Of losers and laggards: the interplay of material conditions and individual perceptions in the shaping of EU discontent

Jorge Díaz-Lanchasa, Aleksandra Sojka and Filippo Di Pietro

Department of Economics, Comillas Pontifical University – Faculty of Economics and Business Administration (Comillas ICADE), Madrid, Spain, jdlanchas@icade.comillas.edu
Department of Social Sciences, Carlos III University of Madrid, Getafe, Madrid, Spain, asojka@clio.uc3m.es
Facultad de Ciencias Económicas y Empresariales, Universidad de Sevilla, Sevilla, Spain, fdi@us.es

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Two principal strands of scholarship analyse the material roots of European Union (EU) discontent. Some focus on the effects of regional decline, while others examine the role of individual socioeconomic factors. This paper brings these two perspectives together. We argue that EU discontent is a multifaceted phenomenon structured by the spatially-rooted interplay between individual and regional material conditions and subjective perceptions. We apply PLS-SEM to Eurobarometer public opinion data (2018–2019) and find that the geographical location and the socioeconomic position shape EU discontent directly. However, material factors’ relevance for EU discontent is the greatest in structuring individual future expectations. Furthermore, democratic dissatisfaction turns out to be a key factor, pointing to the importance of institutional perceptions in the geography of discontent.

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Introduction

Recent crises have triggered an unprecedented politicisation of supranational integration in Europe (Hutter and Kriesi, 2019). Consequently, the European Union (EU) has increasingly found itself on the receiving end of popular discontent. To what extent the backlash against European integration is related to citizens’ material conditions has become one of the central questions in research on EU public opinion. Resulting explanations include macro accounts of economic crisis and global economic change (Gomez, 2014; Foster and Frieden, 2017; Nicoli, 2017; Rodrik, 2018) and uneven economic development with a focus on the regional ‘laggards’ under the so-called ‘places that don’t matter’ perspective (Dijkstra et al., 2020; Rodríguez-Pose, 2018). Existing studies also point to material factors’ relevance at the individual level (Bornschier, 2010; Foster and Frieden, 2017; Georgiadou et al., 2018; Hobolt, 2016; Walter, 2010). In particular,
a growing body of work suggests that EU backlash is rooted in the reaction among citizens unable to reap benefits from increasingly globalised economies (Hobolt, 2016; Kriesi et al., 2006, 2012; Lechler, 2019; Walter, 2010). The latter perspective highlights the increasing divergence in contemporary societies between individuals who benefit from the opening up of economies and those citizens who lose out due to their lower human capital and unfavourable structural position, the so-called ‘losers of globalisation.’ This paper aims to connect both perspectives. We ask how individual and regional economic conditions shape current geographies of EU discontent. We hypothesise that adverse material factors at both levels (individual and regional) structure EU discontent directly and indirectly through their link to citizens’ perceptions and future expectations.

To assess our hypotheses, we explore recent individual Eurobarometer (EB) survey data and regional economic data with a novel empirical approach based on Partial Least Square (PLS-SEM) estimators. This technique is particularly suitable to the topic at hand since it allows for exploring determinants of latent concepts. EU discontent and other types of individual perceptions often constitute multidimensional phenomena, hard to operationalise with single variables. We rely on PLS-SEM estimators to adequately capture these non-observable latent concepts, i.e. EU discontent and individual future expectations. Moreover, since subjective perceptions are not independent of individual and contextual economic circumstances, we need to account for their interplay. In this sense, the chosen method makes it possible to disentangle the direct and indirect, induced effects of a set of individual and contextual factors expected to shape opinions regarding the EU.

In line with the existing studies of the geography of discontent (Alabrese et al., 2019; Dijkstra et al., 2020; Hendrickson et al., 2018; McCann, 2020; Rodríguez-Pose, 2018), we find that both adverse socioeconomic conditions and regional contextual factors directly trigger EU backlash. Our unique contribution is to show how the indirect influence of both mechanisms is far more significant by structuring individual perceptions, especially future expectations. To the best of our knowledge, this differentiation between direct and indirect effects of material conditions on EU discontent has not previously been empirically explored. Thus, our paper contributes to a more accurate understanding of subjective perceptions’ role in shaping social discontent (McCann, 2020). More generally, we address the interaction between material and non-material factors, identified as a gap in existing empirical research on the broader theme of backlash to globalisation (Walter, 2021). Finally, drawing on literature in EU public opinion, we find that the democratic disaffection with national institutions, only partially triggered by adverse economic conditions, primarily drives EU discontent. We discuss the consequences of these findings for the future of European integration in the final section of the paper.

The paper is organised as follows. We first map the existing studies on the sources of EU discontent. On this basis, we then formulate our theoretical framework and present the study’s hypotheses. In the third part, we discuss our data and empirical strategy. The results are presented and discussed in the fourth section. We conclude the paper with a discussion of the broader implications of our study.

