The Role of Economic Uncertainty in Rising Populism in the EU

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Abstract

This paper examines the impact of economic uncertainty shocks on the populist voting behavior in the panel dataset of 24 European Union (EU) countries for the period from 1980 to 2020. In so doing, we focus on the shares of total populism, right-wing populism, and left-wing populism votes as well as a new indicator of economic uncertainty, so-called, the "World Uncertainty Index (WUI)." Using the fixed-effects, bias-corrected least-squares dummy variable (LSDVC), and Instrumental Variables (IV) estimations, we show that a higher level of the WUI is positively related to total populism and right-wing populist voting behavior. The baseline results remain consistent when we deal with potential issues of endogeneity, to address omitted variable bias, and to exclude the outliers.

JEL-Codes: D720, D810, C330.

Keywords: populist attitudes in the European Union, voting behaviour, right-wing populism, left-wing populism, uncertainty shocks, economic policy uncertainty.

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1. Introduction

Populism has been rising in the United Kingdom (UK) and the United States (U.S.), mainly due to the Brexit process since June 2016 and the Presidency Era of Donald Trump since November 2016, respectively. However, rising populism has not only occurred in the Anglo-Saxon countries, and the European Union (EU) countries have also witnessed extraordinary events to promote populist support. For instance, Matteo Renzi (Prime Minister of Italy) defeated in the referendum for amendment of some articles of the Italian Constitution in December 2016. Besides, the League, Italy's far-right populist party led by Matteo Salvini, grabbed a clear victory in the European Parliament Elections in May 2019 by getting more than 34% of Italy's vote. Although Norbert Hofer's nationalist/populist Austrian Freedom Party (FPOe) defeated in the second round of the Presidential Election in Austria, the FPOe has become a significant actor in the Austrian politics since its share vote of 46.7% was the best national vote ever. In France, despite the far-right National Rally party of Marine Le Pen was defeated by Emmanuel Macron for the Presidential Election in May 2017, it firmly beat the President Emmanuel Macron's party coalition in the European Parliament Elections in May 2019. The anti-immigration Sweden Democrats (SD) also made significant gains in the 2018 General Election, gaining approximately 18% of the Swedish vote. In Hungary, the nationalist Fidesz party of Prime Minister Vik Ptor Orbán took nearly 53% of the vote in the European Parliament Elections in May 2019. Political populism has not only risen in right-wing but also experienced left-wing populism, such as the Syriza Party in Greece.

These developments and events show that the populist attitudes in the EU have risen across the entire political spectrum. In the light of these developments, in this paper, we aim to understand the determinants of the populist voting behavior in the EU countries, which is measured by the shares of total populism, right-wing populism, and left-wing populism votes. Our panel dataset covers 24 EU countries for the period from 1980 to 2020. As a potential determinant, a particular interest is given to economic uncertainty, which is measured by a new index, so-called, the "World Uncertainty Index (WUI)."

Economic interests are assumed to be the leading driver of political preferences (Alesina and La Ferrara, 2005). Therefore, there are various empirical papers to analyze how economic conditions affect political views and voting behavior. During the last decade, probably due to the consequences of the Global Financial Crisis (GFC) of 2008–9, there is a growing number of empirical papers to use different types of economic uncertainty shocks (e.g., being unemployed or a significant decline in revenues) to analyze their effects on voting behavior. In traditional political economy theory, voters, who are negatively affected by the economic crisis, should request greater social protection and a significant rise in redistribution (Rodrik, 2018). However, the events, we have discussed previously, have demonstrated that there is a considerable

rise in support of populist parties, and this issue has increased motivation to investigate the role of economic uncertainty shocks in voting populist parties (Mudde and Rovira Kaltwasser, 2017).

The previous papers have indicated that major macroeconomic events, financial crises (e.g., the Great Depression in the early 1930s and the GFC of 2008–9), and globalization shocks have significantly affected the political views of the parties and the voting behavior (Bartels, 2014; Kriesi et al., 2008). Theoretically, economic downturns significantly promote populist voting.[1] The GFC of 2008–9 and the European Debt Crisis (EDC) of 2010–11 cause to job losses, significant drops in the pensions, subsidies, and transfer payments (Eichengreen, 2018). Economic downturns also cause controversy on the ruling elites since voters are starting to think that the elites that cause the crisis do not pay the price. Populist politicians voice that managers in the financial sector and firm owners have benefited from operating profits during the era of pre-GFC of 2008–9. Still, the losses in the crisis were burdened by taxpayers. The financial crisis has also increased the support in view that the ruling elites protect their interest during the crisis, and the losses were attributed to "common people." Empirically, for example, Funke et al. (2016) use the data for the period from 1870 to 2014 to investigate the political outcomes of economic crises. The authors find that economic crises usually cause higher political support for extreme right-wing parties. Besides, the effects of economic crises on the support of right-wing populism are significantly higher in the Central and Eastern European (CEE) countries during the post-GFC of 2008–9, where the impact of the crisis is more severe than the rest of Europe.

There are various papers to investigate the effects of macroeconomic shocks on voting behavior.[2] However, economic downturns have generally been measured by the times of GFC of 2008–9 and EDC of 2010–11 as dummy variables (pre-crisis vs. post-crisis), or the regression-based event studies have modeled economic crisis. The novelty of our research is to consider a new index of uncertainty (the WUI), which measures the economic uncertainty over time rather than a single event. To the best of our knowledge, this is the first paper in the literature that examines the impact of economic uncertainty, which is measured by a new index-the WUI, on the populist voting behavior in different political spheres across the EU countries. For this purpose, we use different econometric estimation techniques (fixed-effects, the LSDVC, and the IV

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[1] For the examples of theoretical models, refer to Acemoglu et al. (2013), Berliant and Konishi (2005), Binswanger and Prüfer (2012), Maskin and Tirole (2004), Prato and Wolton (2018), and Wintrobe (2018). Besides, following the model of Berliant and Konishi (2005), Kishishita (2018) also shows that higher uncertainty rather than risk is a leading driver of populist support.

[2] There are also papers to investigate the impact of economic shocks on voting behavior at the individual level (see, e.g., Ahlquist et al., 2020). However, most of the papers, which consider the data at the individual level, have provided the findings on the impact of economic uncertainty shocks on political attitudes without an investigation of the voting behavior. For details, refer to Margalit (2019).

estimations) to address potential issues of endogeneity. We also include various controls to address omitted variable bias, and finally, we utilize various robustness checks, e.g., to exclude outliers. The results of all these analyses show that economic uncertainty increases the populist voting behavior in the EU countries.

The rest of the paper is organized as follows. Section 2 reviews the theoretical approaches and previous papers to study the impact of economic uncertainty shocks on voting behavior. Section 3 explains the data with some anecdotal evidence, the estimation procedures, and the empirical models. Section 4 provides the empirical findings. Section 5 discusses the results of the robustness checks. Section 6 concludes.

