Linking two levels of governance:
Citizens' trust in domestic and European institutions over time

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Abstract

This article puts forward a comprehensive framework for explaining the complex and dynamic relationship between trust in the domestic government and trust in the EU, considering time, country and individual-level variation. Using longitudinal comparative data from 32 Eurobarometer survey waves (2004—2018), we first establish that the link between attitude formation at the national and the EU supranational levels is present over time. Second, we show that during 'extraordinary' times of crisis the strength of that relationship intensifies. Third, we posit that the European sovereign debt crisis changed the mechanism for this relationship in two ways: during 'extraordinary' times, the link is much stronger in countries hardest hit by the crisis and the relationship holds independent of individuals' political sophistication across all countries. Our findings have implications for understanding the drivers of EU support and theories of institutional trust.

Keywords: trust in the EU, trust in national government, longitudinal analysis, European sovereign debt crisis, public opinion

Introduction

To what extent has the association between individuals' trust in domestic and European Union (EU) institutions changed over time? It is well established that attitudes towards the EU supranational level are derived from attitudes towards domestic political institutions (Anderson 1998; Sánchez-Cuenca 2000; Rohrschneider 2002; Kritzinger 2003; Hobolt 2012). Yet, this complex and dynamic relationship should be further investigated for at least two reasons. First, recent work examining the link between such orientations tends to focus either on single years (Harteveld et al. 2013) or short periods (e.g. Armingeon and Ceka 2014; Braun and Tausendpfund 2014). When the design is longitudinal, it includes only specific or a sub-set of EU member states (e.g. Ejrnæs and Dagnis Jensen 2019; Torcal and Christmann 2019). While these contributions are crucial to our knowledge of this link, they do not account for whether the relationship is consistent over time and across all EU member states. Second, and relatedly, the EU's sovereign debt crisis - what we term 'extraordinary times'- shook the legitimacy of both national and European institutions (Armingeon and Ceka 2014; Foster and Frieden 2017). Did the crisis serve to further consolidate or undermine the link between national and the EU supranational levels? Are the political effects on EU support symmetrical across EU member states and individuals?

Because these two levels of governance are highly intertwined, we need to have a more comprehensive model for understanding their multifaceted relationship over time. This article fills this gap by examining how and under what circumstances trust in the national government affects trust in the EU. Its advances the literature in two key ways. Theoretically, it puts forward an overall framework for explaining the dynamic relationship between trust in both levels of government that takes time, country and individual-level variation into account. We first establish that the link between attitude formation at the national and the EU supranational levels is present over time. Second, we show that during 'extraordinary' times the strength of that relationship intensifies. This is because during the crisis citizens became aware of the involvement of both national governments and the EU in the policy response to the crisis (e.g. Costa Lobo and Lewis-Beck 2012; Hobolt and Tilley 2014). Third, we posit that the *crisis changed the mechanism* for this relationship in two ways: during 'extraordinary' times, the link is much stronger in countries hardest hit by the crisis and the relationship holds independent of individuals' political sophistication. Empirically, we carry out -for the first time- a systematic large-scale longitudinal and cross-country analysis juxtaposing the 'extraordinary' period of European sovereign debt crisis to 'ordinary' times. We estimate a series of multilevel models with data from 32 Eurobarometer survey waves for all EU member states between 2004—2018 that take into consideration variation across time, country and individuals. Our findings are robust to different variable operationalisations and model specifications.

Our findings have implications for the theoretical understanding of theories of institutional trust and -more broadly- for our understanding of EU legitimacy and how it is derived. They reveal that the link between attitude formation at the national and supranational levels is more complex than previously assumed. It is dynamic and its intensity can vary over time and across country groups. We confirm that EU attitudes are developed with reference to the domestic context and that politics is a much stronger predictor of trust in the EU compared to economics. Yet, in 'extraordinary' times, this is not because of citizens' lack of political sophistication; but rather because of increased awareness of the interdependence of the two levels of governance. This suggests that EU legitimacy

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is indeed derived through trust in national institutions, but this process should not fully ignore the relevance of the EU level of governance.

Explaining trust in the EU over time

The link between attitude formation at the national and the EU supranational levels is well documented (Anderson 1998; Sánchez-Cuenca 2000; Rohrschneider 2002; Kritzinger 2003; Hobolt 2012; De Vries 2018). The argument, in its standard version, is that the EU is too complex, abstract and remote from individuals' personal experiences. Citizens lack knowledge on the basis of which to form their evaluations of the EU. Limited information about the EU also suggests that citizens are less able to 'conform to the strict definition of self-interested utility maximizers vis-à-vis the EU' (Anderson 1998: 573). To overcome these information shortfalls, citizens employ cues or proxies from their domestic political systems as cognitive shortcuts in order to form their opinions about the European political arena. This has been characterised as the 'spillover' (Ares et al. 2017) or 'extrapolation' (Harteveld et al. 2013) logic whereby EU attitudes are developed with reference to the domestic context, as citizens have a direct and immediate relationship with this level of governance.

However, the direction of this relationship is contested. On the one hand, examining the interplay between national and supranational politics, Sánchez-Cuenca (2000) demonstrates that dissatisfaction with national performance leads to greater support for the EU. If the political system at home does not work, then the perceived risk of transferring sovereignty to the EU is lower (see also Rohrschneider 2002; Kritzinger 2003). Anderson (1998), on the other hand, argues that satisfaction with how democracy works domestically correlates positively with EU support. Citizens use what they know about the domestic political system as a 'proxy' for EU support. Muñoz et al. (2011) have attempted to resolve this debate by arguing and empirically substantiating that this hypothesis works differently at different levels of analysis. At the individual level, which is of interest in this article, citizens tend to express similar directions of attitudes, i.e. if they support the domestic political regime, they will support the EU. This is because EU opinion relates to individuals' general orientations towards democratic governance (e.g. Harteveld et al. 2013; Ares et al. 2017; Torcal and Christmann 2019). If citizens feel alienation with the domestic regime, they will have a similar attitude towards the EU (Hobolt 2012).

Considering that national parliaments and governments are core to EU-level decision-making, and as such they are the first point of reference for citizens' EU attitudes, this is a way for citizens to express dissent vis-à-vis incumbents and policies at both levels. In short, the close positive association between trust in the two levels of governance constitutes part of a general syndrome of 'political disaffection' (Muñoz et al. 2011: 555) or 'mistrust' (Harteveld et al. 2013). The logic of extrapolation has been found as the strongest predictor of trust in the EU (Harteveld et al. 2013). Accordingly, we expect this relationship to also exist over time (see also Torcal and Christmann 2019).

H1: The positive relationship between trust in domestic institutions and trust in the EU is present over time.

In line with this argument, but taking it a step further, we posit that the relationship between citizens' evaluations of the national and supranational levels of governance is asymmetric and is

much more pronounced in times of 'extraordinary' crisis compared to 'ordinary' conditions. Here we focus specifically on the European sovereign debt crisis as an 'extraordinary' period in EU integration. We start from the premise that that '[d]omestic and European politics have become more tightly coupled as governments have become responsive to public pressures on European integration' (Hooghe and Marks 2009: 2). We suggest that the crisis reinforced the tendency to associate the two systems of governance (Armingeon and Ceka 2014) for at least two reasons.

First, in a multi-level system of governance such as the EU, the context changes during times of crisis. The crisis served as critical moment in the politicisation process of European integration (De Wilde et al. 2016; Ares et al. 2017). The EU gained more visibility in domestic debates and political actors put forward different, often polarising, views on European integration (Hutter and Kriesi 2019). National governments also became more visible to the general public in linking national to EU politics. Through their participation in the intergovernmental channel of EU representation - the key crisis management forum of the EU- national governments played a more prominent role in managing the relationship between national and EU politics (Ares et al. 2017).

Second, and relatedly, the crisis was associated with severe problems of governability at both national and EU levels, which challenged the legitimacy of mainstream parties and governments, and undermined the legitimacy of both national and supranational systems (Armingeon and Guthmann 2014). In addition, national performance became associated not only with governance at the national level, but increasingly with supranational actors as well; especially in areas of strong EU competence. As a result, some of the responsibility for the (mis)-management of the crisis was transferred from the national governments to EU institutions with some citizens blaming both governance levels for the crisis (see also Hobolt and Tilley 2014).

Simply put, citizens across the EU became aware of the extent to which the two regimes are intertwined (e.g. Costa Lobo and Lewis-Beck 2012; Hobolt and Tilley 2014). The political dimension of the crisis reinforced the perceived interdependence of the two levels of governance. The crisis of political trust at the domestic level also became translated into a crisis of EU support.