EU discontent in times of crises
EU politicisation is not a new phenomenon. Some scholars even consider contestation a persistent European integration characteristic (Hooghe and Marks, 2009; Usherwood and Startin, 2013). Still, dissatisfaction with the EU constitutes a fundamental expression of social discontent in contemporary European societies. Scholars have studied different phenomena as proxies of EU discontent: the rise in
support for eurosceptic parties (Dijkstra et al., 2020; Lechler, 2019; Nicoli, 2017; Nicoli and Reinl, 2020; Rodríguez-Pose and Dijkstra, 2020; Schraff, 2019; Taggart and Szczerbiak, 2018); the loss of political trust in European institutions (Armingeon and Ceka, 2014; Foster and Frieden, 2017; Torcal and Christmann, 2019); public Euroscepticism (de Vries, 2018; Gomez, 2014; Lechler, 2019); and the vote to leave in the Brexit referendum (Abreu and Öner, 2020; Alabrese et al., 2019; Garretsen et al., 2018; Hobolt, 2016; Los et al., 2017). The diversity of these studies illustrates how discontent with the EU manifests itself in different ways.

Within political science, research has focused on exploring party-based and public Euroscepticism, defined as any degree of opposition to or criticism of EU policies and institutions (Vasilopoulou, 2018). The latter is a multidimensional concept that can encompass contestation of the EU regime and/or its policies (De Vries, 2018), support and voting for eurosceptic parties (Dijkstra et al., 2020; Georgiadou et al., 2018; Nicoli, 2017) and possibly even more elements (Boomgaarden et al., 2011). Despite such multidimensionality, two main empirical approaches emerge from the existing studies of public Euroscepticism. On the one hand, we can explore it as a stance against the EU or its policies, channelled through the vote for parties opposed to or critical of European integration. On the other hand, we can operationalise it as a negative individual attitude towards the EU (Nicoli, 2017, p. 4).

Whatever the measure of EU discontent, there can be no doubt that the last decade’s economic, political and social crises brought the EU’s politicisation to new heights (Hutter and Kriesi, 2019; Rodríguez-Pose, 2018). Consequently, social scientists have dedicated much attention to the sources of dissatisfaction with the EU. Existing studies of EU attitudes at the individual level highlight material interests alongside other factors, such as domestic proxies and cognitive shortcuts (Anderson, 1998; Sánchez Cuenca, 2000), political cues (De Vries and Edwards, 2009; Hooghe, 2007) and identities (Hooghe and Marks, 2009) as key drivers of EU contestation and opposition (see, Hobolt and De Vries, 2016 for an overview of research on EU public opinion). However, since European integration is rooted in the opening of markets, it is no surprise that the utilitarian approach has been particularly prominent among these explanations. Accordingly, EU attitudes should be affected by the objective or perceived economic benefits of integration for individuals and/or their country’s economy (Hobolt, 2016; Hobolt and de Vries, 2016). It follows that those individuals whose jobs or wages are at risk from increasing integration and trade liberalisation should be more hostile towards the EU (Gabel, 1998; Gabel and Palmer, 1995; Tucker et al., 2002). Therefore, the utilitarian approach suggests the relevance of the ‘losers of globalisation’ thesis for understanding the roots of EU discontent (Bornschier, 2010; Foster and Frieden, 2017; Georgiadou et al., 2018; Hobolt, 2016; Walter, 2010). The latter idea has been explored in depth by Kriesi et al. (2006). These authors argue that changes associated with globalisation produce a stratification of citizens into winners and losers of these processes, leading them to adopt opposing views toward the different aspects of the opening of borders (see also Teney et al., 2014). From this perspective, EU discontent is potentially rooted in the negative perceptions of individuals who do not enjoy or perceive the benefits of integration due to their lower levels of human capital and their uncompetitive location within the labour market.

We find a complementary perspective on the impact of material factors in studies that account for contextual factors such as regional economic decline (Dijkstra et al., 2020; Rodríguez-Pose, 2018), global economic dislocations (Rodrik, 2018), and insufficient regional compensation (Rodríguez-Pose and Dijkstra, 2020; Schraff, 2019). Recent
empirical research on EU attitudes shows that public Euroscepticism has increased since the 2008 Financial Crisis (Foster and Frieden, 2017; Gomez, 2014; Ioannou et al., 2015; Nicoli, 2017). Analyses of far-right (Funke et al., 2016) and hard eurosceptic political parties (Nicoli, 2017) similarly find a significant increase in the share of votes for these kinds of political actors in the aftermath of the crisis. Therefore, we find convincing arguments for a direct link between the shape of the economy and expressions of social discontent with the EU.

In addition, literature in economic geography suggests that the spatially divergent patterns of EU discontent are the outcome of more long-term processes (Dijkstra et al., 2020; Los et al., 2017; McCann, 2020; Rodríguez-Pose, 2018; Schraff, 2019). These recent studies propose that regional economic and industrial decline processes trigger individual perceptions of unfairness and lack of future opportunities. When these views are reinforced by discourses on the economic potential of other regions, they result in heightened social discontent in communities of ‘the left-behind’ (Martin et al., 2018) or ‘places that don’t matter’ (Rodríguez-Pose, 2018). Empirically, these analyses show that citizens in economically depressed regions, which are suffering from brain drain, ageing of their population and long-term industrial decline, are more likely to opt for political parties that are opposed to the EU (McCann, 2018; Rodríguez-Pose and Dijkstra, 2020). The authors argue that this is because the benefits of greater mobility and connectivity associated with EU membership are more difficult to grasp in these lagging regions than in the more dynamic areas. But it is important to note that social discontent is not the effect of such grievances in the most impoverished left-behind regions. According to this perspective, it is primarily the relatively well-off but currently stagnated regions, once seen as exemplary and flourishing, that may turn into places more reluctant to support EU integration (Dijkstra et al., 2020).

