_{i,t}$ represent time fixed effects, country fixed effects, and the error term, respectively.

The baseline regression in Eq. (1) is estimated by the fixed-effects method, which is a well-known estimation procedure. However, since the time dimension $T=41$ exceeds the cross-sectional dimension $N=24$, measurement bias may arise in the dynamic fixed-effects model, as Nickell (1981) predicted. Therefore, we also consider the LSDVC and IV estimation techniques. Similar to the dynamic panel-data estimation technique, the LSDVC method attempts to solve the potential problem of autocorrelation and the existence of different orders of integration. The main difference between Arellano–Bond or Blundell–Bond dynamic panel-data estimation and LSDVC estimation is that the latter specification should be adopted when the number of cross-sectional units is small (typically less than 25 individuals) (Bruno, 2005a). The same issue arises in our study, which explains why we rely on the LSDVC method instead of traditional dynamic panel-data estimation.

In LSDVC estimation, correlated variables are automatically dropped to reduce possible multicollinearity problems (Bruno, 2005a). Based on Bruno's (2005b) technique, the Blundell–Bond estimator is initialized with LSDVC estimation. Furthermore, LSDVC estimation is widely used in the existing empirical literature (e.g., Potrafke, 2009, 2010). To satisfy the assumptions of LSDVC estimation, we should check for the presence of first-order autocorrelation but not second-order autocorrelation. The validity of a possible overidentification problem can be assessed by the Sargan test. If we cannot reject the null hypothesis, then the evidence suggests no overidentification in the model. Additionally, time fixed effects and country fixed effects are entered into our LSDVC estimations to control for possible unobserved heterogeneities affecting populist voting behavior.

Finally, we rely on the lagged WUI as an explanatory variable to address its endogeneity. Nevertheless, complete elimination of endogeneity bias is impossible because many factors correlate with the WUI and populist voting, potentially confounding the estimated effects. Therefore, we estimate an IV two-stage least squares (2SLS) model with the lagged WUI. Following Dutt et al. (2009), we instrument the number of years that each country has been a signatory of the General Agreement on Tariffs and Trade (GATT) or a member of the World Trade Organization (WTO), which are correlated with the WUI and uncorrelated with populist voting. Indeed, finding a suitable instrument is always very difficult and is not an issue that can be tested directly. We conjecture that WTO members experience economic uncertainty induced by trade policy uncertainty, which does not affect populist voting directly, at least in EU countries. Similarly, time fixed effects and country fixed effects are considered instruments.⁷ To evaluate the validity of the potential misidentification problem, we run the under-identification test (Anderson LM test statistic) and the

⁶ Following the previous literature (e.g., Klomp and de Haan 2013; Martins and Veiga 2013; Veiga and Veiga 2007, 2013), we entered lagged independent variables. However, some studies (e.g., Klomp and de Haan 2013) also account for an election month. For instance, if the month of an election occurs in the first semester (between January and June), then the observations entered are those for year $t - 1$. If the month of an election occurs in the second semester (between July and December), then the data used are those for year t . Our main findings are robust to the consideration of those different model specifications.

⁷ Hence, we follow the fixed-effects IV estimation procedure. See the *ivreg210* Stata package for details.

weak identification test (Cragg–Donald Wald F test statistic). Rejection of the null hypothesis implies the correct identification of the model (Stock & Yogo, 2005).

3.2 Data

3.2.1 Dependent Variables: Populism Measures

The dataset covers the period 1980–2020⁸; the beginning date and the number of EU countries observed are determined by the availability of populist voting data. The observations are annual, and the dataset covers 24 EU countries.⁹ Three measures of the populist vote (shares of all populist parties in the total vote, right-wing populist vote shares, and left-wing populist vote shares) in (national) parliamentary elections are computed, with relevant data obtained from Timbro (2020). In the robustness checks, following Bergh and Kärnä (2021), we also rely on the populist vote shares in parliamentary elections reported in PopuList 2.0 (January 2020 version), which is a component of the Parliament and Government Composition Database (ParlGov) project. These data sources were introduced by *The Guardian* newspaper and Döring and Manow (2020).¹⁰

Timbro is a Swedish libertarian think tank that is involved in Sweden's policy discussions. Although Timbro is not an academic research institute, its populist database is suitable for empirical examination because it recognizes that the platforms of political parties change over time. Various empirical studies also have relied on Timbro's dataset (e.g., Bergh & Kärnä, 2021; Gidron & Hall, 2020). According to Timbro, populist movements mainly portray themselves as "*the true representatives of the people standing up to the elite.*" Furthermore, populist parties demand a stronger (national) state, and they oppose globalization and free trade. Timbro's definitions of populism align with those of Rodrik (2018a, 2021) and Pastor and Veronesi (2021). Finally, Timbro notes populist parties' lack of interest in the constitutional rule of law.