2. Literature Review: Economic Uncertainty Shocks and Voting Behavior

There are four theoretical approaches to explain voting behavior in terms of experiencing significant economic uncertainty shocks. Firstly, the traditional approach, so-called the Economic Insecurity Hypothesis, demonstrates that voters will vote for leftist parties during times of economic uncertainty since they will demand a higher level of redistribution and more social expenditures (Hibbs, 1977). Secondly, voters, who have experienced a significant economic uncertainty shock, diminish interest in politics and prefer not to go to vote (Schlozman and Verba, 1979). Thirdly, voters, who have experienced a significant economic shock, will be pragmatic and will vote against the ruling party, regardless of their political opinion (Anderson, 2007).

The final theoretical aspect is in line with our research question, and it indicates that voters will significantly keen towards to vote for populist candidates and political parties during the times of economic uncertainty shocks (Golder, 2016). The primary motivation in this approach is that people want to vote against the establishment, to punish "corrupted elites," and to request decreasing the rights and financial sources of immigrants and minorities. Besides, different from the Economic Insecurity Hypothesis, economic crises will cause voting for populist movements rather than for leftist parties. This outcome will be due to the issue that voters want to punish the establishment because of the slowing down of the economy and rising household debts, and they will blame globalization and immigrants due to the higher levels of unemployment. Therefore, voters will tend to vote for populist movements or populist leaders, which favor anti-globalization and nationalism particularly during the periods of economic uncertainty shocks (Norris and Inglehar, 2019)

There are several empirical papers to test the validity of these theoretical approaches, and the papers have analyzed the impact of economic uncertainty shocks on the political attitudes and policy views. Most of the empirical studies have found the significant effects of adverse economic conditions on voting for leftist parties due to

the demand for higher social protection (Margalit, 2019). These findings refer to the validity of the Economic Insecurity Hypothesis.[3]

However, there are previous findings on the invalidity of the Economic Insecurity Hypothesis. Generally speaking, economic downturns lead to higher levels of household debts, unemployment, and stagnating incomes, and thus economic downturns cause voting for populist movements rather than for leftist parties. For instance, Guiso et al. (2019) use the European Social Survey dataset for the period from 2002 to 2014 and find that being unemployed (as a measure of economic insecurity) is related to the rise of populist support in the EU countries. Similarly, Algan et al. (2017) observe the significant impact of higher unemployment rates (as a measure of crisis-driven economic uncertainty) on promoting voting for populist politicians in the EU. In line with the findings of Algan et al. (2017), Lechler (2019) finds that unemployed and low-skilled workers (so-called the losers of globalization) have a higher level of the Euroscepticism and the support of populist politicians. Furthermore, Guriev (2018) indicates that economic variables are the significant determinants of populist support. Specifically, the author finds that a rise in unemployment during the GFC of 2008–9, opportunity inequality, and skill-biased trade shocks are among the main drivers of the populist support.

Our research task is somehow based on testing the validity of the Economic Insecurity Hypothesis. Accurately, we test the validity of the hypothesis whether a higher level of economic uncertainty (measured by the WUI) leads to a higher level of populist support in the EU countries.

3. Data, Models, and Methodology

3.1 Data
3.1.1 Dependent Variables and the Main Variable of Interest
The dataset covers the period from 1980 to 2020[4], and the begging date and number of the EU countries are due to the availability of populism votes data. The frequency of the data is annual, and the dataset includes 24 EU countries.[5]

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[3] Note that a higher level of economic uncertainty tends to reduce the participation rate in elections (Guiso et al., 2019). However, the evidence on the impact of economic uncertainty shocks on turnout is still scarce.

[4] The data for the WUI captures the average of 2020Q1 and 2020Q2. For other years, it is the average of all quarters.

[5] 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), Slovak Republic (1993–2020), Slovenia (1993–2020), Spain (1980–2020), Sweden (1980–2020), and the United Kingdom (1980–2020). Unfortunately, there are no data of populism votes

Three measures of the populism vote (shares of total populism, right-wing populism, and left-wing populism votes) are used, and the related data are obtained from Timbro (2020). Besides, the primary variable of interest is the WUI, and it is introduced by Ahir et al. (2018). Following Baker et al. (2016), Ahir et al. (2018) present the WUI, starting from the 1950s, by considering the frequencies of the words "uncertainty" (and their variants) in the country reports of the Economist Intelligence Unit (EIU). The country reports of the EIU, which have been provided by domestic analysts and the editorial board of the Economist, include major economic and political issues in 143 countries, including analyses and forecasts on political and economic indicators. The WUI series are comparable across the countries since the raw counts are adjusted for the total number of words in each report (Ahir et al., 2018). The novelty of the WUI is that it is the first method for measuring uncertainty across both advanced and developing economies (Ahir et al., 2018). Therefore, the WUI is the first index for measuring economic uncertainty, which is comparable across countries (Gozgor et al., 2019). These issues make the WUI as a perfect candidate to examine the impact of economic uncertainty on the populist voting behavior in the EU countries.

3.1.2. Control Variables
We use various control variables in the estimations of Eq. (1) and we explain them as follows.

Demographics and Macroeconomic Indicators: Following previous papers and theoretical models, we also include various demographic and macroeconomic indicators to the estimations of Eq. (1). Specifically, as gross domestic product (GDP) per capita increases, there should be the lower support for populist movements (Arnorsson and Zoega, 2018). According to Davis et al. (2011), the outcome of economic shocks is particularly keen on younger and older people (less than 15 years old and more than 64 years old). Therefore, we consider the age-dependency ratio to capture the impact of demographics (the proportion of non-working age population to the working-age population) on populist voting behavior. Similarly, populist movements receive higher support among the voters with the experience of unemployment (Algan et al. 2017; Guiso et al., 2019; Guriev, 2018). Following this evidence, we use total unemployment rates (% of the total labor force). Similarly, populist politicians also receive higher support among the voters, who live in big cities (Spruyt et al., 2016). Therefore, we use the urban population (% of the total population). The data for all of these variables are obtained from the World Bank (2020). Finally, according to Kriesi (1999), populist voting behavior can be associated with education. Therefore, we use the index of human capital, and the related data are obtained from the Penn World Table (version 9.1) dataset of Feenstra et al. (2015).

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or the WUI in Cyprus, Estonia, Luxembourg, and Malta; and therefore, we exclude them in the empirical analysis.