Moreover, these studies indicate a second type of regional effect: higher eurosceptic vote share in wealthier regions once the authors account for the processes of economic decline (Dijkstra et al., 2020). Accordingly, the exact mechanism behind regional economic differences’ relevance could be more complex than simply the revenge of lagging regions. To clarify the mechanism behind the latter finding, we look to studies of EU public opinion which suggest that citizens implement the logic of benchmarking in their evaluations of the EU, using national conditions as a reference point (De Vries, 2018). Citizens in countries with higher aggregate trust in national institutions will tend to trust the EU less, even if, at the individual level, national and EU trust tend to be congruent (Sánchez Cuenca, 2000; Torcal and Christmann, 2019). These findings suggest that a similar logic of benchmarking, or individual-level congruence and aggregate-level compensation, could be at work in terms of the regional patterns of EU discontent.

Last but not least, literature on EU public opinion also shows that, independently of the objective state of the economy, it is the subjective perceptions of economic performance that shape support or opposition to European integration (Christin, 2005; De Vries, 2018; Eichenberg and Dalton, 1993; Gabel and Palmer, 1995; Gomez, 2014; McCann, 2020; Nicoli and Reipl, 2020). These studies suggest that regardless of the individual position on the labour market or within the spatially divergent regional development patterns, subjective perceptions should be key drivers of EU discontent.

Our paper brings these different strands of literature together to re-assess how individual and regional economic conditions simultaneously structure current geographies of EU discontent. We know that citizens in regions lagging in economic growth are more likely to
opt for political parties as opposed to the EU. The utilitarian approach in EU public opinion studies leads us to believe that EU discontent is potentially rooted in the negative perceptions of individuals, who do not enjoy or perceive the benefits of integration. We propose to bridge these two perspectives on the roots of EU discontent by considering the role of subjective perceptions structured through individual and regional material conditions.

The individual and regional determinants of EU discontent: insights and hypotheses

We approach EU discontent as expressed in individual opinions on different aspects of the EU. We argue that the alternative approach, operationalising EU discontent as a eurosceptic vote, might not capture its full extent for two reasons. Firstly, even if citizens are unhappy with EU integration, they might not necessarily be automatically convinced by the electoral offer of eurosceptic parties, which tend to be more ideologically extreme (De Vries and Edwards, 2009; Hutter and Kriesi, 2019). Therefore, EU discontent measure based on eurosceptic vote could be missing those dissatisfied with the EU but ideologically moderate. Secondly, voting behaviour on EU issues continues to be driven by the second-order logic (Hobolt, 2016); it remains determined mainly by the domestic political cleavages rather than any meaningful European policy orientations (Reif and Schmitt, 1980). Consequently, a vote for a eurosceptic party could be either a protest vote or a way to punish the incumbent government, rather than an expression of a deep-seated EU opinion. In other words, the eurosceptic vote as a proxy of EU discontent entails problematic assumptions about the way voters make up their minds, especially concerning such an abstract and relatively unknown issue as European integration. We focus on abroad range of negative EU perceptions to remediate this, as we consider them a more accurate indicator of such potentially multidimensional phenomenon.

The paper focuses on how the spatially diverse patterns of EU dissatisfaction are constituted by an interplay between contextual elements (regional economic differences), individual socioeconomic factors, and their subjective perceptions. Several theoretical contributions inform our understanding of how these three elements are linked to structuring EU discontent geographies.3

At the individual level, and drawing on the utilitarian approach to EU attitudes, we formulate our first hypothesis regarding the direct relation of individual material interests on EU discontent. We expect that those who lack the skills to prosper in an increasingly open economy should be more dissatisfied with European integration. Consequently:

H1a. Individuals with lower levels of education and those who are unemployed will exhibit higher levels of EU discontent.

At the contextual level, our first hypothesis considers the role of regional processes of relative economic decline. As pointed out in the previous section, existing research on the geography of discontent indicates that individuals in regions that have been lagging in their economic growth tend to harbour greater resentment towards the EU. We expect to verify such effect in our data as well:

H2a: Individuals in regions that have stagnated economically will exhibit higher levels of EU discontent.