⁸ The WUI data capture the average of 2020Q1 and 2020Q2. For the other years, it is the average of all quarters.

⁹ The countries include Austria (1980–2020), Belgium (1980–2020), Bulgaria (1990–2020), Croatia (2001–2020), the Czech Republic (1993–2020), Denmark (1980–2020), Finland (1980–2020), France (1980–2020), Germany (1980–2020), Greece (1980–2020), Hungary (1990–2020), Ireland (1980–2020), Italy (1980–2020), Latvia (1993–2020), Lithuania (1993–2020), the Netherlands (1980–2020), Poland (1991–2020), Portugal (1980–2020), Romania (1990–2020), the Slovak Republic (1993–2020), Slovenia (1993–2020), Spain (1980–2020), Sweden (1980–2020), and the United Kingdom (1980–2020). Unfortunately, no populist votes or WUIs are reported for Cyprus, Estonia, Luxembourg, or Malta; therefore, we exclude them from the empirical analysis.

¹⁰ For instance, Timbro (2020) codes *Freiheitliche Partei Österreichs* (FPÖ), *Bündnis Zukunft Österreich* (BZÖ), and *Free Party Salzburg* (FPS) as right-wing populism and *G!LT* as left-wing populism. However, Populist 2.0 does not identify any left-wing populist party in Austria but includes another right-wing populist party (*Team Stronach*) and a personalized populist party (*Liste Dr. Hans-Peter Martin*). In Belgium, Timbro (2020) identifies *Vlaams Belang* (VB) and *Front Nationale* (FN) as right-wing populist. However, Populist 2.0 categorizes the *People's Party* (Pp) and *List Dedecker* (LDD) as populist. For other countries, see the user guides of these datasets.

Timbro advocates low taxes and minimal government. Perhaps because of its policy agenda, left-wing parties often are classified as populists in Timbro's database.¹¹ For example, the French Communist Party, the Swedish Left Party, and the Socialist Labor Party in the United Kingdom are classified as populist movements.¹² Those three parties generally differ considerably from each other. Left-wing populism is a phenomenon that exists primarily in Latin America (see, for example, Acemoglu et al., 2013; Dornbusch & Edwards, 1990, 1991). The European left-wing parties mentioned above could be "bad examples" of populism, since populism is not a set of policy proposals per se but, rather, a political style. Some European left-wing parties oppose elites in several ways (e.g., banks and other financial institutions), but that opposition does not automatically make them populist. Overall, the left-wing populist vote share may depend on how populism is defined.¹³ For that reason, we consulted two different datasets. Most importantly, the PopuList 2.0 dataset was not available until 2015. Therefore, we lose 120 observations in our estimations. Nevertheless, the results are quite similar, as shown in the robustness checks section.

3.2.2 The main variable of interest: economic uncertainty

Several alternative measures of economic uncertainty are available. Some of them either are impossible for our paper to construct (e.g., Jurado Ludvigson & Ng, 2015) or require Google searches in native languages (Bilgin et al., 2019; Dzielinski, 2012). Stock market volatility (Bloom, 2009) is a possible candidate that is more accessible; however, it reflects financial uncertainty rather than macroeconomic uncertainty. The main variable of interest is the WUI, as introduced by Ahir, Bloom and Furceri (2018). Following Baker et al. (2016), Ahir, Bloom and Furceri (2018) proposed the WUI, which starts in the 1950s, by considering the frequency of the term "uncertainty" (and its variants) in the country reports of the Economist Intelligence Unit (EIU). The EIU's country reports, which are based on domestic analysts' opinions and the editorial board of *The Economist*, cover major economic and political issues in 143 countries, including analyses and forecasts of political and economic indicators. WUIs are comparable across countries since the raw counts are adjusted (Ahir Bloom & Furceri, 2018).