<u>Formal and Informal Institutions</u>: There is a longstanding debate about the institutions in the EU, which can be driven factor of populist voting behavior. Theoretically speaking, democratic and inclusive institutions ensure checks and balances[6], which can limit the power of domestic governments (Acemoglu et al., 2013 and 2019). Therefore, democratic and inclusive institutions can mitigate the populist attitudes, and the higher quality of institutions can reduce the transmission level of uncertainty shocks on voting behavior (Gründler and Potrafke, 2019). Following Acemoglu et al. (2013 and 2019), we consider the quality of formal institutions measured by the index of Executive Constraints Concepts provided by Marshall (2020). We also consider the index of Economic Freedom introduced by Gwartney et al. (2019) to capture the environment of market economy rules; thus, the outcome of informal institutions.[7]

<u>Globalization Shocks</u>: Another determinant of populist voting behavior is globalization. Theoretically speaking, increasing the levels of globalization will create winners and losers (Krugman, 2008), and the losers have a right to disagree on policies for supporting globalization.[8] The number of losers is higher than the number of winners in terms of (labor market) globalization outcomes (Potrafke, 2013). Therefore, the winners from freer trade should compensate the losers (Haskel et al., 2012).[9] The study of the International Monetary Fund (IMF) (2016) indicates that the losers from globalization should be compensated; otherwise, there will be a rise in protectionism, which is a populist policy.[10] According to Colantone and Stanig (2018), Pastor and Veronesi (2018), Rodrik (2018 and 2020), and Swank and Betz (2003), different dimensions of globalization, including capital mobility, international trade, and migration lead to the welfare loses of the middle-class. Therefore, globalization is one of the leading determinants of the populist support. To address this issue, we include the indices of overall globalization and economic globalization as additional controls in the estimations of Eq. (1). At this stage, we use the revisited indices of globalization, which are introduced by Gygli et al. (2019).[11] The related data obtained from the database of the *Konjunkturforschungsstelle* (KOF) Research Center of the ETH Zurich University. Compared to its previous versions[12], the revisited version of the KOF

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[6] This concept means that democratic institutions will not tolerate a political movement that targets to replace democracy and the rule of law with an authoritarian leader (Gründler and Krieger, 2016).

[7] Note that the index of Economic Freedom contains the values from 0 to 10, and a higher value indicates greater market deregulation, thus higher economic freedom.

[8] However, in most cases, the losers are difficult to identify, and the welfare losses are hard to measure.

[9] This compensation, which is known as redistribution, is usually done by central governments, and the issue is called the "welfare state."

[10] Note that protectionism raises the trade policy uncertainty due to the possibility of canceling the trade and investment agreements.

[11] Note that we consider the dataset published in October 2019 (KOF Globalization Index, Version 2019).

[12] Refer to Dreher (2006) for the original KOF globalization indices. For a detailed review of the previous studies on the KOF indices of globalization, refer to Potrafke (2015).

globalization dataset represents the most comprehensive outlook for economic, political, and social globalization (Gygli et al., 2019).[13]

Immigration and Public Spending: Populist movements offer to reduce the level of immigration because they suggest that immigrants exploit the sources of the welfare state and aspire low skill jobs. One of the promised policy during the election period is an expansionary macroeconomic policy; that is, populist politicians express to increase public spending (Acemoglu et al., 2013; Dornbusch and Edwards, 1990 and 1991).[14] Mainly, populist politicians also receive lower support among the voters, who are dependent on social welfare benefits as the central source of household income. Therefore, migration and public spending should be considered as a significant factor in driving populist support. For instance, Becker et al. (2017) indicate that immigration policy does not affect Brexit voting, but the public expenditures became an essential factor. According to the study of the European Economic Advisory Group (EEAG) (2017), there is a significant correlation between support for "Remain" in the Brexit voting and public spending in the UK. Fetzer (2019) also states that austerity policies in the UK since 2010 have caused Brexit. However, Fidrmuc et al. (2019) find that there is no impact on the EU funds on the Brexit voting. Overall, immigration and public spending are the vital drivers of populist voting behavior, but the issues are still controversial. To address these issues, we consider the Size of Government (index from 0 to 10) and transfers and subsidies (as a share of GDP) to capture public spending, and the related data are obtained from Gwartney et al. (2019). We also include the foreign population (% of the total population)[15] and asylum applications (in logarithmic form)[16] to capture the effects of immigration on populist voting behavior. The related data are obtained from the Organization for Economic Co-operation and Development (OECD) (2020) and the United Nations High Commissioner for Refugees (UNHCR) (2020), respectively.

Income Inequality and Redistribution: Previous studies have also found that populist voting behavior is linked to economic inequality and redistributive policies since populist support increases among low-skilled workers and unprotected citizens (Lechler, 2019). Therefore, we include the indices of market (post-tax) income inequality and the index of absolute redistribution (the difference between the post-

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[13] Visit https://www.kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html for more information.

[14] Note that this macroeconomic policy usually leads to a higher budget deficit, which also can cause more senior debt and inflation rates in the long-run. Acemoglu et al. (2013) indicate although macroeconomic policies were the main driver of the support for left-wing populism in Latin America, its success was the outcome of weak institutions.

[15] Note that data for the foreign population is available from 1984 to 2018 in the OECD countries, and therefore, we could not reach the data in Bulgaria, Croatia, and Romania.

[16] Note that the data for asylum applications are only available from 2000 to 2019.

and pre-tax income inequality) and the related are obtained from Standardized World Income Inequality Database (SWIID) (Version 8.3) of Solt (2020).

3.2 Preliminary Analysis of the Data
A summary of descriptive statistics and data sources of the variables in the empirical analyses is provided in Table 1.

[Insert Table 1 here]

Furthermore, the correlation matrix for the primary variables in the estimations is presented in Table 2. All correlations among the indicators of populism vote are positive. Also, the correlations between all measures of populism vote and uncertainty indicators are positive. There is also a negative correlation between the share of the total populism votes and the share of right-wing populism votes with all controls. However, there is a positive correlation between the age-dependency ratio and the percentage of left-wing populism votes. These preliminary findings indicate that the dynamics of shares of total populism and right-wing populism votes are quite similar. Still, the share of the left-wing populism votes is somehow different from them. This evidence is in line with previous papers in general (e.g., Potrafke, 2017).

[Insert Table 2 here]

Besides, the scatter plot is illustrated in Figure 1 for the relationship between the share of total populism votes and the WUI in 24 EU countries. The evidence in Figure 1 is also in line with the pairwise correlations; that is, there is a positive relationship between populist support and economic uncertainty in the EU countries over the period under concern.

[Insert Figure 1 here]

3.3 Anecdotal Evidence
Here, we discuss some anecdotal evidence in which countries and when was economic uncertainty positively correlated with the vote shares of populist parties. For example, following the GFC of 2008–9, Hungary experienced a severe financial and fiscal crisis in 2010, which led to a significant increase in the level of economic uncertainty. Meanwhile, Fidesz - Magyar Polgäri Szövetség (authoritarian right-wing party with national conservatism) came back to power with the vote of 52.7% in parliamentary elections in 2010. Besides, Jobbik Magyarországért Moszgalom (extreme right-wing party with nationalism and populism in Hungary) gained the vote of 16.7% in parliamentary elections in 2010.

Similarly, following the conflict between Russia and Ukraine in 2014, there was a significant rise in economic uncertainty in Poland in 2015. Meanwhile, PiS-Prawo i

Sprawiedliwość (authoritarian right-wing populist party with national conservatism) came to power with the vote of 37.6% in parliamentary elections in 2015. Moreover, Kukiz 15 (authoritarian right-wing populist party with nationalism in Poland) got the vote of 8.8% in parliamentary elections in 2015.

