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Populism and the Skill-Content of Globalization: Evidence from the Last 60 Years

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Highlights

- Using an imbalanced panel of 628 national elections in 55 countries over 60 years, we analyze the long-run evolution of populism and explore the role of globalization in shaping such evolution.
- We rely on both standard (vote share of populist parties) and new (a continuous vote-weighted average of populism scores of all parties) measures of the extent of populism.
- We investigate the "global" determinants of populism looking at trade and immigration jointly and consider their size as well as their skill-structure.
- We show that levels of populism in the world have strongly fluctuated since the 1960s, peaking after each major economic crisis and reaching an all-time high after the great recession of 2007-10.
- Furthermore, our results consistently suggest that populism responds to globalization shocks in a way which is closely linked to the skill structure of these shocks : low-skill labor intensive goods increase both total and right-wing populism; low-skill immigration tends to induce a transfer of votes from left-wing to right-wing populist parties, apparently without affecting the total, imports of high-skill labor intensive goods, as well as high-skill immigration, tend to reduce the volume of populism.

Abstract

We analyze the long-run evolution of populism and explore the role of globalization in shaping such evolution. We use an imbalanced panel of 628 national elections in 55 countries over 60 years. A rst novelty is our reliance on both standard (e.g., the "volume margin", or vote share of populist parties) and new (e.g., the "mean margin", a continuous vote-weighted average of populism scores of all parties) measures of the extent of populism. We show that levels of populism in the world have strongly fluctuated since the 1960s, peaking after each major economic crisis and reaching an all-time high – especially for right-wing populism in Europe – after the great recession of 2007-10. The second novelty is that when we investigate the "global" determinants of populism, we look at trade and immigration jointly and consider their size as well as their skill-structure. Using OLS, PPML and IV regressions, our results consistently suggest that populism responds to globalization shocks in a way which is closely linked to the skill structure of these shocks. Imports of low-skill labor intensive goods increase both total and right-wing populism at the volume and mean margins, and more so in times of de-industrialization and of internet expansion. Low-skill immigration, on the other hand, tends to induce a transfer of votes from left-wing to right-wing populist parties, apparently without aecting the total. Finally, imports of high-skill labor intensive goods, as well as high-skill immigration, tend to reduce the volume of populism.

Keywords

Elections, Populism, Immigration, Trade.

JEL

D72, F22, F52, J61.

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Populism and the Skill-Content of Globalization: Evidence from the Last 60 Years*

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1 Introduction

The recent surge of populism is often portrayed as a rebellion of the losers from globalization. The fall of the Communist Block and the ensuing opening of EU markets to trade and immigration from Eastern Europe, China's entry into the WTO in 2001, or the generalization of offshoring practices toward low-wage countries since the 1990s have exposed workers and firms in industrialized countries to a global competition that some (and certainly the populists) characterize as unfair. The same 'unfair competition' argument is used to describe the effects of low-skill immigration from poor countries on rich countries native workers' labor market outcomes. In this context, globalization has gradually become a salient issue in the political discourses and public debates of most Western democracies. This is best illustrated by the 2016 Brexit referendum in the UK, the election of Donald Trump in the U.S. that same year, or by the electoral agenda and performance of populist parties in recent elections in virtually all Western European countries. Besides their anti-establishment and anti-media rhetoric, populist-nationalistic parties have long tried to gain popular support by tapping on people's concerns about the economic and social implications of globalization. And indeed, the link between populism and globalization seems to cross the ages. As recalled by Guriev and Papaioannou (2021), the late-19th-century *American People's Party*, one of the first populist parties in the modern sense, had a clear anti-globalization agenda. This link seems more relevant than ever, as evidenced by the recent anti-globalization campaigns of *La Lega* and *Movimento 5 Stelle* in Italy, the *Front National* and *Reconquête* in France, *AfD* in Germany, *FPö* in Austria, *Podemos* and *Vox* in Spain, the *Vlaams Belang* in Belgium, etc. Anti-globalization stances are more and more frequent during and between election campaigns (Colantone et al., 2021) and are voiced by political parties from the right as well as from the left (Funke et al., 2020).

As noted by Rodrik (2018, p.12), "the term [populism] originates from the late nineteenth century, when a coalition of farmers, workers, and miners in the US rallied against the Gold Standard and the Northeastern banking and finance establishment. Latin America has a long tradition of populism going back to the 1930s, and exemplified by Peronism." Several definitions of populism have been used though, combining concepts such as anti-elite and anti-pluralism rhetoric (Mudde, 2004), identity politics (Müller, 2016), authoritarianism (Eichengreen, 2018), anti-globalization view (De Vries, 2018; Algan et al., 2018), communication style (Campante et al., 2018), or shortsighted political agenda (Guiso et al., 2020).

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This paper discusses the measurement of populism and documents its evolution over the last sixty years; it then studies its determinants, focusing on the role of globalization shocks. Its contribution is fivefold.

First, while we rely on standard measures of populism such as the sum of the vote shares of parties classified as "populists" (which we refer to as the 'volume" margin'), we note that populist ideas are not restricted to populist parties but can spillover to traditional (or non-traditional) parties not defined as populist. To reflect this and based on their political platforms, we propose to assign a continuous populism score to all political parties competing in the elections in our data set (i.e., 628 national elections in 55 countries during the period 1960-2018 *Second*, thanks to this continuous measure we can study changes in populism not just along the 'volume margin' but also along the 'mean margin' (i.e., the vote-weighted scores of populism for all parties running in an election). The mean margin does not rely on a dichotomous classification of parties into populist or not, and captures the overall exposure of voters to populist ideas in a given election. *Third*, we conduct a unified analysis of the effects of imports and immigration competition on populism, which we disentangle according to the skill-content of immigration and import flows. *Fourth*, we implement an instrumentation strategy that predicts changes in the bilateral and skill structure of imports and immigration using origin-specific factors, generalizing the approach used in the trade and migration literature in a long panel setting (Autor et al., 2020; Munshi, 2003; Boustan, 2010; Klemans and Magruder, 2018; Monras, 2020). And *fifth*, we document and identify different evolution patterns and relations to globalization for left-wing and right-wing populism. We relate and contribute to a growing literature on globalization and the formation of political preferences in general, and on the political economy of populism in particular. As far as trade is concerned, several papers focusing on the exposure to the "China trade shock"show that the rise in Chinese imports triggered growing support for radical-right parties in a number of OECD countries (Autor et al., 2020). These studies exploit variability in regional exposure to trade with China. While looking at a well-identified shock, they use a relatively narrow time span (Becker et al., 2017). Other studies show that populism tends to flourish in contexts of economic uncertainty (Rodrik, 1997; Swank, 2003; Algan et al., 2017), which is itself partly generated by globalization shocks (Di Giovanni and Levchenko, 2009; Vannoorenberghe, 2012; Caselli et al., 2015).

Similarly, the political economy of immigration literature has grown tremendously in the last ten years. It includes explorations of the link between immigration and attitudes toward immigrants (e.g., Mayda, 2006; Card et al., 2012) or toward redistribution (e.g, Moriconi et al., 2019; Alesina et al., 2021, 2022) as well as many studies identifying a causal positive effect between immigration and voting for far-right, populist parties in contexts as various as the United States (Mayda et al., 2022), France (Malgouyres, 2017), the United Kingdom (Colantone and Stanig, 2018; Becker and Fetzer, 2016; Becker et al., 2017), Germany (Dippel et al., 2015), Italy (Barone et al., 2016), Spain (Mendez and Cutillias, 2014), Austria (Halla et al., 2017), Denmark (Harmon, 2018; Dustmann et al., 2019), Switzerland (Brunner and Kuhn, 2018), in the city of Hamburg (Otto and Steinhardt, 2014), or more broadly Western Europe (Guiso et al., 2017).[1] These effects are often rationalized by the fear of adverse labor market or of fiscal effects of immigration, or by identity/cultural factors, which in both cases depend on the skill structure of the immigrant population (Edo et al., 2019; Moriconi et al., 2022, 2019).

Beyond trade and immigration, other key drivers of populism have been explored; these include the role of automation and de-industrialization (e.g. Frey et al., 2018; Anelli et al., 2018), Gallego et al. (2018) or the role of economic and financial crises (Funke et al., 2016; De Bromhead et al., 2013; Algan et al., 2017). The surge of populism has also been related to cultural factors and to the perception that the elites are neglecting people's concerns about identity, fairness, political distrust (Norris and Inglehart, 2019; Mukand and Rodrik, 2018; Algan et al., 2018). Lastly, it has been shown that populism benefited from the expansion of internet and social media (Zhuravskaya et al., 2020; Campante et al., 2018; Guriev et al., 2019). We account for those other determinants and explore interactions between them and globalization shocks.

Overall, we extend the literature by considering new measures of populism, over a longer period, in a larger sample of

[1] By contrast, using the exogenous deployment of refugee centers during the 2015 crisis, Steinmayr (2021) finds the opposite effect in Austrian neighborhoods. Along similar lines, Schneider-Strawczynski (2021) finds a negative effect of the opening of a refugee center at the municipality level in France on votes for the National Front, and disentangles a number of mechanisms such as 'contact' and 'white flight').

countries, and by looking jointly at trade and at immigration while at the same time accounting for their heterogeneous effects on the left-right spectrum of populism.

The paper is organized as follows. In Section 2, we construct a new continuous and time-varying populism score for 3,860 party-election pairs (involving 1,206 unique parties in 628 political elections) using data on political manifestos across election campaigns. We rely on two criteria that are well established in the political science literature to measure populism: the *anti-establishment* and *commitment-to-protect* stances. We show that our new populism score is comparable across countries and election periods, and describe its correlation with existing measures.

In Section 3, we use our populism score to describe the long-run trends in the volume and mean margins of populism, the distance between populists and non-populists, and the comparative evolution of right-wing v. left-right populism. We show that the mean level of populism has been fluctuating since the sixties, with peaks during major economic crises such as the oil shocks of the seventies, deep crises in the nineties (hitting Nordic countries, Mexico, South-East Asia, Russia, Brazil and Turkey), and after the financial crisis of 2007-08. The surge of populism is not a pure European phenomenon *per se*, but has become a widespread "pathology" in the European Union. The rise in the volume and mean margins observed in European countries after 2005 is more pronounced than in the rest of the world, a phenomenon that is not solely caused by the recent evolution in Eastern Europe. The average populism score of right-wing populist parties has increased drastically since 2005, suggesting a return to more authoritarian positions towards established elites, open markets, and protection of minorities.

In Section 4 we then empirically link the trends in the volume and margins of populism to the size and structure of import and immigration shocks. Exploiting dyadic data on import, migration and on their skill intensities (Feyrer, 2019; Hausmann et al., 2007), we distinguish between shocks that are likely to adversely affect low-skill voters and income inequality (such as imports of goods intensive in low-skill labor or low-skill immigration), and those that are likely to adversely affect high-skilled voters and decrease inequality. The surge in populism appears closely linked to the skill structure of imports and immigration. Higher imports of low-skill intensive goods increase total and right-wing populism along the volume and mean margins, with no effect on left-wing populism. As far as immigration is concerned, low-skill immigration induces a transfer of votes from left-wing to right-wing populist parties, without affecting the total volume or mean margin of populism. Interestingly, imports of goods intensive in high-skilled labor and high-skilled immigration reduce the volume of populism. These findings are typically stronger when using instrumental methods, thereby supporting a causal interpretation of our results. Our results thus only partially align with Rodrik (2018)'s hypothesis that globalization fosters right-wing populism when it takes the form of immigration shocks (as in European countries), and left-wing populism when it takes the form of trade shocks (as in Latin America). Section 5 concludes.

2 A Continuous Populism Score

Existing studies measuring populism typically classify political parties (or leaders) as either populist or not based on experts' opinions, as in Van Kessel (2015) or Rodrik (2018), or on an analysis of political speeches and agendas. Such dichotomous definitions of populist parties neither capture the "extent" of populism (Sikk, 2009) nor the fact that non-populist parties – potentially responding to the populist "pressure" – may become more or less distant to the populist ones (Inglehart and Norris, 2016). In this section, we develop a *continuous* populism score for each political party that is *time-varying* (parties can become more or less populist across elections) and consistent over time and across space for a large set of countries since the early 1960s. Relying on political manifestos, our *continuous* populism score can be used not only to document changes in the *volume margin* of populism – the vote share of so-called populist parties – but also to characterize changes in the average level of exposure to populism to which voters are exposed to at each election, what will be referred to as the *mean margin* of populism. We first describe the methodology and data that we use to construct a populism score (Section 2.1). We then confront our continuous populism score with existing studies covering different sets of periods and countries (Section 2.2) and discuss our methodological choices in Section 2.3. We present some stylized facts in Section 3.

2.1 Populism Scoring Methodology

For each party-election pair in our sample, we construct a populism score based on a content-analysis of its political manifesto. We denote it by $S^p_{i,e,t}$ for party $p \in (1, ..., P)$ from country $i \in (1, ..., I)$, in election $e \in (1, ..., E)$ at year $t \in (1960, ..., 2018)$. Our scoring methodology is theory-based and relies on two standard dimensions of populism, the *anti-establishment* and *commitment-to-protect* stances. In Section 2.3, we show that deviating from this parsimonious definition of populism creates additional noise and reduces comparability with existing measures and classifications.

Data. – We rely on the *Manifesto Project Database (MPD)*, which characterizes a party's political preferences by counting the number of quasi-sentences associated with a specific issue compared to the length of the party's manifesto (*salience*). For some variables, the MPD reports separately the salience of both positive and negative statements about an issue. In such a case we construct the *net position* as the difference between the two. The MPD covers several political issues such as the position on external relations (e.g., European Union and/or internationalism), the economic system (e.g., free market economy v. market regulation), the welfare system (e.g., welfare state and public education expansion), the fabric of society (e.g., the relevance of traditional morality and law enforcement) and on specific social groups (e.g., working class and minorities). The MPD captures the positioning of parties in the campaign, when parties are seeking to attract electors and before accepting possible post-election compromises with other parties. The MPD covers all parties that won at least one seat in an election campaign. Although debates can be engaged on selection issues, the one-seat constraint excludes many independent candidates, and implies that parties that are very small or politically insignificant are excluded from the sample. Figure A-I and Table A-I in the Appendix document the geographic coverage of the MPD database and of our sample, respectively. The MPD also provides an overall synthetic index positioning the party over the right-left political spectrum (Budge and Laver, 2016), as discussed below.

Dimensions of Populism. – Populism is a multi-faceted concept that involves different trends and heterogeneous ideologies. To provide a consistent measure over space and time, we rely on a parsimonious definition of populist parties, which is based on existing literature and associates populism with two main characteristics.[2]

First, the *anti-establishment stance (AES)* is the key characteristic that recurs in all definitions of populism. Populist parties build on the premise that high ethical and moral values are the hallmark of the people, and not of the ruling class (Shils, 1956; Wiles, 1969). They highlight the divide between the good, pure and homogeneous people, and the corrupt and self-centered elite (Taggart, 2000; Mudde, 2004; Van Kessel, 2015). Mudde (2004), a key reference in this literature, defines populism as "an ideology that considers society to be ultimately separated in two homogeneous and antagonist groups: the pure people against the corrupt elite, and which argues that politics should be the expression of the general will of the people." Such an antagonistic view implies that populists advocate the sovereignty and protection of the people against the political establishment as well as against internal and external threats (Stanley, 2008), which leaves no room for pluralism, diversity of opinions, and even for the protection of minorities (Guriev and Papaioannou, 2021). We use two variables from the MPD to proxy for the AES: the salience of, and position towards (*i*) political corruption, which include mentions related to the need to eliminate political corruption, power abuses and "clientelist" structures; and (*ii*) political authority, which proxies for anti-pluralism views and measures parties' own statements about their relative competences and abilities.

Second, populism involves a strong *commitment to protect (CTP)* the people against threats driven by external or alien entities (Morelli et al., 2021). Populists tap on the fear of people and base communication on cleavages that go beyond the anti-elite rhetoric (Guiso et al., 2017; Rodrik, 2018). Populists' communication style is sometimes perceived as "chameleonic" (Taggart, 2000), and consists in exacerbating feelings of resentment already present in the society to get support from followers.[3] Pointing out economic inequality in income and wealth, left-wing populists tap on the economic cleavage between social classes or between capitalists and workers. Such a version of populism has been widespread

[2]The exact description of these characteristics is provided in Appendix B.

[3]Populist leaders simplify their discourse, and provide sound-bite and catchy solutions to real or imaginary problems (Moffitt and Tormey, 2014). Their cleavage-based discourse is aggressive, authoritarian and critical of the positions defended by other politicians, journalists and scientists (Guriev and Papaioannou, 2021).

in Latin American and is still present in Venezuela, Ecuador, Bolivia or in the context of a few developed countries (March and Mudde, 2005), as evidenced by the rise of *Syriza* in Greece, of *Le Parti du Travail de Belgique* in Belgium, *La France Insoumise* in France, or *Podemos* in Spain. By contrast, right-wing populists tap on the ethno-national or cultural cleavage, stressing the threat of losing one's national identity (from an ethnic, religious or cultural viewpoint) due to increased immigration. Growing right-wing populism is evidenced by rise of the *Tea Party* and Trump's election in the U.S., the *Lega Nord* and *Fratelli d'Italia* in Italy, the *Law and Justice Party* in Poland, by the growing success of the *Front National* in France, *Alternative for Germany* (AfD) in Germany, UKIP and other partisans of Brexit in the UK, *Vlaams Belang* in Belgium, or by the re-elections of Victor Orban in Hungary or of Recep Tayyip Erdogan in Turkey.

We rely on four variables in the MPD to proxy for the *commitment-to-protect* stance: the salience of and position towards (*i*) protectionism, which captures parties' favorable statements towards the protection of the internal market, (*ii*) internationalism, which refers to parties' mentions of international cooperation and national sovereignty, (*iii*) European Community/Union, which includes mentions of its expansion and increase in its competences, and (*iv*) nationalization, which reflects mentions of government ownership of land and industries.[4]

Populism score. To obtain a populism score based on the 6 dimensions of the MPD identified above, we perform two stages of dimensionality reduction. In the first, we perform a Principal Component Analysis of the variables belonging to each populism dimension (AES and CTP), and construct a synthetic indicator for each of them. Panel I of Table 1 shows the results of the PCA for the two dimensions of populism. Col. (1) gives the eigenvalues associated to each variable. Following the so-called Kaiser's criterion, we focus on the first component only, which retains a sizeable amount of variance and exhibits eigenvalues above one (Preacher and MacCallum, 2003). Col. (2) gives the score of the first component associated to each variable, and Col. (3) shows the correlation between the estimated first component and each of the underlying variables. This first stage gives rise to two synthetic indicators capturing political parties' positions with respect to anti-establishment (AES) and commitment-to-protection (CTP) stances.

In panel II of Table 1, we estimate the partial correlations between our two synthetic indices AES and CTP after controlling for country and year fixed effects and for parties right-leaning ideology (RW) (available in MPD (Budge and Laver, 2016)). The results are reported in Cols. (4) to (7), and the R-squared of the regressions are provided in Col. (8). These regressions suggest that AES and CPT are positively and highly significantly related one to the other. Finally, in Cols. (9) to (11) of panel III, we provide the standard deviation (SD), the minimum (Min) and the maximum (Max) of the two synthetic indices.

[4]MPD documents positive attitudes towards nationalisation. As for dimensions (i), (ii) and (iii), it provides net favorable positions corresponding to the difference between positive and negative mentions. Finally, for parties belonging to non-European countries, component (iii) is set to zero. Similar variables have been adopted in Colantone et al. (2021) to build a measure of parties' autarky stance.

Table 1: Construction of the populism score ($S^p_{i,e,t}$) using a two-stage PPCA

	I. PPCA (AES/CTP)			II. Corr. btw. AES & CTP				III. Descriptives		
	EV	Score	Corr.	AES	CTP	RW	R^2	SD	Min	Max
	(1)	(2)	(3)	(4)	(5)	(7)	(8)	(9)	(10)	(11)
Anti-establishment (AES):				-	.09† (.02)	.01† (.00)	.27	1.03	-.72	8.27
- Pol. corruption	1.07	.71	.73‡							
- Anti-pluralism	.93	.71	.73‡							
Commitment to protect. (CTP):				.13** (.04)	-	-.01* (.00)	.11	1.13	-5.81	10.94
- Protectionism	1.29	.41	.48‡							
- Internationalism	.96	-.41	-.46‡							
- EU institutions	.92	-.60	-.67‡							
- Nationalization	.83	.55	.63‡							
Populism score								.81	-3.27	5.61

Notes: Panel (I) shows the results of the polychoric principal component analysis (PPCA). Cols. (1), (2) and (3) give eigenvalues (EV) associated to each variable, their scoring, and the correlation between the first component of the PPCA and the variables in the analysis. Panel (II) shows the partial correlations between dimensions after controlling for a left-to-right index of parties' position over the political spectrum, country and year fixed-effects. Standard errors are clustered at the country level. Panel (III) provides some descriptive statistics. Level of significance: * p<0.05 ; ** p<0.01 ; † p<0.001 ; ‡ p<0.00001.

In a second stage of *dimensionality* reduction, we perform a weighted average of the two synthetic indicators extracted from the first stage, and identify a general populism score for each election-party pair. In our context, performing a PCA would provide identical results, with the same weights assigned to the two synthetic indicators. In the bottom panel of Table 1, we show the descriptive statistics associated to the populism score, $S^p_{i,e,t}$. By construction, each index has a zero mean, while the standard deviation equals 0.81.

Right-wing vs. left-wing populism. – Populism is a "thin" ideology, which can be combined with other political views and can easily adapt its position on salient political issues at stake (Taggart, 2000; Mudde, 2004; Rooduijn et al., 2014). In particular, populism is usually identified as right-wing or left-wing populism based on the type of cleavage used to create two antagonist groups in the society. Mobilization of voters along income/social class lines is associated with left-wing populism. By contrast, tapping on the ethno-national/cultural cleavages is associated with right-wing populism.

Based on the work of Budge and Laver (2016), we position parties over the left-right political scale using the left-right index (*rile*) available in the MPD. We consider as left-wing (as right-wing, respectively) those belonging to the first tercile (third tercile, respectively) of the left-right political scale distribution. Those in the second tercile are classified as centrist. It is worth emphasising that this classification along the left-right spectrum is governed by several factors such as parties' attitudes towards redistribution and political preferences that are related to moral values (e.g. on law and order, traditional morality, importance of military forces, anti-imperialism, etc.). In unreported regressions (available upon request) we show that on average, the highest populism scores are associated with radical right and, to a lesser extent, radical left parties – the classification by political family is provided in the Chapel Hill Expert Survey for the 1994-2014 period. By contrast, the least populist family is that of the "green" parties, followed by traditional (liberal, Christian-democratic and socio-democratic) parties.

2.2 Comparison with existing measures of Populism

Other populism indices and classifications have been developed in the political science literature. The most commonly used classifications heavily rely on the anti-establishment stance proposed by Mudde (2004); they cover different sets of countries and periods.

As a first step, we focus on four databases providing a dichotomous classification of parties, and investigate whether our continuous populism score is a good predictor of a party's probability to be classified as populist. The four existing databases are:

- *Van Kessel.* Van Kessel (2015) identifies populist parties based on their manifesto and political discourses in 31 countries over the 2000-2013 period. A party is defined as populist if it portrays people as virtuous and homogeneous, if it claims popular sovereignty and positions itself against the political elite. This data set identifies 57 populist parties. It has been used as a relevant reference point for alternative populism measures (e.g., Guiso et al., 2017).
- *Swank.* Based on the definition of right-wing populism provided by Betz (1994), Swank (2018) identifies about 30 right-wing populist parties in 21 countries over the 1950-2015 period. Betz (1994) defines right-wing populist parties as those providing a mixed political stance based on economic liberalism, questioning of the legitimacy of democracy, and fueling xenophobic views.[5] Left-wing populist parties are not included.
- *PopuList.* The PopuList dataset developed by Rooduijn et al. (2019) identifies a list of populist parties over the 1989-2020 period for 31 developed countries. Validated by more than 80 academic scholars, it includes parties that have won at least one seat or at least 2% of the votes in an election. The information for the 212 parties available in the PopuList data set has been frequently used in recent studies of populism (e.g., Guiso et al., 2020; Morelli et al., 2021).[6]
- *GPop 1.* The Global Populism data (Grzymala-Busse and McFaul, 2020) from the Freeman Spogli Institute for International Studies provides information on populist parties (only) for 40 developed and developing countries over a long period (1916-2018).[7] This data set is particularly relevant for our analysis, since it allows us to cross-validate our time-variant measure over a time-invariant definition of populist parties for the whole 1960-2018 period.

In Panels I to IV of Table 2, we regress classifications of populist parties provided in existing studies on our continuous populism score ($S^p_{i,e,t}$) and on its two components (AES and CTP). We estimate Probit models (denoted by PRB). Partial correlations are provided for Van Kessel in Panel I, for Swank in Panel II, for the PopuList database in Panel III, and for the GPop 1 database in Panel IV. In all cases, we control for country and election-year fixed effects, to capture countries' time-invariant unobserved heterogeneity and common year trends. The estimates suggest a positive and highly robust correlation between our populism score and the probability to be classified as a populist party in the existing literature.

To better grasp the quality of the fit of our Probit models with respect to the different binary definitions of a populist party, we first compute the predicted probability of being defined a populist party using the estimated models, and we define the set of predicted populist parties as the ones characterized by a predicted probability of being populist above 0.5. Following Naik and Leuthold (1986) we then compute the ratio of accurate forecasts (RAF), which is the percentage of predicted populist identifiers (either 0 or 1) corresponding to the actual data set of reference. The ratio of accurate forecasts takes value between 80% to 91%, suggesting that our predictions nicely fit alternative classifications. Interestingly, the highly significant correlation levels obtained for Global Populism data (GPop 1) over the 1960-2018

[5] A few parties identified by Swank (2018) as right-wing populist are not available in our sample due to the low percentage of votes received during their national elections (e.g., *Démocratie Nationale* in Belgium or the *National Renovator Party* in Portugal).

[6] The sample of countries includes: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom.

[7] The sample of countries includes: Albania, Argentina, Austria, Belgium, Bolivia, Bulgaria, Chile, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Ireland, Israel, Italy, Japan, Latvia, Lithuania, Mexico, Moldova, Netherlands, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, South Korea, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom.

minimize concerns related to comparability and consistency issues over our long period of analysis.[8]

In a second step, we produce our own classification of parties using our continuous and centered (i.e., zero-mean) score of populism. This classification is needed to define the volume margin of populism. We classify a party as populist when its populism score $S^p_{i,e,t}$ exceeds a certain threshold, which can be expressed as a multiplying factor η of the standard deviation of the distribution (SD). We define a dummy $\mathbf{1}^p_{i,e,t}$ equal to 1 if the party p from country i is classified as populist in election e at year t, and 0 otherwise:

$$\mathbf{1}^p_{i,e,t} = \begin{cases} 1 & \text{if } S^p_{i,e,t} \geq \eta \times SD \\ 0 & \text{otherwise.} \end{cases} \tag{1}$$

[8] Controlling for the left-right index hardly affects the correlations between alternative definitions of populism and our populism score or its *commitment-to-protect* component. The correlation with the anti-establishment index is less robust, suggesting that parties' ideological orientation captures part of the *anti-establishment* stance.

Table 2: Correlation with existing classifications of populist parties

	I. Van Kessel (2000-2013) Populist party (PRB)			II. Swank (1960-2015) RW Populist party (PRB)			III. PopuList (1989-2018) Populist party (PRB)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
$S^p_{i,e,t}$	0.699***			0.460***			0.550***		
	(0.161)			(0.112)			(0.094)		
AES		0.247***			0.252**			0.156***	
		(0.091)			(0.100)			(0.054)	
CTP			0.474***			0.234***			0.428***
			(0.093)			(0.045)			(0.069)
Obs.	650	650	650	1658	1658	1658	1635	1635	1635
Countries	25	25	25	16	16	16	28	28	28
Country FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pseudo R^2	0.18	0.08	0.18	0.16	0.12	0.14	0.17	0.09	0.19
RAF (%)	82.3	81.5	82.6	91.4	91.6	91.4	86.2	86.1	86.4

	IV. GPop 1 (1960-2018) Populist party (PRB)			V. GPop 2 (1998-2017) Average Populism Speeches (OLS)			VI. CHES (1998-2018) People vs. Elite (OLS)		
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
$S^p_{i,e,t}$	0.376***			0.120**			1.262***		
	(0.081)			(0.052)			(0.210)		
AES		0.093*			0.057*			0.933***	
		(0.050)			(0.032)			(0.257)	
CTP			0.277***			0.087*			0.668***
			(0.053)			(0.046)			(0.130)
Obs.	2847	2847	2847	100	100	100	176	176	176
Countries	36	36	36	31	31	31	28	28	28
Country FE	✓	✓	✓	✗	✗	✗	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pseudo-R^2	0.16	0.12	0.17						
RAF (%)	88.9	88.6	88.7						
R^2				0.22	0.19	0.22	0.37	0.21	0.33

Notes: In Cols. (1) to (12), we provide partial correlations between parties' political induces and the probability of being coded as populist party or right wing populist party following the definition of Van Kessel (2015), Swank (2018), Rooduijn et al. (2019) and Grzymala-Busse and McFaul (2020) and adopting a probit model. Each regression controls for country and year fixed effects. We also provides the ratio of accurate forecasts (RAF) between our estimated model and actual data, using a predicted probability of 0.5 as threshold to define a party as populist. In Cols. (13) to (15), we provide partial correlations between political indices and party leader's speeches (Hawkins et al., 2019) after controlling for year fixed-effects. In Cols. (16) to (18), we provide partial correlations between political indices and expert evaluations of parties degree of populism (Bakker et al., 2015). Standard errors are clustered at country level. Level of significance: * p<0.1, ** p<0.05, *** p<0.01.

The classification depends on the populism threshold determined by η. To identify a relevant threshold, we compare our classification of populist parties with those of existing studies when we gradually increase η from 0 to 2 (i.e., 0 to 2 standard deviations above the mean). As our database includes more parties and elections than alternative databases, the statistics are computed for the party-election pairs included in each alternative database – namely those of Van Kessel, Swank, PopuList and GPop 1. We investigate the capacity of our populism score to predict the probability to be classified as populist in these databases. We estimate new Probit models for each of the four dependent variables with three sets of explanatory variables, a dummy $\mathbf{1}^p_{i,e,t}$ equal to one if the party is classified as populist according to

our criteria (η),[9] country and year fixed effects.

Figure 1 shows that $\eta = 1$ determines a relevant threshold, maximizing the partial correlation with three existing classifications. A more restrictive threshold might be desirable to maximize the partial correlation with the GPop 1 database. However, Figure B-I in the Appendix shows that $\eta = 1$ also maximizes the rate of accurate forecasts for the overall set of parties and for populist parties only, whatever the classification used as a reference (even when using the GPop 1 classification). Consequently, when using a dichotomous classification of parties to compute the volume of populism, we classify parties with a populist score exceeding one standard deviation as populist in the rest of the paper.[10]

In a third step, we also investigate whether our populism score and its two components are well correlated with other continuous measures of populism from the existing literature. The latter are provided in two additional databases covering a limited number of years:

- *GPop 2.* The Global Populism Data (Hawkins et al., 2019) provides a continuous measure of populism based on textual analysis of the political discourses of parties' leaders who won the national election. The analysis is limited to presidents or prime ministers (depending on the institutional context). The measure is based on four types of speeches – campaign speeches (usually closing or announcement speech), ribbon-cutting speeches, international speeches and famous speeches. Speeches are categorized between 0 (containing few populist elements) and 2 (extremely populist). The sample includes 31 countries over the 1998-2017 period.[11]
- *CHES.* The Chapell Hill Expert Survey (Bakker et al., 2015) provides a continuous index of populism, based on expert surveys and following the definition of Mudde (2004). By asking whether parties believe that the people should have the final say on political issues against the elite, CHES provides a continuous measure of populism (from 0 for pro-elite views, to 10 for pro-people views). However, this index is available in the last wave of the survey (2019) only, and for a reduced number of parties (247). To have a proper comparison with our dataset, we match CHES observations with parties participating in the last electoral event available in the MPD. Since MPD includes parties that won at least a seat during the elections, the matched sample includes 176 parties over 28 countries over the 1998-2018 period.[12]

By estimating standard OLS, Panels V and VI of Table 2 show positive and significant correlations between our populism score $S^p_{i,e,t}$ and its components as well as with the average index of populist speeches from GPop 2 and the CHES pro-people indicators. These results highlight a convergence in identifying populist parties using as proxies leader's speeches and/or expert surveys.

2.3 Discussion

Although our populism score is a good predictor of existing continuous measures and classifications, its construction relies on a parsimonious definition of populism, and its validation is based on a comparison with existing measures that are taken as ground truth. We assess here whether these working hypotheses are relevant in our context.

First, we investigate whether a better predictor of existing measures can be obtained when departing from the parsimonious (bi-dimensional) definition of populism. By focusing on two main characteristics identified in the literature (i.e., anti-establishment and commitment to protect), our populism score abstracts from a significant amount of relevant information available in the MPD. In Appendix B.6, we use similar dimensionality reduction techniques to construct two *extended populism scores* that exploit additional potential characteristics of populist parties, and check whether these extended scores (say $\hat{S}^p_{i,e,t}$) better correlate with existing measures. Our first extended score accounts for the fact that

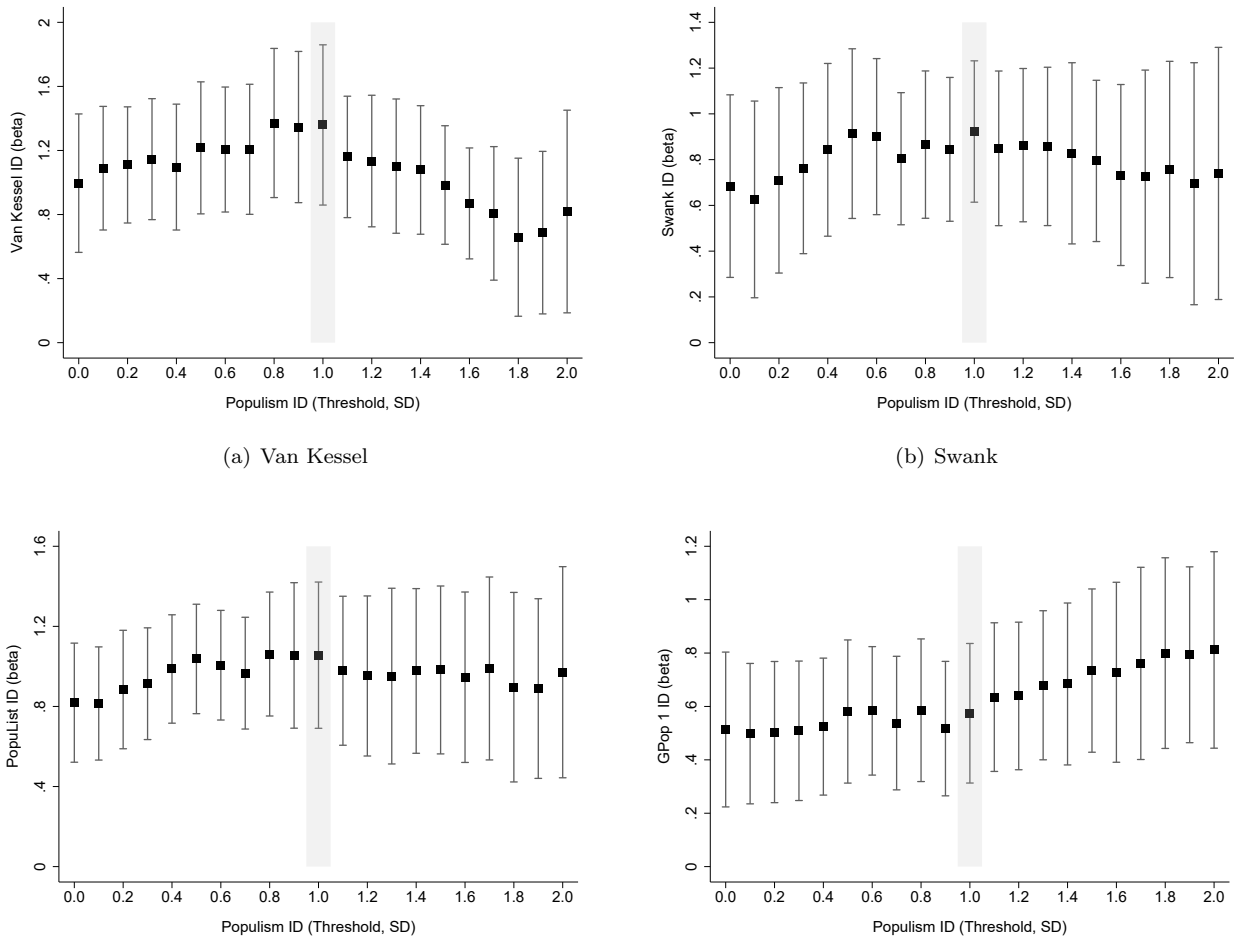
[9] In Table 2, we regressed existing populist dummies on our continuous score ($S^p_{i,e,t}$).

