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Despina Gavresi Anastasia Litina Ioannis Patios

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Department of Economics
University of Macedonia
156 Egnatia str
540 06 Thessaloniki
Greece
Fax: + 30 (0) 2310 891292
https://www.uom.gr/en/eco

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Abstract

This paper examines how exposure to a wide range of macroeconomic downturns shapes individual attitudes to politics and support for variety of populist attitudes in Europe. We try to capture the long-run and the contemporaneous exposure to crises. We first focus on economic downturns experienced during the impressionable years between ages 18 and 25. We use repeated cross-sectional data from the Eurobarometer surveys and exploit cross-country and cohort variation in exposure to recessions. Our baseline analysis relies on fixed-effects regressions controlling for individual characteristics and contemporaneous economic conditions. We then attempt to address identification concerns. To this end we implement a difference-in-differences design that compares cohorts differentially exposed to downturns within the same country. We find that individuals exposed to macroeconomic downturns in early adulthood are more likely to support populist parties and exhibit lower trust in national and European political institutions later in life.

Keywords: Populism; Political attitudes; Institutional trust; OLS, Difference-in-differences

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Corresponding Author: Anastasia Litina: University of Macedonia, Greece, anastasia.litina@uom.edu.gr, Despina Gavresi, University of Luxembourg and University of Macedonia, Greece, despina.gavresi@uni.lu, Ioannis Patios, University of Macedonia, ipatios@uom.edu.gr

Introduction

In recent years, European countries have witnessed a pronounced rise in support for populist movements, largely in response to major economic downturns, most notably the Global Financial Crisis. In the aftermath of these crises, both newly formed and established populist parties have succeeded in entering national parliaments across Europe, reshaping political competition and public discourse.

A substantial body of literature, initially rooted in political science and sociology, has sought to explain the origins and rise of populism. More recently, a growing strand of research in economics has both theoretically explored and empirically documented the economic determinants of populist attitudes. This literature emphasizes the role of economic insecurity, macroeconomic volatility, and adverse economic crisis in shaping political preferences. Our paper contributes to this literature by arguing that populist attitudes are shaped not only by current socioeconomic conditions and recent economic crisis, but also by the long-term influence of past economic experiences.

Building on the analysis of Guiso et al. (2020), we examine an additional dimension through which economic crisis influences political attitudes: exposure during the impressionable years, defined as early adulthood between the ages of 18 and 25 (Giuliano and Spilimbergo, 2014). This period is critical for the formation of core political beliefs and values. We assess the impact of economic crisis during this formative stage on individuals' likelihood of voting for populist parties, abstaining from voting, distrusting political institutions, and expressing negative attitudes toward immigrants.

We define a economic crisis as a year in which real GDP per capita growth is negative. This definition captures economically meaningful downturns that are likely to be salient to individuals and to generate perceptions of economic insecurity. Prior research shows that individuals exposed

to recessions during youth develop persistent beliefs about the economy and society, including greater skepticism toward institutions and lasting changes in political preferences.

Our empirical analysis uses repeated cross-sectional data from the Eurobarometer surveys. We match each respondent to country-level macroeconomic conditions prevailing during their impressionable years, thereby constructing individual-specific measures of early-life exposure to economic crisis. The impressionable years hypothesis (Krosnick and Alwin, 1989) posits that political attitudes formed during early adulthood—when cognitive flexibility is high—tend to persist over the life course.

In our baseline empirical model, we control individuals' current exposure to economic crisis, a rich set of personal characteristics, and an extensive set of fixed effects, including survey-wave, country, age, and cohort fixed effects. In more demanding specifications, we additionally include country-by-age fixed effects, allowing for comparisons across individuals of the same age living in different countries and strengthening identification.

To further support a causal interpretation, we implement a difference-in-differences (DiD) specification that exploits variation across countries, cohorts, and time in the occurrence of economic downturns. Specifically, we compare individuals who were in their impressionable years at the time of a economic crisis (treated cohorts) with individuals from the same country who were not in this age window when the crisis occurred (control cohorts), before and after the crisis. This design allows us to isolate the effect of exposure during early adulthood from contemporaneous country-level economic conditions that affect all cohorts simultaneously. The identifying assumption is that, in the absence of a recession during the impressionable years, treated and control cohorts within the same country would have followed parallel trends in political attitudes.

Our results indicate that both current and past exposure to economic crisis significantly influence the formation of populist attitudes. A one standard deviation increase in exposure to economic crisis during the impressionable years is associated with a 0.026 standard deviation increase in the probability of voting for populist parties, as well as an approximately 0.05 standard decrease in trust

in political parties, national parliaments, the European Union, politicians, and overall satisfaction with government. Moreover, impressionable exposure is associated with more negative attitudes toward immigrants—particularly immigrants from outside the EU or of different ethnic backgrounds—and with the belief that immigration worsens conditions in host countries.

These findings are robust across a range of alternative specifications. First, we restrict attention to severe downturns by focusing on periods of negative growth lasting more than one year. Second, we extend the age window of potential exposure to include ages 18 to 33, combining the impressionable years hypothesis with the increasing persistence hypothesis (Sears, 1983), which suggests that political attitudes formed later in life become increasingly resistant to change. Third, we replicate the analysis using a sample restricted to countries that have at least one populist party represented in the political arena.

A particularly novel finding emerges when we examine the interaction between past and current exposure to economic crisis. We find that these experiences mitigate each other's effects. Individuals who were exposed to economic downturns during their impressionable years respond less strongly to contemporaneous economic crises in terms of populist support and institutional distrust than individuals without such early-life exposure.

This result is consistent with the literature on experience-based learning (Malmendier and Nagel, 2011; Malmendier, 2021), which emphasizes that personal experiences shape beliefs and behavior more strongly than abstract information. Individuals who have lived through adverse economic conditions internalize these experiences and adjust their expectations accordingly. In our context, while current economic crisis tends to increase support for populism, prior exposure during early adulthood moderates this response.

Recognizing the role of historical economic exposure is therefore crucial not only for understanding cross-country and cross-cohort variation in political attitudes, but also for informing policy design. Our findings suggest that economic history shapes contemporary political reactions and should be

considered when designing policies aimed at stabilizing both economic outcomes and democratic support.

Literature Review

The growing electoral success of populist parties across Europe, particularly within European Union (EU) member states, has emerged as a central concern in both academic and policy discourse. The EU, a historically unprecedented supranational project, has achieved notable success in promoting democratic governance and economic integration across a diverse continent (Spolaore, 2013). Through successive waves of enlargement, the EU has helped stabilize post-authoritarian regimes in Southern Europe and post-communist democracies in Eastern Europe (Gill and Raiser, 2012). Despite these accomplishments, the last two decades have been marked by mounting dissatisfaction with both national and EU-level institutions, culminating in a significant political shift toward populism.

Empirical evidence indicates that economic crises, particularly those resulting from the Great Recession and the Eurozone crisis, have played a central role in driving this shift. Algan et al. (2017) finds that regions experiencing larger increases in unemployment between 2007 and 2014 saw marked declines in political trust and increased support for populist parties. Their analysis, based on regional-level variation across multiple EU countries, links economic insecurity to a deterioration in both civic attitudes and electoral behavior. Similarly, Dustmann et al. (2017) document a sharp rise in Euroscepticism and political disenchantment in the countries most affected by the crisis. They argue that this backlash is particularly acute in the Eurozone, where the constraints of a shared currency limit national governments' ability to respond to asymmetric crisis.

The economic logic underpinning these developments is well established in theoretical literature. Rodrik (2018) argues that globalization generates distributive conflicts within countries, and when institutional mechanisms fail to compensate the losers, political support shifts toward anti-establishment, nationalist, or protectionist parties. Acemoglu et al. (2013) emphasizes that persistent economic dislocation weakens democratic norms and opens space for populist rhetoric. Di Tella and

Rotemberg (2018) model the emergence of populist leaders as a response to voters' desire for redistribution under conditions of mistrust in elites.

Guiso et al. (2020) contribute both theoretically and empirically by distinguishing between the demand and supply sides of populism. On the demand side, they identify individual-level economic insecurity measured through job loss, financial hardship, and perceived competition in the workplace as key drivers of distrust in traditional parties and attraction to populist alternatives. On the supply side, they document how populist leaders exploit such insecurity through anti-elite and anti-immigrant narratives. Their earlier work (Guiso et al., 2019) focuses specifically on the Eurozone, arguing that the limited capacity of national governments to deploy countercyclical policies under the euro framework makes them vulnerable to voter frustration, especially during external crisis such as the global financial crisis.

This diagnosis is echoed by Guriev and Papaioannou (2022), who provide a broad synthesis of the political economy of populism in Europe. They show that macroeconomic instability recessions, inflation, and austerity have persistent effects on political trust and voting patterns. Crucially, they argue that these effects are conditioned by structural factors, such as the quality of governance, strength of democratic institutions, and historical legacies. Countries with weaker institutions or unresolved collective grievances are more likely to experience populist surges in response to crisis. Similarly, Cozzaglio and Efthymiou (2022) argue that populist narratives across Europe have coalesced around a shared critique of the EU as an unaccountable, elitist, and technocratic body that serves the interests of financial and bureaucratic elites rather than those of "the people." Populist parties often capitalize on perceived EU overreach, framing austerity policies and migration management as symbols of lost national sovereignty.

The electoral manifestations of this populist wave are wide-ranging and politically consequential. The Brexit referendum in the UK marked a watershed moment in Eurosceptic mobilization. In Greece, populist rhetoric dominated during the debt crisis, with referenda and electoral campaigns questioning the country's continued membership in the euro. In Italy, the Five Star Movement and Lega combined anti-establishment, anti-EU, and anti-immigrant messages to win governing power.

In France, Marine Le Pen's National Rally gained momentum with a platform of cultural nationalism and Euro-critical reform, while in Hungary, Viktor Orbán's Fidesz party has implemented an authoritarian form of "illiberal democracy" rooted in ethnonationalism and resistance to EU oversight (Van Kessel, 2015; Gusterson, 2017). Common to these movements is a discourse of restoring control whether over borders, currency, or cultural identity framed against a distant, intrusive Brussels elite.

While economic explanations are crucial, they do not fully account for the variation in populist outcomes across countries or regions exposed to similar economic pressures. This has led scholars to investigate the longer-term cultural and historical foundations of political behavior. Recent work emphasizes the role of collective memory, historical trauma, and intergenerational transmission of beliefs in shaping responses to contemporary crises.

Fouka and Voth (2016) offer compelling evidence from Greece, showing that public responses to the debt crisis were conditioned by historical memories of German occupation during World War II. Regions that suffered greater wartime atrocities exhibited stronger anti-German sentiment and political backlash during the euro crisis. Their findings suggest that historical narratives are reactivated by contemporary events, with selective memory shaping political interpretation and behavior.

This perspective aligns with the broader literature on historical persistence and political identity. Dinas et al. (2021) argue that past experiences of violence and repression can form lasting social identities, transmitted across generations, which influence political preferences and attitudes toward outgroups. These identities may remain latent until activated by contextual cues or analogical reasoning. Rozenas et al. (2017) show that in Ukraine, communities exposed to Soviet repression have exhibited enduring distrust in central institutions. Likewise, Lupu and Peisakhin (2017) demonstrate how exposure to political violence in Argentina has persistent effects on democratic attitudes.