Another compelling anecdotal evidence is the case of Greece. The recession in the fourth quarter in 2014 and the rejection of existing bailout terms by the government in December 2014 resulted in a liquidity crisis in the Greek economy. Therefore, there was a significant increase in the level of economic uncertainty in 2015 in Greece. In snap parliamentary elections in 2015, Syriza - Synaspismos Rizospastikis Aristeras (authoritarian left-wing populist party with anti-globalism) was the winner party with the vote of 36.3%. Overall, these anecdotal examples indicate that there is a positive correlation between economic uncertainty with the vote shares of populist movements.

3.4 Empirical Model and Econometric Methodology
The following equation is estimated to investigate the impact of economic uncertainty shocks on the share of populism votes:

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

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

where, $Populism\ Vote_{i,t}$ and $Populism\ Vote_{i,t-1}$ are the current and the lagged measures of the populism vote (measured by shares of total populism, right-wing populism, and left-wing populism votes) in a country i at times of t and $t–1$. The lagged dependent variable captures the persistence effect; that is, the voter, who gave a vote to the populist parties and politicians, can show favor to populist parties and politicians in the next election. $Uncertainty_{i,t}$ and $Uncertainty_{i,t-1}$ are the WUI in country i at times of t and $t–1$. $X_{i,t}$ indicates the "vector of controls." Furthermore, ϑ_t, ϑ_i, and $\varepsilon_{i,t}$ indicate the "time fixed-effects", the "country fixed-effects", and "error terms", respectively.

The baseline regression in Eq. (1) is estimated by the fixed-effect, the LSDVC, and the IV estimation techniques. Similar to the dynamic panel data estimation techniques, the LSDVC method attempts to solve the potential problems of autocorrelation and the existence of different orders of integration. The main difference between the dynamic panel data estimations and the LSDVC estimations is that the latter should use in the cases where the number of cross-section units is smaller (typically less than 25 individuals) (Bruno, 2005a). This issue is also the case of our study; that's why we utilize the LSDVC methods rather than the dynamic panel data estimations.

In the LSDVC method, correlated variables are automatically dropped to rescue from possible problems of multicollinearity (Bruno, 2005a). Following the technique of

Bruno (2005b), the Blundell–Bond estimator is initialized when the LSDVC estimations are utilized. Furthermore, the LSDVC estimator can solve possible problems of "endogeneity bias" and "reverse causality problem" by instrumenting the explanatory variables with their lagged variables. At this stage, to satisfy the assumptions, we should check whether there is a "first-order autocorrelation," but there will be no "second-order autocorrelation." To assess the validity of a possible "over-identification problem," we run the Sargan test. If we cannot reject the null hypothesis, this evidence indicates that there is no over-identification in the model. The "time fixed-effects" and the "country fixed-effects" are also added in the LSDVC estimations to control possible unobserved heterogeneities that affect the populist voting behavior.[17]

Finally, it is also noteworthy to note that we also use the lagged WUI as an explanatory variable to address the endogeneity of the WUI. This approach decreases the endogeneity bias in the fixed-effects estimations. Still, of course, it is not possible to entirely eliminate it, as there can be many factors that are correlated with both the WUI and the populist voting, which potentially confound the estimated effect. Therefore, we use the IV-Two-stage Least Squares (2SLS) estimations with the lagged WUI. Following Dutt et al. (2009), we use an instrument of the number of years in the General Agreement Trade and Tariffs (GATT) or the World Trade Organization (WTO), which is correlated with the WUI and uncorrelated with populist voting. The "time fixed-effects" and the "country fixed-effects" are also considered as instruments.[18] To evaluate the validity of the potential misidentification problem, we run the under-identification test (Anderson LM test statistics) and the weak identification test (Cragg-Donald Wald F test statistics). A rejection of the null hypothesis implies that the model is correctly identified (Stock and Yogo, 2005).

4. Empirical Findings

4.1 Baseline Findings on Total Populism Vote
In Table 3, we provide results of the fixed-effects estimations for regression in Eq. (1), which investigates the effects of the WUI on the share of the total populism votes as the dependent variable.

[Insert Table 3 here]

The results from the different models are reported in Columns (I) to (VIII). In Column (I), we only consider the WUI as an explanatory variable. In Column (II), along with the WUI, we use the lagged share of the total populism votes to capture the persistence effect in the voting behavior. In Column (III), we control for the economic growth to

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[17] Refer to the *xtlsdvc* Stata package for details.
[18] Hence we follow the Fixed-effects IV estimation procedures. Refer to the *ivreg210* Stata package for details.

control macroeconomic performance. In Column (IV), we consider the age-dependency ratio to capture the impact of demographics on the populist voting behavior. In Column (V), we use the urban population since populist politicians receive higher support in big cities, according to the previous papers. In Column (VI), we include the size of government to control the power of government in the market economy and its impact on voting behavior. In Column (VII), we consider the index of the concept of the executive constraint, a baseline measure of institutional quality, since democratic and inclusive institutions ensure checks and balances to mitigate the populist support. Finally, the findings reported in Column (VIII) include all control variables.

All results state that higher values of the WUI lead to a higher share of total populism votes, and the coefficients of the WUI are statistically significant at the 5% level, at least. The results of regressions indicate that a one-point increase in the WUI leads to a 3.01%-point rise (on average) in the share of the total populism votes. In short, economic uncertainty is positively associated with populist support.

Among control variables, the age-dependency ratio, index of the size of government, and the urbanization rate (statistically significant at the 1% level) are positively related to the populist support. Besides, economic growth and the concept of the executive constraint are negatively associated with the share of the total populism votes, as expected. Finally, the coefficients of the lagged share of the total populism votes indicate the very high level of persistence in the percentage of total populism, given that the average of the coefficients is around 0.91. All coefficients of the lagged dependent variable are statistically significant.

4.2 Right-wing Populism vs. Left-wing Populism

In Table 4, we provide findings of fixed-effects estimations for regression in Eq. (1), which examines the impact of the WUI on the share of right-wing populism votes as the dependent variable.

[Insert Table 4 here]

The results from the different models, which are similar to the baseline models in Table 3, are reported in Columns (I) to (VIII). All findings indicate as the values of the WUI increase, and there will be a higher share of right-wing populism votes. The coefficients of the WUI are also statistically significant at the 10% level, at least. The findings in the regressions show that a one-point increase in the WUI leads to a 2.12%-point rise (on average) in the share of right-wing populism votes. Among controls in the baseline model, the index of the size of government (statistically significant at the 10% level) is positively related to the share of right-wing populism votes. Finally, the lagged measures of right-wing populism vote demonstrate the very high level of persistence in populist support for the right political movements since the average of

the coefficients is around 0.91, as well as, the coefficients are statistically significant at the 1% level.

In Table 5, we report the findings of the fixed-effects estimations for regressions in Eq. (1), which show the effects of the WUI on the share of left-wing populism votes as the dependent variable.