H2: During 'extraordinary times', the effects of trust in the national government on trust in the EU are stronger than in ordinary times.

If we are right, then H2 should have two observable implications. First at the *country-level*, the magnitude of the political effects is likely to demonstrate geographic variation. This is because the interdependence between the two levels of governance was significantly more pronounced in crisis-hit countries. We know that the influence of the EU varies both across policy domains but also member states (Hobolt and Tilley 2014). While citizens are expected to be less supportive of EU membership when they distrust their domestic institutions, this relationship should be even stronger in the member states most vulnerable to the crisis. Although all member states were affected by economic fluctuations, the effects of the crisis and the scope for external intervention were more pronounced in those countries whose economies plunged into recession and were forced to receive external financial assistance by the EU and the International Monetary Fund (IMF) (Armingeon and Guthmann 2014: 423). These disbursements were conditional on policy achievements in fiscal consolidation, forcing some governments to implement stringent austerity measures and structural reforms in an attempt to restore financial stability and to return to sustainable growth. Consequently, countries that received EU bailouts were more constrained in steering national

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policies as they were subject to much higher scrutiny from external institutions (Okolikj and Quinlan 2016). At the same time, their national governments were very prominent in the process as they were charged with the implementation of programmes imposed by EU and other external actors (Ares et al. 2017).

Furthermore, some countries faced simultaneously an economic and political crisis (Halikiopoulou and Vasilopoulou 2018). North-Western and Eastern European countries recovered from the crisis much quicker compared to Ireland and countries of the South, which experienced prolonged economic recession, and whose governments faced significant difficulties in managing the crisis. Here we can also draw from benchmark theory which argues that citizens' attitudes towards the EU are grounded on a comparison between the benefits of the status quo of membership and those linked to an alternative state outside of the EU (De Vries 2018). In the countries hardest hit by the crisis with need for financial assistance, citizens' understanding of the interdependence of the two levels of governance intensifies, not least because their reference point is different. For these countries, exiting the EU is less likely to be perceived as a plausible option. We should note that the loss of political trust has been asymmetric and is mostly driven by economic factors, i.e. it is mostly observed in countries that have been most affected by the crisis (Foster and Frieden 2017). Put simply, the political dimension of the crisis was exacerbated in the EU member states most hit by the recession, which also found themselves constrained within the status quo.

H3a: During 'extraordinary times', political effects on EU support are stronger in countries hit hardest by the crisis.

Second, if our line of reasoning is correct, at the *individual level*, the relationship between trust in national government and trust in the EU should hold independent of individuals' political sophistication. Recall that according to the standard version of the proxy argument, citizens are not able to form independent attitudes towards the EU because they lack knowledge and information about this complex and remote system of governance (e.g. Anderson 1998). On the flip side, those who are knowledgeable about the EU should have enough awareness to form non-conditional attitudes towards the EU (Kritzinger 2003). This is confirmed in various studies which find that the effect of trust in national institutions on EU support is somewhat muted for sophisticated individuals who are able to form an opinion on the EU independently of their national context (e.g. Armimgeon and Ceka 2014; Torcal and Christmann 2019). However, following De Vries (2018), we assume that citizens' understanding of the links and interdependence between the two levels of governance is not necessarily a cognitively demanding task. This is not a question of political sophistication and understanding the specificities of how the EU system works. Rather it refers to a less laborious and much broader understanding of constraints posed by multi-level governance, which should occur across the citizenry and independent from factual knowledge about the EU. In other words, the effect of being exposed to and becoming more aware of this interdependence does not differ based on citizens' level of political sophistication.

H3b: *During 'extraordinary times', the relationship between trust in national government and trust in the EU holds independent of individuals' level of political sophistication.*

Data and methods

In order to empirically assess our theoretical expectations, we analyse individual-level survey data. Focusing on the periods before, during and after the European sovereign debt crisis, we compile a cross-national time-series dataset, using data from 32 Eurobarometer survey waves between 2004—2018[1] (see Table 1 in Appendix for the full list). Although Eurobarometer surveys have been carried out since 1970, we dropped earlier survey waves because sample size is smaller prior to the EU Eastern enlargement in 2004. The analysis includes 28 countries (EU27 and the UK), with approximately 1,000 randomly selected respondents from each country per survey wave. Such dataset comprises 888,527 respondents.

The dependent variable is measured using the dichotomous question asking whether respondents tend to trust (coded as 1) or not trust the EU (coded as 0) (see also Harteveld et al. 2013; Armingeon and Ceka 2014). 'Don't knows' are excluded from the analysis.

Our key independent variable, capturing the effects of domestic political support on EU opinion (H1), is trust in national government (1 = tend to trust, 0 = tend not to trust). In addition to political effects, we test for another prominent explanation of EU attitudes, i.e. the utilitarian account (e.g. Eichenberg and Dalton 1993; Gabel 1998; McLaren 2006; Gomez 2015), for which we rely on respondents' subjective perceptions of national economic performance. We borrow from the literature on economic voting, which commonly focuses on subjective rather than macroeconomic measures of the economy, and on sociotropic instead of egocentric evaluations (e.g. Kinder and Kiewiet 1981; Lewis-Beck 1988).[2] Building on this knowledge, we operationalise economic performance using a question asking respondents whether they expect the economy to be better, worse or remain the same over the next twelve months.[3] The variable is coded as 1 for positive economic evaluations and as 0 otherwise.

To test the asymmetry hypothesis, according to which the effects of trust are amplified during the times of crisis (H2), we include survey year interacted with the trust indicator. Since year alone may not be enough to capture the depth of the European crisis, we conduct additional tests by replacing survey year with aggregate-level data on annual GDP growth rate for each country and point in time. Interacting these figures with the trust variable enables to examine how political effects vary at different levels of the economic decline, thus providing a robustness check to individual-level findings.

H3a focuses on the distinction between countries that suffered more and those that suffered less from the European sovereign debt crisis. To measure this, we include a dummy for bailout countries. The variable is coded as 1 for five member states that received EU financial assistance amid severe economic troubles related to the European sovereign debt crisis: Cyprus, Greece, Ireland, Portugal and Spain. These countries participated in various EU-managed financial

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[1] Data for 2019 were not yet released at the time of writing.
[2] Concerns have been raised about how well citizens are informed about macroeconomic developments, but numerous studies demonstrate that individual-level survey data provide a realistic reflection of economic realities (e.g. Duch and Stevenson 2010).
[3] Although the economic voting literature typically relies on retrospective assessments of the economic situation (see e.g. Lewis-Beck 1988), we chose a prospective measure as it appears in the Eurobarometer questionnaires much more frequently and thus enables us to increase the number of surveys included in the study.

programmes, often provided in collaboration with the IMF, aimed at preserving financial stability across the euro area. The origins of the financial troubles varied in these member states, but consequences were similar: unprecedented levels of public debt produced major losses for banks. Stressed banks cut off credit to the economy, leaving governments unable to refinance their debt, which in turn forced the economies to rely on emergency loans from third parties (Walker 2018). All other countries are coded as 0.

Finally, we include a measure for knowledge about the EU to test the political sophistication hypothesis (H3b) (see also Harteveld et al. 2013; De Vries 2018). We utilise the two knowledge questions that appear coherent across Eurobarometer surveys, i.e. respondents' awareness of how many countries belong to the European Union or the Euro Area, and awareness of how members of European Parliament are elected. The new variable is coded as 3 for people who answered both questions correctly, as 2 for those who answered only one correctly and as 1 for everyone else. Although we are using self-reported knowledge to construct this indicator, it is still the closest available measurement of a neutral factual indicator (Zaller 1992).

The models are estimated with a number of individual-level indicators that may be correlated with the main explanatory variables and that control for traditional explanations of EU attitudes, such as national identity, ideological leaning and demographic characteristics. Eurobarometer surveys lack consistency in how some of the control variables are measured or whether they are included in questionnaires at all. We thus utilise stepwise modelling where we estimate simple models with core independent variables first, and then test the robustness of the results by adding control variables for those waves where coherent survey items exist (see Results). The availability of variables across surveys is summarised in Table 1 in Appendix.

We first control for feelings of national identity. Eurobarometer uses different questions to measure the concept of identity (e.g. attachment to one's country, strength of national identity, etc.). In order to maximise the number of waves in the study, we selected an identity question that appears most frequently in the surveys and that asked respondents to indicate whether they see themselves as nationality only, nationality and European, European and nationality, or European only (Risse 2010). The variable was recoded as 1 for respondents with exclusive national identity and as 0 for the rest.