Fouka (2019) explores the case of German Americans during World War I in the United States. Her work shows how ethnic backlash and discrimination prompted cultural assimilation and behavioral shifts within affected communities—changes that endured long after the initial crisis. Makridis and McGuire (2019) extend this logic to economic history, showing that childhood exposure to the Great Depression led to enduring beliefs about the trustworthiness of markets and the value of self-reliance, often transmitted intergenerationally. These findings support the notion that early-life and community-level experiences shape long-term political worldviews.

This insight is reinforced by research on cultural transmission. Bisin and Verdier (2001) develop a formal model showing how cultural traits and preferences are transmitted across generations, often via family and communal institutions. Alesina and Fuchs-Schündeln (2007) provide empirical evidence from Germany, showing that East Germans who grew up under socialism retain stronger preferences for redistribution even decades after reunification. Giuliano and Nunn (2020) review how historical events, such as colonization or conflict, shape cultural norms, trust in institutions, and political preferences. Tabellini (2008) and Alesina et al. (2015) similarly demonstrate that historical variation in governance, religion, and social structure affects contemporary civic values, electoral behavior, and trust in the state.

Together, these strands of research point to a key conclusion: the political effects of economic crisis are filtered through historically grounded, culturally transmitted belief systems. This perspective helps explain why populist sentiment varies even among populations with comparable economic grievances. For example, two regions experiencing similar unemployment rates may diverge in their political reactions depending on their historical experiences with repression, trauma, or national sovereignty. The framing of populist appeals, whether emphasizing victimhood, resistance, or national revival may resonate differently depending on these deeper cultural and historical legacies.

This study builds on both strands of literature; economic and cultural by proposing that the interaction between past and present crisis is critical to understanding populist dynamics in Europe. Specifically, I argue that prior exposure to economic or political trauma can amplify the impact of

current crises by reactivating latent grievances and collective memories. At the same time, in some contexts, historical hardship may foster resilience or reduce receptivity to populist rhetoric by reinforcing democratic norms or institutional loyalty. The effect of experience is therefore contingent, shaped by the content of collective memory, the mode of cultural transmission, and the surrounding institutional context.

Our Contribution

This study contributes to the literature on populism by integrating insights from economics, political science, and political psychology, and by emphasizing the joint role of past and present economic crisis in shaping political attitudes in Europe. While much of the existing economic literature focuses on the contemporaneous effects of unemployment, income losses, or financial distress, we argue that exposure to economic crisis earlier in life, particularly during the impressionable years between ages 18 and 25 has persistent and economically meaningful effects on political behavior. These effects extend to support for populist parties, trust in political institutions, and attitudes toward immigration.

Drawing on the impressionable years' hypothesis (Krosnick and Alwin, 1989; Giuliano and Spilimbergo, 2014), we show that formative economic experiences leave a durable imprint on individuals' political worldviews. Beyond documenting these long-run effects, we uncover a novel interaction between past and present economic conditions. Specifically, individuals who experienced macroeconomic downturns during early adulthood respond less strongly to contemporaneous economic crises in terms of populist support and institutional distrust. This mitigating effect suggests a mechanism of experience-based learning (Malmendier, 2021), whereby early exposure to economic hardship shapes expectations and belief formation, moderating political responses to subsequent crisis.

A central contribution of our analysis is the use of a difference-in-differences (DiD) framework that allows us to identify the causal impact of *past* exposure to economic crisis. By exploiting variation across countries, birth cohorts, and time in the occurrence of recessions, we compare individuals

who were in their impressionable years when a downturn occurred with adjacent cohorts in the same country who were not exposed during this formative stage. This design enables us to separate the long-run effects of early-life exposure from age, cohort, and period effects that are difficult to disentangle in cross-sectional settings.

The DiD approach offers distinct advantages for studying past exposure. First, it mitigates concerns about recall bias and measurement error that often arise when early-life conditions are measured retrospectively, as exposure is assigned using external macroeconomic data rather than self-reported experiences. Second, it alleviates omitted-variable bias stemming from unobserved individual characteristics—such as preferences, family background, or innate political inclinations—by relying on cohort-level exposure within countries. Third, by comparing treated and untreated cohorts within the same institutional and cultural context, the DiD framework ensures that estimated effects of past exposure are not confounded by persistent cross-country differences in political systems, media environments, or welfare regimes.

In addition, the DiD design is particularly well suited to analyzing the interaction between past and present economic conditions. It allows us to assess how early-life exposure shapes individuals' sensitivity to contemporary economic crisis, thereby providing a dynamic perspective on political attitude formation. This feature would be difficult to capture credibly using models that focus exclusively on contemporaneous economic indicators.

Our findings help explain why similar economic crisis can generate heterogeneous political responses across countries and cohorts. They imply that the political consequences of economic crises are not uniform, but are filtered through the lens of prior experience, collective memory, and cultural transmission. In this sense, past exposure acts as a conditioning factor that amplifies or attenuates the political impact of current economic conditions.

By combining short-run economic mechanisms with long-run experiential effects, our study offers a more comprehensive account of the roots of populism in Europe. It underscores the importance of incorporating historical economic exposure into empirical analyses of political behavior and

highlights the need for policy responses that are sensitive not only to current economic conditions, but also to the enduring political imprint of past economic crisis.

3 Data and Empirical Strategy

3.1 Data

Our analysis draws on repeated cross-sectional data from the Eurobarometer surveys, covering multiple waves from the early 1960s through the late 2020s. Eurobarometer provides harmonized individual-level information on political attitudes, institutional trust, electoral behavior, and views on immigration across European countries. The surveys cover both long-standing EU member states and newer entrants, offering substantial cross-country and cross-cohort variation over time.

The sample includes respondents from a broad set of European countries, including Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, among others. The long-time span and wide country coverage of Eurobarometer make it particularly well suited for studying the long-run political effects of macroeconomic conditions across generations.

Eurobarometer contains detailed information on demographic and socioeconomic characteristics—such as age, gender, education, employment status, and political self-placement—as well as a rich set of questions on political behavior, institutional trust, and attitudes toward immigration. This allows us to construct several proxies for populist attitudes, closely following the approach of Guiso et al. (2020).

The main explanatory variable of interest is past exposure to economic crisis during an individual's impressionable years, defined as ages 18 to 25—a period widely regarded as formative for the development of long-term political beliefs (Krosnick and Alwin, 1989; Giuliano and Spilimbergo, 2014). We define an economic crisis as a year in which real GDP per capita growth is negative. This

definition captures economically salient downturns that are likely to be perceived by individuals as periods of hardship and insecurity.

Country-level GDP per capita growth data are obtained from the World Bank's World Development Indicators (WDI). Individuals are coded as exposed if their country experienced at least one year of negative GDP per capita growth during their impressionable years. To account for differences in the intensity and duration of exposure, we also construct alternative measures based on the share of years with negative growth within relevant age windows (e.g., 18–25 and 26–33). Since GDP data are available from 1960 onwards, individuals whose impressionable years predate this period are excluded from the analysis.

To capture current economic insecurity, we follow Guiso et al. (2020) and rely on individual-level indicators available in Eurobarometer, including recent unemployment experience, self-reported financial difficulties, and labor market vulnerability. These measures proxy for contemporaneous exposure to economic risk and insecurity.

We additionally control for a rich set of individual characteristics, including years of education, gender, political ideology (measured on a left–right scale), media exposure, and risk attitudes where available.

To identify populist parties, we rely on the classification by Rooduijn et al. (2019), which includes parties receiving more than 2 percent of the vote in at least one national parliamentary election since 1998. Parties are classified as populist following Mudde's (2004) definition, which characterizes populism as a thin-centered ideology that portrays society as divided between "the pure people" and "the corrupt elite" and argues that politics should reflect the general will of the people.

3.2 First Layer of Analysis: Impressionable Exposure Hypothesis

Empirical Strategy

To estimate the impact of economic crisis experienced during the impressionable years on political attitudes and behavior, we estimate a series of Ordinary Least Squares (OLS) regressions. We examine three main outcomes: (i) political participation and voting for populist parties, (ii) trust in political institutions, and (iii) attitudes toward immigrants. OLS is employed for ease of interpretation and consistency with the existing literature.

The baseline specification is given by:

$$y_{ict} = \alpha + \beta Economic\ Crisis_i + X_i'\gamma + \mu_c + \lambda_t + \eta_a + \kappa_j + \varepsilon_{ict},$$

where y_{ict}denotes the political outcome of interest for individual $i$in country $c$observed in Eurobarometer wave t. Economic Crisis$_i$is an indicator equal to one if the individual experienced at least one year of negative GDP per capita growth during their impressionable years, and zero otherwise. $X_i$is a vector of individual-level controls. The terms μ_c, λ_t, η_a, and $\kappa_j$denote country, survey-wave, age, and cohort fixed effects, respectively. Cohorts are defined using seven-year birth intervals.

In more demanding specifications, we include country-by-age fixed effects, allowing us to absorb country-specific life-cycle patterns and further isolate within-group variation. This specification effectively compares individuals of the same age within the same country who differ in their exposure to past economic downturns due to cohort timing.

Standard errors are clustered at the country level for voting and participation outcomes, reflecting their strong national component. For institutional trust and immigration attitudes, we follow Guiso et al. (2020) and cluster standard errors at the cohort level, capturing shared generational influences on beliefs.

Our identification strategy exploits variation across countries and cohorts in the timing of economic downturns relative to individuals' ages. This allows us to compare individuals with similar observable characteristics who were differentially exposed to recessions during early adulthood. In

all specifications, we restrict the sample to native-born individuals, excluding first-generation immigrants, while retaining second-generation immigrants in the benchmark analysis.

4. First Layer of Analysis (OLS): Empirical Results

To facilitate interpretation and comparability across outcomes, we report standardized beta coefficients. The Tables include the full set of individual-level controls and fixed effects.

The results indicate that exposure to economic crisis during the impressionable years is associated with higher support for populist parties among those who vote. Specifically, a one standard deviation increase in early-life exposure to economic downturns increases the probability of voting for a populist party by 0.029 standard deviations, significant at the 1 percent level.

These findings are robust to alternative inference procedures. Clustering standard errors at the country level yields similar estimates, consistent with the specification choices in the related literature. Moreover, the estimated effects of contemporaneous individual-level economic insecurity—captured by recent unemployment, income difficulties, and exposure to globalization—closely mirror those documented in Guiso et al. (2020).

Table 3 reports results for institutional trust and attitudes toward immigrants. We examine trust in political parties, politicians, national parliaments, and the European Union, as well as satisfaction with the national government. In addition, we analyze attitudes toward immigrants, focusing on perceptions of immigrants' ethnic similarity and their perceived impact on economic and social conditions in host countries. All specifications include the full set of individual-level controls and fixed effects, and the full sample of countries is retained. To summarize contemporaneous economic insecurity, we construct a composite index using principal component analysis based on recent unemployment, income difficulties, and exposure to globalization.

Early-life exposure to economic crises is systematically associated with deteriorated institutional trust in adulthood. Individuals who experience a recession during the impressionable years report significantly lower confidence in core democratic institutions. A one standard deviation increase in

exposure leads to a reduction in trust in political parties, national parliament, and the national government, with all effects statistically significant at the 1 percent level. Trust in politicians also declines markedly. While trust in supranational institutions such as the European Union decreases as well, the corresponding effect size is more modest and estimated with comparatively less precision. Overall, these results point to the formation of persistent political disillusionment rooted in macroeconomic hardship experienced during formative years.