[Insert Table 5 here]

The findings from the different models are similar to previous models, are reported in Columns (I) to (VIII). All results demonstrate that the WUI is positively associated with the share of left-wing populism votes. However, the coefficients of the WUI are statistically insignificant in some regressions. The results of the regressions, which are the coefficients of the WUI, are statistically significant, indicate that a one-point increase in the WUI yields to a 1.45%-point rise (on average) in the share of left-wing populism votes. Among the primary controls in regressions, age dependency ration (statistically significant at the 5% level) and urban population (statistically significant at the 1% level) are positively linked to the share of left-wing populism votes. Finally, the lagged measures of left-wing populism votes illustrate the very high level of persistence in the leftist populist support since the average of the coefficients is around 0.90, as well as all of them are statistically significant at the 1% level.

In short, economic uncertainty is positively associated with populist support, and this evidence is robust to consider different aspects of populist support, such as the total populist votes as well as the votes of right-wing and left-wing parties.

5. Robustness Checks

5.1 LSDVC Estimations

In Table 6, we report the findings of the LSDVC estimations for the WUI in Eq. (1), where three measures of populist support are the dependent variables. In Columns (I), (II), and (III), we report the shares of total, right-wing, and left-wing populism votes, respectively.

[Insert Table 6 here]

By running the LSDVC estimations, we attempt to address potential endogeneity bias and reverse causality; i.e., higher support for populist movements can redound economic uncertainty (e.g., populist politicians can change income and corporate tax rates or increase public spending). In this case, the LSDVC estimators can solve this very problem as long as the diagnostics are satisfied. The results of the Sargan test indicate that the identification condition of the models is satisfied. The findings from the Arellano-Bond autocorrelation tests demonstrate the statistically significant first-

order autocorrelation, but the validity of second-order autocorrelation is rejected. In brief, the required diagnostics are satisfied in the LSDVC estimations.

According to the results in Table 6, there is a statistically significant and very high-level persistence in three different measures of the share of populism votes since their coefficients around 0.97. The results from the LSDVC estimations are in line with the fixed-effects estimates; i.e., higher economic uncertainty yields to the higher levels of all measures of the share of populism votes. All coefficients of the WUI are significant at the 10%, at least. In brief, economic uncertainty promotes populist support even after considering possible issues due to reverse causality and endogeneity bias.

5.2 IV Estimations

In Table 7, we also provide the results of the IV estimations for the lagged WUI in Eq. (2), where three measures of populist support are the dependent variables. In Columns (I), (II), and (III), we report the shares of total, right-wing, and left-wing populism votes, respectively.

[Insert Table 7 here]

By running the IV estimations, we attempt to address potential endogeneity bias. We include an instrument of the number of years in the GATT or the WTO that is correlated with the WUI and uncorrelated with populist voting. However, the diagnostics are needed to be satisfied. According to the results of Anderson LM test statistics, there is no issue of the under-identification. According to the findings of Cragg-Donald Wald F test statistics, there is no problem related to the weak identification. Note that a rejection of the null hypothesis means that the model is correctly identified.

According to the findings in Table 7, there is a statistically significant and very high-level persistence in three different measures of the share of populism votes since their coefficients change from 0.88 to 0.90. The results from the IV estimations show that the lagged economic uncertainty causes the higher levels of all measures of the share of populism votes. Besides, the statistical significance of the coefficients of the WUI is higher than the fixed-effects, and the LSDVC estimations since all coefficients of the lagged WUI are significant at the 1%, at least. Next, we include various additional controls in the IV estimations to address a possible omitted variable bias.

5.3 Sensitivity Analyses

In Table 8, we provide the IV estimations by including additional controls. Again, we use the shares of total, right-wing, and left-wing populism votes as the dependent variables. Therefore, we aim to address a possible omitted variable problem by including additional controls.

[Insert Table 8 here]

First, we consider the previous controls in the fixed-effects estimations: economic growth, age dependency ratio, and urban population. Second, we assess the impact of macroeconomic stability (measured by the unemployment rate). Third, we use the index of human capital following Kriesi (1999) because the populist voting behavior can be associated with a lack of education. Fourth, we include the indices of executive constraints concept and economic freedom to capture the impacts of formal and informal institutions on the populist support, respectively. Fifth, we add the measures of globalization (measured by indices of economic globalization and overall globalization) since they are the leading determinants of the populist support (due to the welfare losses in the middle-class), according to the previous papers. Sixth, we include the index of the size of government and subsidies and transfers since governments can increase the public spending and transfer expenditures during times of higher economic uncertainty, and this policy can decrease the support for populist parties. Seventh, we include the foreign population and asylum applications to capture the effects of immigration on populist voting behavior. Finally, we control for the indices of market income inequality and redistribution because previous studies observe that populist support is associated with economic inequality and lack of redistributive policies.

In each case, the findings confirm that the baseline results (there is a statistically significant and positive impact of economic uncertainty on all measures of populist support); thus, the primary evidence is robust to the inclusion of additional controls.[19] In Table 8, we also report the findings of sensitivity analyses; that is, we excluded the outlier observations. Again, the results are based on the IV estimations of baseline regressions in Eq. (2). At this stage, outlier observations are excluded from the WUI as well as from three measures of share of populism votes. Following Jha and Gozgor (2019), we define the outlier observations as an observation that "two standard deviations away" from the mean. The baseline findings are also robust to exclude outlier observations.

In brief, the findings from sensitivity analyses (i.e., addressing potential omitted variable bias and excluding outlier observations) are in line with the baseline results, and they demonstrate that economic uncertainty promotes the populist attitudes in the EU countries.

5.4 Discussion and Policy Implications
If economic uncertainty promotes populist support; and then, there should be some policy implications to mitigate the harmful effects of economic shocks on the populist

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[19] We also include dummy variables for the parliamentary system, presidency system, and election times. The results are also robust to include these indicators.

voting behavior. Primarily, governments and institutions can respond to populism with policies to improve economic well-being. A higher level of income redistribution via tax policies and transfer payments can increase the income of low-skilled workers (losers of globalization).[20] For instance, Finland tries to provide income to the citizens by implementing the "basic income" application. Also, increasing the power of unions and collective bargaining opportunities can help to increase the revenue of low-skilled workers. For instance, Norway implements a collective bargaining system at the national level to provide higher salaries.

Furthermore, promoting the support of education and vocational training will increase the qualifications of low-skilled workers, and this can help them settle into higher salary jobs. Perhaps more importantly, education will make voters more conscious and objective. It can be claimed that the perception of economic conditions is more important than real economic conditions in increasing the support of populist parties. In particular, voters with low levels of education have little knowledge of general economic conditions, and populist politicians and movements can misrepresent them. By today's world, dominated the internet and social media, voters generally decide with emotion. At this point, education can help voters to reach the right information and make objective decisions.

Besides, rising public investment in building housing and public transport system can decrease the cost of living of people, especially the losers of globalization. Specifically, housing prices can reduce by increasing public investment in building houses. Enhancing the public transport system can also help people who live outside the city centers since they can come to work with less money and time.