[10] When describing trends and exploring the determinants of populism, we will assess the robustness of our findings when considering threshold levels equal to 0.9 standard deviations (referred to as the lax threshold, $\underline{\eta}$) and to 1.1 standard deviations (referred to as the strict threshold, $\overline{\eta}$). As shown in the Appendix, all stylized facts highlighted in the subsequent sections are highly robust to the choice of the threshold level.

[11] It includes Austria, Bulgaria, Canada, Croatia, Czech Republic, Estonia, Georgia, Germany, Greece, Hungary, Ireland, Italy, Japan, Latvia, Lithuania, Moldova, Montenegro, Netherlands, North Macedonia, Norway, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Turkey, Ukraine and UK.

[12] The list of countries includes Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

Figure 1: Populist parties – Threshold definition



(a) Van Kessel

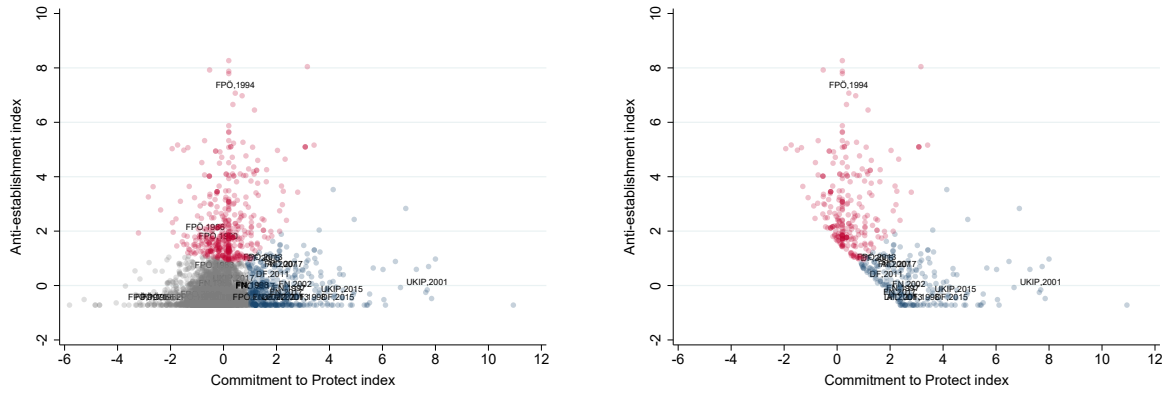
(b) Swank

(c) PopuList

(d) GPop 1

Note: The Figure shows the partial correlations between a dummy which defines a party as populist based on different threshold of the populism score (x-axis) and a populist identifier based on: Van Kessel (2015) (Panel a), Swank (2018) (Panel b), Rooduijn et al. (2019) (Panel c) and Grzymala-Busse and McFaul (2020) (Panel d). The partial correlations are estimated from a probit model, including country and year fixed effects. The rate of accurate forecasts for the overall set of parties and for populist parties only are provided in Figure B-I in the Appendix.

Figure 2: Unsupervised clustering analysis on two dimensions of populism



(a) All parties

(b) Populist parties only

Notes: We perform a clustering analysis using the two dimensions associated to the standard populism score: anti-establishment and commitment-to-protection stances. The left panel presents the space including all the parties, while the right panel presents the space once we focus on populist parties only.

populist parties are sometimes characterized by their *shortsighted and opportunistic research agenda*, which guides their political strategy (Guiso et al., 2017). We combine two additional MPD variables covering aspects which are primarily influenced by policies with a long-term perspective such as education and environmental issues. Our second extended score accounts for the whole set of information available in MPD. We construct synthetic indices of political preferences using the remaining set of 44 variables available from the MPD. We then compute correlations with existing measures and classifications. Although the extended populism scores account for a larger number of political characteristics, they do not provide significantly better proxies for populism, as suggested by the smaller magnitudes of the estimated partial correlations presented in Table B-VIII in the Appendix (in other words, adding more information to the populism score can create additional noise).

Second and in the same vein, our parsimonious definition of populism voluntarily disregards MPD statements that directly capture the salience of cultural and immigration-related aspects. The reason is that right-wing parties (cleavage based on cultural identify) and left-wing populist parties (cleavage based on social classes) are likely to differ drastically on these issues. Controlling for country and year fixed effects, we computed partial correlations between our populism score $S^p_{i,e,t}$ and four MPD variables capturing preferences for immigration and multiculturalism.[13] Note that these variables are not available for the years prior to 2006, which also explains why they cannot be accounted for when constructing our extended populism score. In line with intuition, we find that the populism score of centrist and right-wing parties positively and significantly correlates with negative attitudes towards immigration and multiculturalism. The correlation is insignificant when the sample is restricted to left-wing parties. We also computed pairwise correlations between our populism score and proxies for (i) cultural conservatism, and (ii) preferences for government intervention and economic planning. We find that the populism score of centrist and right-wing parties is positively and significantly correlated with cultural conservatism; this is not the case among left-wing parties. Interventionism and populism are positively and significantly correlated on both sides of the left-to-right spectrum (and more so for left-wing populism). Results are provided in Appendix B.2.

Third, instead of considering existing databases as a reference basis, we stick to our parsimonious selection of political dimensions, and check whether an unsupervised machine-learning algorithm can validate our dichotomous classification of parties ($\mathbf{1}^p_{i,e,t}$). Remember that classifying parties with a populism score exceeding one standard deviation as populist

[13] Namely, (i) immigration is negative for country's national way of life, (ii) immigration is positive for country's national way of life, (iii) immigration positively contributes to multiculturalism, and (iv) immigrant should assimilate to the country culture.

matches well alternative definitions of populism from existing literature. As an alternative approach, we also perform a cluster analysis over the two dimensions of populism identified in the left panel of Table 1 (i.e., AES and CTP). We use the unsupervised k-means clustering method (with the Euclidean distance as dissimilarity measure), which does not require an *a priori* classification or measurement of populism. On Figure 2, the left panel considers all election-party pairs and identifies three clusters of parties colored in grey, red and blue in the two-dimensional space. On the right panel, we select election-party pairs with populism score above the one standard deviation threshold. The clustering approach clearly shows that parties above the one standard deviation threshold belong to a specific cluster in the two-dimensional space, which means that they are both anti-establishment and committed to protect, or that they exhibit a very large index along one of those two dimensions.[14]

3 Trends in Populism over 60 Years

In this section, we analyze the evolution of the distribution and mean level of populism focusing on 55 countries over almost six decades. As stated above, we distinguish between the mean level of populism of all political parties – a concept that captures voters' exposure to (and the extent of) populism without requiring a dichotomous classification of parties – and the vote share of populist parties – a concept that has been abundantly used in cross-country and case studies. Overall, our analysis confirms that (i) populism is not a recent phenomenon (ii) both margins of populism have waxed and waned over the last decades, and (iii) populism in general, and right-wing populism in particular has become much stronger in Europe over the last decade. Appendix B.5 shows that very similar trends are obtained when using a balanced sample of countries from 1960 to 2018, suggesting that those evolutions are not driven by changes in the composition of our sample.

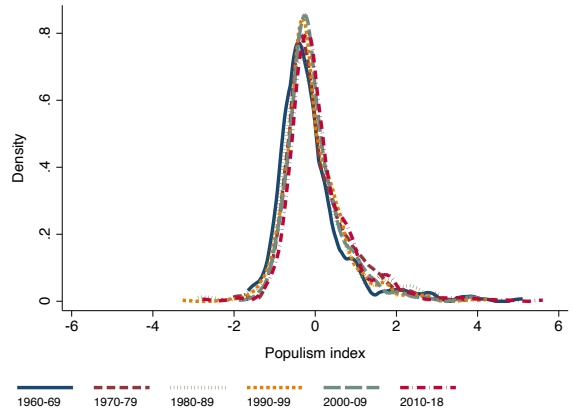
Distribution of, and trends in populism scores. – We first abstract from the dichotomous classification of parties and aggregate the populism scores of all parties included in the sample by period. Figure 3 describes the distribution of populism scores across parties (top panel) and shows different measures of the evolution of the average level of populism over time (bottom panel).

Panels (a) depicts the changes in the density of the populism score across all political parties and countries. The populism score is normally distributed in all decades. We observe a slight increase in the mean, variance, and right skewness (at least, an increase in the density in the range of 1 to 2) during the last decade. Panel (b) depicts the evolution of the Theil index of inequality in populism, and of its between-country and within-country components. Inequality in populism declined between the sixties and early eighties, peaked in the early nineties before declining again, and increased between the financial crisis of 2008 and 2015. The between-country component has been rather stable until the mid-eighties, and has gradually decreased since then. On the contrary, the within-country component – the dominant component in most periods – has shown greater variations and significant increased during the eighties and after 2008, which may reflect a polarization of populist stances and/or vote shares in these periods.

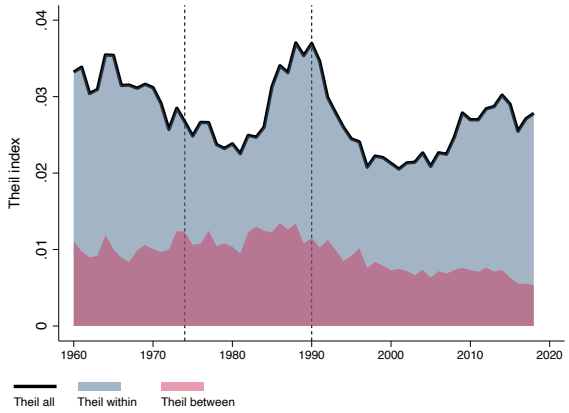
Panels (c) and (d) characterize the evolution of the mean level of populism since the early sixties. In Panel (c), we compute the mean populism score of all parties running for election in all years, disregarding their electoral success (i.e., $\sum_{i=1}^{I}\sum_{p=1}^{P} S_{i,e,t}^{p}/I/P$). This mean level can be seen as a (continuous) proxy for the supply of populism. However, one needs to be very careful with this interpretation as the populism stance of parties is endogenous to the potential demand for populism. The populism score has fluctuated since the early sixties, with peaks aligned with major economic crisis – the oil crisis of the seventies, the deep crises of the nineties, and the years after 2005. The average level observed in 2018 is larger than the level observed in 1960, but smaller than the peak of the late seventies. This masks disparities between European (EU28) and non-European (RoW) countries. In the European Union, the level observed in 2018 is way larger than the level observed in 1960, and slightly greater than the level of the late seventies. It is worth emphasizing that this evolution is not solely driven by the rise of radical right parties in Eastern European countries. In Appendix C.3,

[14] It is worth emphasizing that this pattern is less clear-cut when applying the same unsupervised machine-learning algorithm to extended populism scores (see Appendix B.6).

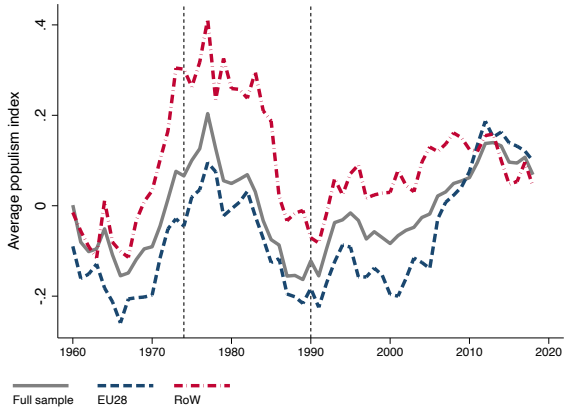
Figure 3: Stylized facts I – Distribution of populism scores and mean margin of populism



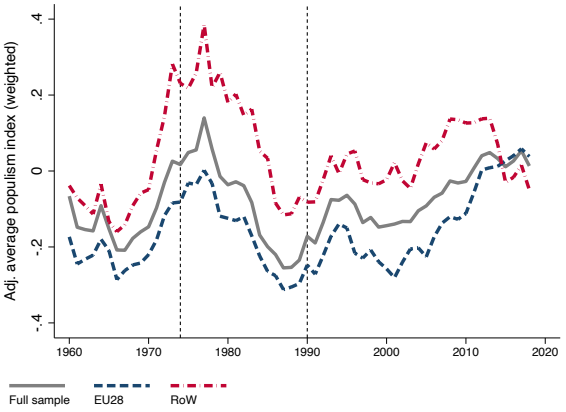
(a) Density of populism score by period



(b) Inequality across parties (Theil)



(c) Mean populism score of all parties (unweighted)



(d) Mean margin of populism ($\Pi^M_{i,e,t}$)

Notes: Fig. (a) shows the kernel-density of the populism score by decade. Fig. (b) depicts the Theil index of inequality in populism across parties, and gives its between-countries component and the within-countries components (Cadot et al., 2011). Fig. (c) plots the average populism score of all parties running for election in a given year. Fig. (d) plots the *mean margin of populism*, a weighted average of the populism scores with weights equal to the party's share in votes. Fig. (c) and (d) show moving averages including 3 years before and 3 years after each date. The vertical lines indicate shifts in our sample size: inclusion of Greece, Portugal and Spain around 1975, and inclusion of Latin American and former soviet union countries around 1990. Similar trends are obtained in the balanced sample (see Fig. B-V in Appendix B.5).

we show that very similar trends are observed when focusing on the EU15 countries. In non-European countries, current levels are lower than those observed in the seventies.

Finally, Panel (d) accounts for the vote shares and depicts the "post-election" mean level of exposure to populism. We define this weighted average as the **mean margin of populism**, which is computed at the aggregate level as:

$$\Pi^M_{e,t} = \frac{\sum_{i=1}^{I}\sum_{p=1}^{P} S^p_{i,e,t}\pi^p_{i,e,t}}{\sum_{i=1}^{I}\sum_{p=1}^{P} \pi^p_{i,e,t}}, \tag{2}$$

where $\pi^p_{i,e,t}$ is the vote share for party p in election e of country i at year t. Note that the mean margin can also be computed at the level of each country ($\Pi^M_{i,e,t}$) by removing the summation over i in the above equation. The latter variable will be used as a dependent in our regression framework.

Panel (d) shows that the evolution of the mean margin of populism is very similar to that of the unweighted average level (i.e., peaks aligned with economic crisis). The rise observed in European countries after 2005 is more pronounced, and the European and non-European mean levels are currently almost identical. Hence, the surge of populism is not a pure European phenomenon *per se*, but has become a widespread "pathology" in both Western and Eastern Europe.

In Appendix C.1, we provide stylized facts for five types of countries, namely Western European countries (France, Germany and the UK), other old members of the European Union countries characterized by rising votes for radical parties (Austria, Greece and Italy), Eastern European countries (Czech Republic, Hungary and Poland), traditional settlement countries (Australia, Canada and the U.S.), and Latin American countries (Argentina, Chile and Mexico). We point to large variations in the mean populism across elections in many countries (such as Austria, Italy, Hungary, Poland, Australia, Mexico, etc.). These are the sources of variation that we will use in the next section to assess the effect of globalization on populism.

Trends in the presence and success of populist parties. – We now account for the dichotomous classification of parties and focus on the presence and electoral success of populist parties, defined as in the previous section as those with a populism score exceeding the one standard deviation threshold ($\mathbf{1}^p_{i,e,t} = 1$). Stylized facts are presented in Figure 4.

Panels (a) and (b) illustrate the increasing presence of populist parties in political elections. Panel (a) shows the evolution of the average number of populist parties per election, conditional on obtaining one seat (to be part of our sample). The total number of populist parties in the 55 countries included in our sample has increased steadily since the sixties, with peaks observed in the late seventies, mid-nineties and in the recent years. This suggests that changes in the mean level of populism highlighted in the bottom panel of Figure 3 have been governed, at least partly, by changes in the number of populist parties. The trends are similar in European and non-European countries, except for the recent years. The last peak is clearly determined by the rising number of populist parties in the European Union. As a corollary, Panel (b) shows that the share of elections with a least one populist party has also increased steadily since the early nineties. Populist parties are present in about 55 percent of contemporaneous elections, and in more than 70 percent of European elections.

Turning our attention to the success of populist parties, we define the **volume margin of populism** as the vote share of populist parties, and compute it at the aggregate level as:

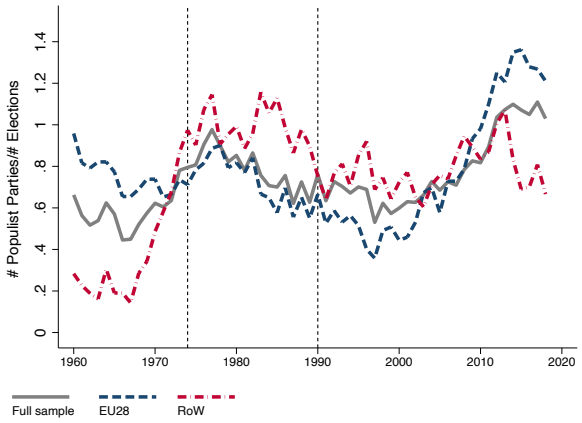
$$\Pi^V_{e,t} = \frac{\sum_{i=1}^{I}\sum_{p=1}^{P}\mathbf{1}^p_{i,e,t}\pi^p_{i,e,t}}{\sum_{i=1}^{I}\sum_{p=1}^{P}\pi^p_{i,e,t}}, \tag{3}$$

where, as before, $\pi^p_{i,e,t}$ denotes the vote share. Note that the volume margin can also be computed at the level of each country ($\Pi^V_{i,e,t}$) by removing the summation over i in the above equation. The latter variable is also used as a dependent in the regression analysis.

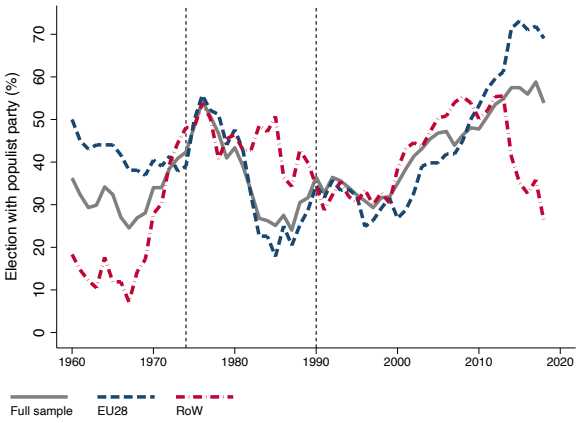
Panel (c) depicts the evolution of the volume margin of populism over time. The evolution of the volume margin is by and large similar to that of the mean margin, suggesting again that changes in the mean margin have been strongly governed by the number and electoral success of populist parties. Stylized facts for five types of countries are provided in Appendix C.1. Variations in the volume of populism are way greater than variations in the mean margin. This is due to the fact that parties frequently enter or exit the populist group either by changing their political discourses, or by exiting or entering our sample (remember that our sample only includes countries with at least one seat in the Parliament). Hence, in line with the trade literature, changes in the volume of populism (total share of votes won by populist parties) can be studied along the extensive margin (number of populist parties running for election) and the intensive margin (average share of votes won by each populist party). Changes in the extensive margin are illustrated in Panel (a) and appear stronger than those identified in the volume margin of populism.

Other variables of interest are the average populism score of populist parties (Sikk, 2009) and its difference with the score of traditional/non-populist ones (Inglehart and Norris, 2016). In Panel (d), we compute the average populism score of traditional or non-populist parties (gray crosses), and of populist parties (black diamonds). The figure shows that the populism score of traditional parties has been rather stable over time. As far as populist parties are concerned,

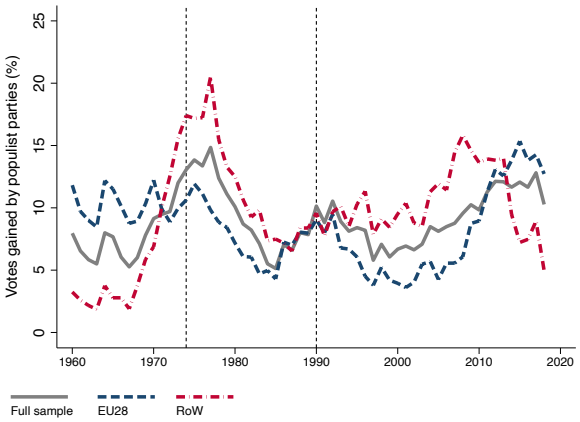
Figure 4: Stylized facts II – Presence, electoral success and score of populist parties



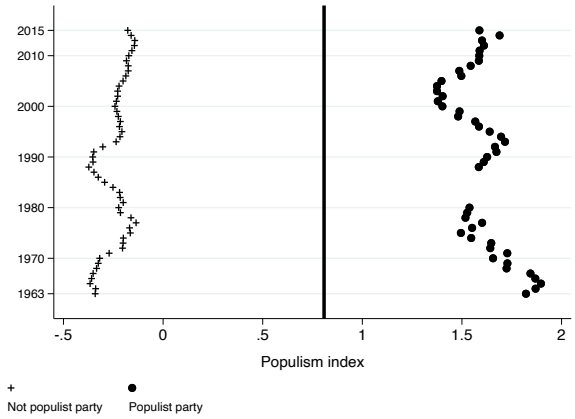
(a) Number of populist parties per elections



(b) Elections with a populist party (%)



(c) Volume margin of populism ($\Pi^V_{i,e,t}$)

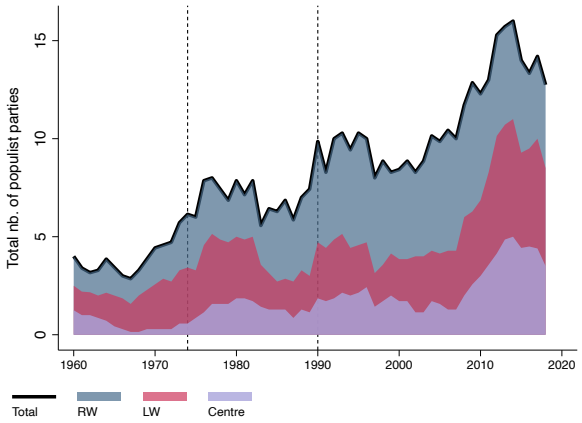


(d) Mean score of populist vs. non populist

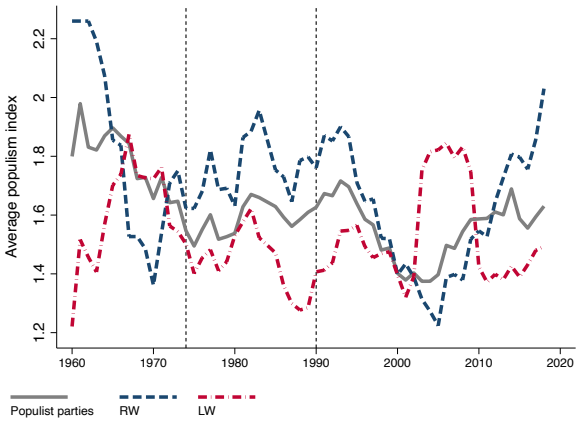
Notes: Fig. (a) shows the total number of populist parties per elections. Fig. (b) gives the percentage of elections with at least a Populist party. Fig. (c) depicts the average share of votes for populist parties (the volume margin). Fig. (d) presents the average populism score of populist and non populist parties. Populist parties are defined as those with a score exceeding 1 standard deviation (0.81). Fig. (a), (d), (e) and (f) show moving averages including 3 years before and 3 years after each date. The vertical lines indicate shifts in our sample size: inclusion of Greece, Portugal and Spain around 1975, and inclusion of Latin American and former soviet union countries around 1990. Similar trends are obtained in the balanced sample (see Fig. B-VI in Appendix B.5).

their average score has had its ups and downs. Before the year 2000, the mean score of populist parties was negatively correlated with the volume margin of populism. This can be due to the fact that more parties becomes "moderately" populist (changes along the extensive margin) or that "moderately" populist parties start obtaining seats when there is a window of opportunity for sanction votes (i.e., times of crisis). As a mirror effect, the score of traditional parties decreases in these periods. Perhaps more worrisome is that the correlation between the mean score of populist parties and the volume of populism has turned positive after 2005. The gap with traditional parties has widened since then, which is in line with the recent evolution of the within-country component of inequality illustrated in Figure 3.

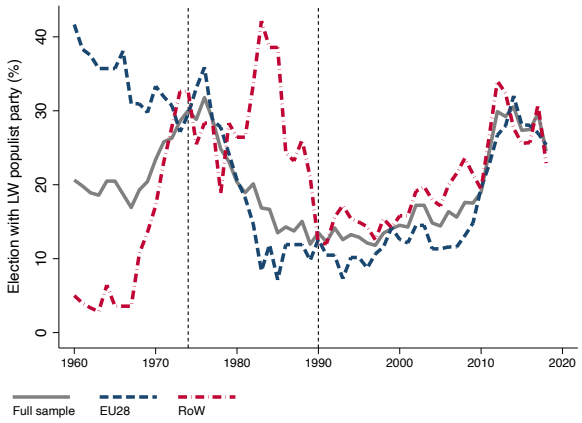
Figure 5: Stylized facts III – Left-wing and right-wing populism at the aggregate level



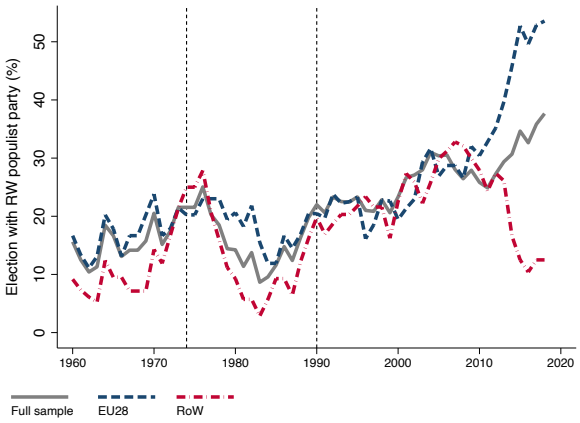
(a) Number of populist parties



(b) Average score of populist parties



(c) Elections with a LW populist party (%)



(d) Elections with a RW populist party (%)

Notes: Fig. (a) shows the total number of populist parties, dividing between left-wing and right wing. Fig. (b) presents the average populism score of populist parties, splitting between left-wing and right-wing parties. Fig. (c) and (d) give the percentage of elections with at least a left-wing and right-wing Populist party, respectively. Populist parties are defined as those with a score exceeding 1 standard deviation (0.808), while left-wing and right-wing parties are defined as those that belongs to the first and third tercile of the left-to-right index. Fig. (a), (b), (c) and (d) show moving averages including 3 years before and 3 years after each date. The vertical lines indicate shifts in our sample size: inclusion of Greece, Portugal and Spain around 1975, and inclusion of Latin American and former soviet union countries around 1990. Similar trends are obtained in the balanced sample (see Fig. B-VII in Appendix B.5).

Trends in left-wing vs. right-wing populism. We finally decompose the trends above along the left-right spectrum. Remember that we position parties over the left-right political scale using the *rile* index available in MPD (Budge and Laver, 2016), and we consider parties as left-wing, centrist or right-wing when their left-right index belongs to the first, second or third tercile of the distribution, respectively. We combine this with our dichotomous classification of populist parties and identify the extent of left-wing populism (often associated with radical left parties), right-wing populism (often associated with far-right parties), and the residual category of centrist populism. Stylized facts are depicted in Figure 5.

When aggregating all countries, Panel (a) shows that the recent rise in the number of populist parties (extensive

margin) is driven by parties belonging to the centre and left-wing terciles of the distribution. This might be surprising at first glance, but it is worth reminding that the political success of parties (i.e., their vote share) is not taken into account at this stage. The number of right-wing populism increased drastically between the second half of the eighties and the early 2000s.

Panel (b) shows that the average populism score of left-wing populist parties has decreased since the financial crisis of 2008 (it reaches 1.4 – i.e., 1.75 standard deviations in 2018). On the contrary, the average populism score of right-wing populist parties has increased since 2005 (it reaches 1.7 – i.e., 2.1 standard deviations in 2018). This suggests that the financial crisis of 2008 and the resulting economic inequalities have probably allowed a return to more authoritarian positions towards established elites, open markets, and protection of minorities. For the first time since the sixties, radical-right populist leaders are more populist than the radical-left ones.

Panels (c) and (d) compare the trends observed in the European Union and in the rest of the world. On the one hand, after a sharp decline between the mid-seventies (oil crisis) and the early nineties, the share of elections with at least one left-wing populist party has steadily increased in all regions of the world (from 15 to 30 percent), as shown in Panel (c). On the other hand, Panel (d) shows that the share of elections with at least one right-wing populist party has increased from 5 to more than 50 percent in European Union member states. In the rest of the world, this share right-wing populist party has increased from 10 to 25 percent over the same period; with a sharp decline during the last wave of elections. Once more, this evidences an increased "supply" of right-wing populism in Europe over the last two decades. In Appendix C.3, we show that these changes are even more pronounced in the core members of the European Union (EU15).

4 Links with Globalization

Previous literature has looked at the determinants of the volume margin of populism and has identified several important determinants to its recent rise. First, the perception of economic insecurity and increased inequality is one of the main drivers of the rising demand for populism (Inglehart and Norris, 2016; Guiso et al., 2017; Rodrik, 2018, 2021); economic fears are sometimes linked to automation and de-industrialization shocks (Frey et al., 2018; Anelli et al., 2018; Gallego et al., 2018), or to severe economic and financial crises (Funke et al., 2016; De Bromhead et al., 2013; Algan et al., 2017). Second, populism is also associated with the perception that the elites are neglecting the risk of social conflicts as well as with a perception of lost identity, or cultural dissolution (Norris and Inglehart, 2019; Mukand and Rodrik, 2018; Algan et al., 2018). In addition, the recent rise of populism also relates to the expansion of internet and new media (Zhuravskaya et al., 2020; Campante et al., 2018; Guriev et al., 2019).

While all the above mentioned studies somehow relate to globalization, other studies have focused explicitly on trade and migration, noting that the associated overall income gains may be distributed very unevenly. The "losers from globalization" (i.e., the socially and economically downgraded segments of the workforce) are then likely to join the ranks increasing the support base of populist parties (Autor et al., 2013, 2020; Helpman et al., 2017; Colantone and Stanig, 2018; Hays et al., 2019; Colantone et al., 2021). Theory suggests that the distributional consequences of globalization are governed by the skill structure of immigration and imports, whose roles have been investigated separately and in very few studies only (Edo et al., 2019; Moriconi et al., 2022, 2019; Autor et al., 2020; Mayda et al., 2022). From the cultural perspective, rising immigration produced a cultural backlash and a stronger support for political ideas oriented on the cleavage between "good natives" and "bad foreigners" (Halla et al., 2017; Moriconi et al., 2022; Shehaj et al., 2019).

This section focuses on the empirical relationship between the margins of populism, and the size and structure of immigration and imports. Compared to existing works, our empirical analysis brings four main innovations. First, we conduct a *unified analysis* of the effect of immigration and import shocks that accounts for their size and their skill-specific structure. Second, we provide cross-country evidence on the populist responses to globalization shocks in a *long-term panel setting* that covers 55 countries, 628 elections, and a 60-year span. Third, we quantify the effect of globalization not only on the volume margin of populism but also on its mean margin, which captures the *average "extent" of populism* that voters are confronted with after the election. Fourth, we distinguish between the *left-wing and right-wing populist*

responses to the size and structure of globalization shocks.

4.1 Empirical Strategy

Our empirical approach aims to quantify the effect of economic, cultural, communication, and globalization factors on the evolution of the volume of populism ($\Pi^V_{i,e,t}$ defined in Eq. (3)), as proxied by the share of votes for populist parties, and on the evolution of the mean margin of populism ($\Pi^M_{i,e,t}$ defined in Eq. (2)), as proxied by the weighted average populism score of all parties having obtained at least one seat in a given election.[15]

Baseline specification. – Similarly to Guriev and Papaioannou (2021), we consider the following specification for both margins of populism:

$$\Pi^m_{i,e,t} = \mathbf{F}\left(\mathbf{X}_{i,e,t}, \mathbf{Mig}^S_{i,e,t}, \mathbf{Imp}^S_{i,e,t}\right), \tag{4}$$

where $m = (V, M)$ is the margin of populism. $\mathbf{Mig}^S_{i,e,t}$ measures skill-specific inflow of immigrants expressed as the mean of the percentage of the population in the election year t and in the previous year $t-1$ (with $S = HS$ for the high-skilled and $S = LS$ for the low-skill); and $\mathbf{Imp}^S_{i,e,t}$ measures skill-specific imports expressed as the mean percentage of GDP in years t and $t-1$. We also include $\mathbf{X}_{i,e,t}$, a vector of traditional determinants of populism, which includes GDP per capita, human capital, the employment rate, the size of the population, and the number of parties in an election, all of them in logarithms. We remain parsimonious in our baseline specification but experiment with richer sets of covariates in our robustness checks, such as voter turnout,[16] skill-specific exports and emigration, or the electoral system, in Appendix D. All our results, however, are robust to including these additional controls.

The specification of the **F**-function differs according to the dependent variable. The mean margin is a continuous variable that, given our normalization procedure, can take both negative and positive values. For this reason, our baseline model assumes that $\Pi^M_{i,e,t}$ is a linear function of the globalization variables. On the contrary, the volume margin is a continuous variable that takes non-negative values only, exhibits a high level of heteroskedasticity, and includes a non negligible share of zeroes (about 60% in the full sample). We estimate it with the Poisson pseudo maximum likelihood (hereafter PPML) estimator, which is found to perform better under various heteroskedasticity patterns, large number of zeroes and rounding errors for the dependent variable (Santos Silva and Tenreyro, 2006, 2010). Hence, our baseline model assumes that $\Pi^V_{i,e,t}$ is an exponential function of the logged transformation of the globalization variables.

Econometric issues. – Three additional issues might lead the OLS/PPML standard models to generate inconsistent estimates. First, the margins of populism can be influenced by a large number of observable and unobservable determinants. Second, the relationship between populism and globalization is potentially influenced by mismeasurement problems and reverse causality, as populist parties tend to support anti-globalization policies. Hence, OLS/PPML estimates for the globalization terms can underestimate the causal impact of globalization on populism, thus calling for an instrumental approach. Third, the effect of globalization shocks can be amplified under adverse economic conditions, when social media networks are expanding, or when the cultural diversity embedded in foreign goods/people increases. We address these issues sequentially, within the limits of our cross-country setting.

We first mitigate *unobserved heterogeneity* concerns by saturating the model with a full set of country and year fixed effects, which allow to account for time-invariant unobservable factors and common trends. Assuming that all drivers of

[15] In the Appendix, we decompose the volume margin into its extensive and intensive margins (denoted by $\Pi^E_{i,e,t}$ and $\Pi^I_{i,e,t}$, respectively), and analyze their specific determinants.

[16] Guiso et al. (2017, 2020) show that economic insecurity depresses voting turnout in a selected manner, and increases the share of (participating) electors voting for a populist party. Leininger and Meijers (2020) find that the presence of populist parties (both left and right) in an election increases political participation of citizens. Hence, drivers of turnout potentially influence populist vote shares, and voting turnout could respond to globalization shocks. As shown in Appendix D.5, our results are robust to the inclusion of turnout as control; moreover, we show that turnout is not significantly impacted by our measures of globalization.

populism act in an additive way, our baseline specifications of Eq. (4) writes as:

$$\begin{cases} \Pi^M_{i,e,t} = \alpha^M + \beta^M \mathbf{X}_{i,e,t} + \sum_S \gamma^M_S \mathbf{Mig}^S_{i,e,t} + \sum_S \zeta^M_S \mathbf{Imp}^S_{i,e,t} \\ +\theta^M_i + \theta^M_t + \epsilon^M_{i,e,t}, \\ \\ \Pi^V_{i,e,t} = \exp[\alpha^V + \beta^V \mathbf{X}_{i,e,t} + \sum_S \gamma^V_S \log(\mathbf{Mig}^S_{i,e,t}) + \sum_S \zeta^V_S \log(\mathbf{Imp}^S_{i,e,t}) \\ +\theta^V_i + \theta^V_t + \epsilon^V_{i,e,t}]. \end{cases} \tag{5}$$

where β^m is a set of coefficients associated with the traditional determinants of populism included in our $\mathbf{X}_{i,e,t}$ vector already described in equation (4) above, γ^m_S is a pair of coefficients associated with skill-specific immigration shocks, ζ^m_S is a pair of coefficients associated with skill-specific import shocks, (θ^m_i, θ^m_t) is a set of country and year fixed effects; and $\epsilon^m_{i,e,t}$ is the error term. Coefficients of the mean margin model are simple incidence parameters, whereas coefficients of the volume margin model must be interpreted as elasticities.