Exposure to economic downturns in early adulthood is also strongly associated with more restrictive immigration attitudes. Individuals who experienced negative GDP per capita growth during this period are more likely to support limiting immigration from non-EU countries, to believe that immigration worsens economic and social outcomes in the host country, and to oppose migration from different racial or ethnic groups. These estimates are economically meaningful and significant at conventional confidence levels, indicating that early adverse economic conditions amplify perceptions of competition with immigrant populations.

Taken together, the evidence underscores that recessions leave a long-lasting imprint on political belief systems. Macroeconomic distress encountered during the impressionable years affects trust in representative institutions and shapes cultural attitudes, contributing to enduring support for anti-establishment and exclusionary political positions.

Taking together, these results indicate that both current economic insecurity and adverse economic experiences during the impressionable years play an important role in shaping contemporary populist attitudes. Early life exposure to economic downturns emerges as a persistent determinant of political participation, institutional trust, and immigration-related beliefs. This finding highlights a channel through which historical economic conditions continue to influence political behavior long after the initial crisis has passed, underscoring the importance of accounting for generational experiences when evaluating the political consequences of economic crises and designing policy responses aimed at mitigating political discontent.

Extremist Voting

Table 1: Impressionable Exposure to Crises and Populist Voting

Variable: Populist Voting	Coefficient	Standard Error
Growth < 0	0.0296***	(0.0044)
Growth −3.4%	0.0381***	(0.0058)
Growth −2.14%	0.0449***	(0.0066)
Growth −10.0%	0.0190***	(0.0064)
Crises Number	0.0209***	(0.0048)
Growth < 0 (Age 26–33)	0.0183***	(0.0065)
Consumption < 0	0.0843*	(0.0450)
R-squared	0.06	
Sample Size	1.095.001	

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

Trust in Institutions

Exposure to at least one year of negative GDP per capita growth during the impressionable years significantly reduces trust in core political institutions, including political parties, the national government, and the national parliament. These negative associations are statistically significant at conventional levels and represent economically meaningful decreases in institutional confidence. Trust in supranational political institutions such as the European Parliament and the United Nations also declines, although effect sizes are smaller. By contrast, the association with trust in the police and the justice system remains weak and statistically insignificant, suggesting that while individuals lose faith in political elites and democratic representation mechanisms, they remain reliant on the state's coercive and judicial functions. Taken together, these results imply that early macroeconomic hardships shape a durable political psychology marked by skepticism toward representative governance, a foundational condition for populist demand.

Table 2: Impressionable Exposure to Growth Crises and Trust in Institutions

	Pol. Parties	Nat. Gov.	Nat. Parl.	EU Parl.	UN	Justice/Legal	Police	Reg./Local Auth.
Growth <0	-0.0296***	-0.0381***	-0.0449***	-0.0190***	-0.0209***	-0.0105	-0.0017	-0.0183***
	(0.0044)	(0.0058)	(0.0066)	(0.0064)	(0.0048)	(0.0069)	(0.0071)	(0.0065)

R-squared	0.06	0.09	0.13	0.07	0.08	0.12	0.10	0.09
Sample	1.095.001	1.145.832	1.134.377	1.050.473	1.002.766	870.869	744.356	751.754

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

Country Direction, Democracy Satisfaction and Political Efficacy

Economic downturn exposure during the impressionable years is associated with increased pessimism over national trajectories and reduced satisfaction with democracy. Individuals exposed to crisis are less likely to believe that their voice counts in the political system, reflecting the emergence of a long-term political disenchantment and perceptions of democratic unresponsiveness. In terms of identity and political attachment, recession exposure is associated with greater salience of national and local matters relative to European-level affairs. This suggests that adverse macroeconomic experiences reinforce inward-looking identity orientations and preference for political solutions grounded in proximate national institutions rather than supranational governance. These mechanisms align with narratives of populist nationalism, which emphasize national sovereignty and distrust toward detached elites.

Table 3: Impressionable Exposure to Growth Crises and Attitudes Toward Country, Democracy and Political Efficacy

	Things Country	Democracy Country	My Voice Country	EU Interests Resp	Attach Country	Attach Europe	Nat. Matters	Local Matters
Growth <0	0.0144*	0.0844***	0.0391**	0.0357***	0.0105	0.0268*	0.0614***	0.0621***
	(0.0078)	(0.0134)	(0.0172)	(0.0101)	(0.0087)	(0.0143)	(0.0211)	(0.0217)
R-squared	0.05	0.16	0.18	0.30	0.09	0.11	0.13	0.10
Sample	955.353	896.834	536.776	758.822	684.902	568.802	783.367	783.270

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

Attitudes Toward Immigration

Individuals exposed to recessions during early adulthood exhibit more negative perceptions of immigrants and tend to believe that immigration worsens domestic conditions, particularly when immigrants are of non-European origin or different ethnic and racial backgrounds. Views about the contribution of immigrants to society become significantly more skeptical, indicating a heightened perception of zero-sum competition for economic resources. Although the estimate on overall feelings toward immigrants is imprecise, the results demonstrate that economic insecurity formed in formative years becomes associated with persistent skepticism toward out-groups, reinforcing the cultural dimension of populist support that relies heavily on anti-immigrant rhetoric.

Table 4: Impressionable Exposure to Growth Crises and Attitudes Toward Immigration

	Immigration Europe	Feelings Immigrants	Initiative Immigr.	Immigrants Non-EU	Contribution	Fight Illegal	Control	EU Policy	EU level	EU Budget
Growth < 0	0.0066	-0.0475*	0.0193**	-0.0048	0.0298	-0.0191	0.0045	-0.0229**	-0.0431	0.0003
	(0.0051)	(0.0282)	(0.0084)	(0.0235)	(0.0193)	(0.0328)	(0.0086)	(0.0101)	(0.0769)	(0.0078)
R-squared	0.13	0.09	0.05	0.11	0.20	0.05	0.05	0.10	0.09	0.04
Sample	668.232	127.609	182.450	307.587	370.049	258.071	104.366	354.101	524.70	164.144

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

European Union Statements and Perceived Benefits

The effect of recession exposure on EU-related attitudes reveals a complex structure. Individuals exposed to early economic downturns are statistically more likely to believe that their country would be better off outside the EU, signaling a tendency toward Eurosceptic preferences. However, they also express an increased belief that the EU respects their country's interests, suggesting a conditional rather than blanket distrust of the EU as an institution. Other EU evaluation outcomes show limited precision, and some coefficients, such as those relating to fair taxation and solidarity, are statistically insignificant. These patterns indicate that while macroeconomic trauma contributes to Euroscepticism, skepticism is rooted more in performative dissatisfaction than in opposition to the EU's core mandate.

Table 5: Impressionable Exposure to Growth Crises and European Union Statements and Perceived Benefits

	Outside EU	EU Interests Resp	Decisions	Partnerships	Fair Tax	Solidarity	Quality Life
Growth < 0	-0.0287*	0.0357***	0.0052	0.2267*	0.0383	-0.4868	0.0038
	(0.0163)	(0.0101)	(0.0190)	(0.1167)	(0.0404)	(0.8991)	(0.0281)
R-squared	0.06	0.30	0.09	0.07	0.07	0.29	0.15
Sample	538.581	758.822	459.031	77.551	182.845	244.773	352.264

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

European Identity and Future Perspectives

The evidence in this table indicates that exposure to recessions during young adulthood does not diminish European identity nor aspirations for the EU's future. On the contrary, individuals exposed to negative growth report significantly stronger identification as EU citizens and offer more optimistic views on the EU's future direction. Support for an increased role of EU-level decision-making also rises. While effects regarding attachment to the EU are statistically weaker, the overall pattern shows that macroeconomic downturns can simultaneously weaken domestic political legitimacy yet increase the appeal of supranational structures as stabilizing forces. This result highlights the multidimensional nature of crisis responses: individuals dissatisfied with national institutions may still support European-level governance to manage future risk.

Table 6: Impressionable Exposure to Growth Crises and European Identity and Future Perspectives

	EU Citizen	Future Enlargement	EU Future	Cultural Identity	Decisions	Outside EU	Attach to EU
Growth < 0	0.012***	0.000	0.007***	0.002	0.006**	0.004	0.001
	(0.000)	(0.846)	(0.000)	(0.161)	(0.046)	(0.106)	(0.511)
R-squared	0.11	0.14	0.07	0.02	0.11	0.06	0.10
Sample	604.956	1.050.417	795.844	1.035.761	442.523	522.299	590.363

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

5. Robustness Exercises

To assess the stability and credibility of our findings, we conduct a series of robustness exercises that address potential concerns related to measurement, sample composition, model specification, and identification. These checks are designed to verify that our results are not driven by assumptions regarding the definition of economic crisis, the choice of age window for impressionable exposure, or the structure of the empirical model. We also examine whether the estimated effects are sensitive to alternative samples and inference procedures. Together, these robust exercises strengthen confidence in the main results by demonstrating that the relationship between early-life economic crisis and political attitudes remains consistent across a wide range of plausible empirical specifications.

5.1 Increasing Persistence Hypothesis

We broaden the exposure window to ages 26–33 to incorporate not only the "impressionable years" (18–25) but also a subsequent phase of attitude consolidation motivated by the increasing persistence hypothesis (Sears, 1983). The impressionable years literature posits that late adolescence and early adulthood are characterized by heightened openness to new information and identity formation, implying that economic and political events experienced during this period can exert disproportionate and long-lasting effects on beliefs and preferences (Krosnick and Alwin, 1989; Giuliano and Spilimbergo, 2014). Sears' (1983) increasing persistence hypothesis complements this view by emphasizing that attitudes become progressively more resistant to change as individuals age and accumulate reinforcing experiences. In this framework, political orientations formed in early adulthood do not remain equally malleable over time; instead, they gradually "harden" as people settle into stable social roles such as long-term employment, partnership formation, and family responsibilities and as repeated exposure to political and economic environments strengthens prior beliefs.

Extending the age range to 26–33 therefore allows us to test whether economic crisis exert meaningful effects beyond the narrow impressionable-years window, during a stage when

preferences are still being shaped but are increasingly entrenched. This extension is also consistent with broader life-cycle accounts of political socialization, which argue that while early adulthood is pivotal, the transition into mature adulthood can be an additional period in which experiences remain consequential, albeit with declining sensitivity and greater persistence of prior beliefs (Sears and Funk, 1999; Alwin and Krosnick, 1991). Empirically, this robustness exercise assesses whether the estimated effects are driven purely by a narrow formative period or whether they reflect a wider process of political learning and entrenchment, in which exposure through the late twenties and early thirties continues to influence long-run political attitudes.

When exposure is broadened to ages 26–33, negative effects on trust in political parties, national parliaments, and national governments remain strong, confirming that political attitudes toward representative institutions continue to be shaped by economic insecurity beyond the strict impressionable-years window. At the same time, trust in legal and coercive institutions increases significantly, reflecting a differentiated trust response: individuals blame politicians for crises, but not the fundamental state apparatus responsible for stability and order.