As Gozgor et al. (2021) have shown, the WUI has a strong cyclical component and relies on economic activity forecasting (e.g., unemployment and economic growth).¹⁴ Furthermore, economic uncertainty is related to expectations and how such difficulties cause firms to postpone investment and hiring decisions and households to postpone

¹¹ Comparable data from 1980 to 2015 confirm the argument. The average total populist vote is 13.62% in the Timbro dataset; however, it is 8.9% in the PopuList 2.0 dataset. The difference arises mainly from the left-wing populist vote, whose average is 6.1% in Timbro (2020) and 1.95% in the PopuList 2.0 dataset (see Online Appendix Tables 1 and 2). The correlation between right-wing populist voting measures is 0.88, but the correlation between left-wing populist voting measures is 0.34. The correlation between total populist voting measures is 0.67.

¹² From 1981 to 2007, the French Communist Party could not be labeled a populist party. However, from 2009 to 2020, it approached the Front de Gauche (the Left Front). The Front de Gauche is a populist party; therefore, the French Communist party has been populist since 2009.

¹³ A recent issue of *The Independent Review* contains a symposium on populism, emphasizing its many and varied definitions (Colantone and Stanig 2019; Edwards 2019; Guriev and Treisman 2019; Margalit 2019b).

¹⁴ Consistent with Ahir, Bloom and Furceri (2018), we observe statistically significant correlations of variations in growth rates and unemployment rates with the WUI in our EU sample. Thus, the WUI is associated with changes in the economic environment across the business cycle.

consumption. The WUI is correlated with economic downturns (business cycles); more importantly, however, it similarly may capture expectations about future policy responses (political cycles). Therefore, greater economic uncertainty can make voters "turn against elites" or "blame globalization and immigrants," thus provoking support for populist movements. As discussed in Sect. 2, psychology may explain why more economic uncertainty triggers populist voting.

The novelty of the WUI is that it is the first method of measuring uncertainty across advanced and developing economies (Ahir, Bloom & Furceri, 2018). Its cross-sectional feature makes the WUI a perfect candidate for examining the impact of economic uncertainty on populist voting behavior in EU countries.

We also enter various control variables in the estimations. To save space, we supply details in the online supplementary material.

4 Empirical findings

4.1 Baseline findings on the total populist vote

Table 1 reports the results of the fixed-effects estimations of Eq. (1), which investigates the effect of the WUI on the share of total populist votes as the dependent variable.

The results from different models are reported in columns (1)–(9). In column (1), we consider the WUI as the only explanatory variable. In column (2), together with the WUI, we enter the lagged share of total populist party votes to capture the persistence effects of voting behavior. In column (3), we consider economic growth to control for macroeconomic performance. In column (4), we enter the age dependency ratio to capture the impact of demographics on populist voting behavior. Column (5) adds the urban population, since populist politicians receive more support in large cities. In column (6), we include government size to control for governmental power in the market economy and its impact on voting behavior. In column (7), we consider the executive constraints concept (EXCONST) index, which is a baseline measure of institutional quality because democratic and inclusive institutions supply checks and balances to mitigate populist support. Column (8) includes the unemployment rate to distinguish its effects from those of the WUI. Finally, column (9) includes all of the foregoing control variables.

All estimations indicate that higher WUI values lead to larger shares of total populist party votes, with the coefficients on the WUI being statistically significant at the 5% level, at a minimum. The regression results reveal that a one-point increase in the WUI leads to a 2.8-percentage-point increase, on average, in the share of total populist votes. In short, economic uncertainty is positively associated with populist support.

Among the control variables, the age dependency ratio, government size (statistically significant at the 10% level), urbanization (statistically significant at the 1% level), and unemployment (statistically significant at the 10% level) are positively associated with populist party support. In addition, as expected, economic growth and the EXCONST index are negatively associated with total populist votes. Finally, the coefficients on the lagged share of total populist votes indicate a very high level of persistence in populist party support. The average of the coefficients is approximately 0.91. All coefficients on the lagged dependent variable are statistically significant.