Studies on EU attitudes indicate the relevance of subjective perceptions for negative EU opinions. Similarly, such a mechanism is implied but not empirically tested in the ‘places that don’t matter’ literature (Rodríguez-Pose, 2018). Drawing on these insights, we can
hypothesise that EU discontent is shaped by a subjective perception of one’s situation, particularly a negative future outlook. To account for the relevance of individual perceptions, we formulate our third hypothesis on the direct relation of subjective opinions on EU discontent:

**H1b. Negative future expectations will be associated with higher levels of individual EU discontent.**

Even though negative future expectations might be driving EU discontent, we contend that their impact is not independent of the unfavourable structural position within a rapidly globalising economy. Thus, our two remaining hypotheses account for the interplay between objective (material) and subjective factors that structure EU discontent at the individual level. In particular, we argue that negative future expectations should be rooted in an unfavourable position in the labour market, in line with the ‘losers of globalisation’ thesis:

**H1c: Individuals with lower levels of education and those who are unemployed will have worse individual future expectations.**

We also know from the literature on EU attitudes that the state of the economy affects individual opinions. In particular, we expect that the regional context in which individuals live will influence their future expectations and their position in the labour market. We hypothesise that individuals living in more impoverished regions will tend to be more pessimistic about their future. Therefore, at the individual level, we expect adverse economic context to contribute to EU discontent through more negative future expectations, in line with H1b. Accordingly, our last hypothesis reads:

**H2b: Individuals in poorer regions will exhibit more negative individual future expectations.**

This last hypothesis implies that we anticipate individual-level congruence between material conditions and future expectations. However, at the aggregate (regional) level, there might be a compensation process at work, where more impoverished regions will look to the EU for financial help and tend to be, on average, less eurosceptic (De Vries, 2018, see also Dijkstra et al., 2020).

Finally, to satisfactorily evaluate the explanatory strength of the ‘losers of globalisation’ and ‘places that don’t matter’ theses, and their interplay with subjective perceptions, we need to account for the most relevant alternative explanation of individual EU discontent. We know from the literature on EU attitudes that citizens tend to evaluate the EU with the help of domestic proxies. In particular, the degree of satisfaction with national institutions and the quality of democracy constitute key points of reference for such cognitive shortcuts (Anderson, 1998; Armingeon and Ceka, 2014; De Vries, 2018; Sánchez-Cuenca, 2000; Torcal and Christmann, 2019). Moreover, recent studies on the effects of the economic crisis indicate that domestic political attitudes remain critical in explaining the more recent rise of public euroscepticism (Real-Dato and Sojka, 2020; Serricchio et al., 2013; Torcal and Christmann, 2019). This literature strongly suggests that we should address the role of trust in democratic institutions in our theoretical framework. Additionally, disaffection with institutions and democratic systems is not independent of individual socioeconomic conditions. As a result, to test our hypotheses regarding the material sources of EU discontent correctly, we need to control for the degree of democratic disaffection and its potential interplay with the objective location as ‘losers of globalisation.’

Our theoretical expectations are summarised in Figure 1. The figure displays the proposed hypotheses and the anticipated relationships between them. The hypotheses are operationalised with a set of multidimensional variables.
As argued in the introduction, using single variables to capture non-observable concepts would limit the validity of our analyses. Instead, we use composite multi-item indicators to extract information from a set of variables (items) and estimate the underlying latent concepts (composite indicators). In Figure 1, these composite indicators are represented by bubbles, whereas squares and outward arrows stand for the items included in each one of the composite indicators. The expected relationships between composite indicators are marked with thin inward arrows and the sign of the expected estimated relationship. Finally, the combination of direct relationships among composite indicators leads to indirect, induced effects between them, portrayed by dash line arrows in Figure 1.

Our composite indicators comprise individual-level variables ($i$) and regional (contextual) variables ($R$). The composite indicator of EU discontent constitutes the dependent indicator. It is directly associated with the individual-level indicators of Losers of globalisation, Negative future expectations and Democratic disaffection. Hypotheses H1a and H1b state that individuals’ objective conditions and negative future perceptions influence EU discontent. Moreover, hypothesis H1c considers that negative future expectations are grounded in socioeconomic conditions. This translates into the relationship from the Losers of globalisation indicator to Negative future expectations. If this relation holds, it also means that Losers of globalisation has an indirect, induced effect...
on EU discontent through individuals’ negative perceptions of the future.

According to the literature on EU attitudes, EU discontent could be affected by individuals’ disaffection with the democratic and institutional system. This second relation is represented with a direct link between the Losers of globalisation and Democratic disaffection indicators. This relationship is included in our framework as a control. It incorporates another indirect relation from the Losers of globalisation indicator to the EU discontent, operationalising its presumed effect on individuals’ democratic disaffection.

At the regional level, we expect that EU discontent should be related to Economic stagnation and Regional Wealth. Economic stagnation accounts for the long-term economic decline of a region in line with the ‘places that don’t matter’ thesis. It differentiates those regions chronically suffering from a lower economic growth than the mean regional growth in their country. According to hypothesis H2a, Economic stagnation is expected to correlate with the EU discontent indicator positively.

The Regional Wealth variable focuses on the static economic characteristics of the region in which individuals live. Hypothesis H2b proposes that individuals in more economically depressed areas should exhibit a worse future outlook. We portray this relation by linking the Regional Wealth variable to the individual-level indicator of Negative future expectations. Such a link also suggests an indirect relationship of Regional Wealth to EU discontent via the structuring of individual future outlook. According to our H1b that focuses on the impact of future expectations on EU discontent, higher Regional Wealth should indirectly reduce EU discontent through improved future expectations of citizens located in these wealthier regions. In contrast, and in line with the benchmark theory (De Vries, 2018) and previous findings in the literature (Dijkstra et al., 2020), Regional Wealth should also positively relate to EU discontent. In other words, we anticipate two opposed impacts of Regional Wealth: at the individual level, living in a more impoverished region should deteriorate future expectations and increase EU discontent, however at the regional level, all else being constant, citizens in more prosperous regions should exhibit higher levels of EU dissatisfaction.