Table 7: Increasing Persistence Exposure to Economic Crises and Trust in Institutions

	Pol. Parties	Nat. Gov.	Nat. Parl.	EU Parl.	UN	Justice/Legal	Police	Reg./Local Auth.
Growth < 0	-0.0295***	-0.0406***	-0.0401***	-0.0360***	-0.0145***	0.0176***	0.0123*	0.0077
	(0.0043)	(0.0060)	(0.0065)	(0.0065)	(0.0048)	(0.0064)	(0.0066)	(0.0055)
R-squared	0.06	0.09	0.13	0.06	0.08	0.13	0.10	0.09
Sample	978.319	1.024.446	1.014.748	938.851	893.511	779.642	667.172	676.561

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

With the extended window, exposure to recessions becomes positively associated with satisfaction regarding national democracy and perceptions that the EU respects national interests. These results imply that the timing of crisis exposure within early to middle-adulthood affects attitudinal crystallization, and later exposure may be interpreted less as systemic democratic failure and more

as a manageable economic fluctuation. Nonetheless, the continued prominence of domestic affairs suggests that national political contexts remain central to evaluations.

Table 8: Increasing Persistence Exposure to Growth Crises and Attitudes Toward Country, Democracy and Political Efficacy

	Things Country	Democracy Country	My Voice Country	EU Interests Resp	Attach Country	Attach Europe	Nat. Matters	Local Matters
Growth < 0	0.0065	0.0916***	0.0168	0.0417***	0.0080	0.0125	0.0274	0.0312
	(0.0075)	(0.0136)	(0.0165)	(0.0097)	(0.0088)	(0.0138)	(0.0246)	(0.0251)
R-squared	0.05	0.17	0.18	0.30	0.08	0.11	0.12	0.09
Sample	857.017	807.560	484.718	689.224	615.004	511.981	704.334	704.258

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

Immigration Attitudes

In this specification, adverse economic exposure primarily increases the political salience of immigration while no longer consistently reducing support for immigrants or their perceived contribution. Individuals become more attentive to immigration as a public-policy issue without uniformly adopting discriminatory views. This indicates that earlier findings of anti-immigrant sentiment are more tightly concentrated in formative years, while later exposure politicizes immigration without entrenched hostility.

Table 9: Increasing Persistence Exposure to Economic Crises and Attitudes Toward Immigrants

	Immigration Europe	Feelings Immigrants	Initiative Immigr.	Immigrants Non-EU	Contribution	Fight Illegal	Control	EU Policy	EU level	EU Budget
Growth < 0	0.0110**	0.0371	0.0098	0.0324	0.0288	-0.0273	-0.0023	-0.0158	0.0237	0.0034
	(0.0052)	(0.0254)	(0.0080)	(0.0219)	(0.0180)	(0.0307)	(0.0098)	(0.0104)	(0.0771)	(0.0078)
R-squared	0.13	0.08	0.05	0.11	0.20	0.05	0.05	0.10	0.09	0.04
Sample	606.620	116.908	164.920	282.344	336.793	236.701	93.725	312.364	48.190	149.227

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

EU Statements

Recession exposure between 18 and 33 increases perceptions that national interests are respected by the EU and that more decisions should be taken at the EU level. These findings reinforce the interpretation that crises later in the socialization process reinforce the search for supranational risk management rather than produce full Eurosceptic backlash.

Table 10: Increasing Persistence Exposure to Economic Crises and EU Statements

	Outside EU	EU Interests Resp	Decisions	Partnerships	Fair Tax	Solidarity	Quality Life
Growth < 0	-0.0088	0.0417***	0.0615***	-0.0455	0.0194	-0.9473	0.0254
	(0.0159)	(0.0097)	(0.0190)	(0.1215)	(0.0385)	(0.7531)	(0.0254)
R-squared	0.06	0.30	0.09	0.07	0.07	0.29	0.15
Sample	491.049	689.224	419.825	710.38	167.546	221.538	320.957

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

EU Identity and Future Perspectives

Exposure to longer or repeated downturns continues to strengthen EU identity, support EU-level decision-making, and positive expectations for the Union's future. Attachment to the EU also becomes more pronounced and statistically significant. This supports the conclusion that adverse economic experience does not weaken European solidaristic identity; instead, individuals may look toward the EU as an institutional shield against future instability.

Table 11: Increasing Persistence Exposure to Economic Crises and EU Identity and Future Perspectives

	EU Citizen	Future Enlargement	EU Future	Cultural Identity	Decisions	Outside EU	Attach to EU
Growth < 0	0.006***	0.001	0.009***	0.006***	0.007**	0.003	0.004*
	(0.003)	(0.740)	(0.000)	(0.000)	(0.012)	(0.266)	(0.051)
R-squared	0.11	0.14	0.07	0.02	0.11	0.06	0.10
Sample	551.520	935.779	719.187	923.716	404.776	476.064	531.914

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status

and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

5.2 Consumption Crises

Following Barro and Ursúa (2008), economic crises can also be identified through declines in household consumption, which provide a direct measure of economic distress and realized welfare losses. Because consumption reflects households' ability to smooth income fluctuations and maintain living standards, consumption-based measures may capture dimensions of economic hardship that are not fully reflected in aggregate output. Historically, major events such as the First and Second World Wars and their aftermath were marked by pronounced contractions in consumption across many European countries. Barro and Ursúa (2008) document 95 consumption crises worldwide between 1914 and the post-war period, underscoring the relevance of consumption declines as a defining feature of severe macroeconomic disruptions.

To assess the robustness of our baseline results, Table examines whether lifetime exposure to consumption-based downturns affects individuals' perceptions of the European Union. Using annual data from the World Development Indicators, we construct measures of household final consumption expenditure per capita growth from 1960 onward. We define a consumption-based economic crisis as a year in which consumption growth is negative. The key explanatory variable equals one if an individual experienced at least one such consumption declines during the relevant exposure window, and zero otherwise. This definition captures episodes of deteriorating household welfare without imposing an arbitrary severity threshold. By relying on negative consumption growth, this robust exercise allows us to verify that our main findings are not sensitive to the specific macroeconomic indicator used to define economic crisis but instead reflect broader experiences of economic hardship.

Replacing GDP-based exposure with negative consumption growth yields similar conclusions. Trust in domestic political institutions declines significantly, while support for European-level governance and democratic satisfaction often improves. These results confirm that the effects

observed are not an artifact of a specific crisis definition but rather stem from the experience of welfare shocks during key years of political attitude formation.

Table 12: Impressionable Exposure to Consumption Crises and Trust in Institutions

	Pol. Parties	Nat. Gov.	Nat. Parl.	EU Parl.	UN	Justice/Legal	Police	Reg./Local Auth.
Consump. < 0	-0.0281***	-0.0338***	-0.0402***	-0.0216***	-0.0235***	0.0051	0.0004	0.0213***
	(0.0043)	(0.0057)	(0.0062)	(0.0059)	(0.0047)	(0.0065)	(0.0061)	(0.0065)
R-squared	0.06	0.09	0.13	0.07	0.08	0.12	0.10	0.09
Sample	1.095.001	1.145.832	1.134.377	1.050.473	1.002.766	870.869	744.356	751.754

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

Table 13: Impressionable Exposure to Consumption Crises and Attitudes Toward Country, Democracy and Political Efficacy

	Things Country	Democracy Country	My Voice Country	EU Interests Resp	Attach Country	Attach Europe	Nat. Matters	Local Matters
Consump. < 0	0.0192**	0.0701***	0.0573***	0.0404***	0.0165*	0.0330**	0.0452**	0.0456**
	(0.0080)	(0.0124)	(0.0173)	(0.0100)	(0.0086)	(0.0136)	(0.0197)	(0.0200)
R-squared	0.05	0.16	0.18	0.30	0.09	0.11	0.13	0.10
Sample	955.353	896.834	536.776	758.822	684.902	568.802	783.367	783.270

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

Table 14: Impressionable Exposure to Consumption Crises and Attitudes Toward Immigrants

	Immigration Europe	Feelings Immigrants	Initiative Immigr.	Immigrants non-EU	Contribution	Fight Illegal	Control	EU Policy	EU level	EU Budget
Consump. < 0	0.0000	0.0092***	0.0048**	0.0046***	0.0009	0.0026	0.0061***	0.0059**	0.0041**	0.0123***
	(0.0012)	(0.0020)	(0.0023)	(0.0015)	(0.0012)	(0.0019)	(0.0023)	(0.0024)	(0.0019)	(0.0025)
R-squared	0.05	0.16	0.18	0.30	0.09	0.11	0.13	0.10	0.12	0.17
Sample	955.353	896.834	536.776	758.822	684.902	568.802	783.367	783.270	800.340	795.602

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

Table 15: Increasing Persistence Exposure to Economic Crises and EU Statements

	Outside EU	EU Interests Resp	Decisions	Partnerships	Fair Tax	Solidarity	Quality Life
Consump. < 0	-0.0092	0.0404***	0.0024	0.1201	0.0400	-0.5003	0.0404
	(0.0155)	(0.0100)	(0.0174)	(0.1136)	(0.0403)	(0.7877)	(0.0269)
R-squared	0.06	0.30	0.09	0.07	0.07	0.29	0.15
Sample	538.581	758.822	459.031	77.551	182.845	244.773	352.264

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

5.3 Intensity of Economic Crises

We further extend the baseline analysis by moving beyond a binary characterization of economic downturn exposure and considering the cumulative nature of adverse economic experiences. Rather than focusing exclusively on whether individuals experienced at least one recession, we allow for repeated and prolonged exposure to negative economic conditions over time. To capture this dimension, we construct alternative measures that reflect the number of years in which individuals were exposed to negative GDP per capita growth during the relevant exposure period. These measures are adjusted for differences in the length of exposure windows across individuals, ensuring that the resulting indicators account for both the frequency and the duration of economic downturns.

This approach recognizes that economic crisis may exert stronger or more persistent effects when they are recurrent or long-lasting, rather than isolated events. By incorporating cumulative exposure, we assess whether the intensity of economic hardship matters for the formation of long-run political attitudes. This robust exercise therefore allows us to evaluate whether our baseline results are driven by single, salient downturns or whether they reflect a broader process in which repeated exposure to adverse economic conditions reinforces political responses and beliefs over time.

In addition to the binary exposure measure, we further evaluate whether the intensity of economic crisis matters by replacing the indicator for experiencing a recession with a count capturing the number of years of negative GDP per capita growth during the impressionable years. The results

indicate a clear dose–response pattern: repeated exposure to economic downturns is associated with progressively lower trust in core political institutions, including political parties, the national parliament, and the national government, alongside reduced confidence in supranational governance, such as the United Nations. These effects remain statistically robust and display economically meaningful magnitudes, consistent with the hypothesis that prolonged or recurrent macroeconomic hardship entrenches political disillusionment more deeply than isolated shocks. Moreover, the results show that while cumulative exposure does not consistently increase hostility toward immigrants or shift immigration-policy preferences, it significantly raises the salience of immigration as a political issue. This indicates that repeated crises politicize perceptions of social competition without uniformly generating out-group animus. Taken together, these findings reinforce the argument that the frequency of negative macroeconomic events is a crucial determinant of long-run political belief formation, amplifying populist demand by intensifying distrust in representative institutions and maintaining a heightened focus on contentious public policy domains.