Second, our baseline specification allows to identify an association between globalization shocks and populism, without necessarily capturing a causal relationship between them. Causation is always hard to establish with aggregate data. As detailed in Section 4.3, we rely on *instrumental variables* and two-stage least squares (2SLS) techniques to mitigate endogeneity concerns. Starting from the linear OLS specification of the mean-margin model, we can use the standard 2SLS estimator and instrument all globalization terms jointly. In line with Frankel and Romer (1999), Munshi (2003) or Autor et al. (2020), our instrumentation strategy relies on a "zero-stage" gravity model that predicts the bilateral and skill structure of imports and immigration using dyadic and origin-specific factors (destination-specific factors are excluded). We then aggregate these dyadic predicted flows for each destination, and use these skill-specific sums (less prone to endogeneity concerns) as instruments for observed globalization variables. With regard to the volume of populism, implementing a standard IV approach can induce an additional bias due to the incidental parameter problem. This is due to the non-linear structure of the PPML model and to the presence of a large number of fixed effects (Lancaster, 2000). For the volume margin, we follow Angrist and Pischke (2008) and compare our PPML results with those of a reduced-form IV approach, which consists in replacing actual import and immigration flows with predicted ones.

Third, in Section 4.4, we conduct a series of *robustness checks* and analyze whether the baseline results hold when considering sub-samples of countries and years, alternative lag structures for measuring globalization shocks, and alternative thresholds used to define populist parties.

Finally, the estimation of Eq. (5) sheds light on the average effect of skill-specific globalization shocks on populism. In Section 4.5, we supplement Eq. (5) with *interaction terms* between globalization shocks and a subset of potential amplifiers of the magnitude of populist responses to skill-specific globalization shocks (denoted by $\underline{\mathbf{X}}_{i,e,t}$). Our extended specifications writes as:

$$\begin{cases} \Pi^M_{i,e,t} = \alpha^M + \beta^M \mathbf{X}_{i,e,t} + \sum_S \gamma^M_{S0} \mathbf{Mig}^S_{i,e,t} + \sum_S \gamma^M_{S1} \mathbf{Mig}^S_{i,e,t} \times \underline{\mathbf{X}}_{i,e,t} \\ + \sum_S \zeta^M_{S0} \mathbf{Imp}^S_{i,e,t} + \sum_S \zeta^M_{S1} \mathbf{Imp}^S_{i,e,t} \times \underline{\mathbf{X}}_{i,e,t} + \theta^V_i + \theta^V_t + \epsilon^V_{i,e,t}, \\ \\ \Pi^V_{i,e,t} = \exp[\alpha^V + \beta^V \mathbf{X}_{i,e,t} + \sum_S \gamma^V_{S0} \log(\mathbf{Mig}^S_{i,e,t}) + \sum_S \gamma^V_{S1} \log(\mathbf{Mig}^S_{i,e,t}) \times \underline{\mathbf{X}}_{i,e,t} \\ + \sum_S \zeta^V_{S0} \log(\mathbf{Imp}^S_{i,e,t}) + \sum_S \zeta^V_{S1} \log(\mathbf{Imp}^S_{i,e,t}) \times \underline{\mathbf{X}}_{i,e,t} + \theta^V_i + \theta^V_t + \epsilon^V_{i,e,t}]. \end{cases} \tag{6}$$

The set of amplifiers $\underline{\mathbf{X}}_{i,e,t}$ includes a dummy equal to one if the country experienced a year of negative real growth since the previous election as well as proxies for de-industrialization, and dummies capturing high levels of diversity in the origin mix of imported goods and of immigrants (proxies for cultural diversity embedded in goods or in people), and high levels of internet expansion. Additional interactions are considered in Appendix D.

Data. – Annual trade data are obtained from Feenstra et al. (2005) for the years 1962-2000 and from the United Nations *Comtrade* database for the years 2001-2015. We extract the series of annual imports for each country, and we split them by type of goods using the Standard International Trade Classification (SITC) described in the Trade and Development Report (2002). Product categories at the 3-digit level are classified on the basis of their technological

complexity, capital and skill intensities. Five categories are distinguished, namely primary commodities, labor-intensive and resource-based manufacturing goods, and manufacturing goods with high intensities in low-, medium-, and high-skilled labor and technology. In our baseline regressions, we only account for the divide between manufacturing goods that are intensive in low-skilled and high-skilled labor (in short: "low-skilled goods" and "high-skilled goods"). We experiment with different treatment of labor-intensive and of medium-skilled manufacturing in the robustness section.

Data on 5-year migration inflows by country of destination for the same period are obtained from Abel (2018).[17] We combine these data with information about the skill level of the stock of migrant population from each origin in each country for a few census rounds (say, 1990, 2000 and 2010). We then compute a skill-selection index, proxied by the ratio of college graduates in the dyadic migration stock to the one in the native (pre-migration) population. We use this ratio in the closest available year to impute a skill level for the immigration flows.[18]

In terms of our set of controls, GDP per capita is computed as the GDP at constant 2011 national prices (in million 2011 USD) divided by the population (in millions), both taken from the Penn World Table. The human capital and the employment rate is the ratio of employed to the working-age population, also come from the Penn World Table. The number of years since the last election and the number of parties in each election are from the MPD. Table 3 provides descriptive statistics of our main controls and variables of interest.

Table 3: Summary Statistics - 55 Countries, 1960-2018

Variable	Mean	S.D.	Min.	Max.	Obs.	Pc(25)	Pc(50)	Pc(75)
PANEL A - Populism Vars.								
Volume Margin (All)	8.94	16.82	0.00	92.18	592	0.00	0.00	10.08
Volume Margin (RW)	4.81	12.37	0.00	84.73	592	0.00	0.00	0.00
Volume Margin (LW)	2.53	8.07	0.00	87.33	592	0.00	0.00	0.00
Mean Margin (All)	-0.07	0.44	-1.15	1.94	592	-0.35	-0.14	0.13
Mean Margin (RW)	0.03	0.28	-1.06	1.51	472	-0.12	-0.00	0.11
Mean Margin (LW)	-0.04	0.24	-0.83	1.74	479	-0.16	-0.03	0.04
PANEL B - Globalization Vars.								
log Imp (LS)	-3.40	0.97	-7.55	-1.28	578	-4.00	-3.23	-2.69
log Imp (HS)	-2.40	0.88	-5.71	-0.10	578	-2.86	-2.28	-1.83
log Mig (LS)	-4.13	1.34	-11.71	-1.50	584	-4.77	-3.86	-3.22
log Mig (HS)	-5.51	1.48	-15.11	-2.79	584	-6.26	-5.42	-4.58
Imp (LS)	0.05	0.04	0.00	0.28	578	0.02	0.04	0.07
Imp (HS)	0.13	0.11	0.00	0.91	578	0.06	0.10	0.16
Mig (LS)	0.03	0.03	0.00	0.22	587	0.01	0.02	0.04
Mig (HS)	0.01	0.01	0.00	0.06	587	0.00	0.00	0.01
PANEL C - Country Control Vars.								
log GDP/capita	-3.91	0.60	-6.36	-2.47	592	-4.25	-3.86	-3.49
log Pop	16.18	1.52	12.08	19.55	592	15.24	16.05	17.47
log HC	1.05	0.18	0.21	1.32	592	0.97	1.08	1.17
log Emp/Pop	-0.42	0.17	-1.22	0.15	592	-0.51	-0.40	-0.30
log Parties	1.72	0.45	0.00	2.89	592	1.39	1.79	2.08

4.2 Baseline Empirical Results

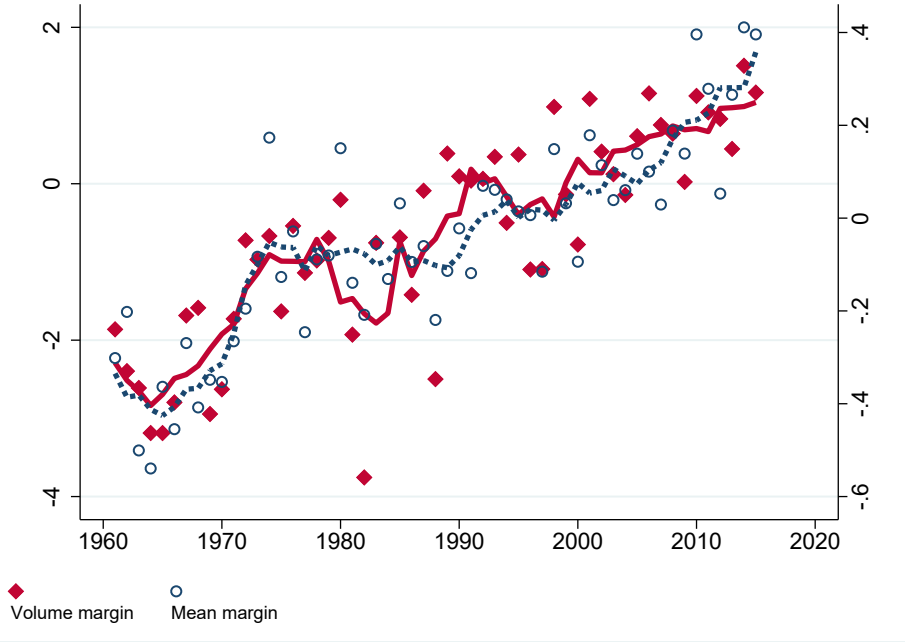
Tables 4 provides estimates of our baseline PPML and OLS models as depicted in Eq. (5), in which all potential drivers of populism act in an additive way, and skill-specific levels of imports and immigration are included jointly. The left panel of Table 4 focuses on the volume margin of populism,[19] while the right panel shows the results for the mean margin of populism.

Despite potential collinearity issues, we account for GDP per capita and employment rates as well as for human capital. We confirm that in general, higher levels of human capital tend to reduce the volume and mean margins of

[17] We interpolate the 5-year data to get annual migration flows over the time period.
[18] Some aggregate and country-specific stylized facts are provided in Appendix C.2.
[19] In Appendix D.2, we decompose these effects along the extensive and intensive margins

populism. The coefficient of GDP per capita is usually insignificant, except for the volume of right-wing populism. This seems to be inconsistent with our stylized facts, which show that all margins of populism increase in times of crisis. As global crises affect all countries in our sample in a potentially non-linear way, their role is likely to be captured by the year fixed effects. Figure 6 plots the year fixed effects estimated for the volume margin (diamonds) and for the mean margin (circles) of populism, as well as their moving average. We observe a positive trend for both margins, and even more so during the first half of the seventies, in the first half of the nineties, and in the years after 2008 (Funke et al., 2016; De Bromhead et al., 2013; Algan et al., 2017). Other control variables tend to be insignificant.

Figure 6: Time fixed effects for the volume and mean margins of populism



Notes: Red diamonds (left scale) and blue circles (right scale) represent the year fixed estimated from Eq. (5). The red solid line and blue dashed line are the centered moving average computed over 5 years over the times fixed effects estimated for the volume margin and the mean margin, respectively.

In line with the existing literature, imports of low-skill intensive goods are positively and significantly associated with total, right-wing, and left-wing populism. On the contrary, imports of high-skill intensive goods are associated with lower volumes of populism in general, and with lower levels of right-wing populism in particular.

With regard to immigration, its association with the overall volume of populism is insignificant. Our results support, however, a substitution between left-wing and right-wing populism. Low-skilled immigration is associated with higher volumes of right-wing populism and with smaller volumes of left-wing populism. Again, high-skilled immigration tends to generate substitution from right-wing to left-wing populism, although the coefficients are slightly smaller and less significant.

These results are in line with Autor et al. (2020), Edo et al. (2019) or Moriconi et al. (2022, 2019), however these papers did not consider trade and immigration jointly. We find that the skill structure of globalization shocks matters for the volume of populism. Both changes to import and immigration are associated with a more than proportionate change in the volume of right-wing populism, but only when these changes are "low-skill". By contrast, shocks that are intensive in high-skilled labor reduce the volume of right-wing populism, both for trade and for immigration.

Nonetheless, the analysis of the volume margin fails to capture the effect of globalization shocks on the actual "extent" of populism which voters are exposed to during an election. The right panel of Table 4 focuses on the association between

Table 4: Baseline PPML and OLS results – Volume and Mean Margins

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log GDP/cap$_{it}$	-1.22	-2.46**	0.70	-0.15	0.03	0.03
	(0.95)	(1.19)	(1.38)	(0.21)	(0.12)	(0.16)
log Pop$_{it}$	1.28	1.00	2.98	0.30	0.48*	0.04
	(0.96)	(1.33)	(1.84)	(0.23)	(0.25)	(0.19)
log HC$_{it}$	-4.81**	-9.01***	5.06	-1.74***	-1.85***	-0.04
	(2.09)	(3.41)	(5.27)	(0.54)	(0.54)	(0.37)
log Emp$_{it}$/Pop$_{it}$	-0.98	-0.15	-5.00	-0.21	-0.05	-0.06
	(1.46)	(1.99)	(3.65)	(0.23)	(0.19)	(0.19)
log Parties$_{it}$	0.45	0.51	0.83*	0.09	-0.05	0.09
	(0.29)	(0.50)	(0.43)	(0.06)	(0.06)	(0.05)
log Imp$_{i,t}$ (LS)	0.83***	1.33**	1.49**			
	(0.30)	(0.56)	(0.62)			
log Imp$_{i,t}$ (HS)	-0.71	-1.30***	-1.25			
	(0.44)	(0.49)	(0.86)			
log Mig$_{i,t}$ (LS)	0.14	1.52***	-1.78***			
	(0.34)	(0.55)	(0.59)			
log Mig$_{i,t}$ (HS)	-0.28	-1.32***	1.17*			
	(0.29)	(0.48)	(0.64)			
Imp$_{i,t}$ (LS)				3.78**	4.28***	-0.11
				(1.65)	(1.47)	(0.70)
Imp$_{i,t}$ (HS)				-0.21	-0.50*	0.36
				(0.43)	(0.28)	(0.23)
Mig$_{i,t}$ (LS)				-0.17	1.73	-1.28
				(1.93)	(2.45)	(1.28)
Mig$_{i,t}$ (HS)				1.86	-2.63	3.65
				(4.99)	(4.74)	(3.49)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.40	0.37	0.51			
R^2				0.50	0.41	0.48
Year FE	✓	✓	✓	✓	✓	✓
Country FE	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe`, while coefficients in column (4) to (6) have been estimated with OLS using the Stata command `reghdfe`

globalization and the mean margin of populism.[20] The mean margin accounts for the level of populism of all parties (classified as populist or non-populist) running for election at time t, as well as for their vote shares.[21] We find that imports of low-skill labor intensive goods are positively and significantly associated with the mean margin of total and right-wing populism. The coefficient is around 4, which means that a 1 percentage point change in the import rate of goods which are intensive in low-skill labor is associated with a 0.04 increase in the mean margin of populism. On the

[20] When we distinguish between left- and right-wing populism, the number of observations decreases. This is because our sample includes some elections without parties belonging to the first or latter tercile of the left-to-right index distribution.

[21] In MPD data, the cumulative vote share is less than 100% for many election-year pairs. This is because small parties and most independent candidates running for election failed to obtain a seat and are excluded from the sample. In the last three columns, we normalize the vote shares of parties represented in the parliament so that their sum is equal to 100%. In Appendix D.3, we show that our results are robust to this normalization.

contrary, imports of goods which are intensive in high-skill labor, as well as high-skilled immigration, are not significantly correlated with the mean margin of populism.

The combined analysis of the volume and mean margins as well as the supplementary results provided in Appendix D allow us to better understand the mechanisms at work. In Appendix D.2, we decompose the volume margin into its extensive (number of populist parties) and intensive (vote share per populist party) components. In Appendix D.3, we divide our parties into two groups – those who have never been classified as populist, and those who have been classified at least once as populist (including potential switchers) – and we estimate the links between globalization shocks and the mean populism score within these two groups.

Imports of low-skilled goods are associated with an increase in the share of votes for centrist and right-wing populist parties (volume margin) and in the average post-election level of centrist and right-wing populism (mean margin). Our decomposition suggests that the volume-margin effect operates along the intensive margin, and the mean-margin effect is jointly governed by the rising vote share for populist parties, and by an increase in the populism score of centrist populist parties.

In contrast, low-skill immigration is associated with a transfer of votes from left-wing to right-wing populist parties, without impacting the total volume of populism or the average "extent" of populism (mean margin). The decomposition suggests that these changes operate along the extensive margin of right- and left-wing populism, and are concomitant with a decrease in the mean level of populism of all types of parties. The most likely hypothesis is that low-skill immigration encourages new right-wing populist parties with moderate populism scores to run for election, or allows them to gain at least one seat in the election. Furthermore, it is worth emphasising that low-skilled intensive imports and immigration never increase the mean populism score of traditional (i.e., never populist) parties.

4.3 Regressions with Instrumental Variables

The correlations presented in the previous section can be driven by unobserved common determinants of globalization and populism and suffer from reverse causation problems. In particular, we may expect that a rise in populism translates into greater restrictions on trade and immigration, implying that the estimates in Tables 4 might underestimate the causal impact of globalization shocks on populism. To mitigate such endogeneity concerns, we use an instrumental variable approach (IV, hereafter) with instruments pertaining to the origin country (for both trade and migration flows). Following Autor et al. (2013, 2016), the "China shock" has been abundantly exploited in the trade literature as a source of exogenous variations in imports and exports in the partner countries. Similary, following Munshi (2003), push factors of origin countries have been frequently used to instrument immigration shocks in the destination country (Boustan, 2010; Klemans and Magruder, 2018; Monras, 2020).

We generalize this approach by predicting dyadic flows of goods and migrants between countries relying on origin countries' time-varying characteristics and time-invariant dyadic factors. We then aggregate these flows by destination, and use the aggregate predictions as instruments for skill-specific imports and immigration flows. Hence, our IV strategy relies on a "zero-stage" gravity-model for dyadic trade and migration (Frankel and Romer, 1999; Feyrer, 2019; Alesina et al., 2016; Docquier et al., 2020), which writes as:

$$Y_{ij,t} = \exp\left[\alpha + \theta_{ij} * Post_{1990} + \theta_{j,t} + \epsilon_{ij,t}\right], \tag{7}$$

where $Y_{ij,t}$ is the dyadic skill-specific flow of either imported goods ($\text{Imp}^S_{i,t}$) or immigrants ($\text{Mig}^S_{i,t}$) from origin country j to destination country i at year t.[22]

Our zero-stage regression in Eq. (7) includes a set of fixed effects. We have dyadic fixed effects (θ_{ij}) capturing bilateral determinants such as distance, colonial linkages, cultural and linguistic proximity, as well as time-invariant destination-specific characteristics. Remember that in our second stage, we control for country fixed effects and identify the effect of globalization shocks using the within-variation in imports and immigration. Dyadic fixed effects are interacted with a post-1990 dummy ($Post_{1990}$), which proxies structural changes due to the fall of the Berlin Wall (including political

[22]The dependent variable for trade is skill-specific, i.e., $Y_{ij,t}$ refers either to low- or high-skill import flows. For migration, we use total flows and we rely on the strategy used in the baseline to derive skill-specific immigration flows.

Table 5: Reduced-form IV PPML and 2SLS results – Volume and Mean Margins

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	0.91*	1.82**	0.97			
	(0.50)	(0.84)	(0.84)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.22*	-2.14**	-0.72			
	(0.66)	(0.87)	(0.83)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.53	1.97***	-1.70*			
	(0.43)	(0.58)	(0.92)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-1.04*	-2.02**	0.60			
	(0.56)	(0.89)	(1.23)			
$\text{Imp}_{i,t}$ (LS)				4.99**	4.06**	1.29
				(2.33)	(1.77)	(1.42)
$\text{Imp}_{i,t}$ (HS)				-0.22	-0.59	0.45
				(0.54)	(0.38)	(0.37)
$\text{Mig}_{i,t}$ (LS)				0.52	0.74	-0.75
				(3.13)	(3.01)	(1.53)
$\text{Mig}_{i,t}$ (HS)				0.99	3.15	3.34
				(10.12)	(7.90)	(4.75)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.40	0.36	0.50			
R^2				0.06	0.09	0.01
K-Paap F-stat				12.05	11.36	9.45
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

transformations in Eastern European countries and greater intra-European labor mobility). We also have origin-year fixed effects ($\theta_{j,t}$) capturing time-varying shocks in the origin country (e.g., changes in trade policies, economic shocks, socio-demographic changes, conflicts, natural disasters, etc.). Given the large number of zeroes in dyadic flows, we estimate Eq. (7) using PPML, which explains the exp transformation of the right-hand-side term. We estimate Eq. (7) over the global matrix of destination-origin countries.

We predict skill-specific trade and migration flows, $\widehat{Y}_{ij,t}$ using the estimated coefficients from Eq. (7), then aggregate them using $\widehat{Y}_{i,t} \equiv \sum_j \widehat{Y}_{ij,t}$, and use $\widehat{Y}_{i,t}$ as an external instrument for $Y_{i,t}$ in the model for the mean margin. Being estimated from the gravity model without time-varying destination-country characteristics, the predicted flows should be less prone to reverse causation and omitted variable biases. When focusing on the volume margin, we use a reduced-form IV approach and replace the actual flows ($Y_{i,t}$) by the predicted ones ($\widehat{Y}_{i,t}$) in the PPML setting, as recommended by Angrist and Pischke (2008). First-stage regression results are provided in Table D-I, in Appendix D.1.[23]

The results for the globalization variables are presented in Table 5. The left panel provides reduced-form IV estimates for the volume margin of populism. These estimates are very much in line with the results of our baseline PPML regressions. They confirm that the skill structure of globalization shocks plays a key role. Imports of low-skill goods foster votes for populist parties in general, and for right-wing parties in particular. By contrast, imports of high-skill

[23]The predicted levels are nicely correlated with the actual ones, and the coefficients of the instruments are highly significant close to unity. The adjusted R-squared is usually large despite the fact that our zero-stage dyadic regressions abstract from destination-time characteristics.

goods decrease the votes for right-wing populist parties. With regard to immigration, the IV results also confirm those of the baseline regressions. Low-skill immigration leads to a substitution of left-wing populism for right-wing populism. High-skill immigration reduces the votes for populist parties. Compared to the baseline regressions, the elasticities are larger by a factor of 1.3, which is in line with the existence of a downward-sloping reverse causation link.

The right panel provides the 2SLS estimates for the mean margin of populism. These estimates are also in line with the OLS results of Table 4. Imports of low-skill intensive goods tend to increase the mean margin of total and right-wing populism. On the contrary, imports of high-skill goods and both types of immigration do not lead to such populist responses. The coefficients are in the same order of magnitude as in the OLS setting. As for the strength of the instrument, the Kleibergen-Paap F-stat is around 10 across the different specifications, which is a reasonable value given the fact that we are instrumenting four different endogenous variables simultaneously. Reassuringly, our results are preserved and Kleibergen-Paap F-stat are much larger when instrumenting one variable at a time or in pairs (see Appendix D.4).

Instrumental variable techniques are also used in the decomposition of the volume and mean margins of populism (see Appendix D.2). The IV results tend to reinforce the mechanisms highlighted in the previous section. With regard to imports of low-skill intensive goods, their effect on the volume of (centrist and right-wing) populism operates along the intensive margin, whereas their effect on the mean margin is partly governed by a greater populism score of centrist populist parties. Low-skill immigration, on the other hand, favors new right-wing populist parties with moderate populism scores to run for election or to gain a seat without influencing their mean populism score. Finally, globalization shocks have no effect on the populism score of traditional (i.e., "never populist") parties (see Appendix D.3).

4.4 Robustness Checks

To investigate whether our results are sensitive to specification choices, party classification, or sub-samples of countries and years, we conduct a battery of robustness checks using the IV estimators. Detailed results for the volume and mean margins of populism are provided in Appendix D. We summarize below our main findings, mostly focusing on the populism responses to imports of low-skilled intensive goods and low-skilled immigration.

Lag structure for globalization shocks (Appendix D.8.1). In our baseline results, the skill-specific migration and import variables are defined as the sum of import and immigration flows over two years, namely the election year and the year prior to the election. To assess whether our results are sensitive to the lag structure of our model, we provide results with skill-specific import and migration defined as (*i*) the flows observed in the election year (t), (*ii*) the flows observed in the year before the election ($t-1$), (*iii*) the flows observed two years before before the election ($t-2$), (*iv*) the sum of the flows between the election year and two years before, and (v) the sum of the flows between the last two elections. The number of lags used to compute import and immigration shocks influences the scale of these variables and the magnitude of the coefficients. Overall, results for immigration are highly robust to the lag structure. The sign and significance of the result for imports is also preserved, except when shocks at measured in the year of election (too short a period) or between two elections (too long a period). In the vein of Rodrik (2018), a left-wing populist response to imports cannot be ruled out when the import shock is computed over a longer period, implying some form of persistence.

Classification of populist parties (Appendix D.8.2). In our baseline results, we define populist parties as those exhibiting a populism score above one standard deviation ($\eta = 1.0$). The choice of this threshold maximizes the partial correlation with most existing classifications, and defines a clear-cut bundle of parties when using unsupervised clustering algorithms. We provide results obtained when using less restrictive ($\eta = 0.9$) or more restrictive ($\eta = 1.1$) thresholds. The significance and magnitude of the effects are well preserved when using a lax (or more inclusive) classification of populist parties. A few effects becomes insignificant when using a stricter (or less inclusive) definition. It is worth emphasizing that many parties usually perceived as populist by political scientists exit the list when using the stricter definition.[24]

[24]Some relevant examples of parties that are not classified as populist with the stricter definition are *Syriza* in Greece, *Movimento 5 Stelle* in Italy, and *La France Insoumise* in France.

Proxies for skill-specific immigration shocks (Appendix D.8.3). We analyze the sensitivity of our results to the imputation of the skill structure of immigration flows, or to the inclusion of interactions with migrant stock variables. First, we impute the skill structure of migration inflows using the selection ratios observed in the year 2000 only, rather than relying on the closest year (1990, 2000, 2010). The results remain similar both in terms of magnitude and significance. Second, we explore whether the populist responses to immigration flows are magnified when the pre-existing stock of immigrants is large. To capture these non-linear effects, we interact low-skilled immigrant flows with a dummy variables equal to unity if the ratio of immigrant stock to population in the destination country belongs to the top or bottom quartile of the distribution in 1960. With a few exceptions, these interaction terms are insignificant. The magnitude and significance of the direct impacts of imports and immigration are well preserved.

Proxies for skill-specific import shocks (Appendix D.8.4). We consider alternative ways to characterize the skill and technological content of imported goods. Following the classification of the Trade and Development Report (2002), we first expand our specification by adding imports of labor-intensive goods (both high- and low-skill labor intensive goods) to the set of regressors. This does not affect the effect of our baseline globalization shocks. We find that labor-intensive import is positively associated with the volume of left-wing populism. Second, we augment our specification with imports that are medium-skill labor intensive. This variant kills the significance of the volume-margin responses to imports, which is probably due to collinearity issues, while preserving the mean-margin responses.

Combining skill content with economic development at origin. In Section D.8.5, we consider a more demanding specification in which our main variables of interests are now split according to the level of economic development of the country of origin. We create dummies for low-income (LI) and a high-income (HI) countries using the World Bank country classification (combining those defined as low-income and lower-middle income in the LI category, whereas those considered as upper-middle and high-income form the HI category). Replicating the baseline analysis with the above variables, the findings highlight that the positive and significant populism responses to globalization are mostly driven by imports and immigration flows of goods and people originating from low-income countries on the volume margin. However, globalization shocks involving North-North movements seems more relevant in explaining the mean-margin positive response.

Robustness by sub-sample. (Appendix D.8.6). Since our analysis covers a long time period and a wide set of countries, we provide results exploring whether our baseline results are driven by specific time-periods or subsets of countries. We first investigate whether our results are governed by more recent years, when the pace of globalization increased. To do so, we include in our analysis interaction terms between our populism-enhancing globalization variables (i.e., low-skilled imports and immigration) with a post-1990 dummy. Our results are highly robust to the inclusion of this additional terms, which tend to attenuate the right-wing populist response to imports along the volume and mean margins. We then account for the relevant presence in our sample of European countries, which are characterized by different layers of integration among themselves, depending whether they belong to the countries of the European Union (EU28). Hence, we include a dummy variable capturing whether a country belongs to the European Union, and interaction with low-skill intensive globalization shocks. While the direction of the estimates remain the same, the magnitude and the significance of the coefficients is influenced by the subset of countries under analysis. The effect of imports and immigration on the volume margin of (total and right-wing) populism is mostly driven by EU28 countries. In addition, we cannot rule out an effect of imports on the volume and mean margins of left-wing populism in the EU. As further check, we explore whether the results are driven by the Latin American countries available in our sample. Excluding them from the sample does not influence our estimates. Finally, we show that our results are confirmed and are not driven by the unbalanced structure of our dataset. By excluding from the sample countries the ones that enter in the sample after 1970, our skill-specific estimates both on the volume and mean margin are confirmed.

Additional robustness checks. We also show that our results are not driven by an effect of globalization on voting turnout (see Appendix D.5). Our results also hold when controlling for the electoral system, although a significant effect of imports of low-skilled intensive goods on left-wing populism is obtained under the proportional representation system (see Appendix D.6). Furthermore, our results are robust to the inclusion of skill-specific export and emigration flows

(see Appendix D.7). We decided not to include emigration and exports in our benchmark regression for three reasons. First, the effects of exports and emigration are less significant and robust. Second, instrumenting eight skill-specific globalization shocks is a heroic task. Third, we already account for the direct impact of emigration on the skill structure of the labor force by controlling for human capital.

4.5 Searching for Amplifiers

The results described above can be considered as average populist responses to globalization shocks in normal times. We now consider the extended specification depicted in Eq. (6), which includes other potential drivers of populism (direct impact) and their interactions with low-skill intensive globalization shocks (amplifiers).

We create five dummies to capture whether (i) the country experienced a year of negative real income growth in the last two years before the election (a proxy for *economic crises*), (ii) the country experienced a variation in the share of manufacturing value added in GDP in the last two years that belongs to the bottom quartile of the distribution (a proxy for *de-industrialization*), (iii) the share of internet users in population belongs to the top decile of the distribution (a proxy for a high *prevalence of social media*), (iv) the level of diversity in the origin mix of imports of low-skill labor intensive goods belongs to the top decile of the distribution (a proxy for diversification in imports), and (v) the weighted mean of genetic distance between the origin and destination countries of low-skill immigrants belongs to the top decile of the distribution (a proxy for a high level of *cultural distance* between natives and low-skill immigrants).[25] Detailed IV regression results including the linear effect of the dummies are provided in Tables D-XXXIV to D-XXXVI in Appendix D.9. The linear terms are insignificant for the crisis and de-industrialization dummies, whose roles are likely to be captured by the year fixed effects. The internet dummy is positive and significant for the volume margin of populism (Zhuravskaya et al., 2020; Campante et al., 2018; Guriev et al., 2019), and virtually insignificant for the mean margin. Finally, a high level of diversity in imports increases the mean margin of populism, while we find insignificant direct impacts for cultural distance between natives and low-skilled immigrants.

However, our main variables of interest are the interaction terms with globalization shocks, which reflect potential amplifiers of the populism responses to globalization. Figure 7 provides the estimated coefficients of the interaction terms and their confidence intervals at the 90% threshold. Each sub-figure focuses on one potential amplifier, and distinguishes between the volume margin of populism (left panel) and the mean margin (right panel), separated by a vertical line. Each panel includes two triplets of estimates, namely the effect of imports of low-skill labor intensive goods on the left, and the effect of low-skill immigration on the right. Finally, a triplet is made of three estimates for the effect of the interaction term on total (black squares), right-wing (blue triangle) and left-wing (red diamond) populism, respectively. We explain below how the inclusion of potential amplifiers affects the main findings of the previous sections.

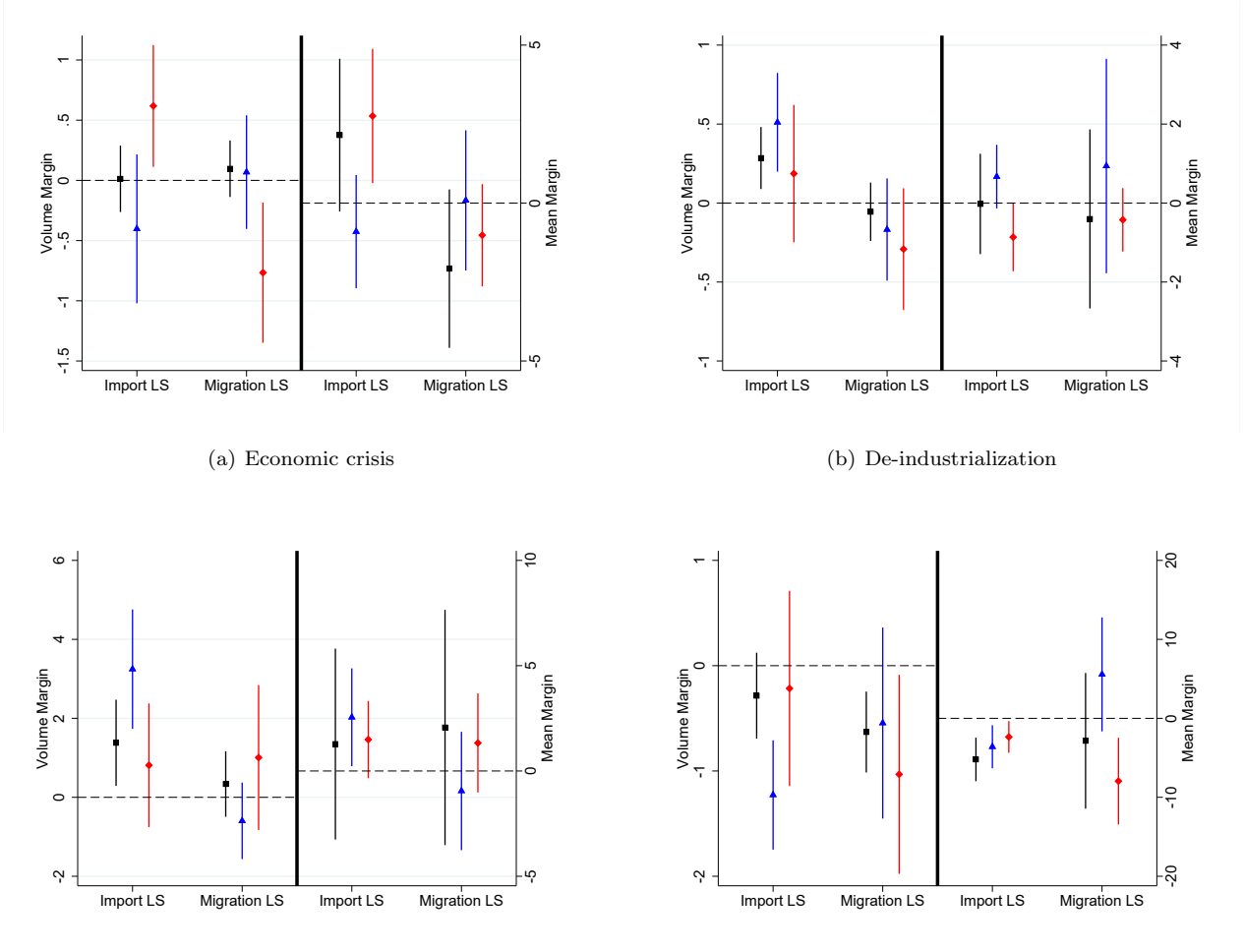
Our first main result is that *imports of low-skilled intensive goods increase the volume of total and right-wing populism, without affecting the volume of left-wing populism.* The estimates in Figure 7 show that these effects are reinforced in times of de-industrialization (Panel b) and when the internet coverage is high (Panel c). On the contrary, a high level of diversity in imported (low-skilled labor intensive) goods reduces the right-wing populism response (Panel d). In addition, it cannot ruled out that imports increases the volume of left-wing populism in times of negative growth (Panel a).

Our second main result is that *imports of low-skilled intensive goods increase the mean margin of total and right-wing populism, without affecting the mean margin of left-wing populism.* Figure 7 evidences that the right-wing populism response is larger when the internet coverage is high (Panel c), and that an effect on the mean margin of left-wing populism materializes during severe crises (Panel a). In line with the volume-margin analysis, the right-wing response to trade is smaller when imported goods are more diverse (Panel d).

Our third main result is that *low-skill immigration induces a transfer of votes from left-wing to right-wing populist parties.* The results in Figure 7 show that the decline in left-wing populism is stronger in times of negative growth (Panel a). Interactions with the de-industrialization and internet coverage dummies are never significant. With regard

[25] The data sources are the Penn World Tables for GDP growth rates, the UN National Accounts for the share of manufacturing output in GDP, Abel (2018) for dyadic immigration flow data, and the World Bank WDI for internet coverage (we assume zero coverage before 1990, since the World Wide Web was invented in 1989). Data on genetic distance are taken from Spolaore and Wacziarg (2009). The top decile is derived for values available from 1990.