Table 1 Fixed-effects estimations: World uncertainty index and the share of total populist votes (1980–2020)

Regressors	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
World uncertainty index	19.43*** (2.398)	2.749*** (1.021)	2.775*** (1.039)	2.613*** (1.004)	1.891** (0.923)	3.563*** (1.267)	3.190*** (1.118)	2.972*** (1.026)	2.615*** (1.320)
Lagged dependent variable	–	0.918*** (0.014)	0.913*** (0.015)	0.914*** (0.014)	0.908*** (0.015)	0.918*** (0.015)	0.916*** (0.015)	0.916*** (0.014)	0.892*** (0.016)
Lagged economic growth	–	–	–7.006 (4.565)	–	–	–	–	–	–4.575 (4.648)
Lagged age dependency ratio	–	–	–	0.057 (0.038)	–	–	–	–	0.091* (0.046)
Lagged urban population	–	–	–	–	0.128*** (0.047)	–	–	–	0.126** (0.052)
Lagged government size	–	–	–	–	–	0.301* (0.160)	–	–	0.516** (0.182)
Lagged EXCONST	–	–	–	–	–	–	–0.128 (0.514)	–	–0.057 (0.583)
Lagged unemployment rate	–	–	–	–	–	–	–	0.080* (0.041)	0.103** (0.048)
Constant	11.95*** (0.505)	1.143*** (0.271)	1.389*** (0.298)	–1.638 (1.883)	–7.641** (3.234)	–0.536 (0.839)	0.231 (3.560)	0.405 (0.467)	–15.89*** (6.025)
Observations	857	833	833	833	833	785	809	833	761
Number of countries	24	24	24	24	24	24	24	24	24
R ² (within)	0.073	0.844	0.840	0.845	0.846	0.835	0.835	0.845	0.832

The dependent variable is the share of total populist votes. Standard errors are in parentheses

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$

4.2 Right-wing populism versus left-wing populism

Online Appendix Table 3 reports the findings from the fixed-effects estimations of Eq. (1), which examines the impact of the WUI on the share of right-wing populist votes as the dependent variable.

Similar to the baseline models in Table 1, various models are reported in columns (1)–(9). They all indicate that an increase in the WUI leads to a larger share of right-wing populist votes. In line with the results above, the coefficients on the WUI are statistically significant at the 5% level, at a minimum. The regression results suggest that a one-point increase in the WUI leads to a 1.96-percentage-point increase, on average, in the share of right-wing populist votes.

In Online Appendix Table 4, we report the findings of the fixed-effects estimations of Eq. (1), which shows the effects of the WUI on the share of left-wing populist votes as the dependent variable.

The findings of the various models are similar to those of the previous models and are reported in columns (1)–(9). All of these results demonstrate that the WUI is positively associated with the share of left-wing populist votes. When we enter the controls, only the WUI coefficients in columns (6) and (8) are statistically significant. The regression results in which the WUI coefficients are statistically significant indicate that a one-point increase in the WUI yields a 1.34-percentage-point increase, on average, in the share of left-wing populist votes.

Comparing support for left-wing and right-wing populist parties, we observe that the WUI has a larger impact on right-wing votes (a 1.96-percentage-point increase on average) than on left-wing populist votes (a 1.34-percentage-point increase on average). Government size is the only control that affects right-wing populist support, implying that less government spending leads to more support for right-wing populism. Regarding left-wing populism, the age dependency ratio, urbanization, and unemployment promote left-wing populist votes. The evidence shows that left-wing populist parties receive more support among elderly voters and residents of large cities. Economic growth and institutional quality reduce both types of populism, but their effects are statistically nonsignificant.

In summary, economic uncertainty is positively associated with populist support. Moreover, the evidence is robust to considering support for right-wing and left-wing populist parties, although the relationship is stronger for right-wing populism.

5 Robustness checks

5.1 IV estimations

By running IV estimations, we seek to address potential endogeneity bias. We enter an instrument based on the number of years of membership in the GATT or the WTO. The Anderson LM test statistic and the Cragg–Donald Wald F test statistic suggest that the choice of instruments is justified.