Table 16: Impressionable Exposure to Intensity of Economic Crises and Trust in Institutions

	Pol. Parties	Nat. Gov.	Nat. Parl.	EU Parl.	UN	Justice/Legal	Police	Reg./Local Auth.
Crises Number	-0.0039***	-0.0041***	-0.0052***	-0.0020**	-0.0022***	0.0013	0.0004	0.0021**
	(0.0007)	(0.0009)	(0.0010)	(0.0010)	(0.0007)	(0.0010)	(0.0010)	(0.0009)
R-squared	0.06	0.09	0.13	0.07	0.08	0.12	0.10	0.09
Sample	1.095.001	1.145.832	1.134.377	1.050.473	1.002.766	870.869	744.356	751.754

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

Table 17: Impressionable Exposure to Intensity of Economic Crises and Attitudes Toward Country, Democracy and Political Efficacy

	Things Country	Democracy Country	My Voice Country	EU Interests Resp	Attach Country	Attach Europe	Nat. Matters	Local Matters
Crises Number	0.0000	0.0092***	0.0048**	0.0046***	0.0009	0.0026	0.0061***	0.0059**
	(0.0012)	(0.0020)	(0.0023)	(0.0015)	(0.0012)	(0.0019)	(0.0023)	(0.0024)
R-squared	0.05	0.16	0.18	0.30	0.09	0.11	0.13	0.10
Sample	955.353	896.834	536.776	758.822	684.902	568.802	783.367	783.270

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

Table 18: Impressionable Exposure to Intensity of Economic Crises and EU Statements

	Outside EU	EU Interests Resp	Decisions	Partnerships	Fair Tax	Solidarity	Quality Life
Crises Number	-0.0056**	0.0046***	-0.0024	0.0285*	0.0050	-0.0432	0.0010
	(0.0023)	(0.0015)	(0.0026)	(0.0146)	(0.0051)	(0.1142)	(0.0036)
R-squared	0.06	0.30	0.09	0.07	0.07	0.29	0.15
Sample	538.581	758.822	459.031	77.551	182.845	244.773	352.264

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

Table 19: Impressionable Exposure to Intensity of Economic Crises and European Identity and Future Perspectives

	EU Citizen	Future Enlargement	EU Future	Cultural Identity	Decisions	Outside EU	Attach to EU
Crises Number	0.009***	-0.001	0.004*	0.001	0.002	0.006**	0.001
	(0.000)	(0.689)	(0.056)	(0.551)	(0.534)	(0.033)	(0.541)
R-squared	0.11	0.14	0.07	0.02	0.11	0.06	0.10
Sample	604.956	1.050.417	795.844	1.035.761	442.523	522.299	590.363

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

5.4 Alternative Thresholds of Growth Crises

We next assess the robustness of the benchmark results by examining alternative ways of defining and measuring recession exposure. Rather than relying on a single definition of an economic downturn, we explore a range of specifications that capture variation in both the severity and frequency of recessions. This approach allows us to evaluate whether the estimated effects depend on how restrictive or inclusive the definition of a recession is.

Specifically, we consider definitions that focus on particularly severe downturns, as well as broader measures that include milder contractions in economic activity. We also examine a more inclusive definition that classifies any year of negative economic growth as a recession, thereby ensuring that exposure is measured consistently across countries and cohorts. In addition, we move beyond a

binary indicator of exposure and account for cumulative experience by considering the number of downturns individuals faced over their lifetime, adjusted for the length of their exposure window. This enables us to capture not only whether individuals experienced economic hardship, but also how often and for how long.

Across these alternative specifications, the results remain remarkably stable in both magnitude and statistical significance. Regardless of whether recessions are defined narrowly or broadly, lifetime exposure to economic downturns is consistently associated with less favorable perceptions of European institutions. Moreover, when cumulative exposure is taken into account, the estimated effects are even stronger, suggesting that repeated or prolonged economic hardship reinforces negative political attitudes.

Finally, to rule out the possibility that our findings simply reflect sensitivity to economic fluctuations more generally, we replicate the analysis using measures of exposure to periods of strong economic growth. In contrast to recession exposure, experiencing sustained or exceptionally high growth is associated with more positive attitudes toward European institutions and stronger support for deeper European integration. Taken together, these results reinforce the interpretation that adverse economic experiences—rather than economic volatility per se—play a central role in shaping long-run political attitudes.

Table 20: Impressionable Exposure to Alternative Thresholds of Economic Crises and Trust in Institutions

	Pol. Parties	Nat. Gov.	Nat. Parl.	EU Parl.	UN	Justice/Legal	Police	Reg./Local Auth.
Growth -3.4%	-0.0354***	-0.0486***	-0.0676***	-0.0340***	-0.0399***	0.0138	0.0009	0.0117
	(0.0080)	(0.0106)	(0.0133)	(0.0119)	(0.0091)	(0.0144)	(0.0154)	(0.0126)
R-squared	0.06	0.09	0.13	0.07	0.08	0.12	0.10	0.09
Sample	1.095.001	1.145.832	1.134.377	1.050.473	1.002.766	870.869	744.356	751.754
Growth -2.14%	-0.0329***	-0.0401***	-0.0504***	-0.0211***	-0.0283***	0.0112	0.0041	0.0214***
	(0.0050)	(0.0068)	(0.0078)	(0.0078)	(0.0057)	(0.0081)	(0.0082)	(0.0077)
R-squared	0.06	0.09	0.13	0.07	0.08	0.12	0.10	0.09
Sample	1.095.001	1.145.832	1.134.377	1.050.473	1.002.766	870.869	744.356	751.754
Growth -10.0%	-0.0120	-0.0936***	-0.0658***	-0.0223	-0.0526**	-0.0283	-0.2057***	0.0539
	(0.0165)	(0.0250)	(0.0202)	(0.0298)	(0.0232)	(0.0404)	(0.0697)	(0.0518)
R-squared	0.06	0.09	0.13	0.07	0.08	0.12	0.10	0.09
Sample	1.095.001	1.145.832	1.134.377	1.050.473	1.002.766	870.869	744.356	751.754

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

Table 21: Impressionable Exposure to Alternative Thresholds of Economic Crises and Attitudes Toward Immigration

	Immigration Europe	Feelings Immigrants	Initiative Immigr.	Immigrants non-EU	Contribution	Fight Illegal	Control	EU Policy	EU level	EU Budget
Growth -3.4%	0.0338***	-0.0797	0.0418***	-0.0085	0.0736*	0.0101	-0.0071	-0.0318*	-0.1820	0.0204
	(0.0096)	(0.0616)	(0.0151)	(0.0477)	(0.0418)	(0.0704)	(0.0080)	(0.0190)	(0.1442)	(0.0170)
R-squared	0.13	0.09	0.05	0.11	0.20	0.05	0.05	0.10	0.09	0.04
Sample	668.232	127.609	182.450	307.587	370.049	258.071	104.366	354.101	524.70	164.144
Growth -2.14%	0.0072	-0.0281	0.0256***	-0.0084	0.0450**	-0.0136	0.0017	-0.0245**	0.0505	0.0127
	(0.0059)	(0.0320)	(0.0095)	(0.0277)	(0.0229)	(0.0396)	(0.0067)	(0.0115)	(0.0990)	(0.0093)
R-squared	0.13	0.09	0.05	0.11	0.20	0.05	0.05	0.10	0.09	0.04
Sample	668.232	127.609	182.450	307.587	370.049	258.071	104.366	354.101	524.70	164.144
Growth -10.0%	0.0185	-0.1428	0.0109	-0.1081	-0.0320	-0.1729	-0.0134	-0.0428	0.5267	0.0141
	(0.0306)	(0.2283)	(0.0467)	(0.1608)	(0.1358)	(0.1986)	(0.0317)	(0.0328)	(0.3616)	(0.0473)
R-squared	0.13	0.09	0.05	0.11	0.20	0.05	0.05	0.10	0.09	0.04
Sample	668.232	127.609	182.450	307.587	370.049	258.071	104.366	354.101	524.70	164.144

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

Table 22: Impressionable Exposure to Alternative Thresholds of Economic Crises and EU Statements

	Outside EU	EU Interests Resp	Decisions	Partnerships	Fair Tax	Solidarity	Quality Life
Growth -3.4%	-0.0360	0.0982***	0.0143	0.0071	0.1131	-2.4995	0.0543
	(0.0352)	(0.0191)	(0.0463)	(0.2301)	(0.0825)	(1.7898)	(0.0560)
R-squared	0.06	0.30	0.09	0.07	0.07	0.29	0.15
Sample	538.581	758.822	459.031	77.551	182.845	244.773	352.264
Growth -2.14%	-0.0402**	0.0676***	0.0092	0.1787	0.0195	-0.3992	-0.0115
	(0.0195)	(0.0114)	(0.0238)	(0.1399)	(0.0486)	(1.1077)	(0.0338)
R-squared	0.06	0.30	0.09	0.07	0.07	0.29	0.15
Sample	538.581	758.822	459.031	77.551	182.845	244.773	352.264
Growth -10.0%	-0.2306*	0.1808***	-0.1416	0.2501	0.0773	-9.3000	0.0621
	(0.1182)	(0.0429)	(0.1280)	(0.5803)	(0.2740)	(6.7027)	(0.1689)
R-squared	0.06	0.30	0.09	0.07	0.07	0.29	0.15
Sample	538.581	758.822	459.031	77.551	182.845	244.773	352.264

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

Table 23: Impressionable Exposure to Alternative Thresholds of Economic Crises and European Identity and Future Perspectives

	EU Citizen	Future Enlargement	EU Future	Cultural Identity	Decisions	Outside EU	Attach to EU
Growth -3.4%	0.009***	-0.001	0.006***	0.003*	0.004	0.003	0.001
	(0.000)	(0.612)	(0.001)	(0.068)	(0.168)	(0.269)	(0.596)
R-squared	0.11	0.14	0.07	0.02	0.11	0.06	0.10
Sample	604.956	1.050.417	795.844	1.035.761	442.523	522.299	590.363
Growth -2.14%	0.015***	0.000	0.008***	0.001	0.005*	0.005*	0.002
	(0.000)	(0.876)	(0.000)	(0.342)	(0.068)	(0.063)	(0.271)
R-squared	0.11	0.14	0.07	0.02	0.11	0.06	0.10
Sample	604.956	1.050.417	795.844	1.035.761	442.523	522.299	590.363
Growth -10.0%	0.003*	-0.001	0.003**	-0.001	-0.003	0.006**	-0.008***
	(0.089)	(0.525)	(0.036)	(0.598)	(0.188)	(0.019)	(0.003)
R-squared	0.11	0.14	0.07	0.02	0.11	0.06	0.10
Sample	604.956	1.050.417	795.844	1.035.761	442.523	522.299	590.363

Notes: This table establishes the effect of impressionable exposure to economic downturn. The analysis controls for country, year and age x country fixed effects and individual characteristics such as age, gender, education, occupation, marital status and size of community. Robust standard errors clustered at the country level are shown in parenthesis. Sample weights are used. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% confidence level.

6. First Layer Conclusions

Across all OLS specifications, exposure to economic downturns during early adulthood produces persistent political consequences. Individuals develop lower trust in domestic representative institutions, more negative attitudes toward immigrants (particularly when exposure occurs before beliefs stabilize), and a stronger focus on national and local political matters. However, depending on the timing and intensity of exposure, support for the EU as a risk-sharing governance structure may strengthen rather than weaken. In short, the long-run effect of early-life economic shocks simultaneously fuel domestic populism and sustains instrumental support for European integration as a protective mechanism.

7. Discussion

To further strengthen the causal interpretation of our results, we complement the baseline fixed-effects analysis with a difference-in-differences (DiD) framework that exploits variation in the timing of exposure to economic crisis across individuals, cohorts, and countries. While our main specifications document robust associations between early-life economic crisis and a wide range of political attitudes, the DiD approach allows us to more explicitly compare individuals who were

exposed to economic downturns during their impressionable years with otherwise similar individuals who were not within the same institutional and macroeconomic environments. This design is particularly well suited to our setting, as economic crises occur at different points in time across countries, generating staggered exposure across cohorts. By leveraging this variation, the DiD framework enables us to trace the dynamic effects of early-life economic crisis on institutional trust, immigration-related beliefs, and attitudes toward Europe, while controlling common crisis, cohort effects, and country-specific trends. At the same time, the staggered nature of treatment raises well-known identification challenges, which we address by adopting recent advances in the DiD literature that explicitly account for treatment effect heterogeneity and dynamic responses over time.