Data and methodology

Data

To test our hypotheses, we construct a database that combines individual and regional information. For the individual-level data, we use public opinion surveys from the Eurobarometer (EB). In particular, we analyse data from the surveys fielded in 2018 (EB 90.1) and 2019 (EB 91.1). For each of the composite indicators in Figure 1, we collect a set of questions repeated in both EB waves.4 We merge the EB data to get a complete sample of 53,984 individual observations. We also use the EB’s geographical information on the NUTS (Nomenclature of Territorial Units for Statistics) Eurostat region in which the individual is located. It provides us with information for the whole sample and a total of 194 NUTS regions and 28 EU countries.5

Compared to previous works on the geography of discontent (Dijkstra et al., 2020; Georgiadou et al., 2018), our EU discontent indicator goes beyond the standard single-variable operationalisations of EU support or eurosceptic vote. As argued before, focusing only on anti-EU vote ignores the bounded rationality of voters and fails to capture the multidimensionality of such a complex phenomenon as EU discontent. To overcome this limitation, we create a composite indicator grounded in individual EB survey questions on an extensive list of EU topics. These topics are operationalised as items and include a negative image of the EU (EU_BadImage, EU_{i}); dissatisfaction with EU democracy (EU_Dem_Dissatisfaction, EU_{i}); and a perception that nation’s
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interests are not well-represented within the EU (National_Interest, EU3); a lack of trust in the EU (NoTrust_EU, EU4); and a negative perception of the EU’s future direction (EU_WrongDirection, EU5).

The composite indicator of Loser of globalisation operationalises individuals’ socioeconomic characteristics and consists of two elements: whether an individual has a low level of education (Low education, L1) and whether they are unemployed (Unemployed, L2). Education level and employment are the primary individual attributes determining whether one loses out or reaps benefits in the processes of globalisation and European integration (Bornschier, 2010; Kriesi et al., 2006, 2012). Higher education levels provide citizens with the necessary skills to profit from the opening up of borders and better compete in a globalised economy. Unemployment status, on the other hand, indicates that the individual in question is not thriving in the labour market, independently of whether their position is due to structural change related to globalisation or not.

For the Negative future expectations indicator, we gather questions from the EB related to individuals’ subjective perception of their economic and life situation in the future (over the next 12 months) and the anticipated economic situation of one’s country. Specifically, this indicator includes individuals’ future expectations regarding a worsening of their household’s financial situation (Worse_Financial, E1); deterioration of employment conditions (Worse_Job, E2); worsening in the country’s economic situation (Worse_Situation, E3); and a negative expectation regarding future life satisfaction (Negative_Satisfaction, E4).

Finally, we build the Democratic disaffection indicator using questions that capture individual trust in national democratic institutions following the literature on domestic bases of EU support (Sánchez-Cuenca, 2010). This indicator includes dissatisfaction with the way national democracy works (NatDem_Dissatisfaction, D1) and a lack of trust in the national government (NoTrust_Government, D2), the national parliament (NoTrust_Parliament, D3), and the national political parties (NoTrust_Parties, D4).

Our database is completed with regional information that aims to test the hypotheses regarding the contextual elements of the ‘places that don’t matter’ perspective on EU discontent. This information is based on NUTS-2 and NUTS-1 gross domestic product (GDP) per capita between 2000 and 2017 and is obtained from Eurostat and ARDECO (Annual Regional Database of the European Commission’s Directorate General for Regional and Urban Policy; European Commission). The data capture the static and dynamic economic characteristics of a region. On the one hand, we control for the economic structure of regions (Regional Wealth, R1) using regional GDP per capita in 2017. On the other hand, regional growth dynamics is operationalised by a dummy variable (Economic Stagnation 2000–2017, R2) that takes the value of (1) when the average economic growth of a region is below the average regional economic growth in the country in the period 2000–2017, and (0) otherwise.

Methodology

Figure 1 displays a set of theoretical relationships between our composite indicators. We apply partial least squares structural equation modelling (PLS-SEM),\(^6\) first to estimate the composite indicators and, then, to empirically assess these relationships among them. The PLS-SEM estimators are defined by a system of equations composed of two sets of linear equations that aim to minimise the residual variances of a set of items and composite indicators (Buitrago et al., 2019; Hair et al., 2013; Lohmöller, 1989). The first equation, the measurement model, captures the link between a non-observable composite indicator and the observable items, in our case, the EB survey questions. Outward arrows represent these
links in Figure 1. The relationships between the items and the final composite indicators are estimated by loading factors that extract the variance information from the items. The following linear Equation (1) accounts for these loading factors:

\[ Y_{ji} = \sum_{j=1}^{J} l_{ji} \cdot x_{ji} + \varepsilon_{ji} \]  

Where \( Y_{ji} \) is the \( j \) composite indicator for individual \( i \), \( x_{ji} \) is the \( j \) observed item of individual \( i \), \( l_{ji} \) is the loading factor between \( x_{ji} \) and \( Y_{ji} \), and \( \varepsilon_{ji} \) represents the random measurement error (Sarstedt et al., 2016).