Figure 7: Interactions with amplifiers for volume and mean margins
Reduced-form IV PPML and 2SLS results



(a) Economic crisis

(b) De-industrialization

(c) Internet coverage

(d) Diversity (Imp) & genetic dist. (Mig)

Notes: Black (square), blue (triangle) and red (diamond) objects correspond to overall, right wing and left wing dimensions, respectively. Dependent variable is the volume margin on the left panels, while is the mean margin in the right panels. The estimates represent the coefficients of the interaction term between migration (LS) and imports (LS) with a dummy equal to one if the country experienced a year of negative real growth five years prior the election year (Figure (a)), as well as proxies for de-industrialization (Figure (b)), trade diversity and genetic distance (Figure (c)) and for internet coverage (Figure (d)). 90% confidence intervals are reported.

to cultural distance, it does not amplify the right-wing populist response to low-skill immigration. Similar findings are obtained when we replace our proxy for cultural distance by an augmented diversity index *a la* Greenberg (1956) computed on low-skill immigrants, that combines diversity, cultural and economic distance in a single variable.[26] If anything, a high level of cultural distance reduces the centrist and left-wing populist responses to immigration (Panel d).

Finally, our fourth results is that *low-skill immigration has no meaningful impact on the mean margin of populism.* This results is fairly robust and unaffected when interactions terms are factored in.

[26]Section D.10 shows that, once accounting for both economic and cultural distance, diversity has no amplifying effect on populism. If any, economic distance, rather than cultural distance, can enhance the effect of low-skill immigration on the volume of populism.

5 Conclusion

The recent waves of national elections have seen populist and nationalist parties gain ground in many countries, and in the European Union in particular. Populism remains a multifaceted concept that is difficult to objectify and quantify. We propose and construct new (or updated) measures of populism that rely on the two main criteria identified in the literature – namely the anti-establishment and commitment-to-protection stances of political parties and leaders. Our measures are consistent over time and allow to characterize the populism scores for almost 4,000 party-election pairs from 55 countries, covering 628 elections and a 60-year time span. Equipped with these measures, we are able to analyze the long-run trends in the "volume margin" of populism (the measure most commonly used in existing empirical studies, as it captures the vote share of all parties defined as populist) as well as in the "mean margin" of populism (i.e., the vote-weighted average level of populism of all parties, which captures the extent of populism that voters are exposed to during an election).

We use these measures to characterize the trends in the levels of total, left-wing, centrist and right-wing populism. In the descriptive part of our paper, we document that both (the volume and mean) margins of populism have fluctuated since the 1960s, with peaks after each major economic crisis. Moreover, we show that right-wing populism has reached an all-time high in the last decade. The situation is particularly worrisome in the EU, where the recent rise in the volume and mean margins of right-wing populism is more pronounced than in the rest of the world.

Our second objective is to empirically assess how globalization shocks have shaped populism trends over the last six decades. We provide a unified analysis of the effect of import and immigration shocks on populism and disentangle their respective effects according to their skill and cultural contents. To address causation issues, we implement an instrumentation strategy that predicts changes in the bilateral and in the skill structure of imports and of immigration using origin-specific factors.

We find the the skill structure of globalization shocks is key to explaining populist trends. In general, imports of high-skill labor intensive goods and high-skill immigration tend to reduce the volume of total and right-wing populism. This is not the case of globalization shocks that are likely to adversely affect low-skill voters and income inequality. Imports of low-skill intensive goods increase total and right-wing populism along the volume and mean margins. These effects are greater in times of de-industrialization and when the internet coverage is high, while smaller when the origin mix of imported goods is more diverse. In normal times, import shocks have no effect on left-wing populism. The latter results does not hold in times of severe crisis, when import shocks are persistent, or when focusing on European countries only. Low-skill immigration induces a transfer of votes from left-wing to right-wing populist parties, without affecting the total volume or mean margin of populism. The right-wing populist response is not amplified by the average cultural distance between natives and low-skill newcomers.

Hence, the effect of globalization on populism varies with the type and measure of populism, and is strongly influenced by the skill and cultural characteristics of imported goods and people. This suggests that the economic and cultural determinants of populism are not mutually exclusive. Our analysis is conducted at the country level but the channels at work are likely to imply complex political competition responses – as evidenced by the differential in the mean margin responses of never-populist parties and others – as well as entry and exit changes – as evidenced by our decomposition of the volume margin into its extensive and intensive margins. An empirical analysis conducted at the party level could shed light on the re-positioning of traditional and populist parties as well as on the role and intensity of underlying political competition responses to globalization shocks. We leave this for further research.

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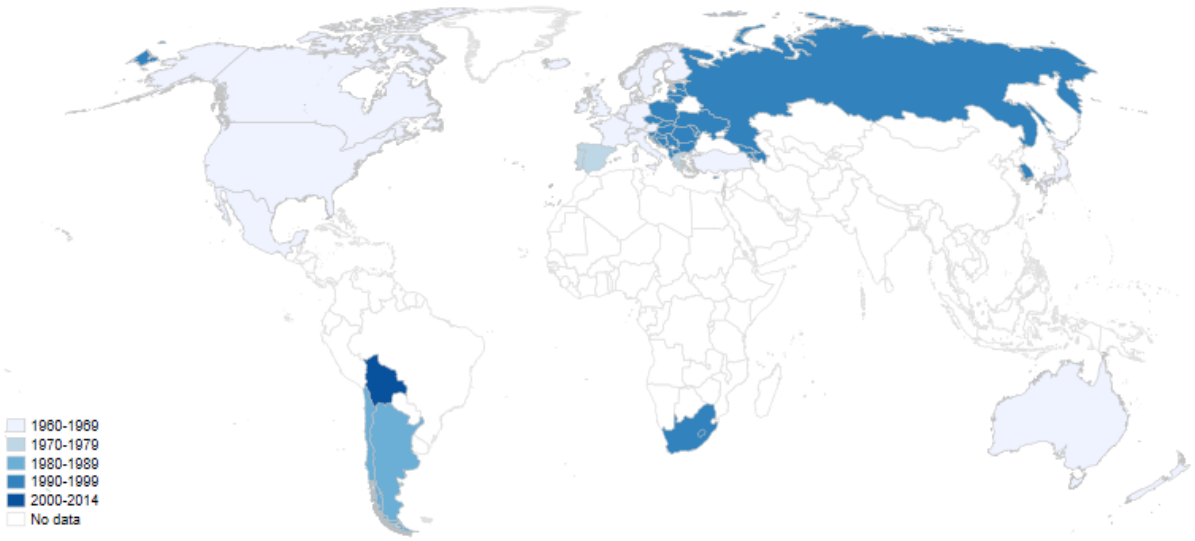
Online Appendix

A List of countries included in MPD

Figure A-I illustrates the set of countries available in our data set. We cover both economically developing and developed countries, not all of them being available from the beginning of our period of analysis.

Figure A-I: Countries available in MPD data



Note: The figure plots the countries that have at least one electoral and the different colors show the year of the first election available in the sample.
Source: Authors' elaboration on MPD.

Table A-I provides the list of countries, the year of the first (third column) and last (fourth column) electoral event available, the number of elections (fifth column) and the total number of unique parties that won at least one seat in an electoral event (sixth column). The total number of observations in our dataset (hence party-election) is 3,860. As expected, several former Soviet Union countries enter the sample after the fall of the Berlin Wall (1989). At this stage, if a party A changes its name to become party B between elections, we count them as two different parties. MPD provides the 1990 results for the German Democratic Republic (East Germany), but we remove them from the sample. Data for the 2014 Uruguayan elections is also available, but we drop the country due to the lack of time variation.

Table A-I: Manifesto Project Database – Sample

	#	1^{st} E.	Last E.	N# E.	N# P.P.		#	1^{st} E.	Last E.	N# E.	N# P.P.
Denmark	1	1960	2015	21	20	Bulgaria	30	1990	2017	10	28
Japan	2	1960	2014	19	28	Croatia	31	1990	2016	9	36
New Zealand	3	1960	2017	20	14	Czech Rep.	32	1990	2017	9	25
Sweden	4	1960	2018	18	16	Georgia	33	1990	2016	9	42
USA	5	1960	2016	15	2	Hungary	34	1990	2014	7	15
Australia	6	1961	2016	22	13	Montenegro	35	1990	2016	10	23
Belgium	7	1961	2014	17	34	Nth Mac.	36	1990	2016	9	29
Germany	8	1961	2017	16	11	Romania	37	1990	2016	8	31
Ireland	9	1961	2016	16	16	Serbia	38	1990	2016	11	38
Israel	10	1961	2015	16	59	Slovakia	39	1990	2016	9	27
Mexico	11	1961	2015	19	26	Slovenia	40	1990	2014	8	22
Norway	12	1961	2017	15	13	Albania	41	1991	2001	5	12
Turkey	13	1961	2018	16	22	Poland	42	1991	2011	7	30
Austria	14	1962	2017	17	13	Estonia	43	1992	2015	7	24
Canada	15	1962	2015	18	9	Lithuania	44	1992	2016	7	27
Finland	16	1962	2015	15	19	Sth Korea	45	1992	2016	7	16
France	17	1962	2017	14	35	Latvia	46	1993	2018	9	36
Iceland	18	1963	2017	17	19	Russia	47	1993	2011	6	25
Italy	19	1963	2018	15	57	Moldova	48	1994	2014	7	16
Netherlands	20	1963	2017	17	28	Sth Africa	49	1994	2014	5	6
Switzerland	21	1963	2015	14	25	Ukraine	50	1994	2007	5	29
Luxembourg	22	1964	2013	11	11	Armenia	51	1995	2012	5	16
UK	23	1964	2017	15	13	Azerbaijan	52	1995	2000	2	6
Greece	24	1974	2015	17	18	Cyprus	53	1996	2016	5	11
Portugal	25	1975	2015	15	19	Malta	54	1996	1998	2	2
Spain	26	1977	2016	13	38	Bolivia	55	2009	2014	2	8
Argentina	27	1989	2013	6	14						
Chile	28	1989	2017	6	15						
Bosnia-Herz.	29	1990	2014	8	19	**Total**				**628**	**1206**

Note: Countries are sorted by the year of the first election available and alphabetically when having the same first year in the data.

Source: Authors' elaboration on MPD.

B Construction of New Populism Score

B.1 Definitions and Correlation with MPD Components

Table B-I presents the name, description and source of the variables used in the construction of the Populism score. Panel A presents the two proxies used to capture parties' anti-establishment stance, while Panel B shows the four proxies selected to capture the commitment-to-protection stance by focusing on external/foreign threats. When both positive and negative stances towards a specific issue are reported in the Manifesto Project Database (e.g. Internationalism), we constructed a measure of net favorable position, which is the difference between favorable and negative references. Concerning the proxy on EU institutions (CTP_3), for parties outside the EU, and so less interested on the topic, we replace the value of that variable equal to zero.

Table B-II provides the level, direction and significance of the correlation between the above mentioned political preferences within each domain. Even though the pairwise correlations are small, going from a value of 0.04 to 0.162 in absolute terms, they are highly statistically significant. Moreover, the direction of the correlations supports our previous set of intuitions. Parties that are particularly against political corruption are also more prone to claim themselves better than the others, as the positive correlation in Col. (1) suggests. Cols. (2) to (4) show that internationalization is positively related with positive statements towards the European Union, while these aspects are negatively correlated with positive views towards protectionism and nationalization.

Table B-III describes the results related to the Polychoric Principal Component Analysis used to construct synthetic indexes for parties' anti-establishment and commitment-to-protection stances. For both set of variables, only the first component has an eigenvalue above one, hence following the Kaiser-Guttman criterion we retain only the first components as our synthetic indexes. Looking at the coefficients/loadings associated to the anti-establishment stance, we can see that the first component gives positive and equal weights to both variables, AES_1 and AES_2, indicating that parties against political corruption and pluralism will have an higher first component. We then define this first component as our index of anti-establishment stance (I_{AES}). With regard to commitment to protection, the first component give high weights to all the analyzed variables, and provides negative weights on parties' positive stance towards protectionism (CTP_1) and nationalization (CTP_4), positive weights on support for internationalism (CTP_2) and EU institutions (CTO_3). Hence, parties with a more political openness agenda will score high on the first component. To facilitate the interpretation, we multiply the first component by minus one, and we define such flipped first component as our commitment-to-protection index (I_{CTP}).

Table B-I: Selection of Political Dimensions in MPD

Variables	Description	MPD Label
Panel A: Anti-establishment Stance		
Pol. corruption (AES_1)	Need to eliminate political corruption and associated abuses of political and/or bureaucratic power. Need to abolish clientelist structures and practices.	per304
Anti-pluralism (AES_2)	References to the manifesto party's competence to govern and/or other party's lack of such competence. Also includes favourable mentions of the desirability of a strong and/or stable government in general.	per305
Panel B: Commitment-to-protection stance		
Protectionism (CTP_1)	Net favorable position. (per406) Favourable mentions of extending or maintaining the protection of internal markets. Measures may include: tariffs, quota restrictions and export subsidies. (per407) Support for the concept of free trade and open markets. Call for abolishing all means of market protection.	per406-per407
Internationalism (CTP_2)	Net favorable position. (per107) Need for international co-operation, including co-operation with specific countries. May also include references to: the need for aid to developing countries; need for world planning of resources; support for global governance; need for international courts; support for UN and international organisations. (per109) Negative references to international co-operation. Favourable mentions of national independence and sovereignty with regard to the manifesto country's foreign policy, isolation and/or unilateralism as opposed to internationalism.	per107-per109
EU Institutions (CTP_3)	Net favorable position. (per108) Favourable mentions of European Community/Union in general. May include the: desirability of the manifesto country joining (or remaining a member); desirability of expanding the European Community/Union; desirability of increasing the ECs/EUs competences; desirability of expanding the competences of the European Parliament. (per110) Negative references to the European Community/Union. May include: opposition to specific European policies which are preferred by European authorities; opposition to the net-contribution of the manifesto country to the EU budget.	per108-per110
Nationalization (CTP_4)	Favourable mentions of government ownership of industries, either partial or complete; calls for keeping nationalised industries in state hand or nationalising currently private industries. May also include favourable mentions of government ownership of land.	per413

Table B-II: Correlations across political dimensions

	AES_2	CTP_2	CTP_3	CTP_4
Panel A				
AES_1	.070†			
Panel B				
CTP_1		-.041*	-.095‡	.081‡
CTP_2			.104‡	-.069†
CTP_3				-.162‡

Notes: The table shows the pairwise correlation and the precision associated to the political preferences related to: anti-establishment stance (Panel A) and commitment-to-protection stance (Panel B). Level of significance: * p<0.05, ** p<0.01, *** p<0.001, † p<0.0001, ‡ p<0.00001.
Source: Authors' elaboration on MPD.

Table B-III: PPCA - Anti-Establishment & Commitment-to-Protection stances

Anti-Establishment (AES)

Comp.	(1) Eigenv.	(2) Explained	(3) Cumulative
Comp. 1	1.070	0.535	0.535
Comp. 2	0.930	0.465	1

Scoring Coefficients/Loadings

Variable	Comp 1	Comp 2
AES_1	0.707	0.707
AES_2	0.707	-0.707

Commitment to Protection (CTP)

Comp.	(1) Eigenv.	(2) Explained	(3) Cumulative
Comp. 1	1.287	0.322	0.322
Comp. 2	0.960	0.240	0.562
Comp. 3	0.921	0.230	0.792
Comp. 4	0.832	0.207	1

Scoring Coefficients/Loadings

Variable	Comp 1	Comp 2	Comp 3
CTP_1	-0.412	0.668	-0.613
CTP_2	0.409	0.736	0.499
CTP_3	0.597	0.043	-0.247
CTP_4	-0.552	0.094	0.550

B.2 Correlation between our populism score and preferences for immigration, cultural identity and interventionism

In Table B-IV, we compute partial correlations between our populism score $S^p_{i,e,t}$ and four MPD proxies capturing preferences for immigration and multiculturalism. We control for country and year fixed effects. We use four variables available in the MPD database: (i) immigration is negative for country's national way of life, (ii) immigration is positive for country's national way of life, (iii) immigration positively contributes to multiculturalism, and (iv) immigrant should assimilate to the country culture. Note that these variables are not available for the years prior to 2006. In line with intuition, we find that the populism score of centrist and right-wing parties is negatively and significantly correlated with positive attitudes towards immigration and multiculturalism. This is not the case among left-wing parties.

In Table B-V, we compute pairwise correlations between our populism score and proxies for (i) cultural conservatism, (ii) welfare state expansion, and (iii) preferences for government intervention and economic planning. We find that the populism score of centrist and right-wing parties is positively and significantly correlated with cultural conservatism; this is not the case among left-wing parties. Interventionism and populism are positively and significantly correlated on both sides of the left-to-right spectrum.

Table B-IV: Populism Score and Migration-Related Political Preferences

	All Parties				No Left-Wing Parties				Left-Wing Parties			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Immi. (–)	Immi. (+)	Immi. (+) Multicul.	Immi. Assimi-lation	Immi. (–)	Immi. (+)	Immi. (+) Multicul.	Immi. Assimi-lation	Immi. (–)	Immi. (+)	Immi. (+) Multicul.	Immi. Assimi-lation
Populism Score	0.194 (0.232)	-0.052 (0.041)	-0.066** (0.032)	0.095 (0.060)	0.249 (0.371)	-0.060** (0.029)	-0.085** (0.035)	0.156 (0.094)	0.003 (0.026)	0.048 (0.159)	-0.044 (0.080)	–0.043** (0.018)
R^2	0.183	0.275	0.260	0.287	0.285	0.524	0.276	0.436	0.304	0.358	0.392	0.309
Obs.	572	572	572	572	334	334	334	334	229	229	229	229
Cntry FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses. Analysis available from 2006 on, given the availability of the measures only from that election-year.

Table B-V: Populism Score and preferences for culture and interventionism

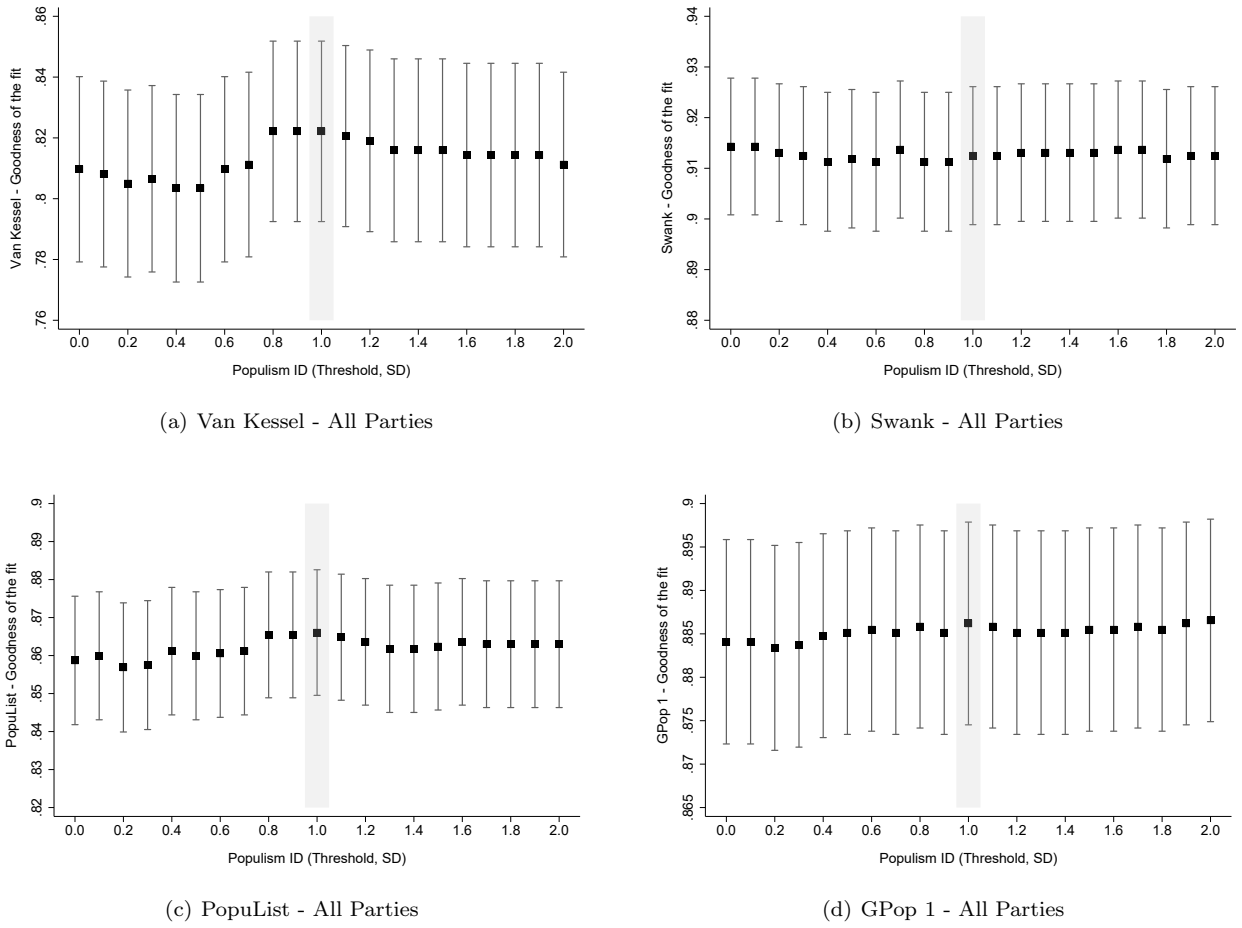
	All Parties			No Left-Wing Parties			Left-Wing Parties		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Cultural Conser-vatism	Welfare State Expansion	Govern-ment Inter. & Econ. Planning	Cultural Conser-vatism	Welfare State Expansion	Govern-ment Inter. & Econ. Planning	Cultural Conser-vatism	Welfare State Expansion	Govern-ment Inter. & Econ. Planning
Populism Score	0.149*** (0.043)	-0.037 (0.043)	0.148*** (0.033)	0.190*** (0.054)	-0.060 (0.046)	0.068** (0.028)	-0.131 (0.093)	0.039 (0.059)	0.357*** (0.066)
R^2	0.152	0.233	0.190	0.204	0.215	0.216	0.332	0.310	0.268
Obs.	3860	3860	3860	2573	2573	2573	1258	1285	1285
Country FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses.

B.3 Selection of the Threshold Used to Define Populist Parties

Most of existing studies provide a dichotomous classification of populist parties. Based on our continuous and centered (i.e., zero-mean) score of populism, we classify a party as populist ($\mathbf{1}(SD)$) when its score exceeds a certain threshold, which can be expressed as a multiplying factor SD of the standard deviation. In the core of the text, Figure 1 shows that $SD = 1$ is a relevant threshold, maximizing the partial correlation with three existing classifications. Figure B-I below shows that $SD = 1$ also maximizes the rate of accurate forecasts for the overall set of parties and for populist parties only, whatever the classification used as a reference (even the GPop 1 classification).

Figure B-I: Threshold definition - Share of correct predictions



(a) Van Kessel - All Parties

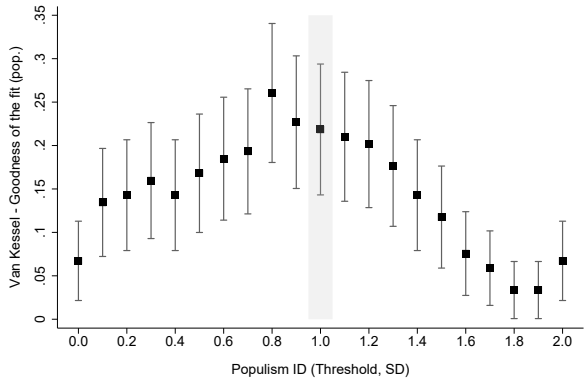
(b) Swank - All Parties

(c) PopuList - All Parties

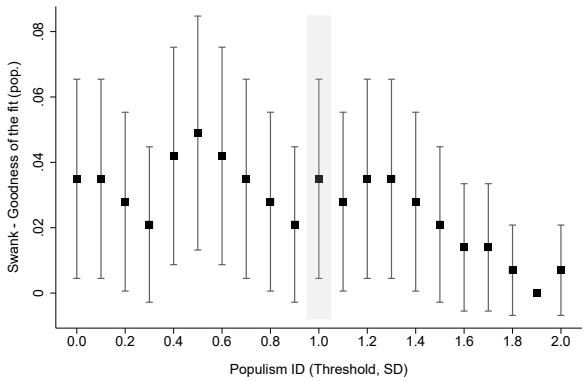
(d) GPop 1 - All Parties

Notes: The figure shows the proportion of good matches among all parties after predicting a populist party identifier based on the estimated models presented in Figure 1 and comparing it with the following populist identifier based on: Van Kessel (2015) (Panel a), Swank (2018) (Panel b), Rooduijn et al. (2019) (Panel c) and Grzymala-Busse and McFaul (2020) (Panel d). A party is classified as populist if the predicted probability to be populist is above 0.5.
Source: Authors' elaboration on MPD.

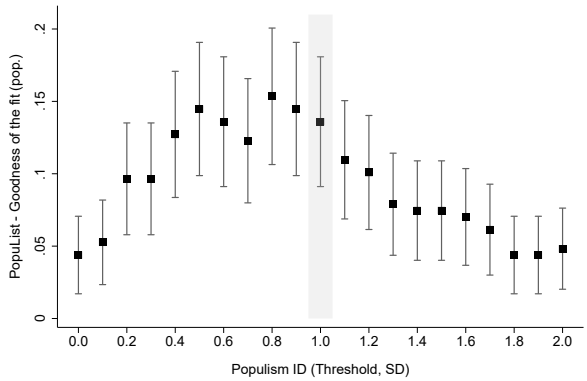
Figure B-I: Threshold definition - Share of correct predictions (cont'd)



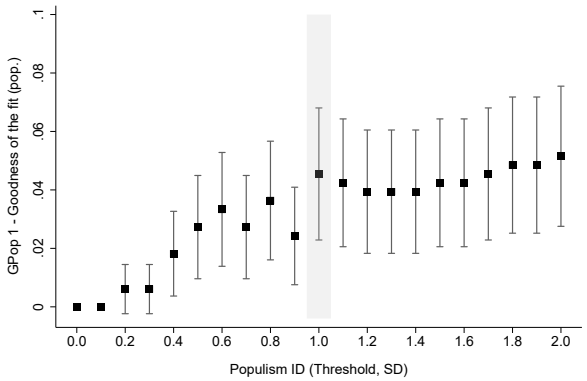
(e) Van Kessel - Populist Parties



(f) Swank - Populist Parties



(g) PopuList - Populist Parties



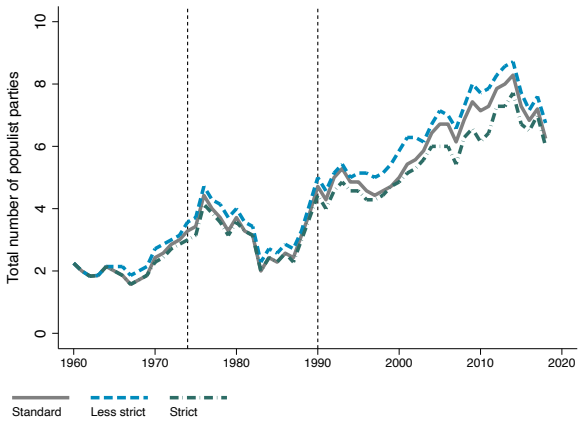
(h) GPop 1 - Populist Parties

Notes: The figure shows the proportion of good matches among populist parties after predicting a populist party identifier based on the estimated models presented in Figure 1 and comparing it with the following populist identifier based on: Van Kessel (2015) (Panel e), Swank (2018) (Panel f), Rooduijn et al. (2019) (Panel g) and Grzymala-Busse and McFaul (2020) (Panel h). A party is classified as populist if the predicted probability to be populist is above 0.5.
Source: Authors' elaboration on MPD.

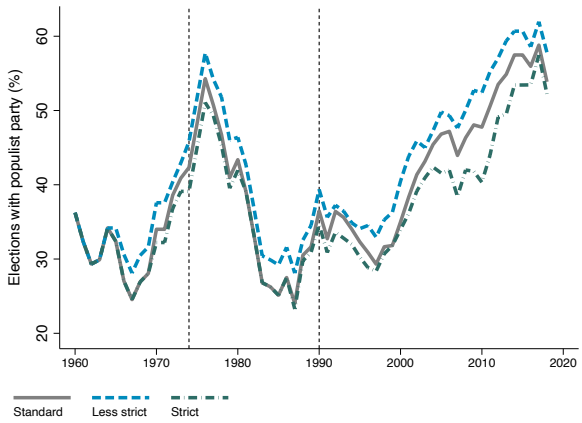
B.4 Stylized Facts: Robustness to Threshold Selection

Figures B-II, B-III and B-IV illustrate the robustness of the stylized fact described in Section 2 to the selection of the threshold used to classify parties. All stylized facts are preserved when using a lax or restrictive classification of populist parties.

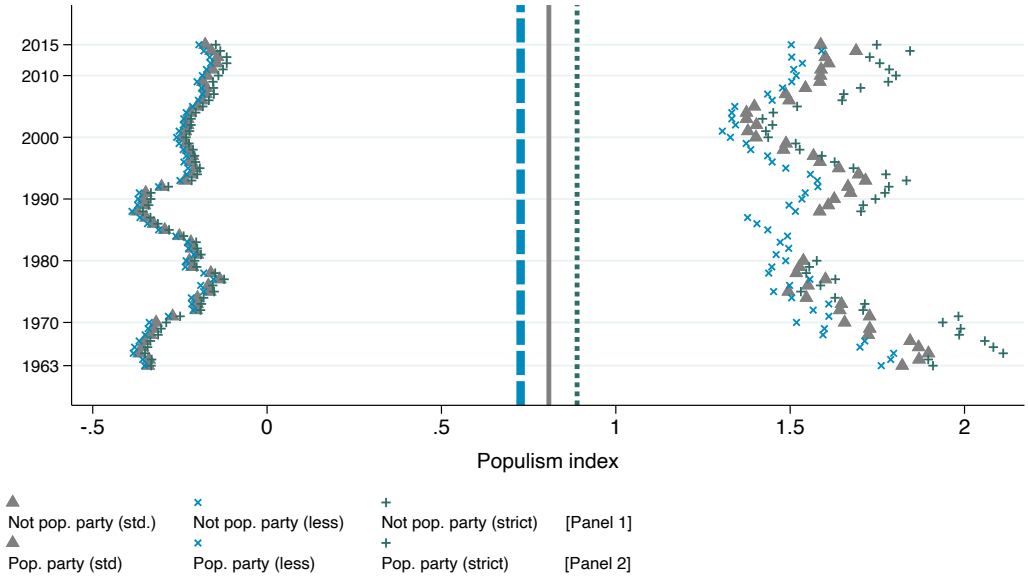
Figure B-II: Populist parties - different threshold



(a) Number of Populist Parties



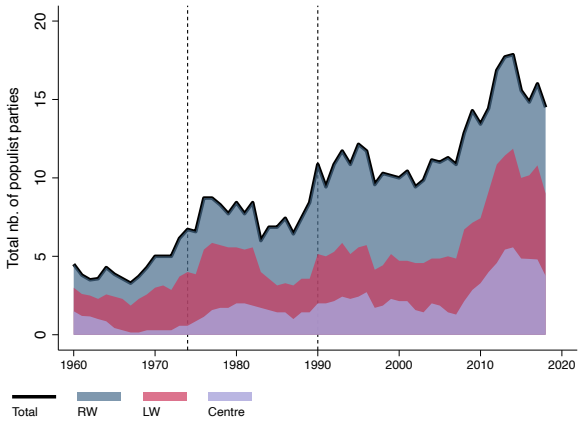
(b) Elections with a populist party (%)



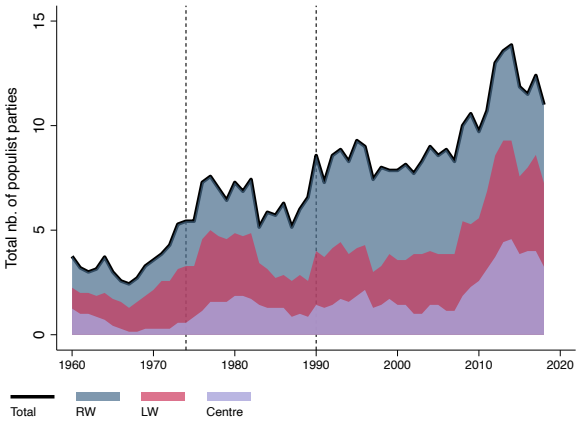
(c) Score of populist vs. non populist

Notes: Fig. (a) shows the total number of populist parties. Fig. (b) gives the percentage of elections with at least a Populist party. Fig. (c) presents the average populism score of populist and non populist parties. Populist parties are defined as those with a score exceeding 1 standard deviation (standard), exceeding 0.9 standard deviation (lax) or exceeding 1.1 standard deviation (strict). Figures (a), (b) and (c) show moving averages including 3 years before and 3 years after each date.
Source: Authors' elaboration on MPD.

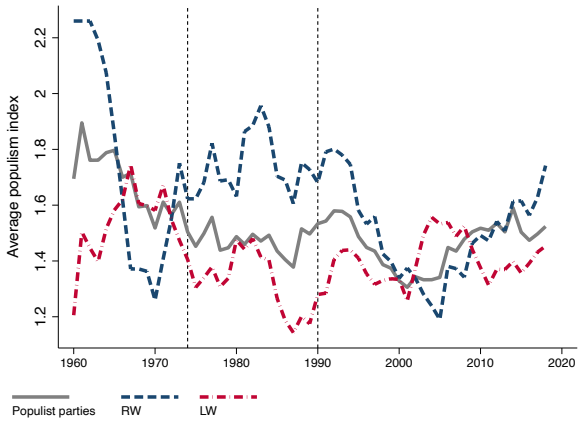
Figure B-III: Populist parties and the left-right wing divide – different threshold



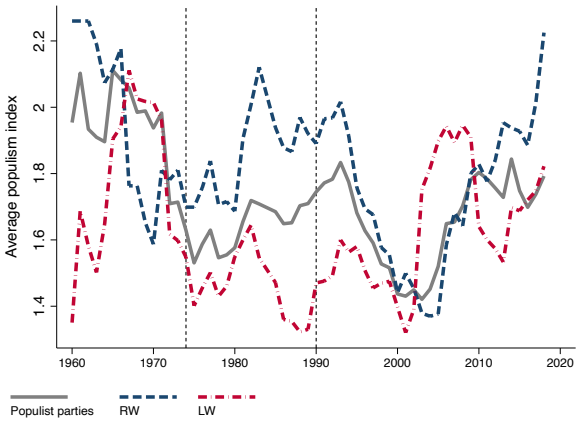
(a) Number of Populist Parties - Lax



(b) Number of Populist Parties - Strict



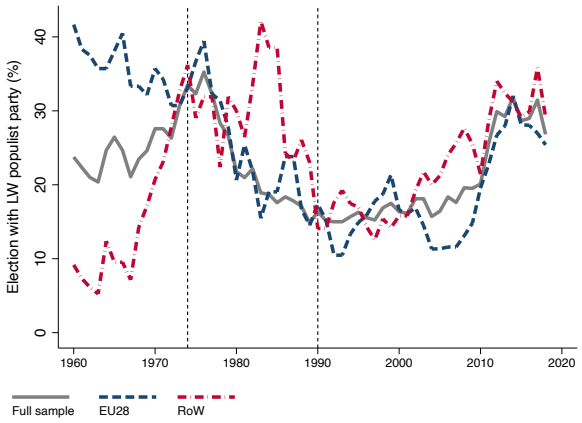
(c) Average Score Populist Parties - Lax



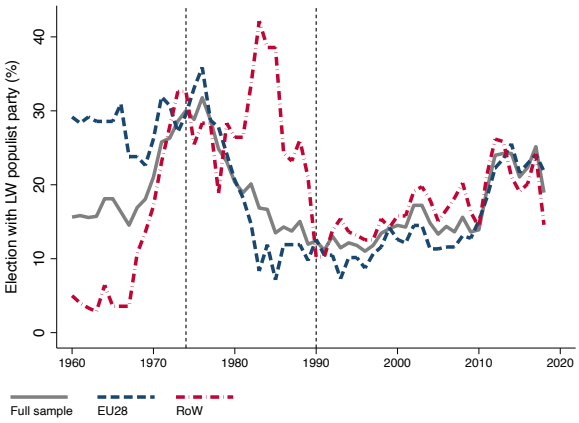
(d) Average Score Populist Parties - Strict

Note: Fig. (a)-(b) shows the total number of populist parties, dividing between left-wing and right wing. Fig. (c)-(d) presents the average populism score of populist parties, splitting between left-wing and right-wing parties. Populist parties are defined as those with a score exceeding 0.9 standard deviation (Fig. (a)-(c)) and 1.1 standard deviation (Fig. (b)-(d)), while left-wing and right-wing parties are defined as those that belongs to the first and third tercile of the left-to-right index. Figures (a), (b), (c) and (d) show moving averages including 3 years before and 3 years after each date.
Source: Authors' elaboration on MPD.