Additionally, we control for respondents' ideological orientation, measured as distance on the left-right scale between the respondent and Prime Minister's party in office. For this, we used survey data on respondents' self-placement on the left-right scale, combined with ParlGov data on party ideological leaning (Döring and Manow 2019). The new variable indicates the absolute value of the difference between the two positions, and ranges from 0 = no distance to 10 = maximum distance. The variable was coded as missing if incumbent ideological change took place during survey fieldwork or if the Prime Minister was not affiliated with a political party. Data on individuals' ideological position are missing for 2012—2013, which is a crucial time period for our study as it coincides with the European debt crisis. This determines an additional step in our modelling strategy where models are specified with less variables and more surveys first, gradually moving towards increasing the number of predictors and reducing the number of waves (see Results). Other individual-level controls include respondents' age (in full years) and gender (1 = male, 2 = female). Models were estimated using multilevel logistic regression modelling, which accounts for the possibility that respondents are nested in country-waves and thus their responses

are correlated. After excluding missing cases, the null-model covers 788,146 units at level 1 and 896 units at level 2.

Results

Political effects on trust in the EU

We begin the empirical exploration by descriptively mapping temporal change in our key variables across countries (Figure 1). The dependent variable is trust in the EU, with 45.2 per cent of all respondents on average expressing trust and 54.8 otherwise. However, public mood towards the EU fluctuates over time. Trust levels were at their lowest in 2013 (36.3 per cent), before recovering again by 2017—2018 (45-46 per cent) (top panel, Figure 1). Our independent variable, trust in national government, demonstrates similar patterns (34.2 per cent on average, 27.8 per cent in 2013 and 37.5 per cent in 2018) (bottom panel, Figure 1). Thus, the deepest erosion in institutional support coincided with the European debt crisis. Data also indicate large differences in trust levels across EU member states. The deepest crisis-time plunge in trust in the EU occurred in Cyprus, Greece, Ireland, Italy and Spain, which all belong to the group of countries that suffered heaviest economic consequences. Most of these member states also witnessed stark changes in domestic political trust (Figure 1). In other words, our longitudinal data indicate a prolonged slump in institutional trust on both levels of governance in times of crisis, and especially among crisis-hit countries. The loss of political trust has been asymmetric and seems to be associated with the economic crisis.

Next, we examine the statistical relationship between our key variables. Table 1 below summarises key findings from the series of stepwise multilevel models (for full models, see Table 2 in Appendix). The first model only includes domestic political trust as an explanatory factor. Altogether, our combined dataset covers all 32 survey waves between 2004—2018 where data on both the dependent variable and domestic trust are available. The results indicate, as expected, that trust in national government is positively associated with trust in the EU and that the effects are statistically significant at the 0.01 level. In Model 2, we add individuals' subjective evaluations of the national economy to the analysis. The model covers 32 Eurobarometer waves. Both political and economic effects appear statistically significant in the model, but, in comparison, political trust yields noticeably larger impact on EU opinion. Next, we add a theoretically driven set of control variables, which include exclusive national identity, EU knowledge, age, gender and survey year (Model 3 in Table 1). While the model fit benefits greatly from adding the controls, the temporal coverage is reduced. Data on this set of indicators are available only for 16 surveys out of 32, excluding periods of high relevance to our study, e.g. the crisis year of 2011. Regression results indicate that political and economic effects are slightly reduced when control variables are added but nevertheless remain solid and statistically significant. Out of the control variables, exclusive national identity stands out as an important determinant of trust in the EU (Model 3 in Table 2 in Appendix). Finally, Model 4 includes ideological orientation as an additional control. Main results in this fully specified model remain robust, however, with both political and economic considerations strongly and positively associated with EU support. Altogether, our examination shows that trust in national government is a central component of citizens' opinions of the EU and its effect size is greater than that of economic evaluations.
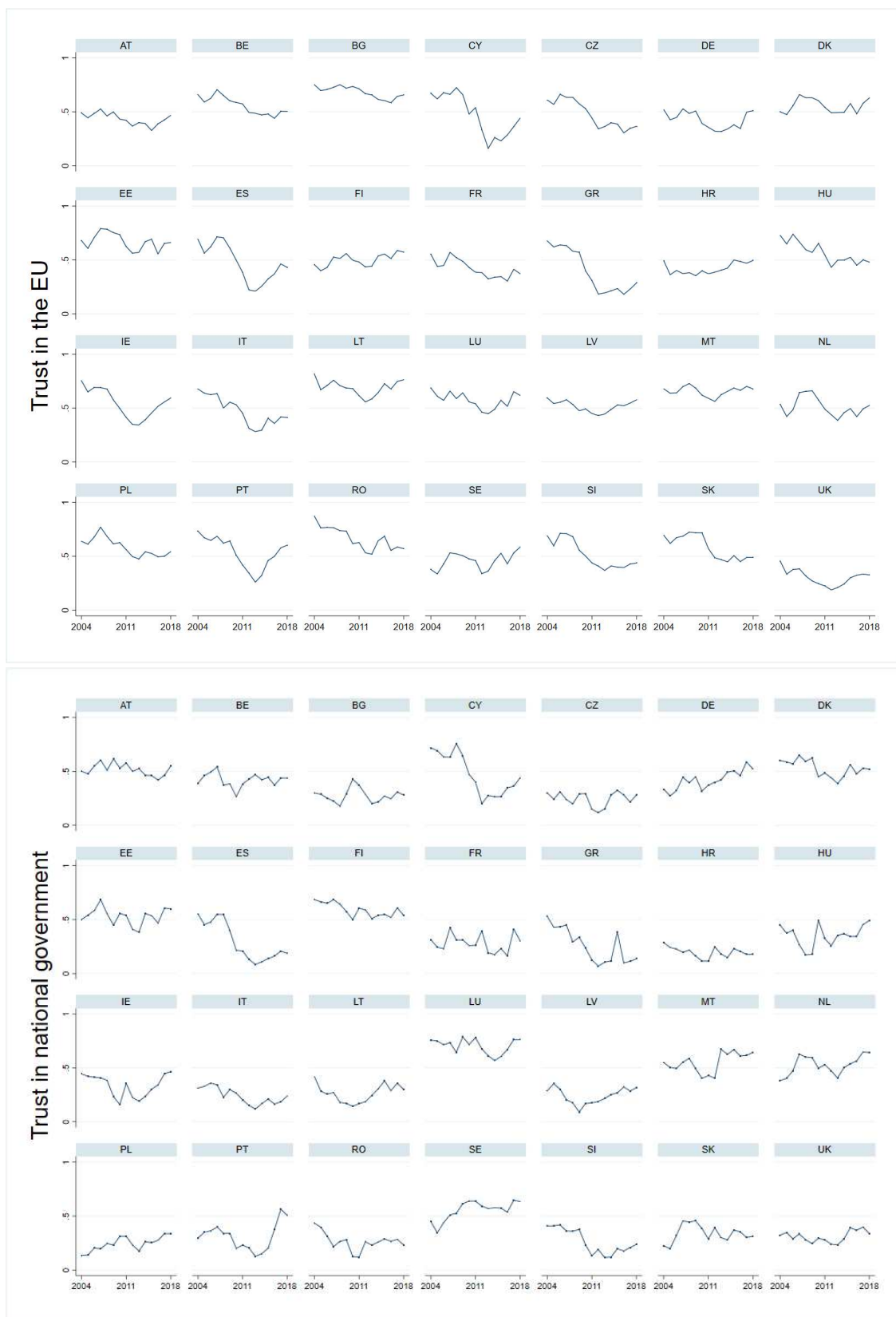
Figure 1. Trust in the EU (top) and in national government (bottom) over time, by country
Source: Data from 32 Eurobarometer waves between 2004—2018.

Table 1. Political and economic effects on trust in the EU

	Model 1	Model 2	Model 3	Model 4
Political effects	2.10***	2.03***	1.95***	1.90***
	(0.01)	(0.01)	(0.01)	(0.01)
Economic effects	-	0.49***	0.35***	0.31***
		(0.01)	(0.00)	(0.01)
Controls	None	None	Identity, EU knowledge, age, gender, survey year	Ideology, identity, EU knowledge, age, gender, survey year
Number of surveys	32	32	16	13
Years covered	2004; 2005; 2006; 2007; 2008; 2009; 2010; 2011; 2012; 2013; 2014; 2015; 2016; 2017; 2018	2004; 2005; 2006; 2007; 2008; 2009; 2010; 2011; 2012; 2013; 2014; 2015; 2016; 2017; 2018	2004, 2005, 2010, 2012, 2013, 2014, 2015, 2016, 2017, 2018	2004, 2005, 2010, 2014, 2015, 2016, 2017, 2018
AIC	865,492	832,548	380,971	247,310
BIC	865,527	832,594	381,165	247,485

Source: Data from Eurobarometer waves between 2004—2018.
Notes: Regression coefficients from multilevel models; standard errors in parentheses. Control variables not shown. *** p<0.01, ** p<0.05, * p<0.10.