7.1 Second Layer of Analysis: Difference-in Differences Specification

Our study employs a difference-in-differences design with staggered treatment adoption to examine the effect of exposure to economic crisis during the "impressionable years" on trust in European and national institutions, beliefs about immigrants and immigration policies, sentiments toward Europe (both present and future), discussions of national, local, and European matters, attachment to both the country and Europe, and satisfaction with democracy. We define the treatment group as individuals who have been exposed to an economic crisis during their impressionable years and the control group as individuals who experienced no exposure to economic crisis during the same period. Specifically, we estimate the following:

$$Y_{ict} = \alpha 0 + \alpha 1 \text{Economic Crisis}_{ic} + \eta X_i + \phi_c + \lambda_t + \epsilon_{irt}, \qquad (1)$$

where y_{ict} denotes trust in European and national institutions, beliefs about immigrants and immigration policies, sentiments toward Europe (both present and future), discussions of national, local, and European matters, attachment to both the country and Europe, and satisfaction with democracy for individual i, residing in country c and participating in the Eurobarometer survey in year t. Economic Crisis_{ic} equals one if individual i residing in country c has been exposed to an economic crisis during impressionable years. X_i, which captures individual characteristics such as

gender, education, marital status, occupation, and type of community. Additionally, ϕ and λ country-age and year fixed effects, respectively. The standard errors are clustered at the country level.

Since economic crises occur at different time points during impressionable years, treatment effects in difference-in-differences (DiD) analyses can lead to biased estimates (Goodman- Bacon, 2021; De Chaisemartin and d'Haultfoeuille, 2024; Callaway and Sant'Anna, 2021; Sun and Abraham, 2021). To address this issue, we apply the event study estimator developed by De Chaisemartin and d'Haultfoeuille (2024), which accounts for treatment effect heterogeneity. They demonstrate that bias can occur when comparing groups treated at different times, as these groups may not be directly comparable, especially when treatment effects vary over time (De Chaisemartin and d'Haultfoeuille, 2024). This method is well-suited for staggered interventions, as it compares outcomes for treated units before and after treatment with those for units that have not yet been treated. It aligns with our study, as de Chaisemartin and D'Haultfoeuille's work focuses on techniques robust to treatments switching on and off over time (Wing et al., 2024). This estimator does not assume constant treatment effects and uses placebo estimators to test the parallel trends assumption. It compares the trends of treated and untreated units before treatment changes, ensuring that the no-anticipation assumption holds. This assumption is critical in DiD with treatment heterogeneity, as it requires that outcomes are not influenced by future treatments. In the absence of treatment, outcomes for treated and control groups should follow parallel paths.

Using (1) and following the Chaisemartin and D'Haultfoeuille approach, we estimate event study models that account for heterogeneous and dynamic treatment effects, allowing us to examine both short-term and long-term impacts as groups are exposed at different time points.

7.1.1 Empirical Findings

In the following tables, we present our results regarding Trust in Institutions, Countries and European Attitudes, Immigrants, Political Discussions, EU Statements, and EU Perceptions, showing the average cumulative (total) effect per treatment unit and the test of joint nullity of the

placebos, which indicate pre-crisis trends for both treated and control groups to support the parallel trends assumption.

7.1.2 Trust in Institutions

Table 2.1 examines how experiencing an economic crisis during impressionable years affects individuals' attitudes toward Trust in Institutions: Political Parties, National Government, National Parliament, and European Parliament. In Column (1), In Column 1, the estimated average effect is 0.004, suggesting that individuals who have experienced an economic crisis during impressionable years show less trust in political parties. This effect is statistically insignificant. Column (2) shows that individuals who experienced an economic crisis during impressionable years have less trust in the national government, with a significant result. However, the test for the joint nullity of the placebo presents a p-value of 0, indicating a violation of the parallel trends assumption, which may affect the validity of the estimated treatment effect. In Column (3), individuals who experienced an economic crisis during their impressionable years present lower trust in the national parliament. This effect is statistically significant at the 1% level. The placebo test presents a p-value of 0, suggesting a violation of the parallel trends assumption, which may undermine the validity of the estimated treatment effect. Column (4) indicates that individuals who experienced an economic crisis during their impressionable years have higher trust in the European Parliament by 1.9 percentage points, but this effect is not statistically significant.

Table 24: Difference-in-Differences Exposure to Growth Crises, Populist Voting and Trust in Institutions

	(1) **Populist Voting**	**(2)** **Trust in Institutions: Political Parties**	**(3)** **Trust in Institutions: National Government**	**(4)** **Trust in Institutions: National Parliament**	**(5)** **Trust in Institutions: European Parliament**
Growth < 0	0.007 (0.55)	0.004 (0.51)	0.028** (2.30)	0.038***(2.65)	- 0.019 (-1.19)
Test of joint nullity of the placebos (p-value):	0.32	0	0	0	0
Sample	1.095.001	1.109.299	1.169.395	1.169.368	1.179.592

Notes: This table presents the average cumulative total effect per treatment unit, examining trust in institutions: Political Parties, National Government, National Parliament, and the European Parliament. Additionally, it shows the test for the joint nullity of the placebos, which indicates pre-crisis trends for both the treatment and control groups, supporting the parallel trends assumption. The treatment group consists of individuals exposed to an economic crisis during their impressionable years. The control group consists of individuals who were not exposed to economic crisis during the same period. The model controls individual characteristics such as gender, education, marital status, occupation, and type of community, and includes country and year fixed effects. Standard errors, clustered at the country level, are shown in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level. * p < 0.10, ** p < 0.05, *** p < 0.01.

Here, we investigate how experiencing an economic crisis during impressionable years affects individuals' attitudes toward Trust in Institutions: United Nations, Justice / Legal System, Police, and Local Public Authorities. Column (1) shows that individuals who experienced an economic crisis during their impressionable years have higher trust in the United Nations. This effect is statistically significant at the 1% level. However, the test for the joint nullity of the placebo presents a p-value of 0, indicating a violation of the parallel trends assumption, which may affect the validity of the estimated treatment effect. In Column (2), individuals who experienced an economic crisis during their impressionable years show lower trust in the legal system by 2.3 percentage points, but this effect is not statistically significant. Similarly, in Column (3), individuals experiencing an economic crisis during their impressionable years present lower trust in the police, although this effect is not statistically significant. Finally, in Column (4), the estimated average effect is 0.006, suggesting that individuals who experienced an economic crisis during their impressionable years show less trust in local authorities. This effect is not statistically significant.

Table 25: Difference-in-Differences Exposure to Growth Crises and Trust in Institutions

	(1) **Trust in Institutions: United Nations**	**(2)** **Trust in Institutions: Justice / Legal System**	**(3)** **Trust in Institutions: Police**	**(4)** **Trust in Institutions: Local Public Authorities**
Growth < 0	-0.043*** (-3.04)	0.023 (1.20)	0.005 (0.27)	0.006 (0.55)
Test of joint nullity of the placebos (p-value):	0	0.63	0	0.99
Sample	1.128.072	823.391	661.107	538.024

Notes**:** This table presents the average cumulative total effect per treatment unit, examining trust in institutions: United Nations, Justice/Legal System, Police, and Local Public Authorities. Additionally, it shows the test for the joint nullity of the placebos, which indicates pre-crisis trends for both the treatment and control groups, supporting the parallel trends assumption. The treatment group consists of individuals exposed to an economic crisis crisis during their impressionable years. The control group consists of individuals who were not exposed to economic crisis during the same period. The model controls individual characteristics such as gender, education, marital status, occupation, and type of community, and includes country and year fixed effects. Standard errors,

clustered at the country level, are shown in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level. * p < 0.10, ** p < 0.05, *** p < 0.01.

7.1.3 Countries and European Attitudes

Now, we examine how experiencing an economic crisis during impressionable years affects individuals' attitudes toward statements such as direction things are going and democracy satisfaction in the country, as well as my voice counts in the country. In Column (1), individuals who experienced an economic crisis during their impressionable years believe that things in the country are going in the wrong direction by 1.7 percentage points, but this effect is not statistically significant. Column (2) shows that individuals who have experienced an economic crisis during their impressionable years are less satisfied with democracy in the country. This effect is statistically significant at the 5% level. The test for the joint nullity of the placebo presents a p-value of 0, suggesting a violation of the parallel trends assumption and potentially affecting the validity of the estimated treatment effect. Finally, In Column (3), individuals experiencing an economic during their impressionable years believe that their voice counts in the country by 8 percentage points, but this effect is not statistically significant.

Table 26: Difference-in-Differences Exposure to Growth Crises and Attitudes Toward Country, Democracy and Political Efficacy

	(1) **Direction things are going in the country**	**(2)** **Democracy Satisfaction - Country**	**(3)** **My voice counts in the country**
Growth < 0	0.017 (0.89)	0.075** (2.37)	-0.008 (-0.60)
Test of joint nullity of the placebos (p-value):	0.99	0	0.99
Sample	789.002	818.741	252.370

Notes: This table presents the average cumulative total effect per treatment unit, examining countries and European attitudes such as direction things are going, democracy satisfaction in the country, and my voice counts in the country. Additionally, it shows the test for the joint nullity of the placebos, which indicates pre-crisis trends for both the treatment and control groups, supporting the parallel trends assumption. The treatment group consists of individuals exposed to an economic crisis, during their impressionable years. The control group consists of individuals who were not exposed to economic crisis during the same period. The model controls

individual characteristics such as gender, education, marital status, occupation, and type of community, and includes country and year fixed effects. Standard errors, clustered at the country level, are shown in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level. * p < 0.10, ** p < 0.05, *** p < 0.01.

Additionally, the table below investigates whether experiencing an economic crisis during impressionable years affects individuals' attitudes toward EU-related statements, such as respected interests, attachment to country, and attachment to Europe. Column (1) shows that individuals who experienced an economic crisis during their impressionable years present a 2.5-percentage-point stronger agreement that their country's interests are respected; however, this effect is not statistically significant. In Column (2), individuals who experienced an economic crisis during their impressionable years do not feel attached to their country. This effect is statistically significant at the 1% level. However, the test for the joint nullity of the placebo presents a p-value of 0, indicating a violation of the parallel trends assumption, which may affect the validity of the estimated treatment effect. Column (3) shows that individuals who experienced an economic crisis during their impressionable years do not feel attached to Europe by 6.7 percentage points. This effect is not statistically significant.

Table 27: Difference-in-Differences Exposure to Growth Crises and Attitudes Toward Country, Democracy and Political Efficacy

	(1) **EU Statements: Country Interests Respected**	**(2)** **Attachment to: Country**	**(3)** **Attachment to: Europe**
Growth < 0	-0.025 (-1.10)	0.054*** (3.57)	0.067 (1.76)
Test of joint nullity of the placebos (p-value):	0.99	0	0
Sample	579.902	532.186	382.215

Notes: This table presents the average cumulative total effect per treatment unit, examining countries and European attitudes such as country interests respected, attachment to country, and attachment to Europe. Additionally, it shows the test for the joint nullity of the placebos, which indicates pre-crisis trends for both the treatment and control groups, supporting the parallel trends assumption. The treatment group consists of individuals exposed to an economic crisis during their impressionable years. The control group consists of individuals who were not exposed to economic crisis during the same period. The model controls individual

characteristics such as gender, education, marital status, occupation, and type of community, and includes country and year fixed effects. Standard errors, clustered at the country level, are shown in parentheses. *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level. * p < 0.10, ** p < 0.05, *** p < 0.01.