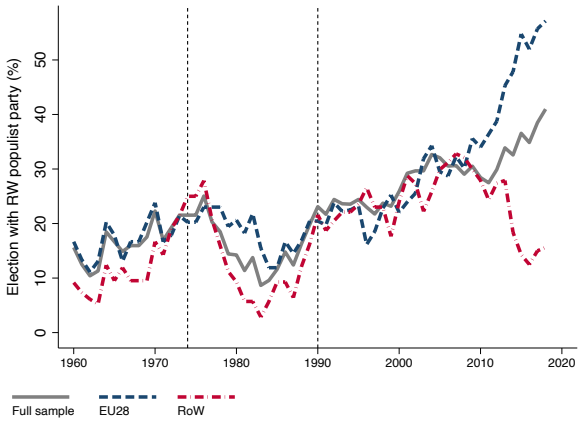
Figure B-IV: Populist parties and the left-right wing divide - different threshold (cont'd)



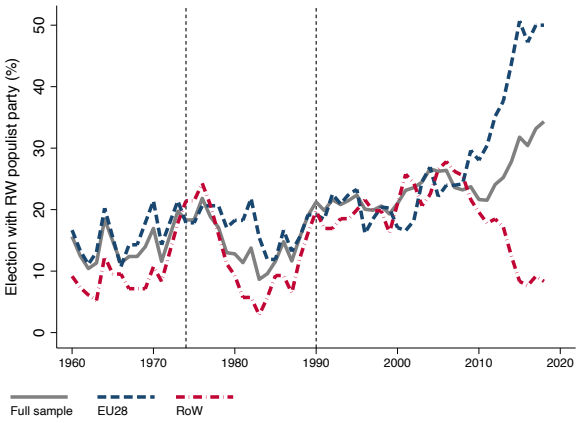
(a) Elections with LW populist party (%) - Lax



(b) Elections with LW populist party (%) - Strict



(c) Elections with RW populist party (%) - Lax



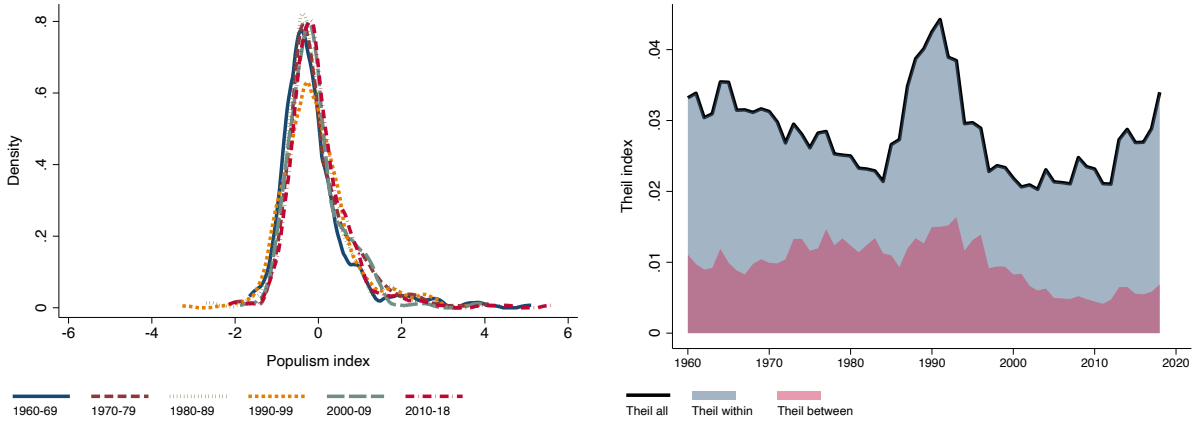
(d) Elections with RW populist party (%) - Strict

Note: Fig. (a)-(b) shows the percentage of elections with a left-wing party. Fig. (c) - (d) presents the percentage of elections with a right-wing party. Populist parties are defined as those with a score exceeding 0.9 standard deviation (Fig. (a)-(c)) and 1.1 standard deviation (Fig. (b)-(d)), while left-wing and right-wing parties are defined as those that belongs to the first and third tercile of the left-to-right index. Figures (a), (b), (c) and (d) show moving averages including 3 years before and 3 years after each date.
Source: Authors' elaboration on MPD.

B.5 Stylized Facts - Robustness to Balanced Sample

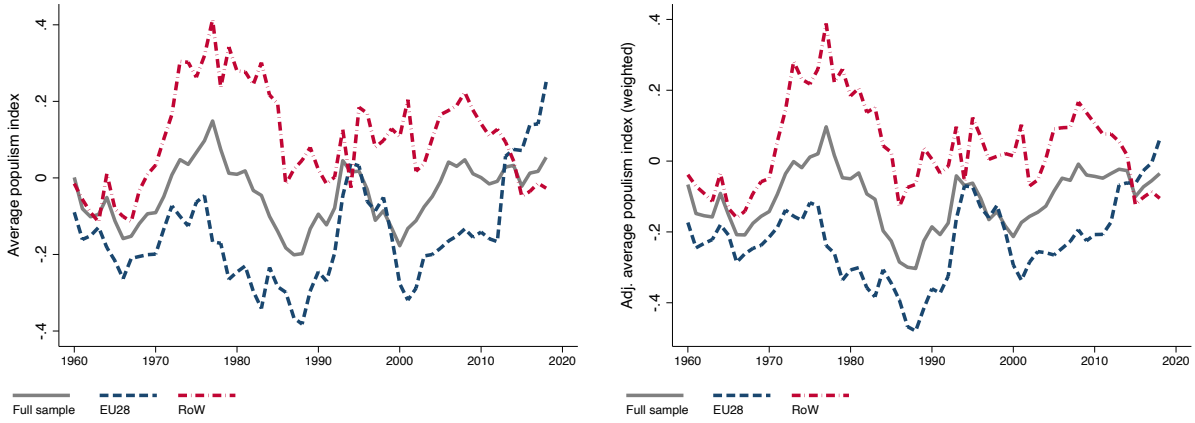
Figures B-V, B-VI and B-VII illustrate the robustness of the stylized facts described in Section 2 to the composition of the sample. In this section, the stylized facts are presented considering the set of countries that appear in the MPD database starting from the first decade of 1960s. The balanced sample exclude Greece, Portugal, Spain as well as Latin American and former soviet union countries.

Figure B-V: Stylized facts I – Distribution of populism scores and mean margin of populism in the balanced Sample (1960-2018)



(a) Density of populism score by period

(b) Inequality across parties (Theil)

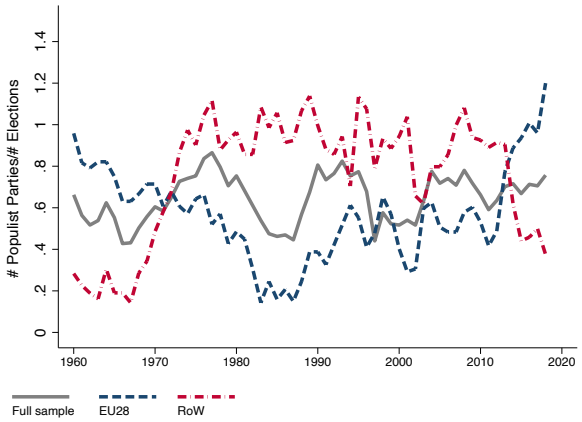


(c) Mean populism score of all parties (unweighted)

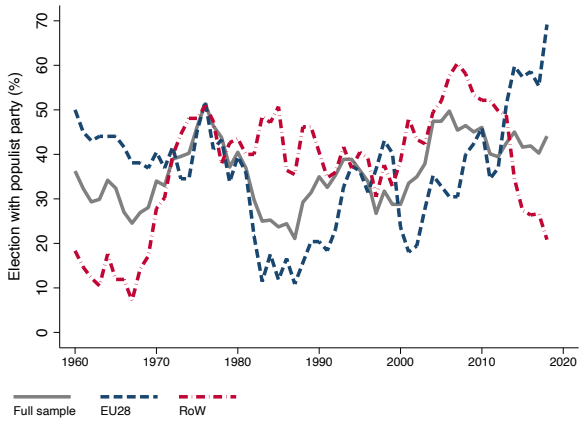
(d) Mean margin of populism ($\Pi^{M}_{i,e,t}$)

Notes: Fig. (a) shows the kernel-density of the populism score by decade. Fig. (b) depicts the Theil index of inequality in populism across parties, and gives its between-countries component and the within-countries components (Cadot et al., 2011). Fig. (c) plots the average populism score of all parties running for election in a given year. Fig. (d) plots the *mean margin of populism*, a weighted average of the populism scores with weights equal to the party's share in votes. Fig. (c) and (d) show moving averages including 3 years before and 3 years after each date. The balanced sample excludes Greece, Portugal and Spain, Latin American and former soviet union countries.

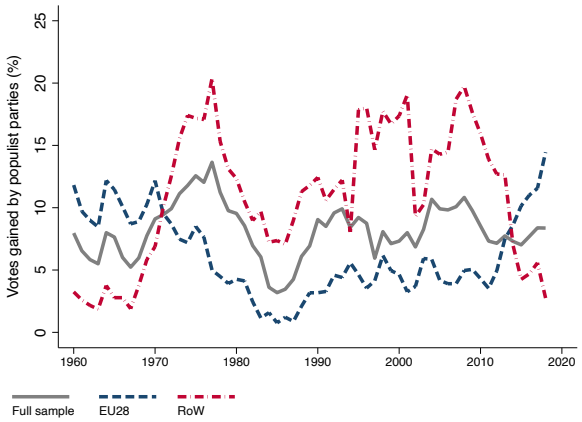
Figure B-VI: Stylized facts II – Presence, electoral success and score of populist parties in the balanced Sample (1960-2018)



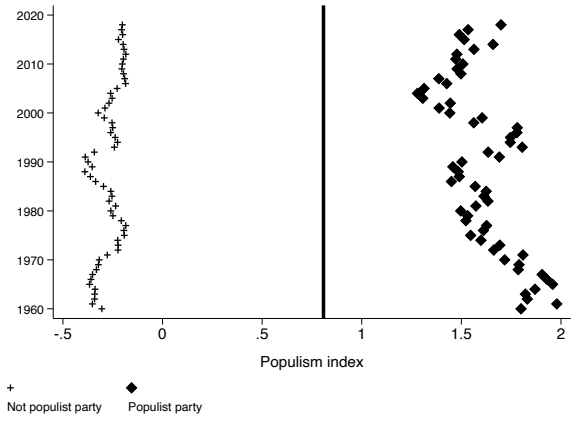
(a) Number of populist parties per election



(b) Elections with a populist party (%)



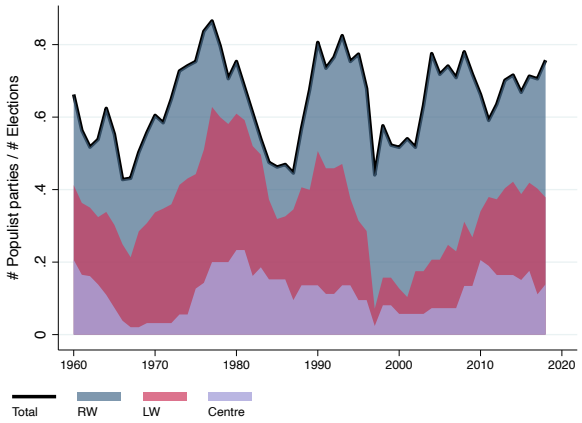
(c) Volume margin of populism ($\Pi^V_{i,e,t}$)



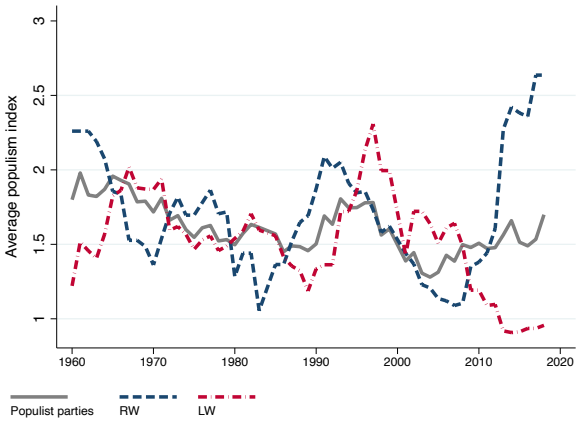
(d) Mean score of populist vs. non populist

Notes: Fig. (a) shows the total number of populist parties. Fig. (b) gives the percentage of elections with at least a Populist party. Fig. (c) depicts the average share of votes for populist parties (the volume margin). Fig. (d) presents the average populism score of populist and non populist parties. Populist parties are defined as those with a score exceeding 1 standard deviation (0.81). Fig. (a), (d), (e) and (f) show moving averages including 3 years before and 3 years after each date. The balanced sample excludes Greece, Portugal and Spain, Latin American and former soviet union countries.

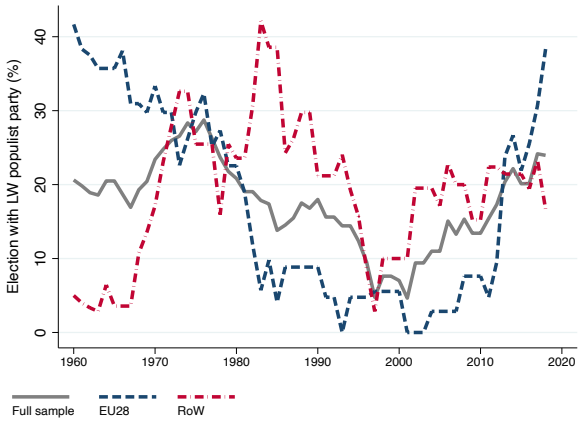
Figure B-VII: Stylized facts III – Left-wing and right-wing populism at the aggregate level in the balanced Sample (1960-2018)



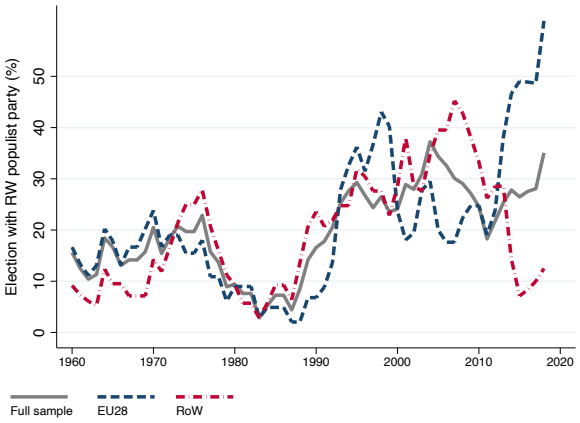
(a) Number of populist parties



(b) Average score of populist parties



(c) Elections with a LW populist party (%)



(d) Elections with a RW populist party (%)

Notes: Fig. (a) shows the total number of populist parties, dividing between left-wing and right wing. Fig. (b) presents the average populism score of populist parties, splitting between left-wing and right-wing parties. Fig. (c) and (d) give the percentage of elections with at least a left-wing and right-wing Populist party, respectively. Populist parties are defined as those with a score exceeding 1 standard deviation (0.808), while left-wing and right-wing parties are defined as those that belongs to the first and third tercile of the left-to-right index. Fig. (a), (b), (c) and (d) show moving averages including 3 years before and 3 years after each date. The balanced sample excludes Greece, Portugal and Spain, Latin American and former soviet union countries.

B.6 Does Populism Require a More Extensive Definition?

We consider two *extended populism scores* that exploit additional potential characteristics of populist parties, and check whether these extended scores better correlate with existing measures. Our first extended score accounts for the fact that populist parties are sometimes characterized by their *shortsighted and opportunistic research agenda*, which guides their political strategy (Guiso et al., 2017). Populists rely on narrow/thin ideological references, which can cohabit with other ideological framework, like the usual left-right divide (Mudde, 2004; Rooduijn et al., 2014). However, a frequent denominator is that their main objective is to increase parties political support and consensus in the short-run (Weyland, 2001; Betz, 2002), without addressing the long-run challenges faced by the society. Populist parties tend to focus on more actual and immediately salient issues, implying the concealment of long run costs and issues. Building on our *Standard Populism Score*, we construct an extended index that includes a third component. We refer to it as the **3C Populism Score**, which accounts for shortsighted opportunistic strategy (OPP). To do so, we combine two additional MPD variables covering aspects which are primarily influenced by policies with a long-term perspective, i.e., the salience of and position towards (*i*) education expansion, which involves mentions towards expansion of educational provision and the reduction of educational fees, and (*ii*) environmental protection, capturing parties' favorable positions towards green economy and the need for fighting climate change.

Our second extended score accounts for the whole set of information available in MPD. We construct synthetic indices of political preferences using the remaining set of 44 variables available from the MPD. We only consider variables that are available for all political parties included in our sample over the whole period. In line with our PPCA approach, we first perform a PPCA over the variables belonging to the different domains covered by MPD and then retain components with an eigenvalue above one, in line with Kaiser's criterion. We end up with 12 synthetic indices capturing new political dimensions. We then combine them with the three dimensions of populism used to construct the 3*C Populism Score* (i.e., AES, CTP and OPP).[27] We use the same dimensionality reduction technique (PPCA) as in the previous section to construct our populism score, referred to as the **15C Populism Score**.

Table B-VI provides the eigenvectors associated with the variables within each component. The first component, which explains the majority of the variance in the data, is positively correlated with our three highlighted indices. In addition, the size of their coefficient is intuitive, suggesting that the three indices play a relevant role in the definition of the first component. We then define this first component as our 15*C*. Such an index not only has at its core the main features which characterized the 3*C* Populism Score (positive correlation with parties' stance towards anti-establishment issues, commitment to protection, and concealment of long term issues), but it also account for parties' position towards the whole spectrum of political issues.

[27] These new dimensions are: (1) promotion of peaceful external relationship; (2) support towards freedom, democracy and constitution; (3) support for political decentralization and public administration efficiency; (4) support for free markets and incentives; (5) economic growth and investments as main tool for country development; (6) support for government intervention in the economy and economic planning; (7) welfare state expansion and support for equality; (8) support for cultural activities likes museums; (9) support for cultural conservatism; (10) support for tradition-based national cohesion rather then public enforcement; (11) focus on non-economic groups of the society; (12) focus on economic groups of the society.

Table B-VI: PPCA - Eigenvectors

	Cpt 1	Cpt 2	Cpt 3	Cpt 4	Cpt 5	Cpt 6
Index						
Anti-establishment	.3158497	.1073219	.1535753	-.4652453	-.060134	.1672175
Protectionism	.248782	-.1051573	.4849515	.0699972	.0612197	.2616881
LT costs	.391317	.2846425	-.0258601	-.0218205	.2953913	.1147275
Peaceful ext. relations	.3080404	-.2912411	-.1521264	.0211118	.2251427	.2179866
Freedom & democracy	.2698057	-.118912	-.4486792	-.1652234	.0360432	-.2501172
Political decentralization	-.2338466	.1994102	-.1471295	-.5093002	.2693444	.1828562
Free market	-.1443971	.500238	-.0213432	.0493518	.0840578	-.2568531
Economic growth	-.326282	-.0733257	.3307502	.0351375	.3905409	-.1060229
Economic planning	.2513203	.0518399	.2256998	.3248763	.4520339	-.0572067
Welfare state expansion	-.1061088	-.4944631	.269303	-.0236585	-.0187879	-.2319607
Cultural conservatism	.0731171	.2733431	.2519378	.1362854	-.5866738	.2836778
Tradition-based cohesion	.2641652	-.002604	-.2346418	.3876198	-.1576766	-.3252288
Non-econ. groups focus	-.1079801	-.1032262	-.346962	.3349732	.1290002	.6277441
Econ. groups focus	-.0954114	.3998768	.0256558	.2829833	.1735995	-.0327582
Support cultural activities	-.4064793	-.0979823	-.1468994	.1419717	-.027272	.1766541

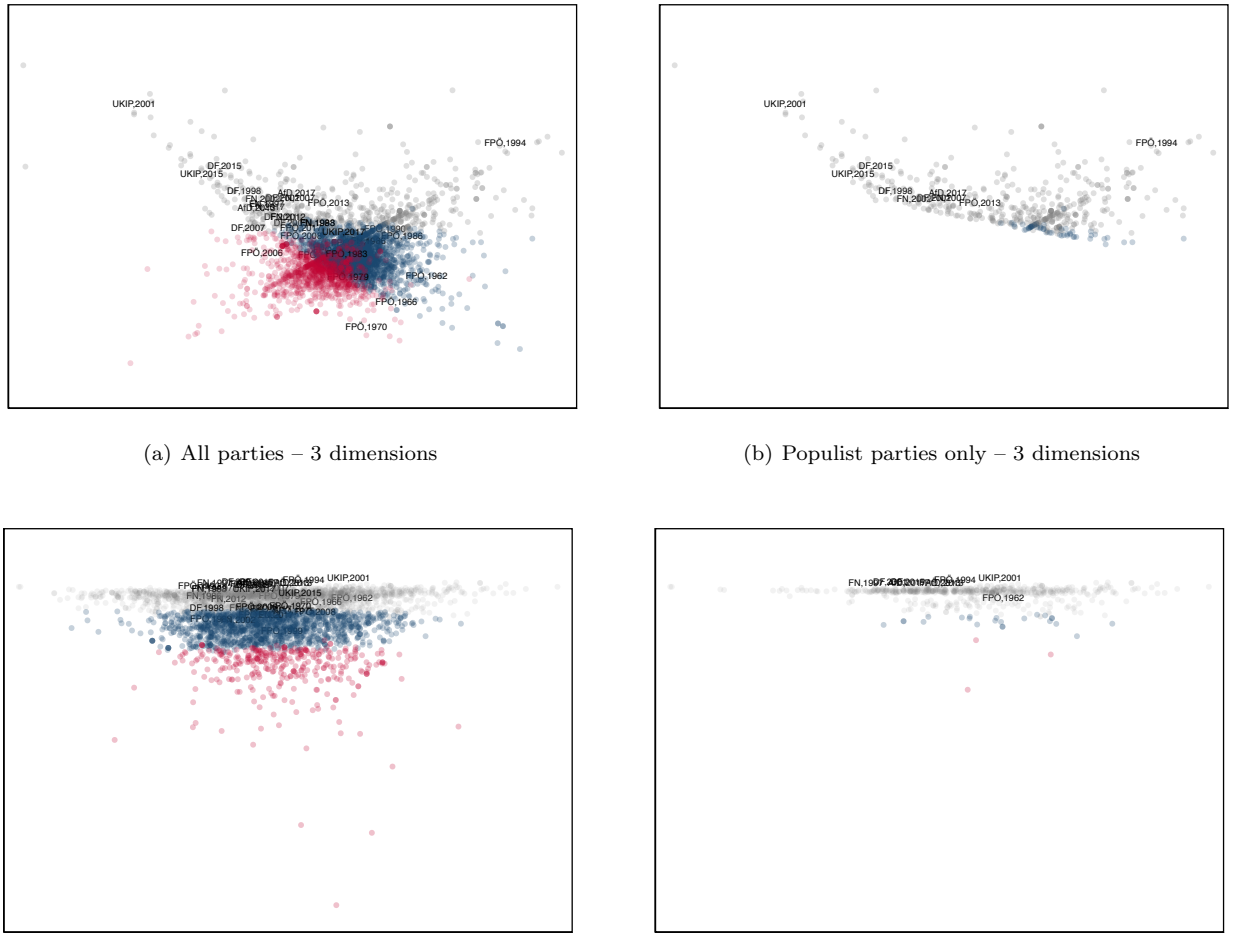
Table B-VII presents the correlation between the standard populism index and the six components from our last PPCA. The first component (the one we defined as Extended Populism Index) has the highest positive correlation with the standard Populism Index. Second, it is also able to explain the highest amount of variance of the standard populism index, as it is reported by the R^2 value. Hence, the first component looks a suitable candidate as alternative and extended populism index.

Table B-VII: Correlations between standard populism index and political dimensions

	(1) OLS	(2) OLS	(3) OLS	(4) OLS	(5) OLS	(6) OLS	(7) OLS
	Dependent variable: standard populism index						
Cpt 1	.30***						.30***
$\text{Populism}^{\text{ext}}$	(.01)						(.01)
Cpt 2		-.00					-.00
		(.01)					(.01)
Cpt 3			.35***				.35***
			(.01)				(.01)
Cpt 4				-.20***			-.20***
				(.01)			(.01)
Cpt 5					.00		.00
					(.01)		(.01)
Cpt 6						.23***	.23***
						(.01)	(.01)
Obs.	3860	3860	3860	3860	3860	3860	3860
R^2	0.28	0.00	0.26	0.07	0.00	0.09	0.70

Finally, we analyze whether the extended scores better identify populist parties and better correlate with existing measures. First, for illustrative purpose, we rely on the same unsupervised machine-learning algorithm to cluster political parties. Figure B-VIII provides the result of the cluster analysis. The top panel shows the results obtained when accounting for 3 dimensions of populism ($3C$). The left panel considers all election-party pairs and identifies three

Figure B-VIII: Unsupervised clustering analysis on three and fifteen selected dimensions of populism



(a) All parties – 3 dimensions

(b) Populist parties only – 3 dimensions

(c) All parties – 15 dimensions

(d) Populist parties only – 15 dimensions

Note: We perform a clustering analysis using the fifteen political indicators built from the MPD. The left panel presents the space including all parties, while the right panel shows the space once we focus on populist parties only (populism index above one standard deviation). Source: Authors' elaboration on MPD.

clusters of parties colored in gray, blue and red. The top-right panel isolates election-party pairs with standard populism scores above the one standard deviation threshold. It shows that populist parties tend to cluster in a specific upper part of the artificial space, just as in Figure 2 when we account for two dimensions only. The bottom panel shows the results obtained with fifteen dimensions of populism ($15C$). The bottom-right panel shows that populist parties tend to cluster in a specific upper part of the artificial space, even if this pattern is less clear-cut as with 2 or 3 dimensions.

Second, we apply a second-stage PPCA of the 3 or 15 indices computed from the MPD and retain components with eigenvalues above one. We then define this first component of these PPCA as our $3C$ vs. $15C$ Populism Scores. These alternative scores not only have at their core the main features of the standard populism score (positively correlated with AES, CTP), but they also account for the OPP component ($3C$) or for political parties' position towards the whole spectrum of political issues covered in MPD ($15C$).

Although the extended populism scores account for a larger number of political characteristics, they do not provide better proxies for populism. Adding more information to the populism score can create additional noise. In Table B-VIII, we compare the partial correlations between the standard and extended populism scores and the alternative classifications and measures available in existing literature. These partial correlations are the outcomes of Probit regressions when the

dependent is a dichotomous classification variables, and of OLS regressions when the dependent is a continuous variable. In both case, the regression includes country and year fixed effects.

Whatever the alternative source, our *standard populism score* exhibits a greater correlation with existing measures and experts' views than the $3C$ and $15C$ *extended scores*. Adding the OPP component usually reduces the partial correlation estimates, while roughly preserving the ratio of accurate forecasts and pseudo-R^2. It is worth noticing that parties considered as populist by many experts (such as the *Movimento 5 Stelle* in Italy, the *Front National* in France, or *Podemos* in Spain) exit the list when OPP is included.[28] Moreover, adding the whole set of information available in MPD strongly deteriorates the correlation with existing classifications our measures. These regressions suggest that our standard populism score is a relevant – and perhaps better – proxy for populism, and that there is not need to exploit the whole amount of information available in MPD for approximating populism.

[28] This is driven by the fact that in more recent years several parties took a strong pro-environment stance, which generates a lower $3C$ score to parties like the *Movimento 5 Stelle*.

Table B-VIII: Standard versus extended populism scores – Correlation

	I. Van Kessel (2000-2013) Populist party (PRB)			II. Swank (1960-2015) RW Populist party (PRB)			III. PopuList (1989-2018) Populist party (PRB)		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Standard	0.695***			0.462***			0.550***		
	(0.162)			(0.113)			(0.094)		
$3C$		0.456***			0.409***			0.412***	
		(0.102)			(0.091)			(0.075)	
$15C$			0.266***			0.229***			0.256***
			(0.069)			(0.082)			(0.064)
Obs.	641	641	641	1657	1657	1657	1635	1635	1635
Countries	25	25	25	16	16	16	28	28	28
Country FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pseudo-R^2	0.17	0.16	0.11	0.17	0.19	0.13	0.17	0.17	0.13
RAF (%)	81.75	81.44	80.81	91.25	91.31	91.43	86.18	85.75	86.24

	IV. GPop 1 (1960-2018) Populist party (PRB)			V. GPop 2 Average Populism Speeches (OLS)			VI. CHES (1998-2018) People vs. Elite (OLS)		
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
Standard	0.379***			0.121**			1.262***		
	(0.082)			(0.051)			(0.210)		
$3C$		0.291***			0.106***			0.602***	
		(0.057)			(0.030)			(0.166)	
$15C$			0.190***			0.039			0.646***
			(0.049)			(0.029)			(0.140)
Obs.	2850	2850	2850	101	101	101	176	176	176
Countries	36	36	36	31	31	31	28	28	28
Country FE	✓	✓	✓	✗	✗	✗	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pseudo-R^2	0.16	0.16	0.14						
RAF (%)	88.74	88.46	88.56						
R^2				0.22	0.25	0.19	0.37	0.23	0.27

Note: In Cols. (1) to (12), we provide partial correlations between parties' political induces and the probability of being coded as populist party or right wing populist party following the definition of Van Kessel (2015), Swank (2018), Rooduijn et al. (2019) and Grzymala-Busse and McFaul (2020) and adopting a probit model. Each regression controls for country and year fixed-effects. We also provides the ratio of accurate forecasts (RAF) between our estimated model and actual data, using a predicted probability of 0.5 as threshold to define a party as populist. In Cols. (13) to (15), we provide partial correlations between political indices and party leader's speeches (Hawkins et al., 2019) after controlling for year fixed-effects. In Cols. (16) to (18), we provide partial correlations between political indices and expert evaluations of parties degree of populism (Bakker et al., 2015). Standard errors are clustered at country level. Level of significance: * p<0.1, ** p<0.05, *** p<0.01. Source: Authors' elaboration on data from XX.

C Stylized Facts by Country Group

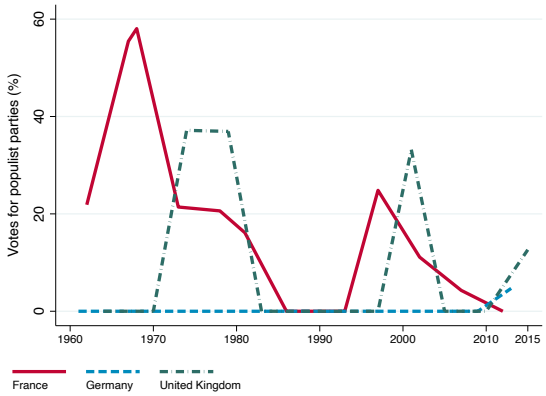
C.1 Volume and Mean Margins of Populism

These aggregate trends mask significant disparities across countries. In Figure C-I, we distinguish five types of countries, namely Western European countries (France, Germany and the UK), European Union countries characterized by rising votes for radical parties (Austria, Greece and Italy), Eastern European countries (Czech Republic, Hungary and Poland), traditional settlement countries (Australia, Canada and the U.S.), and Latin American countries (Argentina, Chile and Mexico). For each group of countries, we plot the evolution of the volume of populism, the extensive and intensive margins of populism in the left, middle and right panels, respectively.

The left panel shows large ups and downs in the volume of populism across elections in virtually all countries. This is due to the fact that some populist parties appear and disappear, either because they enter and exit our sample (remember that our sample only includes countries with at least one seat in the Parliament), or because they moderate their anti-establishment and anti-corruption discourses once they come to power or reach a certain level of popularity. This means that some parties classified as populist in an election can be classified as non populist in a different election. Using a time-invariant definition or score of populism would avoid such fluctuations, but it would also prevent us from exploiting variations in populism attitudes over a long time span.

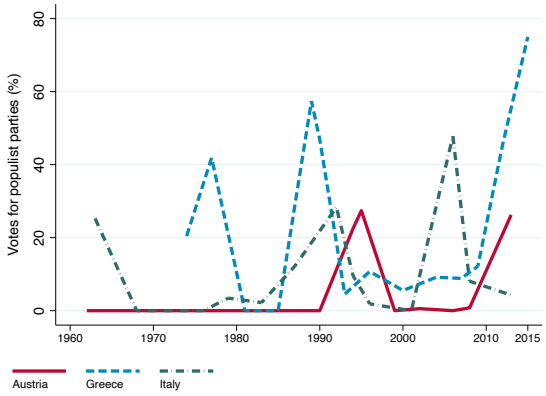
The mean margin does not rely on a dichotomous classification of parties and use the continuous populism score. The right panel of Figure C-I shows that the evolution of the mean margin is smoother, but large variations are observed in many countries.

Figure C-I: Stylized facts III – Volume and margins or populism for selected countries

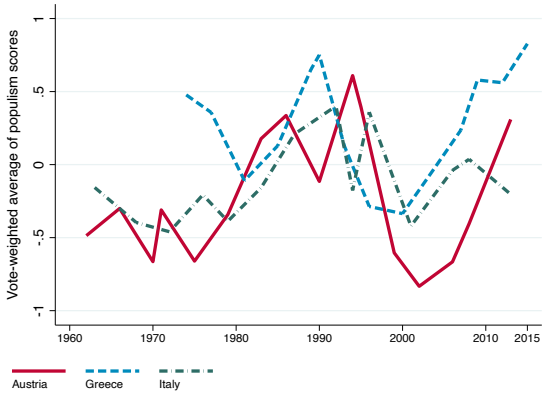


(a) Volume marg. in Western Europe

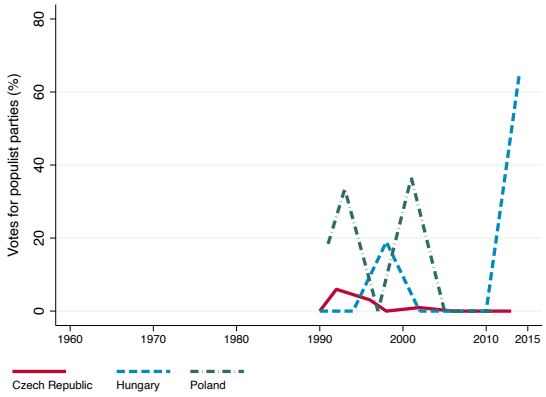
(b) Mean marg. in Western Europe



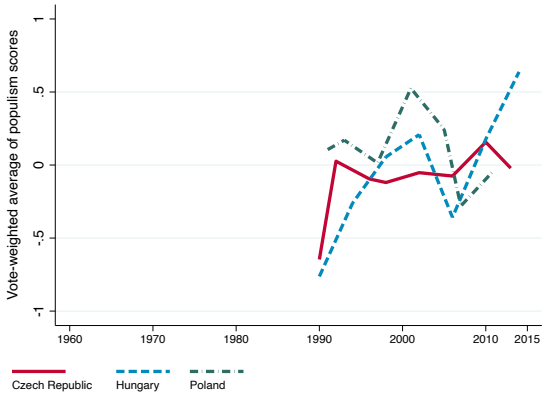
(c) Volume marg. in populist Europe



(d) Mean marg. in populist Europe

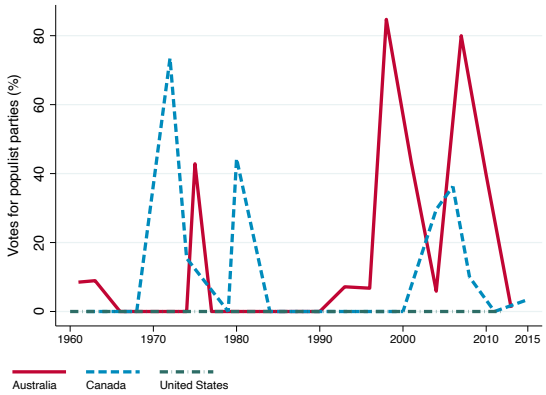


(e) Volume marg. in Eastern Europe

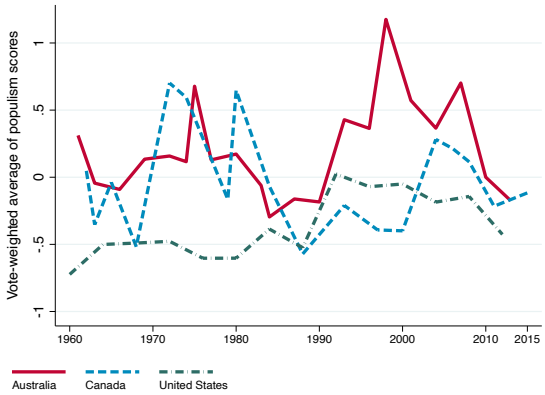


(f) Mean marg. in Eastern Europe

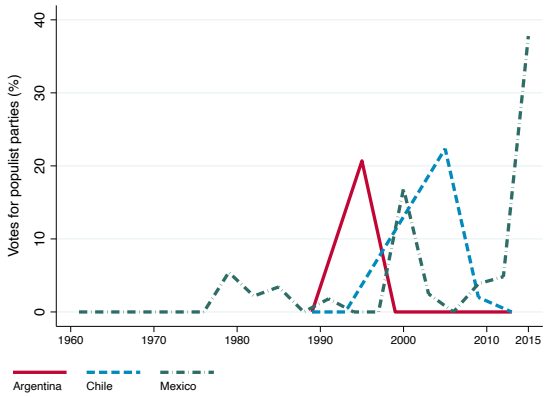
Figure C-I: Stylized facts III – Volume and margins or populism for selected countries (cont'd)



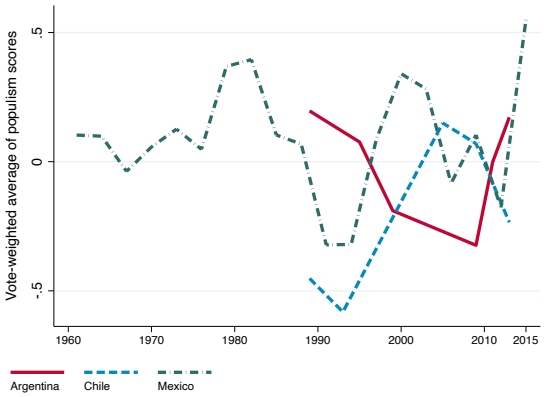
(g) Volume marg. in settlement countries



(h) Mean marg. in settlement countries



(i) Volume marg. in Latin America



(j) Mean marg. in Latin America

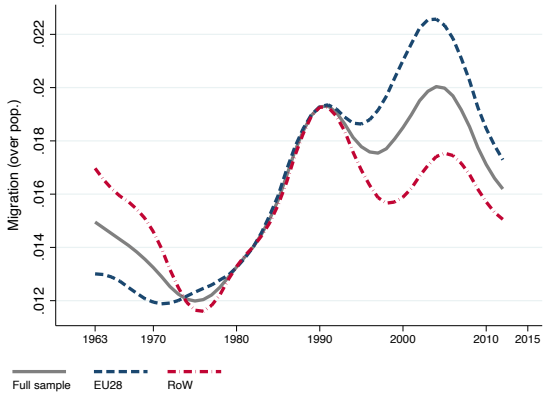
Note: The figures present the two margins (volume and mean) for a subset of countries from the rest of the world.
Source: Authors' elaboration on MPD.