Variation in effects over time

Having established that there is a strong positive association between domestic trust and trust in the EU, we are now interested in whether this relationship holds—and has changed—over time. We propose that while there is a positive association between domestic and EU trust across time (H1), the link is stronger in extraordinary than in normal times (H2). In addition, we also examine the temporal dynamics of economic effects in order to understand whether the erosion of EU support that occurred alongside the European crisis is primarily driven by political or economic issues. To assess this, we run multilevel models with data for all countries and survey waves pooled into one hierarchically structured dataset. We then interact economic and political variables with survey year to be able to estimate temporal variation in these indicators. 2004, indicating a pre-crisis time point, is defined as reference category. Like before, we employ a stepwise approach where we first estimate models with independent variables only, enabling us to maximise the number of years covered. We then repeat the analysis with control variables added, but with reduced temporal coverage. The results are presented as average marginal effects on figures and as regression coefficients in tables.

The first interaction model includes both the political and economic explanations, as well as an interaction term between domestic political trust and year. The model covers 32 Eurobarometer waves between 2004—2018. In line with H1, we first observe that trust in national government yields statistically significant effects on trust in the EU across the entire time scale, and that the effects are positive in direction. This confirms H1 that trust in the two levels of governance is closely related, and this association holds over time. Second, the results demonstrate significant temporal fluctuation in political effects on trust in the EU. The effects remained more modest in the pre-crisis period but surged up as the global financial crisis hit in 2008. Average marginal effects, displayed on the left panel of Figure 2, show that at its peak in 2012, the probability of trusting the EU was 46 percentage points higher for people who trusted their national government, compared to people who did not. Only in the past few years has the explanatory value of domestic trust lost importance again, dropping to the pre-crisis levels. Regression coefficients are shown in in Model 1 in Table 3 in Appendix and confirm that political effects are significantly larger than in 2004 for almost all years between 2007—2015. This means that, especially in times of crisis, EU opinion was strongly defined by domestic political attitudes, with higher trust towards national government promoting a much more positive outlook on the EU. Similar patterns are not apparent for the pre- and post-crisis periods. These findings corroborate H2 and support the idea that the crisis context changed the way citizens evaluate the EU.

The right panel of Figure 2 displays average marginal effects from the second interaction model, focusing on the multiplicative term between economic attitudes and survey year. The results indicate that economic effects on trust in the EU have also changed over time, but differently from the political component. In the pre-crisis period, economic evaluations mattered more (average marginal effect of 0.12 in 2004), but have since gradually lost importance. The difference in EU opinion between citizens with good and poor economic evaluations is significantly smaller in most of the years compared to 2004 (Model 2 in Table 3 in Appendix). Further, we do not observe major fluctuations during the crisis times; however, economic effects have reached the floor in recent years (average marginal effect of 0.06 in 2016—2018). In sum, we find that the significance of the political component of EU trust changed much more with the crisis than did the economic one. The tendency that political effects are inflated in crisis times, and economic ones deflated, is generally confirmed when we repeat the analyses with a full set of control variables (Models 3 and 4 in Table 3 in Appendix).[4]

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[4] We also examined the temporal changes in the third most prominent explanation of EU support, national identity (not shown). The effects only reach conventional levels of significance for some of the years (e.g. are larger compared to 2004 for 2012, 2016, 2017 and 2018). However, due to limited data availability (see Data and methods), these models are missing several years crucial to our study.

Political effects   Economic effects

Figure 2. Political and economic effects on trust in the EU over time
Source: Data from Eurobarometer waves between 2004—2018.
Notes: Average marginal effects from multilevel logistic regression model, with confidence intervals. Reference lines indicate the peak of the European sovereign debt crisis between 2010 and 2012.

To test the robustness of the results, we run two additional analyses. First, we use an alternative measure of the economic crisis by replacing survey year with actual macroeconomic data for each country and point in time. More specifically, we utilise annual GDP growth rate, the most widely used measure of the state of the economy and key indicator of the depth of the crisis (e.g. Vasilopoulou and Talving 2019). According to Eurostat, the EU28 growth rate plunged from 2.5 in 2004 to -4.3 in 2009 and -0.4 in 2012, indicating severe financial instability. For Eurobarometer surveys that were carried out in the first half of a year (January-June) we use GDP growth rate for the year previous to fieldwork, and if survey data was collected in the second half of a year (July-December) we utilise an indicator for the same year. The growth variable is then interacted with the two individual-level predictors of EU attitudes, i.e. political trust and economic perceptions. Results corroborate our earlier findings. Political effects become much more emphasised as growth levels decrease, i.e. when a country moves towards recession (Model 1 in Table 1 in Online appendix). Average marginal effects of trust (not shown) are 0.27 for a country with the highest growth level in the sample (Ireland in 2015; real growth rate 25.2 per cent), but almost twice as high at 0.51 for a country in the deepest crisis (Lithuania in 2009; real growth rate -14.8 per cent). For the economic variable, the marginal effects are much smaller (0.05 for Ireland in 2015 and 0.12 for Lithuania in 2009).

As a second robustness check, we test for the possibility that the reason why we fail to find notable crisis-time variation in economic effects is because of restricted variance in economic perceptions. Fraile and Lewis-Beck (2014) suggest that it may be difficult statistically to obtain evidence of the effects when variance in economic opinions in crisis years is limited. When all scores of the independent variable are similar, this variable cannot explain variation in the outcome. Indeed, in 2011—2012 only 17-19 per cent of respondents considered the economy in their country to be performing well. Reduced variance in attitudes between individuals poses problems for assessing

the magnitude of economic effects. One way to address the issue is to use, for the pooled data, an aggregate measure of the economy that is independent of citizen perceptions (Fraile and Lewis-Beck 2014). Although there is little variance in economic opinions between respondents in the crisis times, there is considerable variance between all surveys (Lewis-Beck and Costa Lobo 2016). Following this advice, we replace individual-level economic evaluations in the model with an aggregated economic variable that reflects the percentage of respondents in each survey who gave a positive evaluation to the national economic situation. This variable is then interacted with survey year, similarly to models presented earlier. Results in Model 3 in Table 1 in Online appendix demonstrate that the findings remain robust even when we employ the aggregated measure. Economic effects vary much less over the years than the political ones, and in negative direction, i.e. the crisis-time effects are actually smaller than those of the pre-crisis period.

Country-level differences

Next, we examine the geographical variation in how the determinants of trust in the EU have evolved over time. We expect to find that political effects were enhanced in countries hit hardest by the crisis (H3a). To test this, we estimate three-way interaction models where individual-level evaluations are interacted with year and a bailout dummy. The latter is coded as 1 for five countries that received EU financial assistance in the wake of the European debt crisis, i.e. Cyprus, Greece, Ireland, Portugal and Spain.

The results indicate highly divergent patterns for the two country groups. Figure 3 below demonstrates that average marginal effects of both political and economic evaluations on EU attitudes were comparable for bailout and non-bailout countries up until 2011. Both components of EU trust were more pronounced in bailout countries, but, on the whole, the developments moved in parallel motion. With the European debt crisis, however, the member states took diametrically different routes. In countries that were affected the most, both the effects of domestic trust and economic considerations significantly increased compared to the pre-crisis period (Models 1 and 2 in Table 4 in Appendix). In the remaining member states, in contrast, both factors either lost importance or remained at previous levels.

Strikingly, while both political and economic factors increased in bailout countries in response to the crisis, the political component gained much more prominence. Average marginal effects of domestic trust jumped from 0.37 in 2004 to 0.53 in 2012, suggesting that at the height of the European crisis trusting national government in these member states increased the probability of trusting the EU by 53 percentage points. Economic effects, in comparison, are not only much lower, but they also fluctuate less dramatically with the crisis (0.08 in 2004 and 0.15 in 2012). In other words, while both drivers were hugely important in bailout countries during the crisis, politics mattered more when forming opinions on the EU. What is more, these patterns seem to have continued. Even in the post-crisis period, when the five countries had restored their economic stability, levels of political distrust remained high, deflating trust in the European level as well. Altogether, these findings enable us to confirm H3a, according to which the political dimension of the crisis was particularly exacerbated in the EU member states most hit by the crisis.