Our findings indicate that economic uncertainties are the primary driver of populist support in the EU countries. If this kind of economic policies will be successful, we can expect a significant decrease in the populist support in the EU countries. If these kinds of policies will not provide the solutions, other factors (e.g.., culture, and identity) can be the main drivers of populist voting behavior in the EU countries. In this case, the resolution of such a problem will be even more difficult.

6. Conclusion

In this paper, we investigate the effects of economic uncertainty shocks on the populist voting behavior in the panel dataset of 24 EU countries. Using the data for the period from 1980 to 2020, we examine the drivers of the shares of total, right-wing, and left-wing populism votes. To measure the economic uncertainty shocks, we use a new

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[20] Note that we did not discuss the policies on minimum wage since the political outcome of increasing the minimum wage is somehow complicated. Raising the minimum wage will improve the welfare of low-skilled workers, but this can cause higher unemployment in the long-run since firms can move to another country (a less-paid country) in an open-economy model.

indicator of economic uncertainty, so-called, the WUI. Utilizing fixed-effects, the LSDVC, and the IV estimations, we find that a higher level of the WUI is positively associated with all indicators of the populist voting behavior. To check the robustness of our findings, we address potential issues of endogeneity and omitted variable bias as well as exclude the outliers. Our main results remain consistent when we implement these robustness analyses.

The findings of our paper demonstrate that economic uncertainty promotes the support of populist parties. Populist politicians have also emphasized the problems of increasing economic uncertainty, especially after the GFC of 2008–9. Inequality in the income and opportunity has also been linked to the GFC of 2008–9. Along with these issues, the adverse effects of globalization on low-skilled workers have also risen the importance of democratic institutions and the welfare state (efficient redistribution via public spending and tax policies). Therefore, mainstream parties should provide solutions to these problems, and their policy implications should not focus on the short term, or the electoral sphere should not determine their policies.

Of course, populism should not only be linked to Brexit or the rise of populist parties in the EU. Moreover, the rise of populism has not just started in 2016. The process of populist support can change in one day to the next, and our paper shows that it can be related to economic uncertainty, which is increasing at the same time.

Finally, it is essential to note that populist policies are not limited to populist parties, and mainstream parties can also implement populist policies. Our paper does not focus on this issue, and future studies can focus on political characteristics of the events rather than the classification of political parties. Another possible research agenda for future studies is that to focus on the effects of trade policy uncertainty and the COVID-19-related shocks along with the global economic policy trends on the populist voting behavior in other countries, including the United States and Latin American countries. Future papers can also implement the Least Absolute Shrinkage and Selection Operator (LASSO) approach to see whether the economic uncertainty indicators predict the share of populist votes.

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Figure 1
Scatter Plot: World Uncertainty Index (WUI) and Share of Total Populism Votes
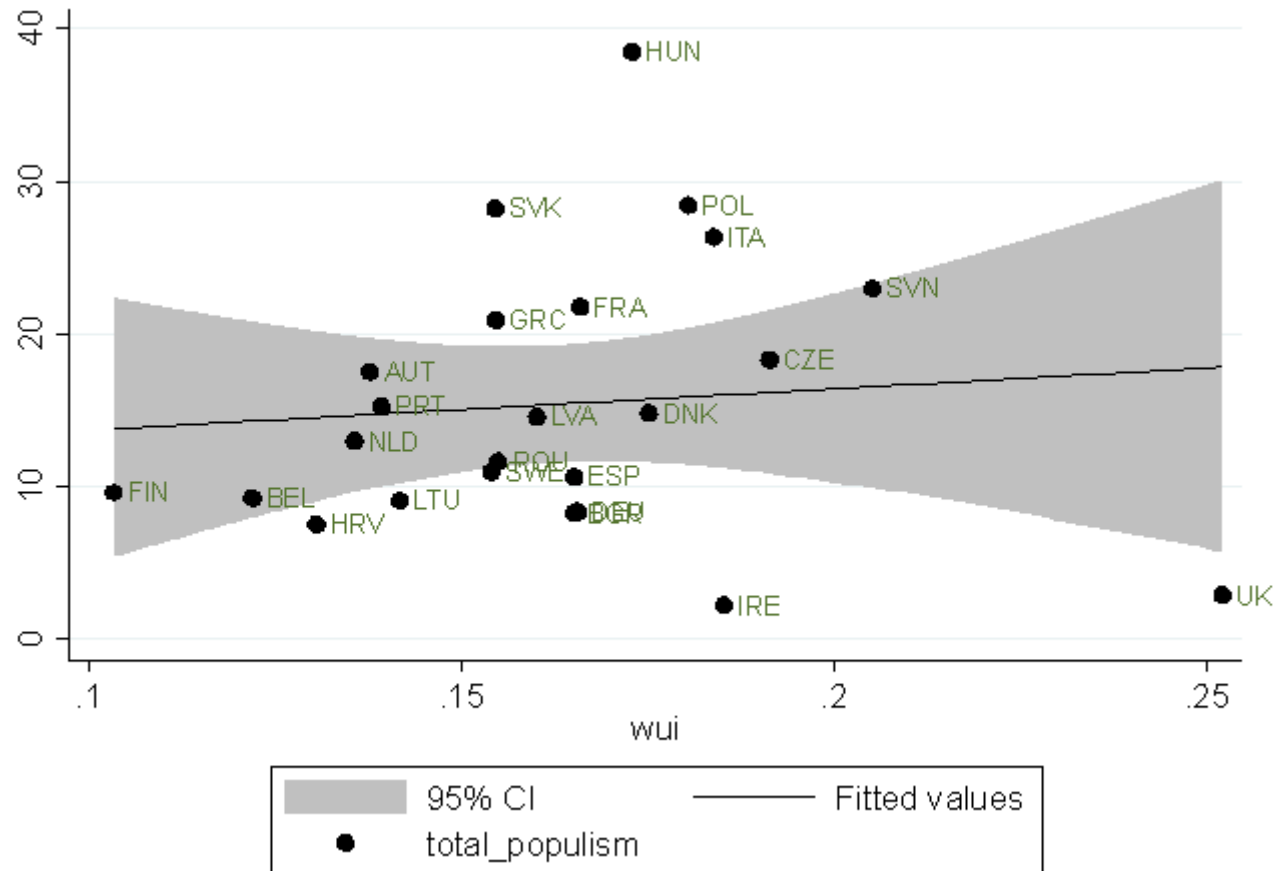**(24 EU Countries, Period Average of 1980–2020)**