C.2 Long-run Trends in Globalization

Figure C-II describes globalization trends at the aggregate level. The top panel compares European countries with the rest of the world. Both immigration and import trends are very similar across regions, although their intensity varies. Panel (a) shows that the share of immigrants has gradually increased since the mid-seventies, slightly decreased in the first half of the nineties, before increasing again until the financial crisis of 2008. Post-1990 changes are more pronounced in the Europe as a result of the enlargement of the European Union to Eastern Europe. With regard to imports, their share in GDP remained stable from 1960 to 1990. A slight decrease is observed after the second oil crisis. Trade growth has been more pronounced since the mid-nineties. Technological changes and policy reforms (multilateral and bilateral negotiations at the WTO) have given the first impetus, followed by the entry of China in WTO after 2000. Due to the financial economic crisis, this pace has slowed down in recent years. Again, the recent increase in trade is more pronounced in European Union countries. In the bottom panel, we split immigration and import flows by education level or by level of development of the origin countries. Panel (c) evidences a gradual increase in low-skill immigration between the early seventies and the financial crisis. The enlargement of the European Union also materializes in rising immigration rates from middle-income countries to Europe after the nineties. Panel (d) evidences a marked rise in imports of medium- and high-skill labor intensive goods after the mid-nineties. To a lesser extent, imports of low-skill labor intensive goods have almost doubled as well over the same period.

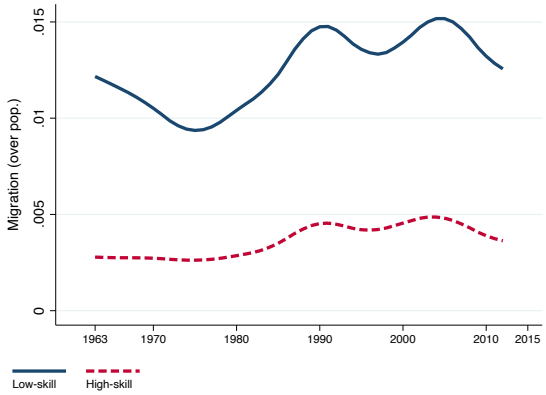
As low-skilled immigration and imports of low-skill labor intensive goods are shown to translate into populist pressures. In Figure C-III, we focus on these two indicators and compare the trends observed in the five groups of countries defined in Figure C-I, i.e., Western Europe, European countries characterized by rising votes for radical parties, Eastern Europe, traditional settlement countries, and Latin America. With regard to low-skill immigration, it has gradually increased in virtually all countries since the early eighties. The highest levels are observed in settlement countries (Australia, Canada and the U.S.), in the UK, Germany, Austria, Italy and Chile. The Czech Republic shows a peak between 1995 and the financial crisis. The evolution of imports of low-skill labor intensive goods follows even more homogeneous patterns. The share of imports in GDP has increased in all countries since the early nineties. The most pronounced changes are observed in Eastern European countries, Latin America, Austria, Canada and Australia. Our panel data analysis takes advantage of these huge variations to identify the effect of globalization shocks on the margins of populism.

Figure C-II: Stylized facts IV – Trade and immigration trends at the aggregate level

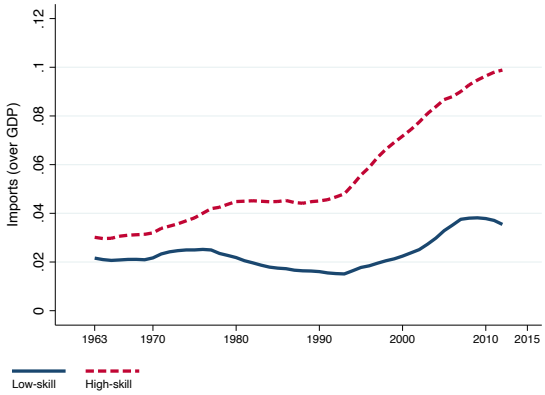


(a) Immigration by broad destination

(b) Imports by broad destination



(c) Immigration by skill level

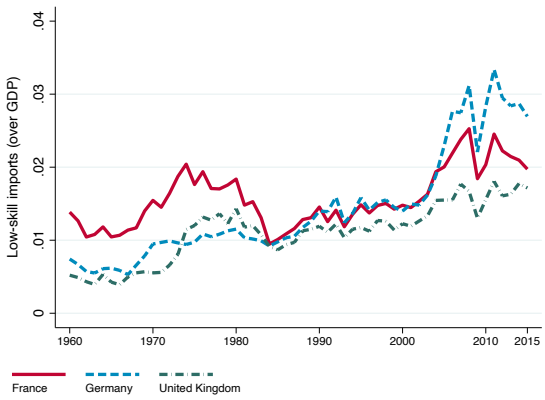


(d) Imports by skill level

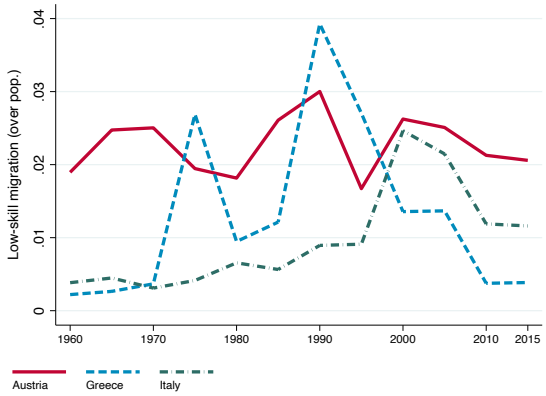
Note: Figures (a), (b), (c) and (d) show moving averages including 3 years before and 3 years after each date. Source: Authors' calculations on Abel (2018), Feenstra et al. (2005) and UN Comtrade.

Figure C-III: Stylized facts IV – Low-skill immigration and imports in selected countries

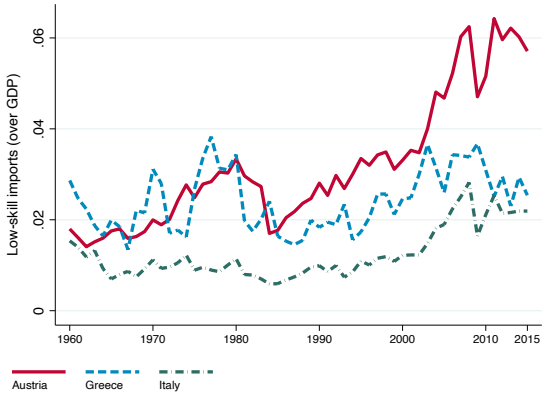
(a) Immigration in Western Europe



(b) Imports in Western Europe

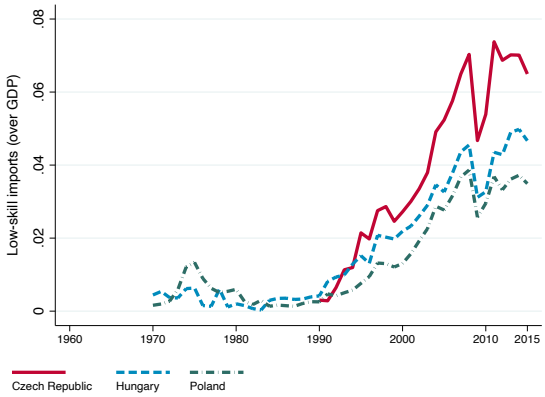


(c) Immigration in populist Europe



(d) Imports in populist Europe

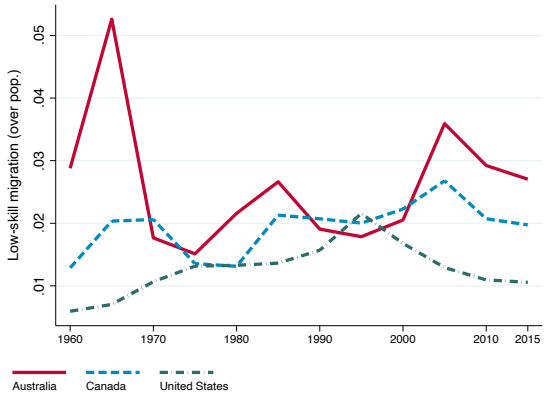
(e) Immigration in Eastern Europe



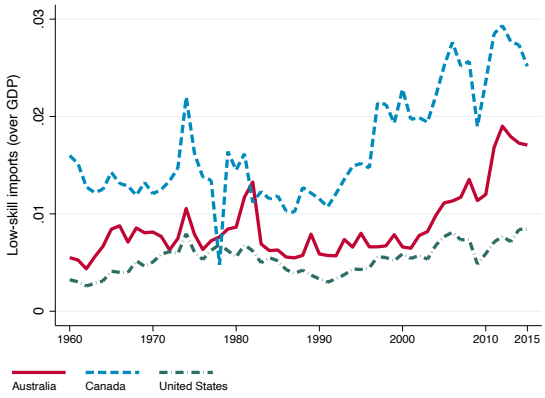
(f) Imports in Eastern Europe

Note: Figures (a), (b), (c), (d), (e) and (f) show moving averages including 3 years before and 3 years after each date.
Source: Authors' calculations on Abel (2018), Feenstra et al. (2005) and UN Comtrade.

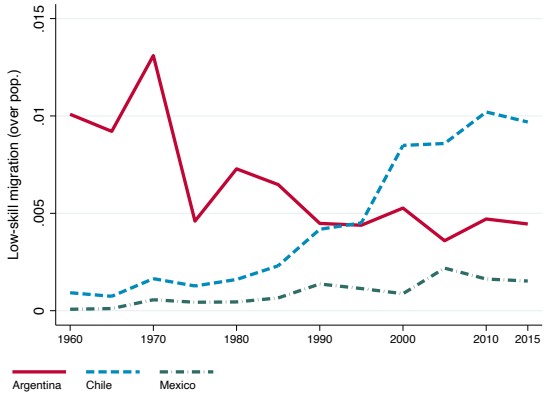
Figure C-III: Stylized facts IV – Low-skill immigration and imports in selected countries (cont'd)



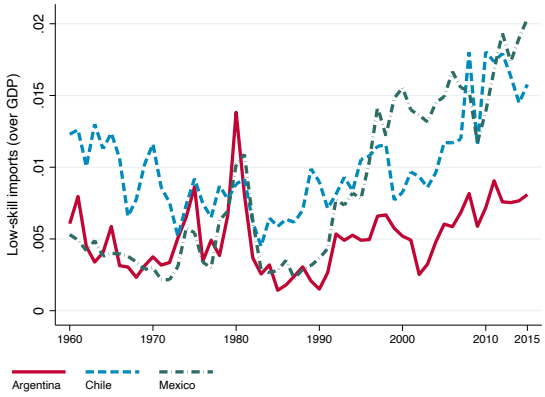
(g) Immigration in settlement countries



(h) Imports in settlement countries



(i) Immigration in Latin America



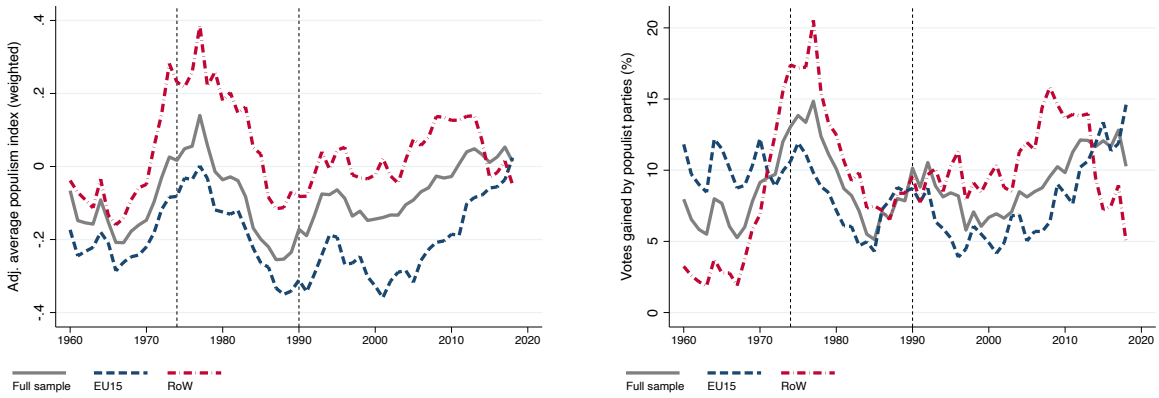
(j) Imports in Latin America

Note: Figures (g), (h), (i) and (j) show moving averages including 3 years before and 3 years after each date. Source: Authors' calculations on Abel (2018), Feenstra et al. (2005) and UN Comtrade.

C.3 Right- and Left-Wing Populism Across Broad Regions

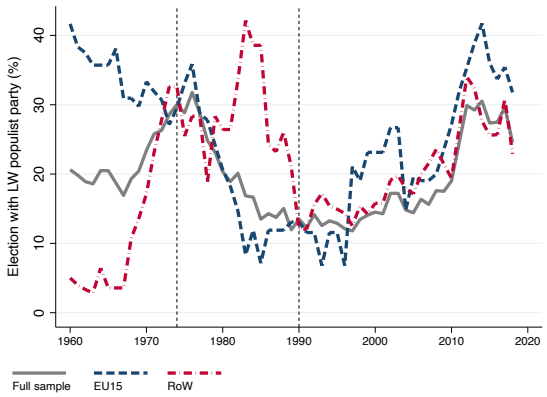
Compared with the core of the text, we plot the evolution of the margins of populism and number of election with populist parties in the EU15 countries and in non-European countries. The EU15 countries are the member states of the European Union prior to the accession of ten candidate countries on 1 May 2004: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, Sweden, United Kingdom.

Figure C-IV: Evolution of Populism: EU15 vs. RoW

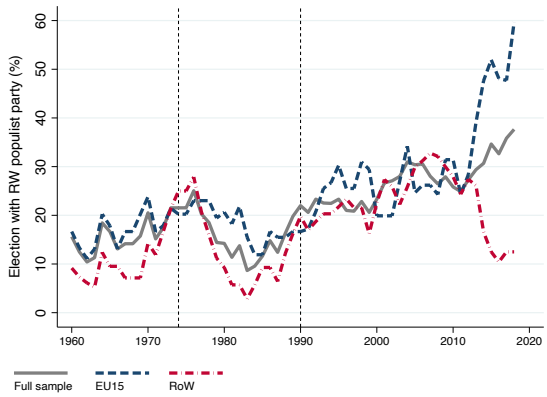


(a) Mean margin of populism ($\Pi^{M}_{i,e,t}$)

(b) Volume margin of populism ($\Pi^{V}_{i,e,t}$)



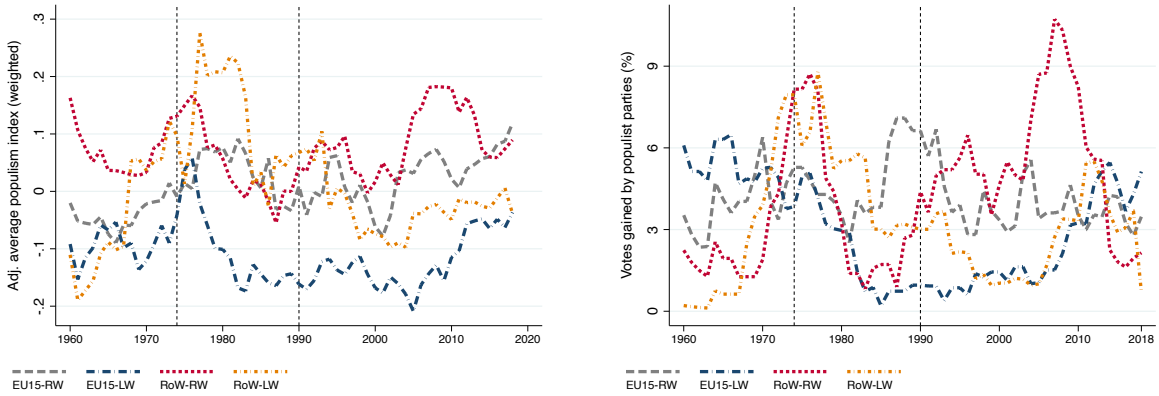
(c) Elections with a LW populist party (%)



(d) Elections with a RW populist party (%)

Fig. (a) plots the *mean margin of populism*, a weighted average of the populism scores with weights equal to the party's share in votes. Fig. (b) depicts the average share of votes for populist parties (the volume margin). Fig. (c) and (d) give the percentage of elections with at least a left-wing and right-wing Populist party, respectively. Populist parties are defined as those with a score exceeding 1 standard deviation (0.808), while left-wing and right-wing parties are defined as those that belongs to the first and third tercile of the left-to-right index. Fig. (a), (b), (c) and (d) show moving averages including 3 years before and 3 years after each date.

Figure C-V: Evolution of Populism: RW and LW Populist Parties across broad regions



(a) Mean margin of populism ($\Pi^{M}_{i,e,t}$)

(b) Volume margin of populism ($\Pi^{V}_{i,e,t}$)

Fig. (a) plots the *mean margin of populism*, a weighted average of the populism scores with weights equal to the party's share in votes. Fig. (b) depicts the average share of votes for populist parties (the volume margin). Populist parties are defined as those with a score exceeding 1 standard deviation (0.808), while left-wing and right-wing parties are defined as those that belongs to the first and third tercile of the left-to-right index. Fig. (a) and (b) show moving averages including 3 years before and 3 years after each date.

D Supplementary Empirical Results

D.1 Reduce-Form IV Regression: First-Stage Results

Table D-I shows the results of the related first stage. Observed import and immigration flows by skill group are regressed on their predicted levels obtained after combining dyadic predictions from Eq. (7), as well as on the control variables and fixed effects used in the second-stage Eq. (5). The predicted levels are nicely correlated with the actual ones, and the coefficients of the instruments are highly significant close to unity. The adjusted R-squared is usually large despite the fact that our zero-stage dyadic regressions abstract from destination-time characteristics.

Table D-I: Actual and predicted flows of imports and immigrants

	(1) $Imp^{HS}_{i,e,t}$	(2) $Imp^{LS}_{i,e,t}$	(3) $Mig^{HS}_{i,e,t}$	(4) $Mig^{LS}_{i,e,t}$
$\widehat{Imp}^{HS}_{i,e,t}$	1.100***			
	(0.100)			
$\widehat{Imp}^{LS}_{i,e,t}$		1.139***		
		(0.112)		
$\widehat{Mig}^{HS}_{i,e,t}$			1.235***	
			(0.113)	
$\widehat{Mig}^{LS}_{i,e,t}$				1.137***
				(0.083)
Observations	575	575	575	575
Countries	52	52	52	52
Adj. R^2	0.94	0.93	0.86	0.86
Year & country FE	✓	✓	✓	✓
Controls	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; all regressions have been estimated with OLS using the Stata command `reghdfe`.

D.2 Volume of Populism: Extensive and Intensive Margins

In this section, we focus on the volume of populism, as measured by the share of votes for populist parties, and on its intensive and extensive margins. In Table D-II reports the PPML results.

Imports of low-skill labor intensive goods are positively and significantly associated with right- and left-wing populism. The link with right-wing populism materializes through the intensive margin (share of votes for existing populist parties), while the effect on left-wing populism is less significant and linked to the extensive margin (number of populist parties). By contrast, imports of high-skill labor intensive goods are associated with lower volumes of populism in general, and with lower levels of right-wing populism in particular. The elasticity of the intensive margin of populism to imports of low-skill labor intensive goods is usually greater than unity.

With regard to immigration, its association with the overall volume of populism is insignificant. Our results support, however, a substitution between left-wing and right-wing populism. low-skill immigration is associated with highest volumes of right-wing populism and with smallest volumes for left-wing populism. This substitution operates along both extensive and intensive margins. By contrast, high-skill immigration tends to generate opposite substitution from right-wing to left-wing populism, although the effects are slightly smaller and less significant.

Table D-III presents the reduced-form IV estimates for the volume margin of populism and of its two components. Focusing first on the volume of populism, the IV estimates are pretty much in line with the results of our baseline PPML regressions. They confirm that the skill structure of globalization shocks plays a key role. Imports of low-skill labor intensive goods foster votes for right-wing populist parties, and the effect mostly materializes through the intensive margin. By contrast, imports of high-skill labor intensive goods decrease the votes for right-wing populist parties. With regard to immigration, the IV results also confirm those of the baseline regressions. low-skill immigration leads to a substitution of left-wing populism for right-wing populism. This effect mostly materializes along the extensive margin (while it also affects both margins in baseline PPML regressions). High-skill immigration reduces the votes for (and number of) populist parties. Compared with baseline regressions, the elasticities are larger by a factor of 1.3, which is in line with the existence of a reverse causation link: the rise in populism could lead to greater trade and immigration restrictions.

Table D-II: Baseline PPML results – Volume of populist votes and its margins

	Volume ($P^V_{i,e,t}$)			Ext. margin ($P^E_{i,e,t}$)			Int. margin ($P^I_{i,e,t}$)		
	All	RW	LW	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
log GDP/cap$_{it}$	-1.22	-2.46**	0.70	-0.93	-2.35***	0.94	-0.85	-1.82*	-0.40
	(0.95)	(1.19)	(1.38)	(0.63)	(0.88)	(0.85)	(0.79)	(1.00)	(1.54)
log Pop$_{it}$	1.28	1.00	2.98	0.04	-0.46	1.70	1.16	1.16	2.20
	(0.96)	(1.33)	(1.84)	(0.75)	(1.20)	(1.16)	(0.86)	(1.35)	(1.39)
log HC$_{it}$	-4.81**	-9.01***	5.06	-0.82	-7.21***	5.95**	-6.01***	-7.75**	3.04
	(2.09)	(3.41)	(5.27)	(1.73)	(2.26)	(3.03)	(2.21)	(3.19)	(4.88)
log Emp$_{it}$/Pop$_{it}$	-0.98	-0.15	-5.00	1.43	2.30	-3.73	-1.12	-0.90	-2.61
	(1.46)	(1.99)	(3.65)	(1.05)	(1.83)	(2.34)	(1.43)	(1.98)	(3.11)
log Parties$_{it}$	0.45	0.51	0.83*	1.36***	1.29***	1.46***	-0.05	0.05	0.41
	(0.29)	(0.50)	(0.43)	(0.24)	(0.41)	(0.38)	(0.28)	(0.53)	(0.48)
log Imp$_{i,t}$ (LS)	0.83***	1.33**	1.49**	0.36	0.66	0.86*	1.05***	1.60***	1.02
	(0.30)	(0.56)	(0.62)	(0.26)	(0.46)	(0.45)	(0.35)	(0.56)	(0.78)
log Imp$_{i,t}$ (HS)	-0.71	-1.30***	-1.25	-0.19	-0.45	-0.99	-0.94**	-1.65***	-0.46
	(0.44)	(0.49)	(0.86)	(0.37)	(0.46)	(0.69)	(0.43)	(0.52)	(1.03)
log Mig$_{i,t}$ (LS)	0.14	1.52***	-1.78***	-0.16	1.01**	-1.14***	0.21	1.19**	-1.55***
	(0.34)	(0.55)	(0.59)	(0.29)	(0.48)	(0.42)	(0.34)	(0.52)	(0.58)
log Mig$_{i,t}$ (HS)	-0.28	-1.32***	1.17*	-0.12	-1.05**	0.71*	-0.20	-1.09**	1.20*
	(0.29)	(0.48)	(0.64)	(0.25)	(0.41)	(0.39)	(0.34)	(0.48)	(0.65)
Observations	575	575	575	575	575	575	575	575	575
Pseudo-R^2	0.40	0.37	0.51	0.30	0.27	0.31	0.34	0.33	0.44
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Country FE	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; all regressions have been estimated with PPML using the Stata command `ppmlhdfe`.

Table D-III: IV – Volume of populist votes and its margins

	Volume ($P^V_{i,e,t}$)			Ext. margin ($P^E_{i,e,t}$)			Int. margin ($P^I_{i,e,t}$)		
	All	RW	LW	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	0.91*	1.82**	0.97	0.62*	0.92	0.94	1.40***	2.10**	1.40
	(0.50)	(0.84)	(0.84)	(0.38)	(0.67)	(0.76)	(0.51)	(0.84)	(0.89)
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.22*	-2.14**	-0.72	-0.96**	-1.20	-1.12	-1.17**	-2.16**	-0.62
	(0.66)	(0.87)	(0.83)	(0.46)	(0.80)	(0.82)	(0.58)	(0.93)	(0.91)
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.53	1.97***	-1.70*	0.15	1.55***	-1.33**	0.19	1.22*	-1.35
	(0.43)	(0.58)	(0.92)	(0.35)	(0.53)	(0.66)	(0.48)	(0.72)	(0.89)
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-1.04*	-2.02**	0.60	-1.05**	-2.44***	0.34	0.14	-0.86	0.93
	(0.56)	(0.89)	(1.23)	(0.43)	(0.79)	(0.75)	(0.64)	(0.97)	(1.20)
Observations	575	575	575	575	575	575	575	575	575
Pseudo-R^2	0.40	0.36	0.50	0.31	0.28	0.32	0.33	0.32	0.43
Year & country FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; all regressions have been estimated with PPML using the Stata command `ppmlhdfe`.

D.3 Additional Results: Mean Margin of Populism

Table D-IV focuses on the association between globalization shocks and three alternative measures of mean margin of populism. Interestingly, when we provide the split between left and right wing populism, we have a lower number of observations, driven by country specific elections where no party has such a strong ideological stance. The first three columns shows the association between imports/immigration and the unweighted average level of populism of parties included in our sample. In Cols. (4-6), we focus on the weighted average level of populism, using parties' vote shares as weights. However, since our data set includes parties that won at least one seat in the parliament, it excludes small parties and most independent candidates running for election. Hence the cumulative vote share is less than 100% for many election-year pairs. In the last three columns, we normalize the vote shares of parties represented in the parliament so that their sum is equal to 100%.

Whatever the definition of the dependent variable, we find that imports of low-skill labor intensive goods are positively and significantly associated with the mean margin of total and right-wing populism. The elasticity is large, ranging from 3.5 to 7.5. These results point out that import shocks positively influence the mean level of populism (i.e., the average supply of populism in a society), both in raw terms and when we account for parties political relevance. By contrast, imports of high-skill labor intensive goods and immigration rates are not significantly correlated with populism. In Panel B of Table D-IV, we produce IV results using the same instruments as in the previous section, and rely on a standard 2SLS approach. Panel B is in line with the OLS results.

In Table D-V, we investigate separately the effects of globalization shocks on the (vote-weighted) mean populism score of parties that have never been classified as populist, and parties that have been classified as populist in at least one election.

Table D-IV: Mean margin of populism with alternative measures of $P^M_{i,e,t}$ (OLS and 2SLS)

	Parties			Parliament			Parliament (adj.)		
	All	RW	LW	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A: OLS									
$\text{Imp}_{i,t}$ (LS)	3.94**	7.68**	2.28	4.00**	7.62***	0.84	3.78**	4.28***	-0.11
	(1.95)	(2.87)	(2.40)	(1.71)	(2.73)	(1.81)	(1.65)	(1.47)	(0.70)
$\text{Imp}_{i,t}$ (HS)	-0.28	-0.53	0.32	-0.27	-0.72	0.20	-0.21	-0.50*	0.36
	(0.40)	(0.58)	(0.60)	(0.47)	(0.61)	(0.55)	(0.43)	(0.28)	(0.23)
$\text{Mig}_{i,t}$ (LS)	-1.80	0.80	-6.56*	-0.31	3.05	-6.24*	-0.17	1.73	-1.28
	(1.83)	(4.58)	(3.76)	(2.07)	(4.61)	(3.41)	(1.93)	(2.45)	(1.28)
$\text{Mig}_{i,t}$ (HS)	0.03	-3.93	10.96	2.21	-7.35	12.71	1.86	-2.63	3.65
	(6.35)	(12.07)	(11.07)	(5.31)	(11.96)	(9.97)	(4.99)	(4.74)	(3.49)
Observations	578	461	470	578	461	470	578	461	470
R^2	0.55	0.47	0.53	0.50	0.46	0.52	0.50	0.41	0.48
Panel B: 2SLS									
$\widehat{\text{Imp}}_{i,t}$ (LS)	5.77**	7.37*	7.35**	5.27**	4.13	6.03	4.99**	4.06**	1.29
	(2.39)	(4.08)	(3.19)	(2.48)	(4.14)	(3.86)	(2.33)	(1.77)	(1.42)
$\widehat{\text{Imp}}_{i,t}$ (HS)	-0.57	-1.12	0.23	-0.28	-0.70	0.34	-0.22	-0.59	0.45
	(0.54)	(0.87)	(0.79)	(0.59)	(0.82)	(0.85)	(0.54)	(0.38)	(0.37)
$\widehat{\text{Mig}}_{i,t}$ (LS)	-0.86	-0.90	-7.26*	0.42	-0.42	-6.05	0.52	0.74	-0.75
	(2.89)	(6.19)	(4.32)	(3.39)	(5.74)	(4.31)	(3.12)	(3.01)	(1.53)
$\widehat{\text{Mig}}_{i,t}$ (HS)	-1.27	-0.90	17.23	1.57	1.10	18.43	0.99	3.15	3.34
	(10.84)	(19.00)	(12.84)	(11.04)	(19.03)	(11.65)	(10.12)	(7.89)	(4.75)
Observations	578	460	469	578	460	469	578	460	469
K-Paap F-stat	12.07	11.39	9.47	12.07	11.39	9.47	12.07	11.39	9.47
Year FE	✓	✓	✓	✓	✓	✓	✓	✓	✓
Country FE	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; all regressions have been estimated with OLS and 2SLS using the Stata command `reghdfe` and `ivreghdfe`, in Panel A and B, respectively.

Table D-V: Mean margin of populist and non-populist parties (OLS and 2SLS)

	Never populist			Populist at least once		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: OLS						
$Imp_{i,t}$ (LS)	0.22	1.34	-1.29	7.36**	5.42	6.33
	(0.91)	(1.96)	(1.12)	(2.99)	(5.57)	(4.35)
$Imp_{i,t}$ (HS)	0.12	-0.08	0.19	0.69	-0.86	1.28
	(0.37)	(0.38)	(0.45)	(0.93)	(1.81)	(1.70)
$Mig_{i,t}$ (LS)	-2.71*	-3.13	-3.74*	-3.81	-3.48	-11.74**
	(1.41)	(3.76)	(1.92)	(5.10)	(7.68)	(5.33)
$Mig_{i,t}$ (HS)	7.19	6.30	3.30	11.20	3.28	40.01**
	(4.87)	(9.15)	(10.57)	(9.81)	(17.62)	(14.66)
Observations	527	325	364	470	293	294
R^2	0.50	0.49	0.51	0.34	0.39	0.47
Panel B: 2SLS						
$Imp_{i,t}$ (LS)	0.77	1.57	-2.70	9.84**	-7.45	19.63**
	(1.73)	(3.09)	(2.26)	(4.33)	(11.15)	(8.08)
$Imp_{i,t}$ (HS)	0.15	-0.05	0.57	0.11	-3.10	0.39
	(0.46)	(0.55)	(0.67)	(1.21)	(3.30)	(1.71)
$Mig_{i,t}$ (LS)	-2.11	-4.87	-3.14	-3.02	-9.59	-10.49
	(1.86)	(5.50)	(2.30)	(6.74)	(8.24)	(7.48)
$Mig_{i,t}$ (HS)	1.70	-1.39	-2.86	2.81	5.67	52.53**
	(6.77)	(18.51)	(10.76)	(18.24)	(23.95)	(23.60)
Observations	527	325	364	470	293	294
R^2	0.02	-0.02	0.10	0.07	-0.03	0.00
K-Paap F-stat	8.82	3.54	9.20	23.94	8.33	22.76
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in columns (1) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`. The mean margin is computed over the sample of parties that is never classified as populist in columns (1) to (3), while is computed over the sample of parties that is classified at least once as populist in columns (4) to (6).

D.4 Treating Endogenous Variables Separately

Tables D-VI and D-VIII provide the results on the volume and mean margin once the skill-specific import and migration flows are treated as endogenous variables separately and not simultaneously. Although such assumption is rather counter intuitive, since there are no specific evidence that justify an exclusive exogeneity of some skill-specific globalization shocks compared to the others, a consistency in the estimated results would minimize concerns driven by the highly demanding econometric specification while instrumenting four endogenous variables simultaneously. The variable instrumented is: low-skill import (cols. 1-3), high-skill import (cols. 4-6), low-skill immigration (cols. 7-9) and high-skill immigration (cols. 10-12). The last three columns report the estimates once the four variables are treated as endogenous simultaneously for a comparison purpose.

The direction of the correlations between skill-specific globalization shocks and the volume margin is confirmed across specifications. However, the significance of the correlation of a skill-specific flow is affected if only one skill-specific component is treated as endogenous. For instance, the positive correlation of low-skill migration on right-wing populism is not statistically significant once only low-skill immigration (cols. 7-9) or only high skill immigration is treated as endogenous (cols. 10-12). Hence, treating the entire flows (either migration or import) as endogenous appears as an important empirical choice, given the degree of correlation among trade and migration flows presented in Table D-IX. Table D-VII confirms this intuition: once either imports or migration flows are treated as endogenous, the estimates are consistent with our benchmark results.

Concerning the mean margin, Table D-VIII shows that the estimates are rather consistent disregarding the selection of endogenous variables. The F-stat reported in columns (1) to (12) suggest that each instrument is strong enough for its corresponding endogenous variable. Moreover, columns (13) to (15) report, as an alternative proxy of the strength of the instrumental variables, the Shea Partial R^2 (Shea, 1997) associated to each instrument once the other instrumental variables are partial out. The values of the partial R^2 fluctuates around 0.5, providing evidence of our instrumental variables relevance.