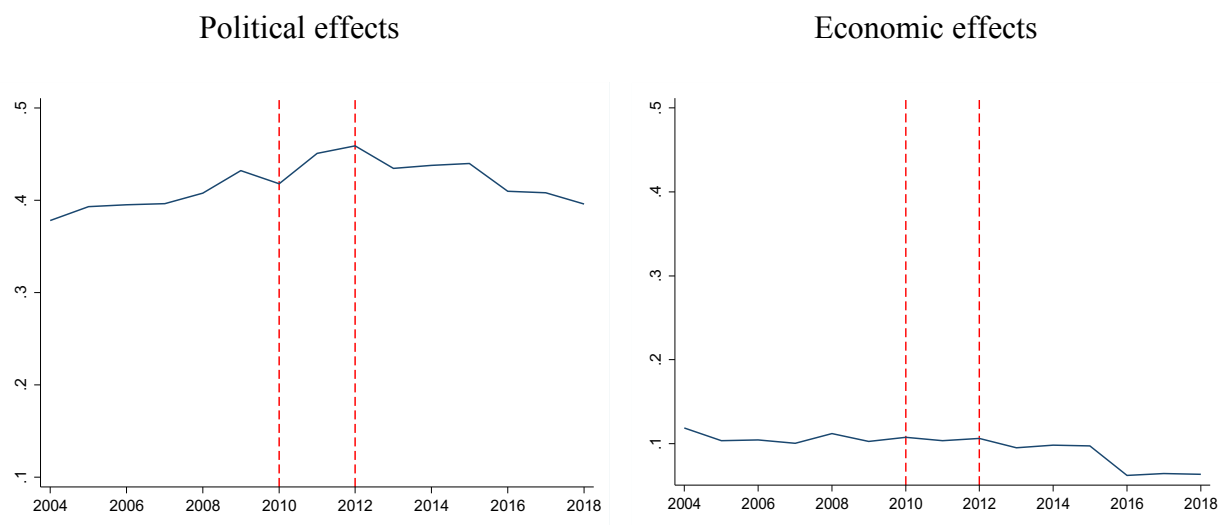Political effects   Economic effects
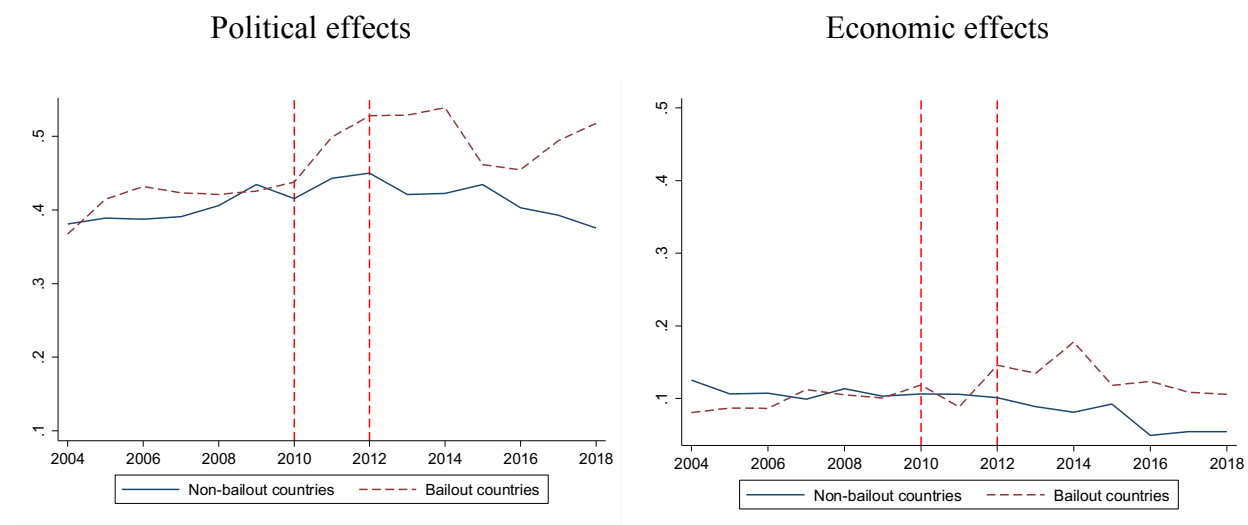
Figure 3. Political and economic effects on trust in the EU, by country group

Source: Data from Eurobarometer waves between 2004—2018.

Notes: Average marginal effects from multilevel logistic regression model. Reference lines indicate the peak of the European sovereign debt crisis between 2010 and 2012.

Just like earlier, we test the robustness of the results presented in this section in three ways. First, we estimate the models with a full set of control variables, albeit for a reduced number of surveys (Models 3-4 in Table 4 in Appendix). Second, we use GDP growth rate as an alternative way to measure the crisis (Models 1-2 in Table 2 in Online appendix). Finally, we estimate the economic effects using an aggregated variable of economic perceptions (Model 3 in Table 2 in Online appendix). By and large, all these tests lend support to our key findings: the association between individual-level explanations and EU attitudes intensified with the crisis primarily in countries that suffered more from the financial shock, and this is particularly true for the political component of EU institutional trust.

Individual-level differences

Finally, we are interested in whether the results vary between individuals. We posit that the European crisis reduced the impact of political sophistication on the extent to which domestic trust moulds EU attitudes (H3b). This will be tested by interacting the political, and for comparison the economic, variables with a measure of EU knowledge as well as year. Low knowledge is defined as reference category.

Figure 4 displays the average marginal effects. Across the entire time scale of 2004—2018, political and economic considerations have a somewhat stronger impact on the EU opinion of less sophisticated citizens. In 2004, average marginal effects of the political variable were 0.34 for the more and 0.45 for the less sophisticated. The scores for economic effects were 0.08 and 0.16, respectively. However, the lines on Figure 4 converge during or right after the European debt crisis, suggesting that group differences are dampened during extraordinary times. In 2013, for example, the political effects were virtually identical for both groups of respondents (0.45 for the less and

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0.42 for the more sophisticated). For economic effects, the differences nearly disappeared in 2011 (0.11 and 0.09, respectively) and have remained low since (see also Models 1 and 2 in Table 5 in Appendix). This indicates that during crisis times, the way in which domestic trust and economic perceptions shape EU opinion is not dependent on citizens' political knowledge.
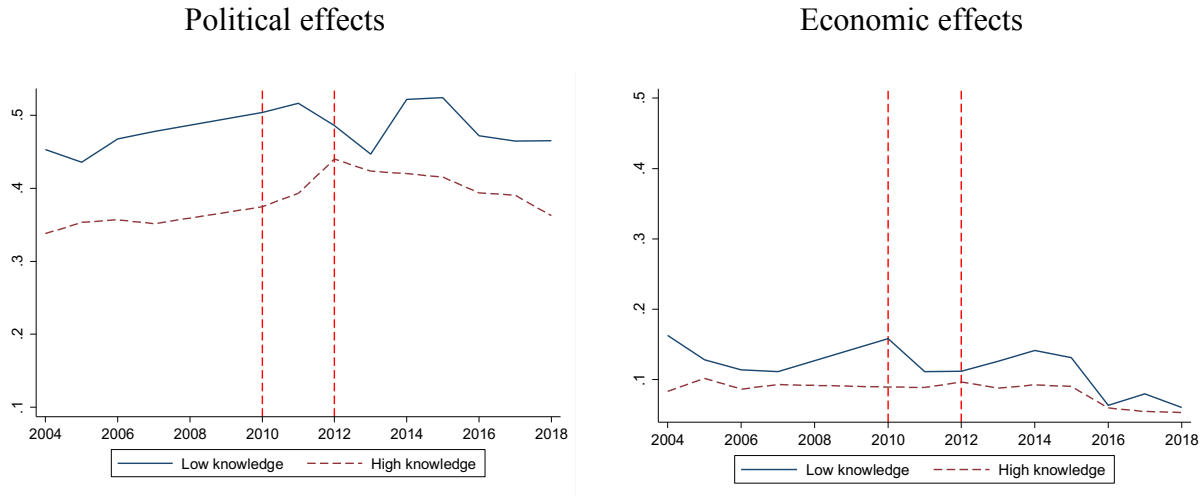
Figure 4. Political and economic effects on trust in the EU, by political sophistication
Source: Data from Eurobarometer waves between 2004—2018.
Notes: Average marginal effects from multilevel logistic regression model. Reference lines indicate the peak of the European sovereign debt crisis between 2010 and 2012.

We repeat the analysis by estimating models with a full set of control variables (Models 3-4 in Table 4 in Appendix), by using an alternative measure for the economic crisis (Models 1-2 in Table 2 in Online appendix) and finally by using an alternative operationalisation of economic evaluations (Model 3 in Table 2 in Online appendix). All of these tests indicate by and large similar results.