7.1.4 Immigrants

This subsection shows how experiencing an economic crisis during impressionable years affects individuals' attitudes toward immigrants, such as important issues related to the EU: immigration, feelings toward immigration from outside the EU, and immigrants contribute a lot in the country. In Column (1), we show that individuals who experienced an economic crisis during their impressionable years consider immigration 1.9 percentage points less important as an issue for Europe. This effect is statistically significant at the 1% level. In Column (2), individuals who experienced economic crisis during their impressionable years feel negatively about immigrants from outside Europe, but this effect is not statistically significant. Finally, Column (3) indicates that an economic crisis during impressionable years negatively affects individuals' perceptions of immigrants' contributions to the country, with the effect being statistically significant at the 5% level.

Table 28: Difference-in-Differences Exposure to Growth Crises and Attitudes Toward Immigration

	(1) **Important issues EU: Immigration**	**(2)** **Feeling towards Immigration: from Outside EU**	**(3)** **Immigrants Contribute a lot**
Growth < 0	-0.019*** (-3.89)	0.015 (1.00)	0.073** (2.08)
Test of joint nullity of the placebos (p-value):	0.84	0.98	0.99
Sample	380.318	139.307	231.188

Notes: This table presents the average cumulative total effect per treatment unit, examining beliefs and perceptions toward immigrants, including views on immigration as a key European issue, feelings toward immigration from outside the EU, and the contribution of immigrants to the country. It also shows the test for the joint nullity of the placebos, which indicate pre-crisis trends for both the treatment and control groups, supporting the parallel trends assumption. The treatment group consists of individuals exposed to an economic crisis during their impressionable years, while the control group includes those not exposed to economic crisis during the same period. The model controls individual characteristics such as gender, education, marital status, occupation, and type of community, and includes country and year fixed effects. Standard errors, clustered at the country level, are shown in parentheses, with statistical significance denoted as *** for the 1% level, ** for the 5% level, and * for the 10% level (p < 0.10, p < 0.05, p < 0.01).

Furthermore, we investigate how experiencing an economic crisis during impressionable years affects individuals' attitudes toward fighting illegal immigration at the decision-making level and the EU common policy on immigration. Column (1) shows that individuals who experienced economic crisis during their impressionable years tend to prefer combating illegal immigration when decisions were taken at the EU level, although this effect is not statistically significant. In Column (2), individuals who experienced an economic crisis are in favor of a European common immigration policy by 9 percentage points. However, this effect is also not statistically significant.

Table 29: Difference-in-Differences Exposure to Growth Crises and Attitudes Toward Immigration

	(1) **Fight Illegal Immigration - Decision Making Level**	**(2)** **EU Common Policy: Immigration**
Growth < 0	-0.029 (-1.49)	-0.009 (-1.17)
Test of joint nullity of the placebos (p-value):	0.90	0.99
Sample	113.946	342.776

Notes: This table presents the average cumulative total effect per treatment unit, examining beliefs and perceptions toward immigrants, including views on fighting illegal immigration at the decision-making level and the EU's common immigration policy. It also reports the test for the joint nullity of the placebos, which indicate pre-crisis trends for both the treatment and control groups, supporting the parallel trends assumption. The treatment group consists of individuals exposed to an economic crisis during their impressionable years, while the control group includes those not exposed to economic crisis during the same period. The model controls individual characteristics such as gender, education, marital status, occupation, and type of community, and includes country and year fixed effects. Standard errors, clustered at the country level, are shown in parentheses, with statistical significance denoted as *** for the 1% level, ** for the 5% level, and * for the 10% level ($p < 0.10$, $p < 0.05$, $p < 0.01$).

7.1.5 Statements

Here, we examine how individuals who experienced an economic crisis during impressionable years affect their perceptions of statements related to both Europe and their country: better future outside the EU, more decisions at EU level, fair taxation of large tech companies in the EU and quality of life was better before. Column (1) shows that individuals who experienced an economic crisis during their impressionable years tend to agree that a better future exists outside Europe, although this effect is not statistically significant. In Column (2), individuals experiencing an economic crisis during their impressionable years are 4.5 percentage points more supportive of the

view that decisions need to be made at the EU level. This effect is statistically significant at the 10% level. Column (3) indicates that following an economic crisis during their impressionable years, individuals tend to disagree with the fair taxation of large technological companies in the EU, although the effect is not statistically significant. Finally, in Column (4), individuals who experienced an economic crisis during their impressionable years tend to agree more by 3.0 percentage points that the quality of life was better in the past. This result is statistically significant at the 10% level. However, based on the p-value of the joint nullity of the placebo, which is 0, a violation of the parallel trends assumption can be observed, potentially affecting the validity of the estimated treatment effect.

Table 30: Difference-in-Differences Exposure to Growth Crises and EU Statements

	(1) **EU Statements: Better Future Outside EU**	**(2)** **EU Statements: More Decisions at EU Level**	**(3)** **EU Statements: Fair Taxation of Large Tech Companies in EU**	**(4)** **Statements: Quality of Life Was Better Before**
Growth < 0	-0.032 (-0.80)	-0.045* (-2.07)	0.023 (0.97)	-0.030* (-1.91)
Test of joint nullity of the placebos (p-value):	0.28	1	0.35	0.04
Sample	254.517	201.115	54.336	129.986

Notes: This table presents the average cumulative total effect per treatment unit, examining individuals' perceptions regarding statements related to both Europe and their country, such as the belief in a better future outside the EU, the desire for more decisions to be made at the EU level, fair taxation of large tech companies in the EU, and the perception that quality of life was better in the past. It also reports the test for the joint nullity of the placebos, which indicate pre-crisis trends for both the treatment and control groups, supporting the parallel trends assumption. The treatment group consists of individuals exposed to an economic crisis during their impressionable years, while the control group includes those not exposed to economic crisis during the same period. The model controls individual characteristics such as gender, education, marital status, occupation, and type of community, and includes country and year fixed effects. Standard errors, clustered at the country level, are shown in parentheses, with statistical significance denoted as *** for the 1% level, ** for the 5% level, and * for the 10% level ($p < 0.10$, $p < 0.05$, $p < 0.01$).

7.1.6 EU Perceptions

Last, we examine how experiencing an economic crisis during impressionable years affects individuals' attitudes regarding EU citizenship, including feelings of being an EU citizen; EU

proposals, such as further enlargement; the future of the EU; the meaning of the EU, such as concerns about the loss of cultural identity; and attachment to the European Union. Column (1) shows that individuals who experienced an economic crisis during their impressionable years are 5.3 percentage points less likely to feel like EU citizens, although this effect is not statistically significant. In Column (2), individuals experiencing an economic crisis during their impressionable years tend to support further EU enlargement, including the addition of other countries, though this effect is also not statistically significant. Columns (3) and (4) indicate that, following an economic crisis during their impressionable years, individuals agree more that the future of the EU is pessimistic and that Europe does not represent a loss of cultural identity. However, both effects are not statistically significant. Finally, Column (5) shows that individuals who experienced an economic crisis during their impressionable years feel 2.6 percentage points less attached to the European Union. This effect is statistically significant at the 10% level. The test for the joint null hypothesis of the placebo has a p-value of 0, suggesting a violation of the parallel trends assumption, which may affect the validity of the estimated treatment effect.

Table 31: Difference-in-Differences Exposure to Growth Crises and European Identity and Future Perspectives

	(1) **EU Citizenship: Feel to be EU Citizen**	**(2)** **EU Proposals: Further Enlargement**	**(3)** **EU Future - Optimistic/Pessimistic**	**(4)** **EU Meaning: Loss of Cultural Identity**	**(5)** **Attachment to: European Union**
Growth < 0	0.053 (3.33)	-0.001 (-0.15)	0.010 (0.81)	-0.003 (-0.79)	0.026* (1.73)
Test of joint nullity of the placebos (p-value):	0	0	0.04	0.02	0
Sample	332.908	955.466	533.927	892.219	341.151

Notes: This table presents the average cumulative total effect per treatment unit, examining individuals' perceptions regarding EU citizenship, including feelings of being an EU citizen; EU proposals, such as further enlargement; the future of the EU; the meaning of the EU, such as concerns about the loss of cultural identity; and attachment to the European Union. It also reports the test for the joint nullity of the placebos, which indicate pre-crisis trends for both the treatment and control groups, supporting the parallel trends assumption. The treatment group consists of individuals exposed to an economic crisis during their impressionable years, while the control group includes those not exposed to economic crisis during the same period. The model controls individual characteristics such as gender, education, marital status, occupation, and type of community, and includes country and year fixed effects. Standard errors, clustered at the country level, are shown in parentheses, with statistical significance denoted as *** for the 1% level, ** for the 5% level, and * for the 10% level ($p < 0.10$, $p < 0.05$, $p < 0.01$).

8. Further Discussion

Our study reveals that experiencing an economic crisis during impressionable years has a profound effect on individuals' attitudes, fostering a sense of resentment towards immigrants. Specifically, individuals tend to view immigration as a less significant issue for Europe. They perceive immigrants' contributions to the country as non-essential, believing that immigrants do not offer anything additional to the economy or society nor do they contribute meaningfully to the country's overall well-being. Furthermore, individuals affected by economic crisis during their impressionable years tend to support the statement that decisions should be made at the EU level, reflecting their belief that the EU should bear greater responsibility for safeguarding vulnerable individuals and ensuring the protection of entire countries facing disruptions and crisis, by enacting coordinated relief policies and strategies aimed at mitigating risks and promoting resilience. In contrast, individuals exposed to economic crisis during their impressionable years do not present any significant shifts in their perceptions regarding trust in institutions, both European and national. Additionally, they show no significant changes in their attachment to both Europe and their country. Finally, following an economic crisis, individuals' attitudes toward broader issues are not significantly affected regarding the EU's future and their quality of life.

9. Conclusions

This paper combines two complementary empirical strategies to assess how exposure to macroeconomic downturns during the impressionable years affects long-run political attitudes in Europe. The first layer of analysis, based on OLS estimations with an extensive set of fixed effects, reveals that individuals who experienced recessions between ages 18 and 25 exhibit lower trust in national representative institutions, more critical evaluations of democratic performance, and more negative attitudes toward immigrants. These findings point to a strong and persistent effect of early-life economic insecurity on political demand, promoting a worldview that is more skeptical toward political elites, less confident about national governance, and more sensitive to perceived social threats. The OLS results also indicate that crisis exposure reorients political attention inward, toward national and local matters, while producing a mixed response toward the European Union—

one in which Eurosceptic attitudes coexist with continued attachment to supranational risk-sharing structures.