The second equation, the structural model, estimates the relations between a given dependent composite indicator (i.e. \( EU \) Discontent) and other independent composite indicators (Buitrago et al., 2019). These relations are represented by inward arrows in Figure 1 and are estimated according to the following equation:

\[ Y_{qi} = \sum_{j=1}^{J} \beta_{jq} Y_{ji} + \varepsilon_{qi} \]  

Where \( Y_{qi} \) is the \( q \) dependent composite indicator for individual \( i \), \( \beta_{jq} \) is the coefficient linking \( j \) independent composite indicator with the \( q \) dependent composite indicator, \( J \) is the number of total composite indicators having effects on \( Y_{qi} \) and \( \varepsilon_{qi} \) represents the random error. In this case, the estimation of the \( \beta_{jq} \) coefficients is obtained by partial Ordinary Least Squares (OLS) regressions between the dependent and the independent composite indicators, respectively. Note that Equation (2) establishes as many direct \( j-q \) relationships as theoretically proposed. That is, it captures a direct effect of a given independent indicator \( Y_{ji} \) on an alternative indicator \( Y_{qi} \). Moreover, this latter indicator \( Y_{qi} \) might have an additional relation with another \( Y_{hi} \) indicator. In this case, the PLS-SEM estimator would be, consequently, estimating the indirect induced effect of the former \( Y_{ji} \) on the final \( Y_{hi} \) indicator. The latter is represented by dash line arrows in Figure 1. Note that the indicators of Losers of globalisation and Regional Wealth have these two types of effects. That is, they have a direct one on \( EU \) discontent plus an indirect, induced effect through the indicators of Democratic Disaffection and Negative future expectations. We discuss these differences in detail in the results section.

**Results**

**Descriptive results**

We start the analysis by descriptively examining our composite indicator of \( EU \) Discontent. Thanks to the PLS-SEM, we can predict individual scores for the \( EU \) discontent indicator and aggregate them at the country level for each EU member state (values plotted in Figure 2). Our composite measure of \( EU \) Discontent takes an average value of 0.439 for the whole EU with a significant cross-country heterogeneity. The ‘usual eurosceptic suspects’ such as Greece (0.628), the Czech Republic (0.526) and the UK (0.505), as well as the founding member states of France (0.525) and Italy (0.506), are among the countries with the highest values of \( EU \) discontent. On the other end of our scale, Malta (0.258), Lithuania (0.260), Ireland (0.264) and Portugal (0.292) present the lowest values of aggregate \( EU \) discontent. Germany (0.383), Finland (0.395), Belgium (0.402) and Croatia (0.403) place around the mean for the 28 EU member states. Such significant cross-national variation suggests possible country-level factors that affect \( EU \) discontent at the individual level. Thus, we include country fixed effects in all the models to account for the possibility of such influence.

As argued in the theoretical section, EU discontent is expected to be spatially diverse and vary according to the economic performance
of each region. We plot the distribution of our EU discontent indicator across the NUTS-2 and NUTS-1 regions (using NUTS 2013 classification) in Figure 3. EU discontent is highest in the Greek, Czech and Slovak regions, as well as in the North-Eastern parts of France and the Southern regions of Belgium. Among the NUTS-1 regions, those in the Western part of the UK, the central part of Italy, and the Eastern regions in Germany exhibit relatively high EU discontent levels. Note that the spatial heterogeneity in Figure 3 goes in line, on the one hand, with previous works showing the geography of discontent through eurosceptic votes (Dijkstra et al., 2020) and, on the other hand, with our hypothesis H2a, which indicates that individuals in economically stagnated regions should present higher levels of EU discontent. To check this last assumption, we compare the average levels of EU discontent in economically stagnated areas with those not classified as such. We differentiate regions according to our Economic stagnation (2000–2017) variable, as previously explained. We perform a means test that gives us a value of -8.49, leading us to reject the hypothesis of similar EU discontent levels between these two groups of regions. Therefore, we find evidence on the differences of EU discontent depending on regional economic performance, in line with hypothesis H2a.

Our theoretical framework suggests that the EU discontent indicator should also present differences by individuals’ socioeconomic characteristics. We plot the weighted average distribution of this indicator across the two proxies for the Losers of globalisation, i.e., education level and employment status, to check whether our data is consistent with such expectations (Figure 4). We find that EU discontent is higher

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**Figure 2.** EU discontent, weighted average value by country. Note: The graph depicts the country weighted average of the EU discontent composite indicator, normalised values. Weights are individual sample weights from the EB. The dashed line indicates the EU-28 mean. Source: EB 90.1 (2018) and EB 91.1 (2019).
among individuals with lower education levels (0.520) when compared to those with medium or high education levels (0.420). This finding is in line with our initial hypotheses, as well as with the results of the research on EU attitudes more broadly (Hakhverdian et al., 2013). The situation is similar when we analyse the effect of unemployment. Individuals who are
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currently unemployed (0.500) tend to harbour significantly higher EU discontent levels than those in employment or retired (0.430). To verify these differences, we perform a series of mean tests among the two groups, in particular, ‘low education level vs medium/high education level’ and ‘unemployed vs employed/retired.’ In both cases, we reject the null hypotheses of equal means across the corresponding groups. Therefore, the descriptive results for these two proxies are in line with our hypothesis H1a.