Discussion

This article examined the link between trust in national government on the one hand, and trust in the EU on the other. Our longitudinal and comparative models take into account time, country and individual-level variation. Using this approach, we are able to provide a comprehensive theoretical framework of this relationship. Our key findings confirm that EU attitudes are developed with reference to the domestic context. First, we show that the positive relationship between trust in domestic institutions and trust in the EU is present over time and across EU member states (see also Torcal and Christmann 2019). In fact, politics is a much stronger predictor of trust in the EU compared to economics over time, which suggests that EU attempts to improve economic performance are unlikely to be successful in terms of improving public attitudes towards European integration unless they are somewhat connected to the domestic political arena. This corroborates previous work that has explored the logics of trust in the EU in one point in time (Harteveld et al. 2014).

Second, we demonstrate that the relationship between trust at the two levels of governance is dynamic and intensifies in specific periods of crisis, i.e. what we term 'extraordinary' times. The depth of the European sovereign debt crisis increased the visibility of both EU and domestic actors in the management and resolution of the crisis, which in turn increased citizens' awareness of the interdependence of the two levels of governance. This pattern is reinforced in countries that suffered more from the crisis and where the process of politicisation of EU intervention in domestic politics was especially heightened. This finding resonates with research that argues that, in critical moments of EU integration when this intertwinement becomes more visible, trust in the domestic government 'plays a bigger role than usual in shaping views towards the EU' (Ares et al. 2017: 1092).

Yet, this finding raises the question of whether it marks a long-term change and is also present in 'ordinary' times. Our empirical findings show that this strengthened effect diminishes after the economic crisis recedes. One potential explanation is that the increased awareness of the interdependence is essentially 'superficial' and does not result from a process of deep learning. This resonates with our third key finding, i.e. that during times of crisis the relationship between domestic and European institutional trust holds independent of individuals' political sophistication. In other words, citizens across the board become aware of the constraints posed by EU integration and the interdependence of the two systems, especially in areas where the EU has policy competence (Hobolt and Tilley 2014). However, being exposed to and becoming more aware of this inter-connectedness is temporary and does not mark a long-lasting change. Future research should thus examine the conditions under which the process of learning can become more permanent. Considering that our analyses are based on cross-sectional data, future research should also examine causal effects through panel data and experimental research designs. More broadly, our findings point to the fact that the European sovereign debt crisis served to reinforce citizen awareness of the link between the domestic and EU institutional regimes, which may also be relevant for other crises that occur in the framework of European integration and globalisation, including migration and health crises.

Our study indicates that EU integration is evaluated from national vintage points, yet this process should not fully ignore the relevance of the EU level of governance. The European crisis changed the context that political actors operate in, and the context in turn transformed the way citizens evaluate regime performance at the supranational level. It is thus misleading to think about the European sovereign debt crisis strictly in economic terms. It was an institutional crisis further pronounced by the multilevel structure of EU governance. It was associated with problems of governability and lack of trust in institutions, revealing a strong political component especially in countries that were most affected by it and that became subject to external intervention. Our evidence suggests that citizens in these countries interpreted the crisis more as a crisis of political trust rather than an economic crisis.

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Appendix

Table 1. List of Eurobarometer surveys included

Survey wave	Time period	Availability of variables						
		DV	Political IV	Eco-nomic IV	Controls			
					EU know-ledge	Identity	Left-right	Other controls
EB 62.0	October-November 2004	✓	✓	✓	✓	✓	✓	✓
EB 63.4	May-June 2005	✓	✓	✓	✓		✓	✓
EB 64.2	October-November 2005	✓	✓	✓	✓	✓	✓	✓
EB 65.2	March-May 2006	✓	✓	✓	✓		✓	✓
EB 66.1	September-October 2006	✓	✓	✓	✓		✓	✓
EB 67.2	April-May 2007	✓	✓	✓	✓		✓	✓
EB 68.1	September-November 2007	✓	✓	✓			✓	✓
EB 69.2	March-May 2008	✓	✓	✓			✓	✓
EB 70.1	October-November 2008	✓	✓	✓			✓	✓
EB 71.1	January-February 2009	✓	✓	✓			✓	✓
EB 71.3	June-July 2009	✓	✓	✓			✓	✓
EB 72.4	October-November 2009	✓	✓	✓			✓	✓
EB 73.4	May 2010	✓	✓	✓	✓	✓	✓	✓
EB 74.2	November-December 2010	✓	✓	✓	✓		✓	✓
EB 75.3	May 2011	✓	✓	✓	✓		✓	✓
EB 76.3	November 2011	✓	✓	✓				✓
EB 77.3	May 2012	✓	✓	✓	✓	✓		✓
EB 78.1	November 2012	✓	✓	✓	✓			✓
EB 79.3	May 2013	✓	✓	✓	✓	✓		✓
EB 80.1	November 2013	✓	✓	✓	✓	✓		✓
EB 81.2	March 2014	✓	✓	✓		✓	✓	✓
EB 81.4	May-June 2014	✓	✓	✓	✓	✓	✓	✓
EB 82.3	November 2014	✓	✓	✓	✓	✓	✓	✓
EB 83.1	February-March 2015	✓	✓	✓			✓	✓
EB 83.3	May 2015	✓	✓	✓	✓	✓	✓	✓
EB 84.3	November 2015	✓	✓	✓	✓	✓	✓	✓
EB 85.2	May 2016	✓	✓	✓	✓	✓	✓	✓
EB 86.2	November 2016	✓	✓	✓	✓	✓	✓	✓
EB 87.3	May 2017	✓	✓	✓	✓	✓	✓	✓
EB 88.3	November 2017	✓	✓	✓	✓	✓	✓	✓
EB 89.1	March 2018	✓	✓	✓	✓	✓	✓	✓
EB 90.3	November 2018	✓	✓	✓	✓	✓	✓	✓

Table 2. Models of trust in the EU

	Model 1	Model 2	Model 3	Model 4
Independent variables				
Trusts government	2.10***	2.03***	1.95***	1.90***
	(0.01)	(0.01)	(0.01)	(0.01)
Economy positive	-	0.49***	0.35***	0.31***
		(0.01)	(0.00)	(0.01)
Control variables				
Exclusive national identity	-	-	-0.97***	-0.94***
			(0.01)	(0.01)
Medium knowledge	-	-	0.27***	0.25***
			(0.01)	(0.01)
High knowledge		-	0.47***	0.44***
			(0.01)	(0.02)
Left-right orientation	-	-	-	0.05***
				(0.00)
Age	-	-	-0.01***	-0.01***
			(0.00)	(-0.01)
Female	-	-	0.08***	0.09***
			(0.01)	(0.01)
2005	-	-	-0.33**	-0.33**
			(0.17)	(0.17)
2006	-	-	-	-
2007	-	-	-	-
2008	-	-	-	-
2009	-	-	-	-
2010	-	-	-0.35**	-0.30*
			(0.17)	(0.17)
2011	-	-	-	-
2012	-	-	-1.02***	-
			(0.17)	
2013	-	-	-0.98***	-
			(0.14)	
2014	-	-	-0.83***	-0.87***
			(0.14)	(0.14)
2015	-	-	-0.76***	-0.80***
			(0.14)	(0.15)
2016	-	-	-0.89***	-0.96***
			(0.14)	(0.15)
2017	-	-	-0.62***	-0.61***
			(0.14)	(0.14)
2018	-	-	-0.57***	-0.57***
			(0.14)	(0.14)
Constant			0.22*	0.16
			(0.12)	(0.12)
Number of observations	764,847	764,847	351,570	224,445
Number of groups	896	896	446	348

AIC	865,492	832,548	380,971	247,310
BIC	865,527	832,594	381,165	247,485

Source: Data from Eurobarometer waves between 2004—2018.

Notes: Regression coefficients from multilevel models; standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10.