Online Appendix Table 5 provides the results of the IV estimations for the lagged WUI in Eq. (2), where the three measures of populist support are the dependent variables. In columns (1), (2), and (3), we report the shares of total, right-wing, and left-wing populist votes, respectively. The estimated coefficient of the effect of the WUI on the populist vote

share changes only slightly (from 0.88 to 0.90) and remains statistically significant. The IV estimations show that lagged economic uncertainty leads to larger populist vote shares for all three measures. The statistical significance of the WUI coefficients is even larger than that of the fixed-effects estimations, since all lagged WUI coefficients are significant at the 1% level.

5.2 LSDVC estimations

LSDVC estimation addresses potential endogeneity bias and reverse causality; i.e., more support for populist movements can create economic uncertainty (e.g., populist politicians can change income taxes, corporate taxes, tariffs, and public spending in dramatic ways).

As discussed in Sect. 3, LSDVC estimation based on the main controls can solve the endogeneity problem, provided that the requirements of certain diagnostics are satisfied. The results of the Sargan test indicate that the identification condition of the model is satisfied. Furthermore, the Arellano–Bond autocorrelation tests demonstrate that the first-order autocorrelation is statistically significant and second-order autocorrelation is not. In brief, the diagnostic requirements are satisfied under the LSDVC estimations.

Online Appendix Table 6 reports the results of the LSDVC estimations for the WUI in Eq. (1) when the three measures of populist support are the dependent variables. In columns (1), (2), and (3), we report the share of the total, right-wing, and left-wing populist votes, respectively. The results of the LSDVC estimations are in line with the fixed-effects estimates; i.e., greater economic uncertainty leads to larger populist vote shares for all three measures. Moreover, all WUI coefficients are significant at the 10% level, at a minimum. Economic uncertainty promotes populist support, even after considering possible issues related to reverse causality and endogeneity bias.

5.3 Sensitivity analysis

In Online Appendix Tables 7 and 8, we enter new control variables. Again, we treat the shares of total, right-wing, and left-wing populist votes as dependent variables. Therefore, we aim to address a possible omitted variable problem by including various additional controls.

First, we consider the previous benchmark controls in the fixed-effects estimations: economic growth, the age dependency ratio, and urban population. We also include indices of government size and the EXCONST index. In addition, the control variables are introduced simultaneously. The results are robust to the inclusion of the benchmark controls.

Regarding additional new controls, first, we focus on economic freedom to capture the impact of institutional quality on populist support. Second, following Kriesi (1999), we enter the human capital index because populist voting behavior could be associated with a lack of education. Third, we add measures of globalization (as measured by indices of economic globalization and overall globalization) because, according to prior literature, globalization is the leading determinant of populist support (owing to middle-class welfare losses). Fourth, we enter subsidies and transfers, since governments can increase public spending and wealth transfers during periods of greater economic uncertainty. Such policies may affect support for populist parties. Fifth, we include the foreign population and asylum applications to capture the impact of immigration on populist voting behavior. Finally, we control for market income inequality and redistribution indices, as previous

studies have observed that populist support is associated with economic inequality and a lack of redistributive policies.

In each case, the findings confirm the baseline results. Economic uncertainty continues to have statistically significant and positive effects on all measures of populist support despite the inclusion of additional controls.¹⁵

Additionally, Online Appendix Table 9 reports the findings of a sensitivity analysis that excludes outliers. Outliers are dropped from the WUI and the three measures of the share of populist votes. Following Fang et al. (2021) and Jha and Gozgor (2019), we define an outlier as an observation that is "two standard deviations away" from the mean. The baseline findings are also robust to the exclusion of outliers.

Finally, we substitute the share of populist votes in PopuList 2.0 (January 2020 version), which is part of the ParlGov project, for Timbro's (2020) data. The results do not change materially when we rely on other measures of populism; the evidence thus is consistent with Bergh and Kärnä (2021).

In brief, the sensitivity analysis results reinforce the baseline results, supporting the hypothesis that economic uncertainty promotes populist attitudes in EU countries.

5.4 Discussion and implications

In this section, to provide specific examples of what the data capture, we discuss some anecdotal evidence in which countries and economic uncertainty are positively correlated with the share of votes for populist parties.