Table D-VI: Reduced-form IV PPML results – Volume (one endogenous variable)

	All	RW	LW	All	RW	LW	All	RW	LW	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Predicted Var.	$Imp_{i,t}$ (LS)			$Imp_{i,t}$ (HS)			$Mig_{i,t}$ (LS)			$Mig_{i,t}$ (HS)			All		
log $Imp_{i,t}$ (LS)				0.85**	0.95*	1.29**	0.79***	1.23**	1.11*	0.75***	1.09**	1.39***			
				(0.37)	(0.50)	(0.55)	(0.29)	(0.53)	(0.59)	(0.27)	(0.52)	(0.54)			
log $Imp_{i,t}$ (HS)	0.07	-0.27	0.01				-0.68	-1.25**	-0.85	-0.64	-1.04**	-1.18			
	(0.40)	(0.41)	(0.73)				(0.42)	(0.50)	(0.78)	(0.40)	(0.48)	(0.80)			
log $Mig_{i,t}$ (LS)	0.09	1.42***	-1.67***	0.15	1.40***	-1.62***				0.01	0.33	-0.58**			
	(0.34)	(0.55)	(0.60)	(0.33)	(0.53)	(0.59)				(0.13)	(0.25)	(0.29)			
log $Mig_{i,t}$ (HS)	-0.19	-1.17**	1.14	-0.28	-1.18***	1.05	-0.10	-0.11	0.01						
	(0.29)	(0.48)	(0.70)	(0.27)	(0.44)	(0.64)	(0.12)	(0.22)	(0.31)						
log $\widehat{Imp}_{i,t}$ (LS)	0.08	0.60	0.46										0.86*	1.74**	1.03
	(0.47)	(0.74)	(0.92)										(0.52)	(0.86)	(0.88)
log $\widehat{Imp}_{i,t}$ (HS)				-1.32*	-1.30*	-1.61							-1.19*	-2.07**	-0.79
				(0.70)	(0.72)	(1.05)							(0.67)	(0.88)	(0.84)
log $\widehat{Mig}_{i,t}$ (LS)							-0.17	0.62	-1.30**				0.52	1.95***	-1.70*
							(0.34)	(0.44)	(0.59)				(0.43)	(0.58)	(0.92)
log $\widehat{Mig}_{i,t}$ (HS)										-0.54	-0.47	-0.27	-1.04*	-2.01**	0.60
										(0.39)	(0.52)	(0.62)	(0.56)	(0.88)	(1.23)
Observations	575	575	575	575	575	575	575	575	575	575	575	575	575	575	575
Pseudo-R^2	0.39	0.35	0.50	0.40	0.36	0.52	0.40	0.35	0.51	0.40	0.35	0.50	0.40	0.36	0.50
Year & Country FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7).

Table D-VII: Reduced-form IV PPML results – Volume (two endogenous variables)

	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
Predicted Var.	$Imp_{i,t}$ (LS)(HS)			$Mig_{i,t}$ (LS)(HS)		
log $\widehat{Imp}_{i,t}$ (LS)	0.87*	1.60*	1.57*			
	(0.50)	(0.86)	(0.94)			
log $\widehat{Imp}_{i,t}$ (HS)	-1.19*	-1.83**	-1.68*			
	(0.71)	(0.82)	(1.02)			
log $Mig_{i,t}$ (LS)	0.16	1.50***	-1.52**			
	(0.33)	(0.55)	(0.62)			
log $Mig_{i,t}$ (HS)	-0.27	-1.25***	0.99			
	(0.28)	(0.48)	(0.72)			
log $Imp_{i,t}$ (LS)				0.78***	1.33**	1.16**
				(0.27)	(0.54)	(0.52)
log $Imp_{i,t}$ (HS)				-0.66*	-1.36***	-0.86
				(0.40)	(0.52)	(0.78)
log $\widehat{Mig}_{i,t}$ (LS)				0.43	1.90***	-1.89**
				(0.42)	(0.59)	(0.96)
log $\widehat{Mig}_{i,t}$ (HS)				-0.97*	-1.99**	0.85
				(0.51)	(0.81)	(1.19)
Observations	575	575	575	575	575	575
Pseudo-R^2	0.39	0.36	0.50	0.40	0.37	0.51
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7).

Table D-VIII: IV results – Mean Margin

	All	RW	LW	All	RW	LW	All	RW	LW	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Predicted Var.	$Imp_{i,t}$ (LS)			$Imp_{i,t}$ (HS)			$Mig_{i,t}$ (LS)			$Mig_{i,t}$ (HS)			All		
$Imp_{i,t}$ (LS)	5.56**	3.54*	2.37	3.49**	4.60***	-0.61	3.79**	4.33***	-0.11	3.77**	4.05**	-0.12	5.04**	3.92**	1.43
	(2.52)	(1.93)	(1.66)	(1.64)	(1.52)	(0.73)	(1.66)	(1.48)	(0.70)	(1.67)	(1.52)	(0.71)	(2.34)	(1.78)	(1.45)
$Imp_{i,t}$ (HS)	-0.47	-0.38	0.02	-0.01	-0.68*	0.70*	-0.21	-0.51*	0.36	-0.21	-0.45	0.36	-0.23	-0.58	0.45
	(0.51)	(0.35)	(0.28)	(0.52)	(0.38)	(0.39)	(0.43)	(0.27)	(0.23)	(0.43)	(0.30)	(0.23)	(0.54)	(0.38)	(0.38)
$Mig_{i,t}$ (LS)	-0.13	1.55	-1.25	-0.25	1.74	-1.30	0.52	2.46	-0.76	-0.39	-0.77	-1.48	0.53	0.71	-0.74
	(1.94)	(2.51)	(1.27)	(1.93)	(2.47)	(1.31)	(3.94)	(3.36)	(1.94)	(3.65)	(3.22)	(1.69)	(3.13)	(3.02)	(1.54)
$Mig_{i,t}$ (HS)	1.61	-1.91	3.28	2.15	-2.56	3.68	0.08	-4.31	2.16	2.77	6.59	4.52	0.99	3.19	3.35
	(5.06)	(4.98)	(3.70)	(5.00)	(4.80)	(3.52)	(10.31)	(7.82)	(5.34)	(14.06)	(9.15)	(6.36)	(10.12)	(7.90)	(4.77)
Observations	578	461	470	578	461	470	578	461	470	578	461	470	578	461	470
R^2	0.06	0.09	-0.01	0.07	0.09	0.02	0.07	0.09	0.02	0.07	0.08	0.02	0.06	0.09	0.00
K-Paap F-stat	83.78	38.85	52.68	293.00	269.67	324.80	61.84	24.65	53.64	33.64	20.34	90.46	12.00	12.76	9.66
Shea Partial $R^2 Imp_{LS}$													0.49	0.41	0.48
Shea Partial $R^2 Imp_{HS}$													0.74	0.70	0.76
Shea Partial $R^2 Mig_{LS}$													0.64	0.57	0.69
Shea Partial $R^2 Mig_{HS}$													0.51	0.50	0.62
Year & Country FE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-IX: Correlations globalization flows

Actual Flows (logs)

	(1) Imp (LS)	(2) Imp (HS)	(3) Mig (LS)
Imp (HS)	0.8590****		
Mig (LS)	0.2572***	0.3097***	
Mig (HS)	0.1485****	0.2135***	0.9265***

Predicted Flows (logs)

	(1) Imp (LS)	(2) Imp (HS)	(3) Mig (LS)
Imp (HS)	0.8314***		
Mig (LS)	0.2304***	0.3263***	
Mig (HS)	0.1169***	0.2226***	0.9314***

Actual Flows

	(1) Imp (LS)	(2) Imp (HS)	(3) Mig (LS)
Imp (HS)	0.7201****		
Mig (LS)	0.2562***	0.2930***	
Mig (HS)	0.0554	0.1211***	0.7106***

Predicted Flows

	(1) Imp (LS)	(2) Imp (HS)	(3) Mig (LS)
Imp (HS)	0.7435***		
Mig (LS)	0.2110***	0.2871***	
Mig (HS)	0.0003	0.0884**	0.6734***

D.5 Additional Results: Globalization and Turnout

Table D-X explores the potential implication of globalization shocks on electoral participation. Relying on the Voting Turnout Database of the International Institute for Democracy and Electoral Assistance (IDEA), which documents electoral participation in parliamentary and presidential elections from 1945, we compare the skill-specific effect of immigration and imports estimated in our full sample of countries (Cols. 1-2) and in the sample of countries where voting is not compulsory (Cols. 3-4). Moreover, we use two complementary proxies for electoral participation: the total number of votes divided by the total number of names in the voters' register (Cols. 1 and 3), and the total number of votes divided by the population in age of voting (Cols. 2 and 4). While the first dependent variable relies on the standard definition of voting turnout, the second one accounts (labeled as VAP Turnout) for the fact that voters' registration is not always reliable or that some individuals face unexpected problems when enrolling in electoral register. Nonetheless, the two variables are highly correlated (0.833).

Whatever the definition or the sample, we find that imports are not significantly correlated with turnout. Concerning immigration, the results are sensible to the sample and the definition. Immigration of low-skill workers is positively and significantly correlated with voting turnout in the overall sample, however the correlation is not statistically different from zero in the other specifications. Similarly, inflows of highly educated immigrants is negatively correlated with electoral participation, however it is statistically different from zero only among countries with a not compulsory voting system and on the standard definition of voting turnout. Overall, these results suggest that the implication of globalization shocks on voting turnout are not driving our results.

Alternatively, Table D-XI includes the standard measure of voting turnout as additional control in our benchmark specification. Although being a "bad control" due to the simultaneous determination of the populism variables and voting turnout, the skill-specific globalization estimates are not influenced by the inclusion of electoral participation as a potential confounding factor. Moreover, turnout is not significantly correlated with any margin of populism.

Table D-X: Turnout and Globalization (2SLS)

	All Countries		Not Compulsory Voting	
	Turnout	VAP Turnout	Turnout	VAP Turnout
	(1)	(2)	(3)	(4)
log GDP/capita$_{it}$	0.00	0.03	0.01	0.08*
	(0.03)	(0.04)	(0.04)	(0.04)
log Pop$_{it}$	0.16**	0.16***	0.03	0.06
	(0.07)	(0.06)	(0.07)	(0.06)
log HC$_{it}$	-0.17	-0.05	-0.49***	-0.42***
	(0.17)	(0.16)	(0.14)	(0.12)
log Emp$_{it}$/Pop$_{it}$	0.00	-0.06	0.11	0.06
	(0.10)	(0.08)	(0.09)	(0.08)
log Parties$_{it}$	-0.03**	-0.04***	-0.03	-0.05***
	(0.01)	(0.01)	(0.02)	(0.02)
Imp$_{i,t}$ (LS)	-0.18	-0.16	-0.63*	-0.19
	(0.29)	(0.31)	(0.37)	(0.40)
Imp$_{i,t}$ (HS)	0.07	0.07	-0.01	-0.00
	(0.09)	(0.09)	(0.12)	(0.13)
Mig$_{i,t}$ (LS)	1.08**	0.48	0.85	0.31
	(0.49)	(0.43)	(0.59)	(0.54)
Mig$_{i,t}$ (HS)	-1.93	-0.61	-2.96**	-0.62
	(1.55)	(1.23)	(1.37)	(1.21)
Observations	558	557	441	441
R^2	0.09	0.08	0.17	0.12
K-Paap F-stat	8.66	8.62	38.72	39.73
Year & Country FE	✓	✓	✓	✓
Controls	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients have been estimated with 2SLS using the Stata command `ivreghdfe`. The dependent variables is: the total number of votes divided by the number of names in voters' register (col. (1) and (3)) and the total number of votes divided by the population in age of voting (col. (2) and (4)). The sample includes: all available countries in columns (1) and (2), while only countries where voting is not compulsory in columns (3) and (4).

Table D-XI: Reduced-form IV PPML and 2SLS results – Controlling for Turnout

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
Turnout	-0.21	1.29	-0.30	0.28	0.34	0.17
	(1.54)	(1.93)	(2.13)	(0.28)	(0.23)	(0.24)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	1.01*	1.70*	0.78			
	(0.55)	(0.87)	(0.91)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.41**	-1.69*	-1.34			
	(0.69)	(0.90)	(0.96)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.36	1.68***	-2.16**			
	(0.44)	(0.62)	(0.96)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-0.95	-1.94**	1.19			
	(0.58)	(0.89)	(1.18)			
$\text{Imp}_{i,t}$ (LS)				5.06**	4.34**	1.34
				(2.21)	(1.66)	(1.44)
$\text{Imp}_{i,t}$ (HS)				-0.30	-0.59	0.39
				(0.56)	(0.37)	(0.38)
$\text{Mig}_{i,t}$ (LS)				-0.23	-0.76	-0.76
				(3.11)	(3.12)	(1.60)
$\text{Mig}_{i,t}$ (HS)				1.95	4.38	3.51
				(9.70)	(7.89)	(4.70)
Observations	555	555	555	558	443	459
Pseudo-R^2	0.39	0.36	0.51			
R^2				0.07	0.09	0.01
K-Paap F-stat				8.52	18.32	8.47
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

D.6 Additional Results: Role of Electoral System

Tables D-XII and D-XIII explore the potential implications driven by the country-specific institutional setting defining the electoral rules. Relying on the Electoral System Design database developed by the International Institute for Democracy and Electoral Assistance (IDEA) (Reynolds et al., 2008), we collect information on countries' electoral system from 1990 to recent years, and we construct a dummy variable that takes a value of one if the electoral system is characterized by a proportional representation (PR).

Proportional representation implies a direct translation of the votes for a party into a corresponding proportion of seats in the parliament. It might be argued that new and small populist parties benefit from such type of electoral system. Due to the lack of information on the pre-1990 period, we impute the electoral system of each country over such period based on their electoral system in the first available election year. Table D-XII shows that controlling for having a proportional system do not influence the skill-specific effect of migration and imports on the volume and mean margins of populism.

Additionally, Table D-XIII includes interaction terms with low-skill specific globalization shocks. Interestingly, the results show that imports have a strong and positive effect on the left-wing volume margin in countries with a proportional representation, while there is no specific effect on right-wing margins. This result suggests that left-wing populist parties, in presence of skill-specific import shocks, are particularly able to exploit the institutional setting to enhance their electoral gains.

Table D-XII: Reduced-form IV PPML and 2SLS results – Controlling for PR

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
PR	-1.11*	-1.72*	0.27	-0.14	-0.07	0.02
	(0.64)	(0.95)	(0.86)	(0.09)	(0.08)	(0.08)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	0.83	1.81**	1.01			
	(0.52)	(0.82)	(0.92)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.07	-2.08**	-0.81			
	(0.67)	(0.90)	(0.87)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.44	1.88***	-1.68*			
	(0.44)	(0.60)	(0.92)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-1.09**	-2.20***	0.61			
	(0.54)	(0.80)	(1.23)			
$\text{Imp}_{i,t}$ (LS)				5.02**	3.87**	1.43
				(2.34)	(1.78)	(1.45)
$\text{Imp}_{i,t}$ (HS)				-0.24	-0.58	0.45
				(0.54)	(0.38)	(0.38)
$\text{Mig}_{i,t}$ (LS)				0.30	0.56	-0.70
				(3.17)	(3.06)	(1.56)
$\text{Mig}_{i,t}$ (HS)				1.36	3.36	3.26
				(10.12)	(7.93)	(4.84)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.41	0.37	0.50			
R^2				0.07	0.09	0.00
K-Paap F-stat				11.84	13.17	9.48
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XIII: Reduced-form IV PPML and 2SLS results – Interactions with PR

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	0.69	2.09**	0.34			
	(0.60)	(0.93)	(1.11)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-0.91	-2.11**	-1.06			
	(0.65)	(0.95)	(0.96)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	-0.02	1.51**	-2.52***			
	(0.43)	(0.67)	(0.90)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-1.18**	-2.24***	1.47			
	(0.57)	(0.79)	(1.10)			
log $\widehat{\text{Imp}}_{i,t}$ (LS) × PR	0.29	-0.32	2.76***			
	(0.49)	(0.49)	(0.83)			
log $\widehat{\text{Mig}}_{i,t}$ (LS) × PR	0.76*	0.48	0.65			
	(0.44)	(0.57)	(0.71)			
$\text{Imp}_{i,t}$ (LS)				6.71*	5.40*	-0.32
				(3.40)	(2.96)	(2.50)
$\text{Imp}_{i,t}$ (HS)				-0.18	-0.54	0.45
				(0.53)	(0.39)	(0.37)
$\text{Mig}_{i,t}$ (LS)				4.53	2.86	-0.63
				(3.28)	(3.21)	(2.01)
$\text{Mig}_{i,t}$ (HS)				0.07	3.16	3.18
				(10.35)	(8.05)	(4.32)
$\text{Imp}_{i,t}$ (LS) × PR				-1.74	-1.70	1.68
				(2.44)	(2.30)	(1.79)
$\text{Mig}_{i,t}$ (LS) × PR				-4.35*	-2.76	-0.03
				(2.45)	(2.45)	(2.29)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.41	0.38	0.53			
R^2				0.06	0.09	0.01
K-Paap F-stat				7.66	7.94	6.04
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

D.7 Additional Results: Adding Emigration and Exports

We complement our analysis of the effect of trade and migration on the dynamics of populism by including in our set of explanatory variables skill-specific emigration and export flows. Given the bilateral dimension of our skill-specific migration and trade data, the construction of the variables as outflows rather than inflows is simply determined by aggregating the dyadic levels of trade and migration from the origin-country perspective, rather from the destination-country perspective. The objective of this extension is to investigate whether the inclusion of emigration and export influences our skill-specific results driven by immigration and imports. We treat emigration and export shocks as exogenous, as endogenizing eight variables simultaneously would be heroic.

We first explore in Table D-XIV the skill-specific effect of outflows on the volume and mean margin with a standard PPML/OLS framework, since endogeneity driven by reverse-causation is likely to be less salient in this context. Note that (Dancygier et al., 2022) find a relationship between populism and emigration, but causation is hard to establish and we control for an important mechanism of transmission of emigration shocks, namely the level of human capital. Our estimates show a positive and statistically significant relationship between the volume of left-wing populism and exports of high-skill intensive goods or low-skill emigration. We do not find significant correlation for the volume of overall or right-wing populism, nor for the mean margin. These results suggests that emigration and exports are correlated with the left-wing dimension of populism, which can potentially be due to the influence of unobserved factors.

Going one step further, Table D-XV includes simultaneously the skill-specific inflows and outflows of trade and migration in a standard PPML/OLS framework. Importantly, the baseline effects of low-skill immigration and imports are confirmed for both volume and mean margins of populism. Moreover, the positive relationship between the volume of left-wing populism and exports (both low and high-skill intensive) or low-skill emigration is also confirmed. Right-wing populism is less responsive to outflows of goods and people. Table D-XVI shows that those findings are also confirmed – although being less precisely estimated – once we instrument skill-specific immigration and import shocks.

Table D-XIV: PPML and OLS results – Export and Emigration

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\text{Exp}_{i,t}$ (LS)	0.08	0.19	0.51			
	(0.24)	(0.33)	(0.34)			
log $\text{Exp}_{i,t}$ (HS)	0.02	-0.64*	0.79***			
	(0.25)	(0.36)	(0.30)			
log $\text{Emig}_{i,t}$ (LS)	0.36	-0.20	1.37**			
	(0.41)	(0.49)	(0.70)			
log $\text{Emig}_{i,t}$ (HS)	-0.02	0.51	-0.76			
	(0.41)	(0.53)	(0.67)			
$\text{Exp}_{i,t}$ (LS)				-0.18	1.22	-0.12
				(0.98)	(1.04)	(0.48)
$\text{Exp}_{i,t}$ (HS)				-0.11	-0.04	0.12
				(0.28)	(0.26)	(0.11)
$\text{Emig}_{i,t}$ (LS)				2.17	-2.75	2.39
				(2.60)	(2.33)	(1.56)
$\text{Emig}_{i,t}$ (HS)				-9.71	7.43	-3.68
				(10.89)	(8.60)	(5.51)
Observations	570	570	570	578	461	470
Pseudo-R^2	0.41	0.35	0.54			
R^2				0.49	0.38	0.49
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XV: PPML and OLS results – Import, Immigration, Export and Emigration

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\text{Imp}_{i,t}$ (LS)	1.17***	1.37**	1.99***			
	(0.39)	(0.54)	(0.67)			
log $\text{Imp}_{i,t}$ (HS)	-0.92*	-0.83	-1.90**			
	(0.52)	(0.61)	(0.81)			
log $\text{Exp}_{i,t}$ (LS)	0.00	-0.05	0.71**			
	(0.24)	(0.33)	(0.33)			
log $\text{Exp}_{i,t}$ (HS)	0.11	-0.66**	0.78***			
	(0.24)	(0.33)	(0.27)			
log $\text{Emig}_{i,t}$ (LS)	0.42	-0.36	1.35***			
	(0.41)	(0.52)	(0.50)			
log $\text{Emig}_{i,t}$ (HS)	-0.02	0.70	-0.73			
	(0.43)	(0.56)	(0.50)			
log $\text{Mig}_{i,t}$ (LS)	0.02	1.48***	-2.09***			
	(0.30)	(0.53)	(0.62)			
log $\text{Mig}_{i,t}$ (HS)	-0.02	-1.06**	1.59**			
	(0.26)	(0.49)	(0.63)			
$\text{Imp}_{i,t}$ (LS)				4.75**	4.16**	-0.04
				(2.06)	(1.68)	(0.94)
$\text{Imp}_{i,t}$ (HS)				-0.24	-0.42	0.34
				(0.55)	(0.46)	(0.31)
$\text{Exp}_{i,t}$ (LS)				-1.90	-0.07	-0.05
				(1.20)	(1.10)	(0.63)
$\text{Exp}_{i,t}$ (HS)				-0.09	-0.05	0.01
				(0.27)	(0.39)	(0.12)
$\text{Mig}_{i,t}$ (LS)				0.09	1.71	-1.47
				(1.76)	(2.49)	(1.25)
$\text{Mig}_{i,t}$ (HS)				2.28	-2.37	4.16
				(4.51)	(5.16)	(3.46)
$\text{Emig}_{i,t}$ (LS)				2.68	-1.84	2.33
				(2.46)	(2.03)	(1.43)
$\text{Emig}_{i,t}$ (HS)				-11.75	3.76	-2.76
				(10.27)	(7.62)	(5.06)
Observations	567	567	567	578	461	470
Pseudo-R^2	0.43	0.39	0.59			
R^2				0.51	0.41	0.49
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XVI: Reduced-form IV PPML and 2SLS results – Import, Immigration (endogenous) Export and Emigration (exogenous)

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	1.53***	1.70*	1.90**			
	(0.56)	(0.89)	(0.92)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.79**	-1.46	-2.40**			
	(0.79)	(1.17)	(1.20)			
log $\text{Exp}_{i,t}$ (LS)	0.07	0.01	0.70**			
	(0.24)	(0.31)	(0.33)			
log $\text{Exp}_{i,t}$ (HS)	0.20	-0.62	1.21***			
	(0.25)	(0.40)	(0.37)			
log $\text{Emig}_{i,t}$ (LS)	0.33	-0.31	1.43***			
	(0.35)	(0.49)	(0.50)			
log $\text{Emig}_{i,t}$ (HS)	0.04	0.59	-0.82*			
	(0.38)	(0.55)	(0.47)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.32	1.94***	-2.30***			
	(0.38)	(0.64)	(0.86)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-0.59	-1.77*	1.24			
	(0.54)	(1.01)	(0.96)			
$\text{Imp}_{i,t}$ (LS)				7.20**	4.38**	1.97
				(2.97)	(2.11)	(2.09)
$\text{Imp}_{i,t}$ (HS)				-0.45	-0.92	0.41
				(0.79)	(0.74)	(0.66)
$\text{Mig}_{i,t}$ (LS)				0.19	0.81	-1.32
				(2.81)	(3.08)	(1.53)
$\text{Mig}_{i,t}$ (HS)				1.25	4.02	3.68
				(9.40)	(8.24)	(4.72)
$\text{Exp}_{i,t}$ (LS)				-2.63**	-0.31	-0.65
				(1.19)	(1.12)	(0.85)
$\text{Exp}_{i,t}$ (HS)				-0.03	0.30	-0.03
				(0.26)	(0.51)	(0.17)
$\text{Emig}_{i,t}$ (LS)				2.69	-1.56	2.42
				(2.43)	(2.06)	(1.49)
$\text{Emig}_{i,t}$ (HS)				-11.83	2.84	-3.08
				(10.00)	(8.11)	(5.39)
Observations	567	567	567	572	461	464
Pseudo-R^2	0.43	0.38	0.58			
R^2				0.07	0.09	0.01
K-Paap F-stat				16.89	29.23	8.83
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

D.8 Additional Results: Detailed Robustness Checks

In the subsections below, we conduct a robustness analysis and produce results with alternative lag structure for computing globalization shocks, alternative party classifications, alternative measures of migration shocks (including interactions between migration inflows and stocks) and import shocks, alternative classification of low-skill intensive shocks, interactions with period and region dummies.

D.8.1 Alternative Lag Structures

Table D-XVII: IV results with globalization shocks at time t

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{it}$ (LS)	0.62	1.02	0.66			
	(0.45)	(0.67)	(0.67)			
log $\widehat{\text{Imp}}_{it}$ (HS)	-0.98	-0.89	-1.16			
	(0.83)	(0.85)	(0.96)			
log $\widehat{\text{Mig}}_{it}$ (LS)	0.41	1.83***	-1.86**			
	(0.44)	(0.52)	(0.86)			
log $\widehat{\text{Mig}}_{it}$ (HS)	-1.02*	-1.85**	0.55			
	(0.53)	(0.78)	(1.06)			
Imp_{it} (LS)				8.80*	7.05*	1.33
				(4.85)	(3.61)	(2.76)
Imp_{it} (HS)				-0.31	-0.77	0.91
				(1.07)	(0.63)	(0.74)
Mig_{it} (LS)				1.04	0.39	-1.83
				(6.68)	(6.32)	(3.48)
Mig_{it} (HS)				-1.78	5.81	4.54
				(24.19)	(16.74)	(10.03)
Observations	586	586	586	586	472	473
Pseudo-R^2	0.40	0.35	0.51			
R^2				0.05	0.08	0.02
K-Paap F-stat				11.16	10.48	9.11
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XVIII: IV results with globalization shocks at time $t-1$

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t-1}$ (LS)	1.06**	1.99**	0.71			
	(0.45)	(0.79)	(0.79)			
log $\widehat{\text{Imp}}_{i,t-1}$ (HS)	-1.52***	-2.27***	-1.34			
	(0.47)	(0.66)	(1.02)			
log $\widehat{\text{Mig}}_{i,t-1}$ (LS)	0.62	2.24***	-1.95**			
	(0.42)	(0.65)	(0.94)			
log $\widehat{\text{Mig}}_{i,t-1}$ (HS)	-1.23**	-2.30**	0.62			
	(0.56)	(0.95)	(1.17)			
$\text{Imp}_{i,t-1}$ (LS)				7.87*	7.82*	1.62
				(4.16)	(4.02)	(2.40)
$\text{Imp}_{i,t-1}$ (HS)				-0.21	-1.09	0.86
				(1.05)	(0.79)	(0.67)
$\text{Mig}_{i,t-1}$ (LS)				-0.40	0.70	-1.71
				(6.20)	(6.02)	(3.13)
$\text{Mig}_{i,t-1}$ (HS)				3.75	6.46	5.99
				(19.10)	(16.42)	(9.12)
Observations	572	572	572	572	461	464
Pseudo-R^2	0.41	0.37	0.51			
R^2				0.06	0.06	0.01
K-Paap F-stat				12.51	13.81	9.60
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XIX: IV results with globalization shocks at time $t-2$

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t-2}$ (LS)	0.84*	1.73**	1.04			
	(0.50)	(0.87)	(0.87)			
log $\widehat{\text{Imp}}_{i,t-2}$ (HS)	-1.15**	-1.85**	-1.99**			
	(0.51)	(0.80)	(1.01)			
log $\widehat{\text{Mig}}_{i,t-2}$ (LS)	0.71*	2.23***	-1.68*			
	(0.37)	(0.62)	(1.02)			
log $\widehat{\text{Mig}}_{i,t-2}$ (HS)	-1.34***	-2.31**	0.42			
	(0.51)	(0.99)	(1.26)			
$\text{Imp}_{i,t-2}$ (LS)				9.19*	9.98**	1.78
				(4.89)	(4.71)	(2.64)
$\text{Imp}_{i,t-2}$ (HS)				-0.70	-1.35	0.85
				(1.19)	(0.88)	(0.76)
$\text{Mig}_{i,t-2}$ (LS)				-0.50	2.23	-2.12
				(6.15)	(6.17)	(3.21)
$\text{Mig}_{i,t-2}$ (HS)				4.06	1.20	5.68
				(17.92)	(17.90)	(9.00)
Observations	564	564	564	564	456	458
Pseudo-R^2	0.41	0.38	0.52			
R^2				0.03	0.01	0.00
K-Paap F-stat				10.86	19.43	12.63
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XX: IV results with globalization shocks between $t-2$ and t

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t-2\to t}$ (LS)	0.75	1.61*	0.82			
	(0.55)	(0.95)	(0.90)			
log $\widehat{\text{Imp}}_{i,t-2\to t}$ (HS)	-1.04	-1.86**	-1.04			
	(0.65)	(0.93)	(0.87)			
log $\widehat{\text{Mig}}_{i,t-2\to t}$ (LS)	0.62	2.24***	-1.68*			
	(0.42)	(0.64)	(0.96)			
log $\widehat{\text{Mig}}_{i,t-2\to t}$ (HS)	-1.30**	-2.51**	0.33			
	(0.54)	(1.00)	(1.25)			
$\text{Imp}_{i,t-2\to t}$ (LS)				3.28**	2.98**	0.79
				(1.61)	(1.30)	(0.95)
$\text{Imp}_{i,t-2\to t}$ (HS)				-0.17	-0.40	0.28
				(0.37)	(0.27)	(0.25)
$\text{Mig}_{i,t-2\to t}$ (LS)				0.17	0.77	-0.61
				(2.07)	(2.06)	(1.09)
$\text{Mig}_{i,t-2\to t}$ (HS)				0.39	0.65	2.14
				(6.86)	(5.95)	(3.27)
Observations	564	564	564	564	456	458
Pseudo-R^2	0.40	0.37	0.51			
R^2				0.06	0.08	0.00
K-Paap F-stat				13.26	10.40	8.67
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XXI: IV results with globalization shocks between two elections

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t-e\to t}$ (LS)	0.87	1.24	1.98**			
	(0.53)	(0.91)	(0.86)			
log $\widehat{\text{Imp}}_{i,t-e\to t}$ (HS)	-0.67	-1.38	-1.53*			
	(0.58)	(0.88)	(0.88)			
log $\widehat{\text{Mig}}_{i,t-e\to t}$ (LS)	0.36	1.91***	-1.93*			
	(0.44)	(0.64)	(1.02)			
log $\widehat{\text{Mig}}_{i,t-e\to t}$ (HS)	-0.85*	-2.12***	0.98			
	(0.49)	(0.77)	(1.36)			
$\text{Imp}_{i,t-e\to t}$ (LS)				1.27*	1.34**	0.08
				(0.65)	(0.63)	(0.41)
$\text{Imp}_{i,t-e\to t}$ (HS)				-0.14	-0.24	0.08
				(0.18)	(0.18)	(0.10)
$\text{Mig}_{i,t-e\to t}$ (LS)				-1.25	-0.62	-0.75
				(1.26)	(0.98)	(0.61)
$\text{Mig}_{i,t-e\to t}$ (HS)				-2.12	-0.10	-0.19
				(3.39)	(2.24)	(1.92)
Observations	574	574	574	574	460	468
Pseudo-R^2	0.40	0.36	0.52			
R^2				0.04	0.06	0.01
K-Paap F-stat				6.32	8.84	5.27
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

D.8.2 Alternative Party Classifications and Populism Score Measures

Table D-XXII: IV results with lax and strict definitions of populist parties

	Lax Definition (>0.9 SD)			Strict Definition (>1.1 SD)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	1.00**	1.70**	1.43	0.83	1.49*	0.52
	(0.50)	(0.82)	(0.88)	(0.51)	(0.78)	(1.26)
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.30*	-2.11**	-1.25	-1.19	-1.89**	-0.36
	(0.68)	(0.91)	(0.84)	(0.75)	(0.94)	(1.17)
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.42	1.89***	-1.61*	0.55	2.20***	-1.51
	(0.45)	(0.58)	(0.87)	(0.44)	(0.64)	(1.03)
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-0.83	-1.97**	0.65	-1.21**	-2.66***	0.52
	(0.58)	(0.92)	(1.17)	(0.60)	(0.90)	(1.36)
Observations	575	575	575	575	575	575
Pseudo-R^2	0.40	0.37	0.51	0.39	0.35	0.48
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in columns (1) to (6) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7).

Table D-XXIII: IV results using the 3C Populism Score

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	0.35	1.02	1.84			
	(0.54)	(0.65)	(1.27)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-0.99	-1.49*	-0.75			
	(0.70)	(0.79)	(1.25)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.99**	2.18***	-0.87			
	(0.39)	(0.58)	(0.70)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-1.71***	-2.47***	-0.92			
	(0.49)	(0.84)	(0.88)			
$\text{Imp}_{i,t}$ (LS)				8.08**	7.19***	2.90
				(3.92)	(2.56)	(2.33)
$\text{Imp}_{i,t}$ (HS)				0.05	-0.86	0.98*
				(0.79)	(0.71)	(0.49)
$\text{Mig}_{i,t}$ (LS)				4.31	6.08	-1.54
				(3.99)	(3.72)	(3.06)
$\text{Mig}_{i,t}$ (HS)				-9.37	-8.56	7.40
				(14.27)	(9.76)	(9.80)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.46	0.38	0.62			
R^2				0.04	0.07	-0.00
K-Paap F-stat				12.05	11.36	9.45
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XXIV: IV results using the 15C Populism Score

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	0.86*	1.41**	2.14**			
	(0.49)	(0.60)	(1.07)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.04*	-2.21***	-1.45			
	(0.58)	(0.74)	(1.10)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.59*	1.50***	-0.03			
	(0.35)	(0.52)	(0.55)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-0.72	-1.66**	-0.52			
	(0.48)	(0.65)	(0.63)			
$\text{Imp}_{i,t}$ (LS)				7.47	4.99	4.44
				(5.65)	(3.02)	(3.04)
$\text{Imp}_{i,t}$ (HS)				0.05	-0.62	0.66
				(1.05)	(0.64)	(0.46)
$\text{Mig}_{i,t}$ (LS)				7.78	3.97	1.41
				(4.83)	(3.67)	(3.13)
$\text{Mig}_{i,t}$ (HS)				13.85	7.72	8.51
				(21.27)	(12.26)	(10.96)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.54	0.46	0.59			
R^2				0.06	0.03	-0.00
K-Paap F-stat				12.05	11.36	9.45
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

D.8.3 Alternative Measures of Migration Shocks

Table D-XXV: IV results with skill-selection imputed using data for the year 2000

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	0.90*	1.66*	0.96			
	(0.52)	(0.86)	(0.89)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.19*	-1.91**	-0.76			
	(0.69)	(0.86)	(0.82)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.49	1.43**	-1.26			
	(0.51)	(0.70)	(0.92)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-0.93	-1.19	-0.01			
	(0.62)	(0.96)	(1.17)			
$\text{Imp}_{i,t}$ (LS)				5.02**	4.21**	1.31
				(2.32)	(1.73)	(1.42)
$\text{Imp}_{i,t}$ (HS)				-0.20	-0.62*	0.45
				(0.54)	(0.37)	(0.38)
$\text{Mig}_{i,t}$ (LS)				3.66	1.94	-0.02
				(3.52)	(3.20)	(1.75)
$\text{Mig}_{i,t}$ (HS)				-7.91	-0.59	-0.02
				(7.41)	(5.27)	(3.03)
Observations	569	569	569	572	461	464
Pseudo-R^2	0.40	0.35	0.50			
R^2				0.07	0.09	0.00
K-Paap F-stat				11.14	32.40	11.39
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XXVI: IV results using interactions with 1960 immigrants' share in total population

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	0.91*	1.76**	0.80			
	(0.52)	(0.86)	(0.77)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.22*	-2.07**	-0.93			
	(0.67)	(0.93)	(0.85)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.23	1.77***	-2.04**			
	(0.50)	(0.62)	(0.95)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-1.03*	-1.97**	0.16			
	(0.55)	(0.89)	(1.17)			
log $\widehat{\text{Mig}}_{i,t}$ (LS) $\times$ dSH^B_{1960}	0.64	0.29	1.50**			
	(0.52)	(1.02)	(0.72)			
log $\widehat{\text{Mig}}_{i,t}$ (LS) $\times$ dSH^T_{1960}	1.32*	0.97	3.78***			
	(0.68)	(1.00)	(1.47)			
$\text{Imp}_{i,t}$ (LS)				4.93**	4.16**	0.95
				(2.32)	(1.84)	(1.46)
$\text{Imp}_{i,t}$ (HS)				-0.17	-0.63	0.49
				(0.58)	(0.38)	(0.39)
$\text{Mig}_{i,t}$ (LS)				-0.53	0.45	-1.13
				(3.91)	(3.21)	(1.89)
$\text{Mig}_{i,t}$ (HS)				2.18	7.13	2.06
				(10.55)	(8.40)	(5.01)
$\text{Mig}_{i,t}$ (LS) $\times$ dSH^B_{1960}				3.93	4.16	-1.30
				(4.45)	(4.39)	(1.85)
$\text{Mig}_{i,t}$ (LS) $\times$ dSH^T_{1960}				0.26	-2.99	1.41
				(4.48)	(3.19)	(2.73)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.41	0.37	0.52			
R^2				0.07	0.11	0.02
K-Paap F-stat				26.76	12.35	7.12
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`. d$Share^B_{1960}$ and d$Share^T_{1960}$ are dummies equal to one if the country belong the bottom or top quartile in terms o immigration share in the 1960, respectively.