Table 1
Summary of Descriptive Statistics

Variable	Definition	Data Source	Mean	Std. Dev.	Min.	Max.	Obs.
Share of Total Populism Votes	Ratio	https://populismindex.com/data/: Timbro (2020)	15.10	12.83	0.000	69.70	857
Share of Right-wing Populism Votes	Ratio	https://populismindex.com/data/: Timbro (2020)	8.771	11.47	0.000	69.60	857
Share of Left-wing Populism Votes	Ratio	https://populismindex.com/data/: Timbro (2020)	6.332	8.208	0.000	45.10	857
World Uncertainty Index	Index	https://worlduncertaintyindex.com/data/: Ahir et al. (2018)	0.162	0.137	0.000	1.179	857
Economic Growth (Based on Constant 2010 USD Prices)	Change in Logarithmic Form	World Development Indicators: World Bank (2020)	0.021	0.031	–0.149	0.214	833
Age Dependency Ratio (% of Working-age Population)	Percentage	World Development Indicators: World Bank (2020)	50.15	4.708	38.45	70.09	833
Urban Population (% of Total Population)	Percentage	World Development Indicators: World Bank (2020)	70.88	11.95	42.79	98.04	833
Unemployment, Total (% of Total Labor Force) (National Est.)	Percentage	World Development Indicators: World Bank (2020)	9.122	4.432	1.460	27.47	833
Human Capital	Index	Penn World Table (Version 9.1): Feenstra et al. (2015)	3.019	0.374	1.645	3.793	796
Executive Constraints Concept	Index from 1 to 7	Polity 5 Annual Time-series: Marshall (2020)	6.922	0.318	5.000	7.000	809
Economic Freedom	Index from 0 to 10	Fraser Institute: Gwartney et al. (2019)	7.090	0.889	3.730	8.630	785
Globalization (Overall)	Index from 0 to 100	KOF, ETH Zurich: Dreher (2006), Gygli et al. (2019)	77.56	9.246	43.60	91.30	785
Economic Globalization (Overall)	Index from 0 to 100	KOF, ETH Zurich: Dreher (2006), Gygli et al. (2019)	71.06	12.02	31.50	91.80	785
Size of Government	Index from 0 to 10	Fraser Institute: Gwartney et al. (2019)	5.238	1.117	1.570	7.770	785
Transfers and Subsidies (Share of GDP)	Percentage	Fraser Institute: Gwartney et al. (2019)	20.83	5.329	5.690	37.20	785
Foreign Population (% of Total Population)	Percentage	Foreign Population Indicator: OECD (2020)	5.311	3.863	0.129	22.81	570
Asylum Applications	Logarithmic Form	Refugee Data Finder: UNHCR (2020)	8.498	2.129	1.609	13.52	504
(Absolute) Redistribution	Index from 0 to 1	Standardized World Income Inequality Database (Version 8.3): Solt (2020)	0.178	0.035	0.093	0.251	801
Market Income Inequality	Index from 0 to 1	Standardized World Income Inequality Database (Version 8.3): Solt (2020)	0.464	0.039	0.315	0.539	801
Number of Years in the GATT or the WTO	Years	Authors' Calculation Based on the World Trade Organization Website	37.87	19.22	0.000	72.00	857

Table 2
Correlation Matrix

Regressors	Share of Total Populism Votes	Share of Right-wing Populism Votes	Share of Left-wing Populism Votes	World Uncertainty Index	Economic Growth	Age Dependency Ratio	Urban Population	Index of Size of Government	Executive Constraints Concept
Share of Total Populism Votes	1.000	–	–	–	–	–	–	–	–
Share of Right-wing Populism Votes	0.777	1.000	–	–	–	–	–	–	–
Share of Left-wing Populism Votes	0.476	–0.182	1.000	–	–	–	–	–	–
World Uncertainty Index	0.203	0.182	0.062	1.000	–	–	–	–	–
Economic Growth	–0.003	–0.038	–0.059	–0.049	1.000	–	–	–	–
Age Dependency Ratio	–0.092	–0.171	0.092	0.077	–0.127	1.000	–	–	–
Urban Population	–0.124	–0.114	–0.034	0.052	–0.169	0.285	1.000	–	–
Index of Size of Government	–0.041	–0.065	–0.151	0.154	0.158	–0.248	–0.173	1.000	–
Executive Constraints Concept	–0.066	–0.021	–0.131	–0.021	0.098	–0.168	0.127	0.086	1.000

Table 3

Fixed-Effects Estimations: World Uncertainty Index and Share of Total Populism Votes (1980–2020)

Regressors	(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)
World Uncertainty Index	19.43***	2.749***	3.068***	3.006***	2.288**	3.560***	3.992***	2.435**
	(2.398)	(1.021)	(1.118)	(1.118)	(1.156)	(1.269)	(1.250)	(1.204)
Lagged Dependent Variable	–	0.918***	0.917***	0.909***	0.904***	0.911***	0.921***	0.899***
		(0.014)	(0.015)	(0.015)	(0.015)	(0.015)	(0.015)	(0.016)
Economic Growth	–	–	−7.599*	–	–	–	–	−6.430
			(4.584)					(5.153)
Age Dependency Ratio	–	–	–	0.084**	–	–	–	0.067*
				(0.040)				(0.035)
Urban Population	–	–	–	–	0.139***	–	–	0.124***
					(0.048)			(0.034)
Index of Size of Government	–	–	–	–	–	0.213	–	0.295
						(0.165)		(0.185)
Executive Constraints Concept	–	–	–	–	–	–	−0.249	−0.117
							(0.545)	(0.870)
Constant	11.95***	1.143***	1.284***	−2.975	−8.489**	−0.046	2.671	−13.06
	(0.505)	(0.271)	(0.299)	(1.973)	(3.363)	(0.878)	(3.779)	(7.789)
Observations	857	833	833	809	809	761	785	761
Number of Countries	24	24	24	24	24	24	24	24
R–squared (Within)	0.073	0.844	0.836	0.836	0.837	0.830	0.833	0.833

Notes: The dependent variable is the share of the total populism votes. Standard errors are in the parentheses.

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

Table 4

Fixed-Effects Estimations: World Uncertainty Index and Share of Right-wing Populism Votes (1980–2020)

Regressors	(I)	(III)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)
World Uncertainty Index	14.86***	1.975**	2.223**	2.241**	1.893**	2.148**	2.595**	1.790*
	(2.027)	(0.843)	(0.922)	(0.926)	(0.960)	(1.039)	(1.025)	(1.038)
Lagged Dependent Variable	–	0.918***	0.918***	0.917***	0.913***	0.905***	0.920***	0.902***
		(0.014)	(0.014)	(0.014)	(0.019)	(0.015)	(0.015)	(0.020)
Economic Growth	–	–	−3.925	–	–	–	–	−4.445
			(3.798)					(3.053)
Age Dependency Ratio	–	–	–	0.013	–	–	–	0.002
				(0.032)				(0.037)
Urban Population	–	–	–	–	0.056	–	–	0.039
					(0.040)			(0.035)
Index of Size of Government	–	–	–	–	–	0.309**	–	0.325*
						(0.141)		(0.158)
Executive Constraints Concept	–	–	–	–	–	–	−0.022	−0.080
							(0.448)	(0.754)
Constant	6.359***	0.787***	0.833***	0.083	−3.156	−0.832	0.522	−2.874
	(0.427)	(0.196)	(0.222)	(1.630)	(2.783)	(0.721)	(3.109)	(6.203)
Observations	857	833	833	809	809	761	785	761
Number of Countries	24	24	24	24	24	24	24	24
R–squared (Within)	0.060	0.846	0.839	0.839	0.839	0.836	0.838	0.837

Notes: The dependent variable is the share of right-wing populism votes. Standard errors are in the parentheses.
*** p<0.01, ** p<0.05, * p<0.10.