Following the 2008–2009 GFC, Hungary experienced a severe financial and fiscal crisis, which led to a significant increase in economic uncertainty. At the time, Fidesz – Magyar Polgári Szövetség (an authoritarian right-wing party focused on national conservatism) returned to power in the 2010 parliamentary elections with 52.7% of the votes. In addition, Jobbik Magyarországért Mozgalom (an extreme right-wing nationalist and populist party) gained 16.7% of the votes in the same parliamentary elections.

Similarly, following the Russian-Ukrainian conflict in 2014, Poland experienced a significant rise in economic uncertainty. PiS-Prawo i Sprawiedliwość (an authoritarian right-wing populist party focusing on national conservatism) came to power with 37.6% of the votes in the 2015 parliamentary elections. Moreover, Kukiz 15 (an authoritarian right-wing populist party focusing on Polish nationalism) obtained 8.8% of the votes in the same parliamentary elections.

Another compelling piece of anecdotal evidence is the case of Greece. The recession in the fourth quarter of 2014 and the government's veto of the EU's bailout terms in December 2014 resulted in a Greek liquidity crisis. As a result, economic uncertainty in Greece rose significantly in 2015. In the snap parliamentary elections of 2015, Syriza – Synaspismos Rizospastikis Aristeras (an authoritarian left-wing populist party focusing on anti-globalism) emerged victorious with 36.3% of the votes. Overall, the three anecdotal examples indicate a positive correlation between economic uncertainty and the vote share of populist movements.

Our finding that economic uncertainty increases populist support is consistent with the results of other recent contributions to the literature. Guriev (2018) observes that

¹⁵ We also enter dummy variables identifying parliamentary systems, presidential systems, and election timing. The results are robust to the inclusion of those indicators.

economic indicators (unemployment, inequality, and trade shocks) are important determinants of populist support. Funke et al. (2016) find that economic crises lead to more political support for extreme right-wing parties. Algan et al. (2017) observe a significant effect of higher unemployment rates on voting for populist politicians in the EU. Guiso et al. (2019) and Lechler (2019) find that being unemployed boosts populist support in the EU. Finally, Pastor and Veronesi (2021) show that greater income inequality, financial development (stock market capitalization to gross domestic product), and trade deficits increase populist support.

6 Conclusion

This paper examines the effects of economic uncertainty shocks on populist voting behavior in a panel dataset of 24 EU countries. Using data from 1980 to 2020, we examine the drivers of the shares of total, right-wing, and left-wing populist votes. We rely on a new indicator of economic uncertainty, the World Uncertainty Index (WUI), to measure economic uncertainty shocks. Utilizing fixed-effects, LSDVC, and IV estimations, we find that higher WUIs are positively associated with increases in all indicators of populist voting behavior. To check the robustness of our findings, we examine potential endogeneity issues, reverse causality, and omitted variable bias, and we exclude outliers. Our main results remain consistent under those robustness analyses.

The findings of our paper demonstrate that economic uncertainty boosts support for populist parties. Populist politicians also emphasize greater economic uncertainty, especially in the wake of the 2008–2009 Global Financial Crisis (GFC).

Other economic factors beyond uncertainty alone help to explain the trends in populist politics. As exemplified by the case of France's National Front (FN), many right-wing populist parties underwent a programmatic shift during the 1980–2020 period, i.e., from traditional right-wing positions of limited state intervention to positions favoring the expansion of welfare benefits. That shift occurred in response to changes in the social base of right-wing populist parties, with increasing numbers of working-class and low-skilled workers in precarious jobs. Therefore, following the spirit of Barone and Kreuter (2021) and Bergh and Kärnä (2021), future studies should investigate the effects of several economic factors, including economic uncertainty, on populist support by considering more carefully the roles of globalization and technological change in influencing the dynamics of the working class and the welfare of low-skilled workers in precarious jobs.

It is essential to note that populist policies are not limited to populist parties, because mainstream parties also can implement populist policies. While our paper does not focus on that issue, future studies should examine the political characteristics of events rather than the classification of political parties. As another possible research agenda, future studies should focus on the effects of trade policy uncertainty and COVID-19-related shocks on populist voting behavior. Additionally, little evidence has been reported in the empirical literature on the impact of economic uncertainty shocks on voter turnout rates. Finally, future papers could implement machine-learning techniques to determine whether indicators of economic uncertainty predict populist vote shares.

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