Measurement model

The PLS-SEM estimation applies a two-stage estimation procedure. In the first step, we estimate a measurement model using Equation (1). It allows us to extract the information from all the items included in each composite indicator employing loading factors. Values of loading factors around a cut-off point of 0.7 indicate that the item in question contributes enough variance to the corresponding composite indicator (Carmines and Zeller, 1979). These results are summarised in Figure 5.
EU Discontent is mainly explained by the items on the negative image of the EU (EU_BadImage), dissatisfaction with EU democracy (EUDem_Dissatisfaction) and the lack of trust in the EU (NoTrust_EU). The other two items (National_Interest and EU_WrongDirection), although less relevant, provide further information and variability to EU Discontent. For the Losers of globalisation indicator, both Low_Education and Unemployed reach the reliability thresholds, but the Unemployed item offers the most significant contribution to this composite indicator. For the indicator of Negative future expectations, negative life satisfaction in the future (Negative_Satisfaction) is the key item and, to a lesser extent, the expectation of a deteriorating household financial situation (Worse_Financial). For Democratic disaffection, all the items are highly reliable, especially those related to trust in national institutions (NoTrust_Government and NoTrust_Parliament). In contrast to attitudinal elements, contextual factors are only measured by a single item that captures the complete information with a loading factor of 1.8.

**Structural model**

In the second step of the PLS-SEM procedure, we estimate the structural model according to Equation (2). Figure 6 summarises the results, including the (standardised) beta coefficients. All the coefficients in our models are statistically significant. Focusing, first, on the individual-level (i) factors, the indicator for Losers of globalisation has three direct effects, one on the Negative future expectations (0.131), another one (0.040) on EU discontent and the

![Figure 6](https://academic.oup.com/cjres/advance-article/doi/10.1093/cjres/rsab022/6356795)
last one on Democratic disaffection (0.092). These results are in line with hypotheses H1a and H1c and create a total induced effect from the Loser of globalisation on EU discontent of 0.062. This indirect effect is divided into the one coming through the Democratic Disaffection (0.042) and the second one from the Negative future expectations indicator (0.019). Moreover, the indicator of Negative future expectations is also highly relevant with a coefficient value of 0.148. These results align with our hypotheses H1a, H1b and H1c regarding the interplay of unfavourable position in the labour market and negative future prospects as underlying factors of EU discontent. Additionally, our control for the level of Democratic disaffection turns out to be the leading indicator with the highest coefficient (0.459) in the whole model. Overall, our findings suggest that individual perceptions and, in particular, future prospects driven by material conditions and the view of democratic institutions, are key in shaping EU discontent.

Regarding the regional factors (R), the results are coherent with our hypotheses. The Economic stagnation indicator on the long-term growth dynamics has a positive and significant coefficient (0.036). In other words, citizens living in economically stagnated regions relative to other parts of their country tend to exhibit higher levels of EU discontent. This result supports previous findings on the European backlash (Dijkstra et al., 2020) and our hypothesis H2a. The Regional Wealth indicator that accounts for a region’s static economic conditions in 2017 has a notable positive contribution (0.151) to the level of individual EU discontent. But regional economic differences also directly and negatively (-0.206) affect individual-level Negative future expectations. These findings suggest that perceptions of the future are worse the more impoverished (lower Regional Wealth) is the region in which one is located, validating hypothesis H2b. The latter creates an additional indirect negative effect from the Regional Wealth indicator to the EU discontent indicator (-0.03), as anticipated. These findings, when taken together, indicate a double influence of Regional Wealth on EU discontent. On the one hand, regional economic development has a direct and positive relation to EU discontent. This translates into higher EU discontent for individuals who live in wealthier regions and lower levels of dissatisfaction with the EU for individuals living in poorer regions, in line with the logic of regional benchmarking explained before. At the same time, when focusing on the individual level, we also find an indirect and inverse (negative) relation through the structuring of the future outlook. Thus, the second effect of differences in Regional Wealth comes through the structuring of individual perceptions: the worse the economic situation of a region, the worse the future expectations of its inhabitants, and the greater the potential for EU discontent. Overall, these findings offer a more nuanced understanding of the relevance of regional economic context found in previous studies on the geography of EU discontent.

Finally, the structural model has an R² value of 31.4% and a Q² value of 0.155, offering support to the predictive features of our model. However, both the R² and the Q² present lower values in the subparts concerning, on the one hand, Democracy disaffection and Losers of globalisation, and, on the other hand, Negative future expectations, Losers of globalisation, and Regional Wealth. This suggests that, although the material conditions at the individual (Losers of globalisation) and regional (Regional Wealth) levels are important in driving individual perceptions of the EU, additional elements could be at play and remain unaccounted for, as indicated by the existing research on the determinants of EU public opinion.