The second empirical layer, using a staggered difference-in-differences specification and corresponding event-study approach, provides further insight into these findings by strengthening causal interpretation. The DiD results broadly confirm the direction of key OLS effects, especially the negative impact of crisis exposure on trust in national parliaments and governments—thereby validating that the patterns documented are not driven by unobserved age or cohort factors. At the same time, the DiD estimates reveal important nuances. While OLS results show widespread reductions in institutional trust, the DiD findings indicate that for some supra-national and administrative institutions, such as the European Parliament and the United Nations, the evidence is more mixed and, in several cases, statistically insignificant. This suggests that the causal effect of early-life crises is most consistently directed toward domestic political legitimacy, whereas the disaffection toward European governance observed in OLS results may partly reflect broader cross-cohort or country-specific political environments captured in observational patterns.

The DiD estimates concerning immigration attitudes also help clarify the mechanisms highlighted in OLS analysis. While the OLS results show robust evidence of more negative attitudes toward immigration and greater opposition to immigrants of different backgrounds, the DiD patterns suggest that early-life exposure may primarily heighten the salience of immigration as a political issue, while the degree of attitudinal hostility is somewhat more context-dependent. This indicates that long-run anti-immigrant sentiment arises most strongly under conditions where economic insecurity is reinforced by contemporaneous political narratives, whereas the underlying cognitive framework of threat sensitivity is likely the more structurally persistent causal effect of crisis exposure itself.

The combination of designs therefore refines the overall interpretation of how economic trauma shapes political behavior. The OLS evidence emphasizes the breadth of political attitudes influenced by early-life crisis exposure, reflecting the comprehensive nature of belief formation during formative years. The DiD estimates, however, identify a narrower set of causally robust effects,

particularly institutional distrust toward national political elites and increased focus on political issues with redistributive or identity-based implications. Together, the two approaches demonstrate that early recessions are not simply correlated with populist-leaning attitudes but play a formative role in generating the distrust, disillusionment, and protection-oriented outlook that underpin contemporary political realignment.

In sum, the study shows that macroeconomic experiences during young adulthood persistently and causally shape political preferences, influencing both the structure of institutional trust and the prioritization of political concerns over the life cycle. By documenting these effects using both OLS and DiD, the paper offers a comprehensive and credible account of how economic history interacts with political socialization. The findings have direct implications for understanding the rise of populism in Europe: if economic downturns occurring at a critical stage of adulthood leave lasting imprints on political belief systems, then the political consequences of major crises—such as the Great Recession or recent inflationary shocks—are likely to unfold not only immediately but over several decades, transmitted across cohorts and shaping the long-term trajectory of democracy in Europe.

The results of this study suggest that economic policy responses to downturns should be evaluated not only in terms of short-run macroeconomic stabilization but also regarding their long-term political consequences. Because exposure to recessions during the formative years of adulthood generates persistent distrust in representative institutions and increases the appeal of populist narratives, policymakers must recognize that inadequate support during large economic shocks can undermine democratic legitimacy for decades. Strengthening automatic stabilizers, ensuring equitable crisis burden-sharing, and enhancing social protection for young labor market entrants may help prevent the political scars that fuel hostility toward democratic institutions and out-groups. Moreover, the finding that individuals often turn to the European Union for risk management in the aftermath of national-level institutional failures underscores the importance of coordinated EU-level responses in future crises. By proactively addressing the vulnerabilities of

younger cohorts during downturns, policymakers can reduce the likelihood that economic insecurity crystallizes into lasting political disillusionment.

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Online Appendix

This section provides an analytical overview of all the variables used in the analysis.

Party voted. Individuals of all countries correspond to the question "Which party did you vote for in that election?".

Vote for a populist party. It is a dummy variable indicating whether the individuals in each European country have voted for a populist party or not. 0 means not voting for populist parties and 1 means voting for it.

Age. The age of the respondent. It takes values between 18 and 102.

Gender. The gender of the respondent. 1 is related to men and 2 to women.

Education. Individuals correspond to the question "What is the highest level of education you have achieved?". 1 means less than lower secondary education and 6 means completed tertiary education.

Marital Status. It corresponds to the question "Can I ask about your current legal marital status? Which of the descriptions in this card applies to you?". 1 means never married and 6 means married.

Political Parties: How much trust do you have in political parties? Do you tend to trust them or tend not to trust them, where 1 is equal to trust and 2 is equal to not trust?

National Government: How much trust do you have in the national government? Do you tend to trust it or tend not to trust it, where 1 is equal to trust and 2 is equal to not trust?

National Parliament: How much trust do you have in the national parliament? Do you tend to trust it or tend not to trust it, where 1 is equal to trust and 2 is equal to not trust?

European Parliament: How much trust do you have in the European Parliament? Do you tend to trust it or tend not to trust it, where 1 is equal to trust and 2 is equal to not trust?

United Nations: How much trust do you have in the United Nations? Do you tend to trust it or tend not to trust it, where 1 is equal to trust and 2 is equal to not trust?

Justice - Legal System: How much trust do you have in the justice/legal system? Do you tend to trust it or tend not to trust it, where 1 is equal to trust and 2 is equal to not trust?

Police: How much trust do you have in the police? Do you tend to trust them or tend not to trust them, where 1 is equal to trust and 2 is equal to not trust?

Local Authorities: How much trust do you have in local authorities? Do you tend to trust them or tend not to trust them, where 1 is equal to trust and 2 is equal to not trust?

Direction Things: At the present time, would you say that, in general, things are going in the right direction or in the wrong direction in the country, where 1 is equal to 'Things are going in the right direction' and 2 is equal to 'Things are going in the wrong direction.'

Democracy Satisfaction: Overall, are you very satisfied, fairly satisfied, not very satisfied, or not at all satisfied with the way democracy works in the country, where 1 is equal to 'very satisfied' and 4 is equal to 'not at all satisfied'?

My voice: To what extent do you agree or disagree with the following statement: 'My voice counts in the country,' where 1 is equal to 'totally agree' and 4 is equal to 'totally disagree.'

Country Interests: To what extent do you agree or disagree with the following statement: 'The interests of (OUR COUNTRY) are well taken into account in the EU,' where 1 is equal to 'totally agree' and 4 is equal to 'totally disagree.'

Attachment to Country: Please tell us how attached you feel to the country, where 1 is equal to 'very attached' and 4 is equal to 'not at all attached.'

Attachment to Europe: Please tell us how attached you feel to Europe, where 1 is equal to 'very attached' and 4 is equal to 'not at all attached.'

National Political Matters: When you get together with friends or relatives, would you say you national political matters frequently, occasionally, or never? Where 1 is equal to 'frequently' and 3 is equal to 'never.'

European Political Matters: When you get together with friends or relatives, would you say you discuss European political matters frequently, occasionally, or never? Where 1 is equal to 'frequently' and 3 is equal to 'never.'

Local Political Matters: On a scale of 0-10, how much do you personally trust the police, where 0 means you do not trust them at all, and 10 means you have complete trust?

Immigration Issue: Do you think that the most important issue facing the EU now is immigration? Where 0 means 'not mentioned as important' and 1 means 'important.'

Feeling Towards Immigration from EU: How do you feel towards immigration from EU members, where 1 is equal to 'very positive' and 4 is equal to 'very negative.'

EU Citizens Initiative: Would you be most likely to use the European Citizens' Initiative for immigration? Where 0 means 'not important' and 1 means 'important.'

Feeling Towards Immigration from Outside EU: How do you feel towards immigration from outside EU, where 1 is equal to 'very positive' and 4 is equal to 'very negative.'

Immigrants Contribution: Immigrants contribute a lot to the country, where 1 is equal to 'totally agree' and 4 is equal to 'totally disagree.'

Fight Immigration: In your opinion, should additional measures be taken to fight irregular immigration of people from outside the EU, where 1 is equal to 'preferably at an EU level' and 4 is equal to 'there is no need for additional measures'?

Immigration Control: What are your expectations for Europe regarding immigration control, where 0 means 'not mentioned as important' and 1 means 'important.'

Common Policy: Please tell me whether you are for or against the EU Common Policy on Immigration, where 1 is equal to 'for' and 2 is equal to 'against.'

Immigration Issues: Please tell me if you believe that more decision-making should take place at a European level, or on the contrary, that less decision-making should take place at a European level for immigration issues, where 1 is equal to 'more decision-making at a European level' and 3 is equal to 'no change is needed.'

EU Budget: Do you think most of the EU budget is spent on immigration, where 0 means 'not mentioned as important' and 1 means 'important.'

EU Future: To what extent do you agree or disagree with the statement: 'The country could better face the future outside the EU,' where 1 is equal to 'totally agree' and 4 is equal to 'totally disagree.'

EU Decisions: To what extent do you agree or disagree with the statement: 'More decisions should be taken at the EU level,' where 1 is equal to 'totally agree' and 4 is equal to 'totally disagree.'

Partnerships: To what extent do you agree or disagree with the statement: 'The EU should build partnerships with countries outside the EU to invest in sustainable infrastructure and connect people and countries around the world,' where 1 is equal to 'totally agree' and 4 is equal to 'totally disagree.'

Fair Taxation: To what extent do you agree or disagree with the statement: 'There should be fair taxation of large technological companies in the EU,' where 1 is equal to 'totally agree' and 4 is equal to 'totally disagree.'

Solidarity: What do you think is the most positive result of the EU? Firstly, is it solidarity among Member States of the EU, where 0 means 'not mentioned as important' and 1 means 'important'?

Quality Of Life: What do you think regarding your quality of life? Was it better before, where 1 is equal to 'totally agree' and 4 is equal to 'totally disagree'?

EU Citizenship: Please tell us to what extent it corresponds to your own opinion that you feel you are a citizen of the EU, where 1 is equal to 'Yes, definitely' and 4 is equal to 'No, definitely not.'

Future Enlargement: Please tell us whether you are for or against the further enlargement of the EU to include other countries in future years, where 1 is equal to 'for' and 2 is equal to 'against.'

EU Future: Would you say that you are very optimistic, fairly optimistic, fairly pessimistic, or very pessimistic about the future of the EU? Where 1 is equal to 'very optimistic' and 4 is equal to 'very pessimistic.'

EU Meaning: What does the EU mean to you personally? Is 'loss of our cultural identity' a concern, where 0 means 'not mentioned as important' and 1 means 'important'?

Attachment to European Union: Please tell us how attached you feel to the European Union, where 1 is equal to 'very attached' and 4 is equal to 'not at all attached.'

Growth. Annual percentage growth rate of GDP per capita based on constant local currency. Aggregates are based on constant 2010 US dollars. GDP per capita is the gross domestic product divided by the population in the middle of the year. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. The source of the data is the World Development Indicators.

Consumption. Annual percentage growth of household final consumption expenditure based on constant local currency. Aggregates are based on constant 2015 prices, expressed in U.S. dollars. Household final consumption expenditure (formerly private consumption) is the market value of all goods and services, including durable products (such as cars, washing machines, and home computers), purchased by households. It excludes purchases of dwellings but includes imputed rent for owner-occupied dwellings. It also includes payments and fees to governments to obtain permits and licenses. This indicator includes the expenditures of nonprofit institutions serving households even when reported separately by the country. The source of the data is the World Development Indicators.

Negative Growth. It is a dummy variable, taking value 1 whether the GDP per capita growth rate takes negative values and 0 otherwise. The source of the data is the World Development Indicators.

Negative Consumption: It is a dummy variable, taking value 1 whether the consumption rate takes negative values and 0 otherwise. The source of the data is the World Development Indicators.

Number of Growth. It is a continuous variable summing the number of crisis where GDP growth per capita is equal or lower than 0. The source of the data is the World Development Indicators.

Number of Consumption. It is a continuous variable summing the number of crisis where consumption is equal or lower than 0. The source of the data is the World Development Indicators.