Table 3. Political and economic effects on trust in the EU over time

	Model 1	Model 2	Model 3	Model 4
Independent variables				
Trusts government	1.96***	2.03***	2.02***	1.95***
	(0.04)	(0.01)	(0.06)	(0.01)
Economy positive	0.50***	0.64***	0.35***	0.63***
	(0.01)	(0.04)	(0.01)	(0.06)
Interaction terms				
2005 # Trusts government	-0.08*	-	-0.12*	-
	(0.05)		(0.07)	
2006 # Trusts government	0.01	-	-	-
	(0.05)			
2007 # Trusts government	0.11**	-	-	-
	(0.05)			
2008 # Trusts government	0.18***	-	-	-
	(0.05)			
2009 # Trusts government	0.24***	-	-	-
	(0.04)			
2010 # Trusts government	0.07	-	0.04	-
	(0.05)		(0.07)	
2011 # Trusts government	0.18***	-	-	-
	(0.05)			
2012 # Trusts government	0.19***	-	0.03	-
	(0.05)		(0.07)	
2013 # Trusts government	0.06	-	-0.03	-
	(0.05)		(0.06)	
2014 # Trusts government	0.08*	-	0.03	-
	(0.04)		(0.06)	
2015 # Trusts government	0.10**	-	-0.01	-
	(0.04)		(0.06)	
2016 # Trusts government	-0.07	-	-0.16***	-
	(0.04)		(0.06)	
2017 # Trusts government	-0.06	-	-0.13**	-
	(0.04)		(0.06)	
2018 # Trusts government	-0.11**	-	-0.17***	-
	(0.04)		(0.06)	
2005 # Economy positive	-	-0.10**	-	-0.24***
		(0.05)		(0.08)
2006 # Economy positive	-	-0.09*	-	-
		(0.05)		
2007 # Economy positive	-	-0.10**	-	-
		(0.05)		
2008 # Economy positive	-	-0.04	-	-
		(0.05)		
2009 # Economy positive	-	-0.10**	-	-
		(0.05)		
2010 # Economy positive	-	-0.08	-	-0.13*
		(0.05)		(0.07)
2011 # Economy positive	-	-0.11**	-	-
		(0.05)		
2012 # Economy positive	-	-0.09*	-	-0.25***
		(0.05)		(0.08)
2013 # Economy positive	-	-0.14***	-	-0.22***

		(0.05)		(0.07)
2014 # Economy positive	-	-0.13***	-	-0.19***
		(0.05)		(0.07)
2015 # Economy positive	-	-0.14***	-	-0.22***
		(0.05)		(0.07)
2016 # Economy positive	-	-0.32***	-	-0.38***
		(0.05)		(0.07)
2017 # Economy positive	-	-0.31***	-	-0.37***
		(0.05)		(0.07)
2018 # Economy positive	-	-0.31***	-	-0.39***
		(0.05)		(0.07)
Constant	-0.27**	-0.31***	0.20*	0.17
	(0.12)	(0.11)	(0.12)	(0.12)
Number of observations	739,233	739,233	351,570	351,570
Number of groups	896	896	446	446
AIC	832,104	832,220	380,911	380,887
BIC	832,472	832,589	381,202	381,178
	Year main effects included but not shown; control variables not included	Year main effects included but not shown; control variables not included	Year main effects included but not shown; full list of control variables included but not shown	Year main effects included but not shown; full list of control variables included but not shown

Source: Data from Eurobarometer waves between 2004—2018.

Notes: Regression coefficients from multilevel models; standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10.

Table 4. Political and economic effects on trust in the EU over time, by country group

	Model 1	Model 2	Model 3	Model 4
Independent variables				
Trusts government	1.95***	2.03***	1.96***	1.95***
	(0.04)	(0.01)	(0.06)	(0.01)
Economy positive	0.50***	0.67***	0.35***	0.67***
	(0.01)	(0.05)	(0.01)	(0.07)
Interaction terms				
2005 # Trusts government # Bailout	0.18	-	-0.22	-
	(0.12)		(0.18)	
2006 # Trusts government # Bailout	0.36***	-	-	-
	(0.12)			
2007 # Trusts government # Bailout	0.24*	-	-	-
	(0.12)			
2008 # Trusts government # Bailout	0.18	-	-	-
	(0.13)			
2009 # Trusts government # Bailout	-0.00	-	-	-
	(0.12)			
2010 # Trusts government # Bailout	0.02	-	-0.20	-
	(0.13)		(0.19)	
2011 # Trusts government # Bailout	0.21*	-	-	-
	(0.13)			
2012 # Trusts government # Bailout	0.36***	-	0.53***	-
	(0.13)		(0.19)	
2013 # Trusts government # Bailout	0.62***	-	0.43**	-
	(0.13)		(0.18)	
2014 # Trusts government # Bailout	0.58***	-	0.23	-
	(0.12)		(0.17)	
2015 # Trusts government # Bailout	0.08	-	-0.22	-
	(0.12)		(0.17)	
2016 # Trusts government # Bailout	0.20	-	-0.06	-
	(0.12)		(0.17)	
2017 # Trusts government # Bailout	0.44***	-	0.18	-
	(0.12)		(0.17)	
2018 # Trusts government # Bailout	0.69***	-	0.47***	-
	(0.12)		(0.17)	
2005 # Economy positive # Bailout	-	0.14	-	0.24
		(0.15)		(0.22)
2006 # Economy positive # Bailout	-	0.13	-	-
		(0.15)		
2007 # Economy positive # Bailout	-	0.32**	-	-
		(0.15)		
2008 # Economy positive # Bailout	-	0.20	-	-
		(0.17)		
2009 # Economy positive # Bailout	-	0.23	-	-
		(0.14)		
2010 # Economy positive # Bailout	-	0.29**	-	0.28
		(0.15)		(0.21)
2011 # Economy positive # Bailout	-	0.14	-	-
		(0.15)		
2012 # Economy positive # Bailout	-	0.48***	-	0.67***
		(0.15)		(0.22)
2013 # Economy positive # Bailout	-	0.53***	-	0.60***

	(1)	(2)	(3)	(4)
		(0.15)		(0.20)
2014 # Economy positive # Bailout	-	0.78***	-	0.75***
		(0.14)		(0.19)
2015 # Economy positive # Bailout	-	0.40***	-	0.45**
		(0.14)		(0.19)
2016 # Economy positive # Bailout	-	0.63***	-	0.63***
		(0.14)		(0.19)
2017 # Economy positive # Bailout	-	0.52***	-	0.52***
		(0.14)		(0.19)
2018 # Economy positive # Bailout	-	0.50***	-	0.53***
		(0.14)		(0.19)
Constant	-0.31***	-0.36***	-0.18	0.12
	(0.12)	(0.12)	(0.12)	(0.13)
Number of observations	739,233	739,233	351,570	351,570
Number of groups	896	896	446	446
AIC	831,576	832,023	380,513	380,761
BIC	832,290	832,736	381,019	381,267
	Year and bailout main effects included but not shown; two-way interactions included but not shown; control variables not included	Year and bailout main effects included but not shown; two-way interactions included but not shown; control variables not included	Year and bailout main effects included but not shown; two-way interactions included but not shown; full list of control variables included but not shown	Year and bailout main effects included but not shown; two-way interactions included but not shown; full list of control variables included but not shown

Source: Data from Eurobarometer waves between 2004—2018.

Notes: Regression coefficients from multilevel models; standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10.

Table 5. Political and economic effects on trust in the EU over time, by political sophistication

	Model 1	Model 2	Model 3	Model 4
Independent variables				
Trusts government	2.23***	1.97***	2.26***	1.95***
	(0.09)	(0.01)	(0.12)	(0.01)
Economy positive	0.47***	0.85**	0.35***	0.91***
	(0.01)	(0.10)	(0.01)	(0.15)
Interaction terms				
2005 # Trusts government # High knowledge	0.12	-	0.22	-
	(0.12)		(0.17)	
2006 # Trusts government # High knowledge	-0.00	-	-	-
	(0.12)			
2007 # Trusts government # High knowledge	0.04	-	-	-
	(0.14)			
2008 # Trusts government # High knowledge	-	-	-	-
2009 # Trusts government # High knowledge	-	-	-	-
2010 # Trusts government # High knowledge	-0.11	-	-0.24	-
	(0.12)		(0.19)	
2011 # Trusts government # High knowledge	-0.16	-	-	-
	(0.14)			
2012 # Trusts government # High knowledge	0.09	-	0.17	-
	(0.12)		(0.18)	
2013 # Trusts government # High knowledge	0.21*	-	0.16	-
	(0.12)		(0.16)	
2014 # Trusts government # High knowledge	-0.18	-	-0.16	-
	(0.13)		(0.17)	
2015 # Trusts government # High knowledge	-0.18	-	-0.20	-
	(0.13)		(0.17)	
2016 # Trusts government # High knowledge	-0.05	-	-0.10	-
	(0.12)		(0.16)	
2017 # Trusts government # High knowledge	0.08	-	0.07	-
	(0.12)		(0.16)	
2018 # Trusts government # High knowledge	-0.07	-	-0.10	-
	(0.12)		(0.16)	
2005 # Economy positive # High knowledge	-	0.27*	-	0.41*
		(0.14)		(0.21)
2006 # Economy positive # High knowledge	-	0.27*	-	-
		(0.14)		
2007 # Economy positive # High knowledge	-	0.34**	-	-
		(0.16)		
2008 # Economy positive # High knowledge	-	-	-	-
2009 # Economy positive # High knowledge	-	-	-	-
2010 # Economy positive # High knowledge	-	0.04	-	0.23
		(0.14)		(0.21)
2011 # Economy positive # High knowledge	-	0.27*	-	-
		(0.16)		
2012 # Economy positive # High knowledge	-	0.28*	-	0.42*
		(0.15)		(0.22)