D.8.4 Alternative Measures of Import Shocks

Table D-XXVII: IV results with labor-intensive imports

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	1.18*	1.99**	-1.10			
	(0.67)	(0.97)	(1.09)			
log $\widehat{\text{Imp}}_{i,t}$ (LAB)	-0.43	-0.18	3.95**			
	(0.60)	(0.83)	(1.54)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-0.98	-2.01**	-2.07			
	(0.70)	(0.98)	(1.50)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.55	2.04***	-1.84*			
	(0.43)	(0.58)	(0.96)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-1.07*	-2.12**	0.66			
	(0.57)	(0.88)	(1.23)			
$\text{Imp}_{i,t}$ (LS)				5.73**	6.25***	1.56
				(2.36)	(1.85)	(1.43)
$\text{Imp}_{i,t}$ (LAB)				-1.42	-2.57**	-0.91
				(1.22)	(1.25)	(0.61)
$\text{Imp}_{i,t}$ (HS)				-0.00	-0.37	0.61
				(0.66)	(0.45)	(0.41)
$\text{Mig}_{i,t}$ (LS)				-0.49	0.00	-1.43
				(3.47)	(3.17)	(1.52)
$\text{Mig}_{i,t}$ (HS)				2.68	3.29	4.50
				(10.04)	(7.33)	(4.45)
Observations	572	572	572	572	461	464
Pseudo-R^2	0.40	0.36	0.52			
R^2				0.06	0.07	0.02
K-Paap F-stat				8.94	11.01	7.22
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XXVIII: IV results with imports of medium-skilled intensive goods

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	1.29	1.39	1.95**			
	(0.81)	(1.08)	(0.99)			
log $\widehat{\text{Imp}}_{i,t}$ (MS)	-0.82	1.04	-2.51***			
	(1.27)	(1.91)	(0.87)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-0.76	-2.57*	0.45			
	(0.76)	(1.33)	(0.81)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.54	2.07***	-1.87**			
	(0.42)	(0.59)	(0.93)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-1.00*	-2.21**	1.05			
	(0.53)	(0.94)	(1.21)			
$\text{Imp}_{i,t}$ (LS)				7.40***	5.06*	2.79*
				(2.51)	(2.55)	(1.39)
$\text{Imp}_{i,t}$ (MS)				-1.82	-0.68	-1.29**
				(1.20)	(1.17)	(0.58)
$\text{Imp}_{i,t}$ (HS)				0.29	-0.41	0.78*
				(0.67)	(0.47)	(0.42)
$\text{Mig}_{i,t}$ (LS)				-0.72	0.64	-1.74
				(3.27)	(3.07)	(1.50)
$\text{Mig}_{i,t}$ (HS)				4.47	4.01	5.89
				(10.16)	(7.88)	(5.05)
Observations	572	572	572	572	461	464
Pseudo-R^2	0.40	0.36	0.51			
R^2				0.07	0.08	0.02
K-Paap F-stat				14.12	15.24	8.04
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

D.8.5 Origin-specific Measures of Migration and Imports shocks

Table D-XXIX: IV results with skill-origin specific flows

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS-LI)	0.86***	1.45***	0.42			
	(0.15)	(0.29)	(0.32)			
log $\widehat{\text{Imp}}_{i,t}$ (LS-HI)	-0.25	-0.12	0.42			
	(0.41)	(0.86)	(1.04)			
log $\widehat{\text{Imp}}_{i,t}$ (HS-LI)	-0.07	-0.71	0.71**			
	(0.23)	(0.47)	(0.32)			
log $\widehat{\text{Imp}}_{i,t}$ (HS-HI)	-1.09*	-1.22	-1.72*			
	(0.66)	(0.98)	(1.04)			
log $\widehat{\text{Mig}}_{i,t}$ (LS-LI)	0.89**	1.81***	-1.73*			
	(0.37)	(0.49)	(1.00)			
log $\widehat{\text{Mig}}_{i,t}$ (LS-HI)	0.22	-0.20	0.52			
	(0.43)	(0.63)	(0.51)			
log $\widehat{\text{Mig}}_{i,t}$ (HS-LI)	-1.31***	-1.94***	0.85			
	(0.45)	(0.51)	(1.07)			
log $\widehat{\text{Mig}}_{i,t}$ (HS-HI)	-0.40	-0.15	-1.13*			
	(0.51)	(0.77)	(0.58)			
$\text{Imp}_{i,t}$ (LS-LI)				11.35	7.39	3.19
				(7.11)	(5.79)	(5.90)
$\text{Imp}_{i,t}$ (LS-HI)				4.31**	2.71	1.34
				(1.84)	(1.77)	(1.23)
$\text{Imp}_{i,t}$ (HS-LI)				1.52	-1.12	4.83*
				(3.58)	(2.79)	(2.68)
$\text{Imp}_{i,t}$ (HS-HI)				-0.45	-0.39	0.14
				(0.45)	(0.41)	(0.27)
$\text{Mig}_{i,t}$ (LS-LI)				-1.38	3.76	-3.56**
				(2.64)	(2.32)	(1.54)
$\text{Mig}_{i,t}$ (LS-HI)				7.81**	2.24	3.56*
				(3.50)	(4.61)	(1.96)
$\text{Mig}_{i,t}$ (HS-LI)				8.95	0.53	9.86**
				(8.26)	(6.83)	(4.79)
$\text{Mig}_{i,t}$ (HS-HI)				-30.54**	-19.04	-7.09
				(14.00)	(15.21)	(7.39)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.45	0.42	0.53			
R^2				0.04	0.06	0.01
K-Paap F-stat				14.87	8.73	14.75
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

D.8.6 Analysis by Sub-sample

Table D-XXX: IV results using interactions with post-1990 dummy

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	1.04*	2.20**	0.64			
	(0.53)	(0.86)	(0.91)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.04	-1.71	-0.70			
	(0.74)	(1.12)	(0.96)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.49	1.97***	-1.82*			
	(0.43)	(0.57)	(1.00)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-1.09	-2.30***	0.76			
	(0.68)	(0.85)	(1.26)			
log $\widehat{\text{Imp}}_{i,t}$ (LS) $\times$ $d_{post1990}$	-0.51	-1.49***	0.31			
	(0.38)	(0.55)	(0.32)			
log $\widehat{\text{Mig}}_{i,t}$ (LS) $\times$ $d_{post1990}$	0.49	1.48*	-0.48			
	(0.44)	(0.85)	(0.33)			
$\text{Imp}_{i,t}$ (LS)				5.87**	5.25***	0.39
				(2.37)	(1.67)	(1.56)
$\text{Imp}_{i,t}$ (HS)				0.01	-0.11	0.22
				(0.57)	(0.54)	(0.36)
$\text{Mig}_{i,t}$ (LS)				0.01	1.39	-1.18
				(2.86)	(3.02)	(1.71)
$\text{Mig}_{i,t}$ (HS)				-5.13	-2.51	5.53
				(10.42)	(8.87)	(5.11)
$\text{Imp}_{i,t}$ (LS) $\times$ $d_{post1990}$				-2.88	-4.30**	2.25
				(2.02)	(1.84)	(1.39)
$\text{Mig}_{i,t}$ (LS) $\times$ $d_{post1990}$				4.50**	3.70	-1.10
				(2.01)	(2.61)	(1.33)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.41	0.40	0.51			
R^2				0.06	0.08	0.01
K-Paap F-stat				6.52	7.09	11.84
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XXXI: IV results using interactions with EU28 dummy

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	0.53	1.52*	0.06			
	(0.50)	(0.84)	(0.96)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.12	-2.14**	-0.72			
	(0.69)	(0.98)	(0.85)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	-0.37	1.07	-2.60***			
	(0.39)	(0.75)	(0.99)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-0.84	-1.76*	0.95			
	(0.57)	(0.91)	(1.13)			
log $\widehat{\text{Imp}}_{i,t}$ (LS) $\times$ d_{EU28}	0.99**	0.60	2.29***			
	(0.43)	(0.39)	(0.70)			
log $\widehat{\text{Mig}}_{i,t}$ (LS) $\times$ d_{EU28}	1.28***	1.14*	1.12*			
	(0.35)	(0.65)	(0.67)			
$\text{Imp}_{i,t}$ (LS)				5.21**	6.35***	1.02
				(2.59)	(1.65)	(1.55)
$\text{Imp}_{i,t}$ (HS)				-0.42	-0.62	0.37
				(0.63)	(0.40)	(0.39)
$\text{Mig}_{i,t}$ (LS)				-5.86	-2.78	-2.94**
				(3.60)	(2.76)	(1.43)
$\text{Mig}_{i,t}$ (HS)				11.34	10.30	7.31
				(11.53)	(7.88)	(5.19)
$\text{Imp}_{i,t}$ (LS) $\times$ d_{EU28}				-0.49	-2.00**	0.07
				(1.37)	(0.89)	(0.63)
$\text{Mig}_{i,t}$ (LS) $\times$ d_{EU28}				9.08***	4.64	2.98*
				(3.25)	(2.86)	(1.58)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.43	0.38	0.54			
R^2				0.04	0.10	-0.01
K-Paap F-stat				3.26	3.20	3.08
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XXXII: IV results excluding Latin American Countries

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	0.85*	1.78**	0.30			
	(0.51)	(0.88)	(0.97)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.53**	-2.38***	-0.39			
	(0.68)	(0.89)	(0.96)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.64	2.02***	-1.85**			
	(0.44)	(0.56)	(0.92)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-1.36**	-2.24***	0.36			
	(0.57)	(0.86)	(1.26)			
$\text{Imp}_{i,t}$ (LS)				5.08**	3.71**	1.20
				(2.45)	(1.83)	(1.53)
$\text{Imp}_{i,t}$ (HS)				-0.22	-0.56	0.47
				(0.53)	(0.38)	(0.36)
$\text{Mig}_{i,t}$ (LS)				0.37	0.10	-0.60
				(3.13)	(3.09)	(1.44)
$\text{Mig}_{i,t}$ (HS)				1.29	4.38	3.00
				(10.27)	(8.04)	(4.69)
Observations	545	545	545	548	449	445
Pseudo-R^2	0.41	0.36	0.52			
R^2				0.06	0.09	0.01
K-Paap F-stat				11.60	17.78	10.53
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`. The sample of countries exclude Argentina, Chile and Mexico.

Table D-XXXIII: IV results over Balanced Sample of Countries

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	1.58*	3.56***	1.81*			
	(0.86)	(1.22)	(1.07)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-2.55***	-3.06*	-4.28***			
	(0.93)	(1.62)	(1.33)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.32	1.82*	-2.21**			
	(0.54)	(1.06)	(1.09)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-0.95	-3.29**	2.70**			
	(0.72)	(1.57)	(1.28)			
$\text{Imp}_{i,t}$ (LS)				6.34**	7.58***	0.80
				(2.77)	(1.70)	(1.53)
$\text{Imp}_{i,t}$ (HS)				0.06	-0.79**	0.57
				(0.67)	(0.36)	(0.37)
$\text{Mig}_{i,t}$ (LS)				-2.02	-6.32**	1.67
				(4.23)	(2.98)	(1.94)
$\text{Mig}_{i,t}$ (HS)				4.76	16.50**	-3.11
				(13.24)	(7.91)	(7.29)
Observations	363	363	363	363	289	325
Pseudo-R^2	0.51	0.51	0.61			
R^2				0.09	0.11	0.04
K-Paap F-stat				8.75	14.03	7.48
Year & Country FE	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`. The sample of countries includes countries which have their first election before 1970.

D.9 IV Results with Interaction Terms

In Tables D-XXXIV to D-XXXVI, we start from a parsimonious version of Eq. (5) and Table 4 – including imports of low-skill labor intensive goods $\left(\text{Imp}^{LS}_{i,e,t}\right)$ and low-skill immigration $\left(\text{Mig}^{LS}_{i,e,t}\right)$ – and supplement it with interactions between globalization shocks and other potential drivers of populism. The new specification is given by Eq. (6).

We create four dummies to capture whether (i) the country experienced a year of negative real income growth in the last two years before the election (a proxy for an *economic crisis*), (ii) the country experienced a variation in the share of manufacturing value added in GDP in the last two years that belongs to the bottom quartile of the distribution (a proxy for *de-industrialization*), (iii) the level of diversity in the origin mix of imports and genetic distance of the migration inflows belongs to the top decile of the distribution (a proxy for the underlying *cultural diversity* involved in imported goods or brought by immigrants), and (iv) the share of internet users belongs to the top decile of the population (a proxy for the *prevalence of social media*).

Table D-XXXIV: Reduced-form IV PPML and 2SLS results – Volume and Mean Margins
Interaction with economic crisis ($dG_{i,t}$)

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
$dG_{i,t}$	-0.03	-1.79	-1.35	-0.08	-0.03	-0.09*
	(0.75)	(1.71)	(1.55)	(0.08)	(0.07)	(0.05)
log $\widehat{Imp}_{i,t}$ (LS)	0.88*	1.91**	0.58			
	(0.47)	(0.84)	(0.89)			
log $\widehat{Imp}_{i,t}$ (HS)	-1.35**	-2.35**	-0.74			
	(0.68)	(0.93)	(0.82)			
log $\widehat{Mig}_{i,t}$ (LS)	0.53	1.91***	-1.60*			
	(0.43)	(0.63)	(0.95)			
log $\widehat{Mig}_{i,t}$ (HS)	-1.11*	-2.08**	0.61			
	(0.57)	(0.81)	(1.23)			
log $\widehat{Imp}_{i,t}$ (LS) $\times$ $dG_{i,t}$	0.01	-0.40	0.62**			
	(0.17)	(0.38)	(0.31)			
log $\widehat{Mig}_{i,t}$ (LS) $\times$ $dG_{i,t}$	0.10	0.07	-0.77**			
	(0.14)	(0.29)	(0.35)			
$Imp_{i,t}$ (LS)				4.67**	4.08**	0.48
				(2.20)	(1.73)	(1.19)
$Imp_{i,t}$ (HS)				-0.26	-0.55	0.44
				(0.53)	(0.38)	(0.30)
$Mig_{i,t}$ (LS)				1.36	0.60	-0.79
				(3.62)	(3.09)	(1.37)
$Mig_{i,t}$ (HS)				-1.53	3.46	2.45
				(11.06)	(8.14)	(4.83)
$Imp_{i,t}$ (LS) $\times$ $dG_{i,t}$				2.15	-0.91	2.76**
				(1.44)	(1.07)	(1.27)
$Mig_{i,t}$ (LS) $\times$ $dG_{i,t}$				-2.08	0.08	-1.02
				(1.50)	(1.32)	(0.97)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.41	0.38	0.52			
R^2				0.07	0.09	0.04
K-Paap F-stat				14.90	16.01	8.74

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XXXV: Reduced-form IV PPML and 2SLS results – Volume and Mean Margins
Interaction with de-industrialization ($dD_{i,t}$)

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
$dD_{i,t}$	0.93	1.43	-0.47	0.05	-0.02	0.03
	(0.58)	(0.92)	(1.02)	(0.05)	(0.05)	(0.04)
log $\widehat{Imp}_{i,t}$ (LS)	0.76	1.57*	0.82			
	(0.53)	(0.84)	(0.99)			
log $\widehat{Imp}_{i,t}$ (HS)	-1.29*	-2.31**	-0.87			
	(0.70)	(0.93)	(0.80)			
log $\widehat{Mig}_{i,t}$ (LS)	0.45	1.89***	-1.59			
	(0.44)	(0.63)	(0.98)			
log $\widehat{Mig}_{i,t}$ (HS)	-0.97*	-1.92**	0.67			
	(0.56)	(0.82)	(1.32)			
log $\widehat{Imp}_{i,t}$ (LS) × $dD_{i,t}$	0.28**	0.51***	0.19			
	(0.12)	(0.19)	(0.26)			
log $\widehat{Mig}_{i,t}$ (LS) × $dD_{i,t}$	-0.06	-0.17	-0.29			
	(0.11)	(0.20)	(0.23)			
$Imp_{i,t}$ (LS)				5.01*	3.71**	1.86
				(2.53)	(1.71)	(1.57)
$Imp_{i,t}$ (HS)				-0.20	-0.59	0.46
				(0.54)	(0.36)	(0.37)
$Mig_{i,t}$ (LS)				0.72	0.12	-0.71
				(2.94)	(2.94)	(1.35)
$Mig_{i,t}$ (HS)				1.04	2.23	4.31
				(10.81)	(8.36)	(4.52)
$Imp_{i,t}$ (LS) × $dD_{i,t}$				-0.02	0.67	-0.86*
				(0.76)	(0.48)	(0.51)
$Mig_{i,t}$ (LS) × $dD_{i,t}$				-0.40	0.94	-0.42
				(1.35)	(1.62)	(0.48)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.41	0.38	0.51			
R^2				0.07	0.09	0.01
K-Paap F-stat				10.72	9.82	6.05

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XXXVI: Reduced-form IV PPML and 2SLS results – Volume and Mean Margins
Interaction with internet coverage ($dI_{i,t}$)

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
$dI_{i,t}$	3.85**	5.01	5.27*	-0.23	-0.23*	-0.16*
	(1.94)	(3.37)	(2.90)	(0.17)	(0.12)	(0.09)
log $\widehat{Imp}_{i,t}$ (LS)	1.17**	2.06**	1.13			
	(0.48)	(0.92)	(0.76)			
log $\widehat{Imp}_{i,t}$ (HS)	-1.63***	-2.52***	-0.82			
	(0.58)	(0.84)	(0.73)			
log $\widehat{Mig}_{i,t}$ (LS)	0.61	2.17***	-1.87**			
	(0.41)	(0.55)	(0.89)			
log $\widehat{Mig}_{i,t}$ (HS)	-1.02*	-2.18**	0.74			
	(0.57)	(0.91)	(1.18)			
log $\widehat{Imp}_{i,t}$ (LS) × $dI_{i,t}$	1.38**	3.25***	0.81			
	(0.66)	(0.92)	(0.95)			
log $\widehat{Mig}_{i,t}$ (LS)× $dI_{i,t}$	0.34	-0.60	1.01			
	(0.50)	(0.59)	(1.12)			
$Imp_{i,t}$ (LS)				4.13*	3.70**	0.44
				(2.35)	(1.78)	(1.37)
$Imp_{i,t}$ (HS)				-0.20	-0.70*	0.45
				(0.57)	(0.39)	(0.34)
$Mig_{i,t}$ (LS)				-0.30	1.67	-1.79
				(3.97)	(3.22)	(1.58)
$Mig_{i,t}$ (HS)				2.43	0.59	5.55
				(10.25)	(7.86)	(3.91)
$Imp_{i,t}$ (LS) × $dI_{i,t}$				1.28	2.55*	1.49
				(2.71)	(1.39)	(1.09)
$Mig_{i,t}$ (LS) × $dI_{i,t}$				2.07	-0.95	1.33
				(3.34)	(1.68)	(1.40)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.42	0.40	0.52			
R^2				0.07	0.10	0.04
K-Paap F-stat				10.11	8.11	8.30

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XXXVII: Reduced-form IV PPML and 2SLS results – Volume and Mean Margins
Interaction with trade diversity ($dHHI_{it}$) and genetic distance (dGD_{it})

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
$dHHI_{it}$	-1.05	-3.72***	-1.66	0.38***	0.26***	0.15**
	(1.03)	(1.32)	(2.46)	(0.10)	(0.09)	(0.06)
dGD_{it}	-2.31*	-1.02	-4.66*	0.17	0.04	0.09
	(1.26)	(2.41)	(2.70)	(0.11)	(0.10)	(0.07)
log $\widehat{Imp}_{i,t}$ (LS)	0.95*	1.86**	0.96			
	(0.53)	(0.79)	(0.85)			
log $\widehat{Imp}_{i,t}$ (HS)	-1.37**	-2.38***	-1.20			
	(0.65)	(0.92)	(0.89)			
log $\widehat{Mig}_{i,t}$ (LS)	1.13**	2.21***	-1.02			
	(0.46)	(0.61)	(0.98)			
log $\widehat{Mig}_{i,t}$ (HS)	-1.55**	-2.20**	0.23			
	(0.70)	(0.93)	(1.28)			
log $\widehat{Imp}_{i,t}$ (LS) × $dHHI_{it}$	-0.29	-1.23***	-0.22			
	(0.25)	(0.32)	(0.56)			
log $\widehat{Mig}_{i,t}$ (LS) × dGD_{it}	-0.63***	-0.54	-1.03*			
	(0.23)	(0.55)	(0.57)			
$Imp_{i,t}$ (LS)				4.86***	4.29***	0.99
				(1.53)	(1.50)	(1.02)
$Imp_{i,t}$ (HS)				-0.22	-0.59*	0.44*
				(0.39)	(0.33)	(0.23)
$Mig_{i,t}$ (LS)				0.54	-0.07	-0.20
				(1.91)	(1.91)	(1.12)
$Mig_{i,t}$ (HS)				1.14	4.99	1.69
				(7.14)	(6.07)	(4.16)
$Imp_{i,t}$ (LS) × $dHHI_{it}$				-5.20***	-3.60**	-2.36*
				(1.68)	(1.65)	(1.22)
$Mig_{i,t}$ (LS) × dGD_{it}				-2.85	5.56	-7.95**
				(5.21)	(4.37)	(3.33)
Observations	575	575	575	578	461	470
Pseudo-R^2	0.42	0.40	0.52			
R^2				0.10	0.11	0.04
K-Paap F-stat				53.37	36.02	45.89

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

D.10 Exploring Diversity Specific results

Figure D-I and Tables D-XXXVIII to D-XL explore the potential interaction effect of diversity in low-skill imports and immigration on populism. First we compute for low-skill specific inflows $f \in \{Mig, Imp\}$ a Greenberg Index as follows:

$$HHI^{f}_{c,t} = \sum_{i=1}^{I} s^{f}_{c,i,t} \times (1 - s^{f}_{c,i,t}) \times g_{c,i} \times e_{c,i}, \tag{8}$$

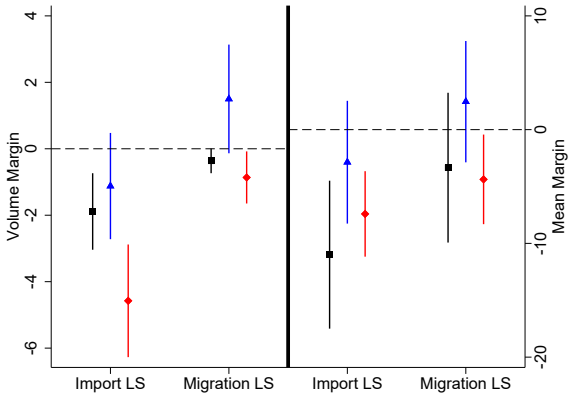
where $s^{f}_{i,t}$ is the low-skill origin specific inflow from country i over the total low-skill inflow to destination country c at year t. Such index augments the standard Herfindal index by including measures of time-invariant bilateral genetic distance ($g_{c,i}$) and economic distance ($e_{c,i}$) to capture relatedness across origin and destination countries. Bilateral genetic distances are available from Spolaore and Wacziarg (2009), while economic distances are measured as the difference in GDP per capita between destination and origin country in the year 2000. Following Alesina et al. (2016) we then compute two variations of the Greenberg index, which put different weights to groups. A first variation put higher weight to origin groups that are genetically close but economically distant to the country of destination (LH). The second variation put higher weight to origin groups that are genetically distant but economically close to the country of destination (HL). These two extremes are motivated by the literature that explores the economic effect of migration diversity, and results in the U.S. context show that the effects are magnified once only one of the two distances has high weight at the time (Docquier et al., 2020). Since we do not expect that voters and politicians are able to distinguish detailed differences across origin countries, we regrouped the set of country of origin in the following broad regions, following the World Bank Classification: Australia and New Zealand, Caribbean, Central America, Central Asia, Eastern Africa, Eastern Asia, Eastern Europe, Melanesia, Micronesia, Middle Africa, Northern Africa, Northern America, Northern Europe, Polynesia, South America, South-eastern Asia, Southern Africa, Southern Asia, Southern Europe, Western Africa, Western Asia and Western Europe. Finally, to investigate the potential amplifying effect on our low-skill specific variables, we construct dummies equal to one if the low-skill specific inflows belong to the first decile of the distribution in terms of Greenberg index and we interact them with our low-skill inflows.

Figure D-I(a) and Table D-XXXVIII shows the results using the simple Greenber Indexes for trade and migration. The results show that while diversity in imports reduces the positive effect of low-skill intensive imports on both margins of populism, we find no statistically significant associated to the interaction with diversity among immigrants. These results suggest, if any, that higher variety in imports could hamper the trade-specific determinant of the recent rise of populism.

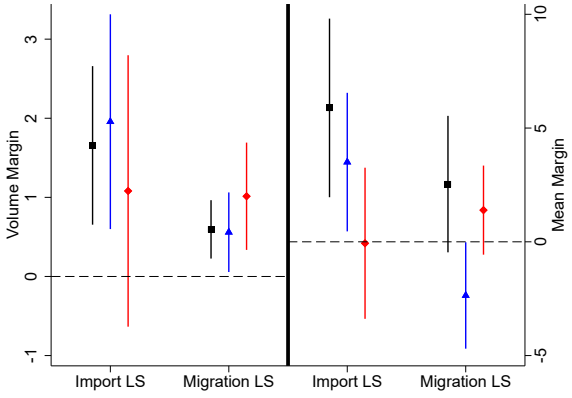
Figures D-I(b) and (c) and Tables D-XXXIX and D-XL reports the results once genetically and economically distant groups are weighted differently in the construction of the Greenberg Index. The results suggest an amplifying effect of diversity (both in trade and migration) on low-skill specific estimates once higher weight is associated to economically distant groups, particularly on the volume margin. Conversely, the interactions with low-skill intensive imports are negative and statistically significant once higher weight is associated to genetically distant groups. Concerning migration, the interactions are barely statistically significant. These results, in line with the ones presented in Table D-XXIX, seems to suggest that more than the "cultural threat" driven by low-skill flows, the magnifying role is played by the poor economic conditions of immigrants, which could be perceived as burden on the welfare state, and imports from poor countries.

Finally, as additional robustness check (available upon request) we include in the above mentioned specifications dummies that captures inflows characterized by high economic distance and high genetic distance, respectively. These measures are constructed as weighted average of the bilateral distances, using the share of origin-specific low-skill flows as weights. The inclusion of these dummies, to better capture potential unmeasured cultural or economic distance, does not affect our previously presented results.

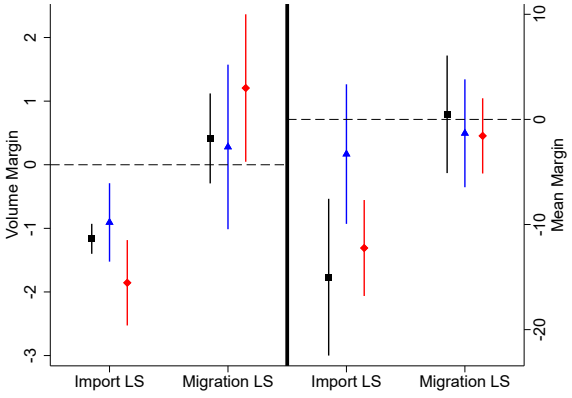
Figure D-I: Interactions with amplifiers for volume and mean margins
Reduced-form IV PPML and 2SLS results - Diversity-specific results



(a) Greenberg Index



(b) Greenberg Index (high weight genetically close group and economically distant groups)



(c) Greenberg Index (high weight genetically distant group and economically close groups)

Notes: Black (square), blue (triangle) and red (diamond) objects correspond to overall, right wing and left wing dimensions, respectively. Dependent variable is the volume margin on the left panels, while is the mean margin in the right panels. The estimates represent the coefficients of the interaction term between migration (LS) and imports (LS) with a dummy equal to one (top-decile) as proxy for trade diversity and migration diversity. 90% confidence intervals are reported.

Table D-XXXVIII: Reduced-form IV PPML and 2SLS results – Volume and Mean Margins
Interaction with greenberg trade diversity ($dHHI^I_{it}$) and greenberg migration diversity index ($dHHI^M_{it}$)

	Volume ($\Pi^V_{i,e,t}$)			Mean margin ($\Pi^M_{i,e,t}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
$dHHI^I_{it}$	-6.30**	-2.64	-19.28***	0.25**	0.12	0.07
	(2.77)	(3.90)	(4.21)	(0.12)	(0.10)	(0.09)
$dHHI^M_{it}$	-1.53*	4.87	-3.49**	0.11	-0.04	0.17**
	(0.91)	(3.68)	(1.66)	(0.11)	(0.09)	(0.07)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	0.98*	1.34*	2.27**			
	(0.51)	(0.77)	(1.11)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.00	-1.60*	-0.43			
	(0.69)	(0.85)	(1.14)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.68	2.01***	-2.58**			
	(0.50)	(0.58)	(1.02)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-0.92	-2.02**	2.10*			
	(0.61)	(0.85)	(1.25)			
$dHHI^I_{it}$ × log $\widehat{\text{Imp}}_{i,t}$ (LS)	-1.89***	-1.12	-4.58***			
	(0.70)	(0.97)	(1.03)			
$dHHI^M_{it}$ × log $\widehat{\text{Mig}}_{i,t}$ (LS)	-0.36	1.50	-0.86*			
	(0.23)	(0.99)	(0.48)			
$\text{Imp}_{i,t}$ (LS)				5.41***	4.17***	1.49
				(1.57)	(1.50)	(1.02)
$\text{Imp}_{i,t}$ (HS)				-0.13	-0.51	0.48**
				(0.39)	(0.33)	(0.24)
$\text{Mig}_{i,t}$ (LS)				0.58	0.93	-0.75
				(1.91)	(1.89)	(1.12)
$\text{Mig}_{i,t}$ (HS)				-0.80	1.60	2.99
				(7.14)	(6.18)	(4.24)
$dHHI^I_{it}$ × $\text{Imp}_{i,t}$ (LS)				-10.99***	-2.86	-7.41***
				(3.95)	(3.27)	(2.28)
$dHHI^M_{it}$ × $\text{Mig}_{i,t}$ (LS)				-3.34	2.46	-4.37*
				(4.00)	(3.23)	(2.39)
Observations	574	574	574	574	457	469
Pseudo-R^2	0.43	0.38	0.56			
R^2				0.07	0.11	0.03
K-Paap F-stat				49.72	37.93	45.66

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XXXIX: Reduced-form IV PPML and 2SLS results – Volume and Mean Margins
Interaction with greenberg trade diversity ($dHHI_{it}^{I,LH}$) and greenberg migration diversity index, higher weights genetically close groups and economically distant groups ($dHHI_{it}^{M,LH}$)

	Volume ($\Pi_{i,e,t}^{V}$)			Mean margin ($\Pi_{i,e,t}^{M}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
$dHHI_{it}^{I,LH}$	5.60***	6.64**	3.80	-0.10	-0.06	0.06
	(2.11)	(2.92)	(3.94)	(0.11)	(0.08)	(0.10)
$dHHI_{it}^{M,LH}$	3.03***	3.40**	4.29**	-0.01	0.09	-0.01
	(0.98)	(1.37)	(1.75)	(0.09)	(0.07)	(0.06)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	0.77	1.65*	1.05			
	(0.49)	(0.87)	(0.89)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-1.10*	-1.91**	-0.75			
	(0.64)	(0.92)	(0.72)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.53	2.10***	-1.81*			
	(0.44)	(0.56)	(0.95)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-1.18**	-2.36***	0.62			
	(0.52)	(0.72)	(1.20)			
$dHHI_{it}^{I,LH}$ × log $\widehat{\text{Imp}}_{i,t}$ (LS)	1.66***	1.96**	1.08			
	(0.61)	(0.83)	(1.04)			
$dHHI_{it}^{M,LH}$ × log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.60***	0.56*	1.01**			
	(0.22)	(0.31)	(0.41)			
$\text{Imp}_{i,t}$ (LS)				5.72***	4.30***	1.68*
				(1.51)	(1.45)	(0.99)
$\text{Imp}_{i,t}$ (HS)				-0.15	-0.55*	0.45*
				(0.39)	(0.33)	(0.24)
$\text{Mig}_{i,t}$ (LS)				0.96	0.89	-0.62
				(1.89)	(1.89)	(1.12)
$\text{Mig}_{i,t}$ (HS)				-2.67	2.29	2.34
				(7.17)	(6.15)	(4.29)
$dHHI_{it}^{I,LH}$ × $\text{Imp}_{i,t}$ (LS)				5.88**	3.50*	-0.06
				(2.38)	(1.85)	(2.01)
$dHHI_{it}^{M,LH}$ × $\text{Mig}_{i,t}$ (LS)				2.54	-2.36*	1.39
				(1.82)	(1.42)	(1.19)
Observations	574	574	574	574	457	469
Pseudo-R^2	0.42	0.40	0.51			
R^2				0.09	0.10	0.00
K-Paap F-stat				54.08	40.08	45.95

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.

Table D-XL: Reduced-form IV PPML and 2SLS results – Volume and Mean Margins
Interaction with greenberg trade diversity ($dHHI_{it}^{I,HL}$) and greenberg migration diversity index, higher weights genetically distant group and economically close groups ($dHHI_{it}^{M,HL}$)

	Volume ($\Pi_{i,e,t}^{V}$)			Mean margin ($\Pi_{i,e,t}^{M}$)		
	All	RW	LW	All	RW	LW
	(1)	(2)	(3)	(4)	(5)	(6)
$dHHI_{it}^{I,HL}$	-3.67***	-2.79*	-5.73***	0.78***	0.34***	0.58***
	(0.71)	(1.57)	(1.87)	(0.14)	(0.12)	(0.09)
$dHHI_{it}^{M,HL}$	1.92	0.52	7.40**	-0.09	-0.08	0.01
	(1.97)	(3.32)	(2.89)	(0.11)	(0.09)	(0.08)
log $\widehat{\text{Imp}}_{i,t}$ (LS)	1.13*	1.91**	1.66*			
	(0.58)	(0.88)	(0.99)			
log $\widehat{\text{Imp}}_{i,t}$ (HS)	-0.68	-1.88**	-0.11			
	(0.65)	(0.81)	(1.15)			
log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.62*	1.91***	-2.43**			
	(0.37)	(0.52)	(1.05)			
log $\widehat{\text{Mig}}_{i,t}$ (HS)	-0.81*	-1.89**	2.11*			
	(0.48)	(0.85)	(1.22)			
$dHHI_{it}^{I,HL}$ × log $\widehat{\text{Imp}}_{i,t}$ (LS)	-1.16***	-0.91**	-1.86***			
	(0.14)	(0.37)	(0.41)			
$dHHI_{it}^{M,HL}$ × log $\widehat{\text{Mig}}_{i,t}$ (LS)	0.41	0.28	1.21*			
	(0.43)	(0.79)	(0.70)			
$\text{Imp}_{i,t}$ (LS)				4.02***	3.75***	0.49
				(1.46)	(1.45)	(0.93)
$\text{Imp}_{i,t}$ (HS)				-0.22	-0.60*	0.36
				(0.38)	(0.32)	(0.23)
$\text{Mig}_{i,t}$ (LS)				1.38	1.20	-0.75
				(1.84)	(1.86)	(1.06)
$\text{Mig}_{i,t}$ (HS)				-1.27	4.56	4.39
				(7.10)	(6.37)	(4.12)
$dHHI_{it}^{I,HL}$ × $\text{Imp}_{i,t}$ (LS)				-15.01***	-3.30	-12.24***
				(4.52)	(4.03)	(2.77)
$dHHI_{it}^{M,HL}$ × $\text{Mig}_{i,t}$ (LS)				0.48	-1.32	-1.57
				(3.39)	(3.11)	(2.17)
Observations	574	574	574	574	457	469
Pseudo-R^2	0.45	0.38	0.60			
R^2				0.14	0.13	0.11
K-Paap F-stat				44.26	24.72	43.56

Notes: ***, **, and * denote significance at the 1, 5, and 10 percent levels, respectively; clustered standard errors at the country level are reported in parentheses; coefficients presented in column (1) to (3) have been estimated with PPML using the Stata command `ppmlhdfe` and predicted globalization variables from the model estimated in equation (7), while coefficients in column (4) to (6) have been estimated with 2SLS using the Stata command `ivreghdfe`.