Table 5

Fixed-Effects Estimations: World Uncertainty Index and Share of Left-wing Populism Votes (1980–2020)

Regressors	(I)	(II)	(III)	(IV)	(V)	(VI)	(VII)	(VIII)
World Uncertainty Index	4.571***	0.804	0.857	0.693	0.318	1.492*	1.421*	0.628
	(1.427)	(0.594)	(0.654)	(0.654)	(0.686)	(0.777)	(0.740)	(0.805)
Lagged Dependent Variable	–	0.911***	0.910***	0.900***	0.903***	0.907***	0.917***	0.897***
		(0.014)	(0.015)	(0.015)	(0.015)	(0.017)	(0.015)	(0.017)
Economic Growth	–	–	−3.582	–	–	–	–	−1.940
			(2.749)					(2.811)
Age Dependency Ratio	–	–	–	0.071***	–	–	–	0.069**
				(0.023)				(0.027)
Urban Population	–	–	–	–	0.078***	–	–	0.084***
					(0.028)			(0.030)
Index of Size of Government	–	–	–	–	–	−0.090	–	−0.040
						(0.107)		(0.111)
Executive Constraints Concept	–	–	–	–	–	–	−0.272	−0.038
							(0.329)	(0.346)
Constant	5.591***	0.395***	0.477***	−3.106***	−5.020**	0.805	2.177	−8.365**
	(0.301)	(0.149)	(0.176)	(1.178)	(1.975)	(0.595)	(2.287)	(3.563)
Observations	857	833	833	809	809	761	785	761
Number of Countries	24	24	24	24	24	24	24	24
R–squared (Within)	0.012	0.832	0.825	0.826	0.826	0.807	0.820	0.811

Notes: The dependent variable is the share of left-wing populism votes. Standard errors are in the parentheses.

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

Table 6
LSDVC Estimations: World Uncertainty Index and Share of Populism Votes (1980–2020)

Regressors	Share of Total Populism Votes (I)	Share of Right-wing Populism Votes (II)	Share of Left-wing Populism Votes (III)
Lagged Dependent Variable	0.979*** (0.013)	0.976*** (0.011)	0.971*** (0.015)
World Uncertainty Index	2.087** (1.026)	1.336** (0.510)	0.815* (0.470)
Observations	833	833	833
Number of Countries	24	24	24
Sargan Test	1.347 [0.421]	1.268 [0.452]	1.742 [0.386]
AR (1)	−6.514 [0.000]	−5.156 [0.000]	−6.634 [0.000]
AR (2)	−0.312 [0.582]	−0.319 [0.605]	−0.720 [0.687]

Notes: Dependent variables are three different measures of the share of populism votes. Standard errors are in the parentheses, and the p–values are in the brackets. *** $p<0.01$, ** $p<0.05$, * $p<0.10$.

Table 7
IV Estimations: Lagged World Uncertainty Index and Share of Populism Votes (1980–2020)

Regressors	Share of Total Populism Votes (I)	Share of Right-wing Populism Votes (II)	Share of Left-wing Populism Votes (III)
Lagged Dependent Variable	0.883*** (0.018)	0.893*** (0.017)	0.904*** (0.014)
Lagged World Uncertainty Index	13.34*** (3.013)	8.927*** (2.423)	3.721*** (1.434)
Observations	833	833	833
Number of Countries	24	24	24
Centered R-squared	0.822	0.830	0.829
Anderson LM Test Statistics	121.8***	124.9***	162.5***
Cragg-Donald Wald F Test Statistics	143.1***	147.3***	202.9***

Notes: Dependent variables are three different measures of the share of populism votes. Standard errors are in the parentheses. *** $p<0.01$.

Table 8
Sensitivity Analyses: Based on the IV Estimations (1980–2020)

Sensitivity Analysis	Regressor	Share of Total Populism Votes	Share of Right-wing Populism Votes	Share of Left-wing Populism Votes
Results of the Baseline Regressions	Lagged WUI	13.34*** (3.013)	8.927*** (2.423)	3.721*** (1.434)
Including Economic Growth	Lagged WUI	16.45*** (3.840)	10.98*** (3.114)	4.533** (1.778)
Including Age Dependency Ratio	Lagged WUI	16.50*** (3.857)	11.28** (3.179)	3.926** (1.797)
Including Urban Population	Lagged WUI	16.78*** (5.415)	13.97*** (4.732)	2.406** (1.205)
Including Unemployment Rate	Lagged WUI	18.20*** (3.948)	10.90*** (3.119)	5.929*** (1.781)
Including Index of Human Capital	Lagged WUI	18.66*** (4.458)	12.22*** (3.795)	5.978*** (2.104)
Including Index of Executive Constraints Concept	Lagged WUI	17.18*** (3.732)	10.93*** (3.053)	5.650*** (1.756)
Including Index of Economic Freedom	Lagged WUI	15.71*** (4.716)	6.204** (3.195)	8.579*** (2.516)
Including Index of Globalization (Overall)	Lagged WUI	14.22*** (5.370)	8.691** (4.078)	8.811*** (3.107)
Including Index of Economic Globalization (Overall)	Lagged WUI	13.60*** (4.912)	7.580** (3.667)	10.45*** (2.953)
Including Index of Size of Government	Lagged WUI	17.03*** (4.558)	7.606** (3.474)	8.223*** (2.303)
Including Transfers and Subsidies	Lagged WUI	16.40*** (4.065)	11.45*** (3.473)	5.093*** (1.939)
Including Foreign Population	Lagged WUI	22.23*** (8.681)	23.50*** (8.202)	7.133** (3.614)
Including Log Asylum Applications	Lagged WUI	26.14*** (8.378)	19.72*** (6.630)	5.142** (2.531)
Including Index of (Absolute) Redistribution	Lagged WUI	9.245** (4.595)	9.728** (4.140)	3.385* (2.032)
Including Index of Market Income Inequality	Lagged WUI	15.29*** (5.004)	11.82*** (4.312)	3.313* (2.105)
Excluding Extreme Units of Shares of Populism Votes	Lagged WUI	11.91*** (2.573)	11.13*** (2.298)	2.512** (1.054)
Excluding Extreme Units of the World Uncertainty Index	Lagged WUI	17.23*** (4.026)	12.05*** (3.193)	4.177** (1.805)

Notes: Dependent variables are three different measures of the share of populism votes. Standard errors are in the parentheses.
*** $p<0.01$, ** $p<0.05$, * $p<0.10$.