2013 # Economy positive # High knowledge	-	0.16	-	0.32
		(0.15)		(0.20)
2014 # Economy positive # High knowledge	-	0.11	-	0.27
		(0.15)		(0.20)
2015 # Economy positive # High knowledge	-	0.16	-	0.37*
		(0.15)		(0.20)
2016 # Economy positive # High knowledge	-	0.35**	-	0.51**
		(0.15)		(0.20)
2017 # Economy positive # High knowledge	-	0.26*	-	0.45**
		(0.14)		(0.19)
2018 # Economy positive # High knowledge	-	0.35**	-	0.55***
		(0.14)		(0.19)
Constant	-0.70***	-0.70***	0.18	0.18
	(0.12)	(0.12)	(0.13)	(0.13)
Number of observations	530,789	530,789	351,570	351,570
Number of groups	644	644	446	446
AIC	594,979	595,413	380,618	380,832
BIC	595,874	596,308	381,318	381,532
	Year and knowledge main effects included but not shown; two-way interactions included but not shown; three-way interactions with medium knowledge included but not shown; control variables not included	Year and knowledge main effects included but not shown; two-way interactions included but not shown; three-way interactions with medium knowledge included but not shown; control variables not included	Year and knowledge main effects included but not shown; two-way interactions included but not shown; three-way interactions with medium knowledge included but not shown; full list of control variables included but not shown	Year and knowledge main effects included but not shown; two-way interactions included but not shown; three-way interactions with medium knowledge included but not shown; full list of control variables included but not shown

Source: Data from Eurobarometer waves between 2004—2018.

Notes: Regression coefficients from multilevel models; standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.10$.

Online appendix

Table 1. Robustness tests

	Model 1 (crisis measured with GDP growth)	**Model 2** (crisis measured with GDP growth)	**Model 3** (economic evaluations measured as aggregated)
Independent variables			
Trusts government	2.08***	2.03***	2.10***
	(0.01)	(0.01)	(0.01)
Economy good	0.49***	0.51***	3.30***
	(0.01)	(0.01)	(1.25)
Interaction terms			
GDP growth # Trusts government	-0.03***	-	-
	(0.00)		
GDP growth # Economy good	-	-0.01***	-
		(0.00)	
2004 # Economy good	Ref. category	Ref. category	Ref. category
2005 # Economy good	-	-	-1.48
			(1.64)
2006 # Economy good	-	-	-2.84*
			(1.51)
2007 # Economy good	-	-	-1.21
			(1.55)
2008 # Economy good	-	-	-0.83
			(1.66)
2009 # Economy good	-	-	-5.07***
			(1.41)
2010 # Economy good	-	-	-4.63***
			(1.52)
2011 # Economy good	-	-	-3.39**
			(1.55)
2012 # Economy good	-	-	-2.25
			(1.64)
2013 # Economy good	-	-	-2.21
			(1.52)
2014 # Economy good	-	-	-3.51**
			(1.40)
2015 # Economy good	-	-	-2.79**
			(1.41)
2016 # Economy good	-	-	-2.11
			(1.59)
2017 # Economy good	-	-	-3.18**
			(1.51)
2018 # Economy good	-	-	-2.79*
			(1.61)
Constant	-0.83***	-0.82***	-0.94***
	(0.02)	(0.02)	(0.30)
Number of observations	734,609	734,609	764,847

Number of groups	890	890	896
AIC	827,327	827,531	865,319
BIC	827,396	827,600	865,689
	Growth main effects included but not shown; control variables not included	Growth main effects included but not shown; control variables not included	Year main effects included but not shown; control variables not included

Source: Data from Eurobarometer waves between 2004—2018.

Notes: Regression coefficients from multilevel models; standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10.

Table 2. Robustness tests

	Model 1 (crisis measured with GDP growth)	Model 2 (crisis measured with GDP growth)	Model 3 (economic evaluations measured as aggregated)
Independent variables			
Trusts government	2.05***	2.03***	2.10***
	(0.01)	(0.01)	(0.01)
Economy good	0.49***	0.48***	4.17***
	(0.01)	(0.01)	(1.44)
Interaction terms			
GDP growth # Trusts government # Bailout	0.04***	-	-
	(0.00)		
GDP growth # Economy good # Bailout	-	0.00	-
		(0.00)	
2004 # Economy good # Bailout	Ref. category	Ref. category	Ref. category
2005 # Economy good # Bailout	-	-	-1.32
			(3.51)
2006 # Economy good # Bailout	-	-	2.57
			(3.47)
2007 # Economy good # Bailout	-	-	0.76
			(3.89)
2008 # Economy good # Bailout	-	-	0.31
			(5.02)
2009 # Economy good # Bailout	-	-	5.36
			(3.40)
2010 # Economy good # Bailout	-	-	6.17
			(3.92)
2011 # Economy good # Bailout	-	-	3.39
			(3.64)
2012 # Economy good # Bailout	-	-	2.14
			(5.50)
2013 # Economy good # Bailout	-	-	7.52*
			(4.00)
2014 # Economy good # Bailout	-	-	4.54
			(3.18)
2015 # Economy good # Bailout	-	-	3.38
			(3.08)
2016 # Economy good # Bailout	-	-	4.14
			(3.43)
2017 # Economy good # Bailout	-	-	4.77
			(3.21)
2018 # Economy good # Bailout	-	-	4.09
			(3.57)
Constant	-0.79***	-0.79***	-1.19***
	(0.03)	(0.03)	(0.34)
Number of observations	734,609	734,609	764,847
Number of groups	890	890	896
AIC	826,869	827,459	865,312
BIC	826,984	827,574	866,028

Growth and bailout main effects included but not shown; two-way interactions included but not shown; control variables not included	Growth and bailout main effects included but not shown; two-way interactions included but not shown; control variables not included	Year and bailout main effects included but not shown; two-way interactions included but not shown; control variables not included

Source: Data from Eurobarometer waves between 2004—2018.
Notes: Regression coefficients from multilevel models; standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10.

Table 3. Robustness tests

	Model 1 (crisis measured with GDP growth)	Model 2 (crisis measured with GDP growth)	Model 3 (economic evaluations measured as aggregated)
Independent variables			
Trusts government	2.38***	1.97***	2.04***
	(0.02)	(0.01)	(0.01)
Economy good	0.47***	0.60***	3.97***
	(0.01)	(0.02)	(1.29)
Interaction terms			
GDP growth # Trusts government # High knowledge	0.01**	-	-
	(0.01)		
GDP growth # Economy good # High knowledge	-	-0.00	-
		(0.01)	
2004 # Economy good # High knowledge	Ref. category	Ref. category	Ref. category
2005 # Economy good # High knowledge	-	-	1.44**
			(0.68)
2006 # Economy good # High knowledge	-	-	0.57
			(0.63)
2007 # Economy good # High knowledge	-	-	0.42
			(0.72)
2008 # Economy good # High knowledge	-	-	-
2009 # Economy good # High knowledge	-	-	-
2010 # Economy good # High knowledge	-	-	-1.17*
			(0.64)
2011 # Economy good # High knowledge	-	-	-0.28
			(0.73)
2012 # Economy good # High knowledge	-	-	-0.67
			(0.70)
2013 # Economy good # High knowledge	-	-	-0.31
			(0.68)
2014 # Economy good # High knowledge	-	-	0.88
			(0.66)
2015 # Economy good # High knowledge	-	-	0.27
			(0.65)
2016 # Economy good # High knowledge	-	-	1.37*
			(0.72)
2017 # Economy good # High knowledge	-	-	1.15*
			(0.63)
2018 # Economy good # High knowledge	-	-	1.28*
			(0.67)
Constant	-1.48***	-1.39***	-1.45***
	(0.03)	(0.03)	(0.30)
Number of observations	526,971	526,971	549,632
Number of groups	639	639	644
AIC	591,035	591,516	619,320
BIC	591,191	591,672	620,217

Growth and knowledge main effects included but not shown; two-way interactions included but not shown; three-way interactions with medium knowledge included but not shown; control variables not included	Growth and knowledge main effects included but not shown; two-way interactions included but not shown; three-way interactions with medium knowledge included but not shown; control variables not included	Year and knowledge main effects included but not shown; two-way interactions included but not shown; three-way interactions with medium knowledge included but not shown; control variables not included

Source: Data from Eurobarometer waves between 2004—2018.

Notes: Regression coefficients from multilevel models; standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.10.