**Robustness checks**

To further validate our theoretical hypotheses and our baseline model, we perform a series of empirical checks. These checks are explained in detail in section C in the Appendix. The first check focuses on potential biases in our model.
specification due to the data selection. We acknowledge that the two EB waves for 2018 (EB 90.1) and 2019 (EB 91.1) used in our primary analysis could be biased when capturing individual EU discontent. That is, individuals surveyed for these two EB waves could exhibit more EU discontent due to the accumulation of many economic episodes since the beginning of the 2008 Financial Crisis.

We aim to control for such potential biases due to the data selection in our baseline model. To address this problem, we take the same items and model specifications using equations (1) and (2) and apply them to an older wave of the EB released in 2007 (EB 68.1). We choose 2007 data to check whether our findings hold in the period before the 2008 Financial Crisis. We know from existing research that this crisis deeply affected individual opinions on the European Union and public and party-based euroscepticism increased in its aftermath. Supplementary Figures C.1 and C.2, and Supplementary Tables C.1, C.2 and C.3 in the Appendix summarise the results. The items display very similar loading factors (Supplementary Table C.1) as those in the baseline model (Figure 5). In the structural model, beta coefficients (Supplementary Table C.3) show similar signs and statistical significance to those in Figure 6. However, the values for the Loser of globalisation and Negative future expectations indicators are lower. The only element not replicated is the effect of the Economic stagnation indicator (calculated for the period between 2000 and 2007), which flips its sign.

The second and third robustness checks address potential sources of multicollinearity and simultaneity between our items. Although the PLS-SEM methodology captures items’ variance, the chosen items could be addressing the same attitudes and perceptions even when they are attached to two different composite indicators. That is, the items within the EU Discontent indicator could be measuring the same concept regarding disaffection with national and European institutions as those incorporated in the indicator of Democratic Disaffection. We confront these possible sources of multicollinearity by taking out the different items from these composite indicators in subsequent complementary analyses. We apply these analyses to the main database for 2018 and 2019. The results are displayed in Supplementary Figures C.3, C.4, C.5 and C.6 in the Appendix and indicate the stability of the beta coefficients in our baseline model, independently of how we construct the composite indicators. The beta coefficients and their signs remain robust to the different exercises performed.

Finally, we also calculate the variance inflation factor (VIF) indicator for each of our items and composite indicators in our baseline model and obtain values ranging from 1 to 2.2. We, therefore, conclude that there are no serious multicollinearity and simultaneity problems in our baseline model.

Discussion and conclusions

This paper explores how the spatially-rooted interplay between individual and regional material conditions and subjective perceptions shapes EU discontent. Building upon existing studies, we formulate a set of theoretical hypotheses on the links between material conditions and individual perceptions that aim to bridge the ‘losers of globalisation’ thesis and the ‘places that don’t matter’ perspective regarding the roots of EU discontent. Since discontent with the EU is multidimensional, we argue that simple measures based on a eurosceptic vote fail to capture such complexity. Instead, we propose an EU discontent indicator that combines individual perceptions on a broad set of EU-related issues.

Our results confirm that objective economic conditions structure individual EU discontent among the so-called ‘losers of globalisation,’
individuals with an unfavourable position in the labour market (low education level and unemployed), and those who live in the lagging regions (more impoverished and with less economic growth). While these effects have already been established in the literature, we add to it by disentangling the underlying mechanism that links individual and regional material conditions with EU discontent through the shaping of subjective perceptions. We show that the strongest effect of the unfavourable location of ‘losers’ on EU discontent comes through its indirect, induced effect on more negative future expectations. Similarly, the effect of living in a more impoverished region is the strongest due to its impact on individual life prospects, which then triggers EU discontent. At the regional level, we also confirm that the regional growth dynamics influence EU discontent in line with the ‘places that don’t matter’ approach. However, we complement that perspective by showing a double (opposing) effect of differences in regional wealth (at the regional and individual level), offering a more nuanced understanding of the relevance of regional heterogeneity for the geography of EU discontent.

In sum, our study validates the relevance of material conditions for EU discontent and illuminates their role in structuring individual EU perceptions. In contrast to some of the existing studies, our findings indicate that more impoverished regions could harbour deeper social unrest potential, as a consequence of deteriorating prospects of individuals, than those of rich but stagnated regions. The poorer regions of the EU traditionally view the European project as a source of financial help necessary for their growth and development. But suppose such European help is no longer available or does not arrive on time. In that case, our study suggests that a worsening in individual prospects will lead to even more EU contestation.

Furthermore, this potential European backlash may be reinforced if individuals become more disaffected with the institutional and democratic system. Although we argue that individual and contextual material conditions are important drivers of EU discontent, our results suggest that EU attitudes are primarily affected by individuals’ perceptions of their (national) democratic system. In other words, economic conditions are only part of the story, while other elements linked to institutional trust may be relevant to explaining regional EU backlash fully. The reasons for the greater relevance of institutional factors and attitudes than those structured by individual and regional economic conditions are beyond the scope of this paper. However, our findings open the door to future research on the role of democratic perceptions and institutional determinants within the literature on the geography of discontent.

Our study has several limitations. First, our approach relies on exploratory analysis of the relationships underlying EU discontent. The results confirm the hypothesised relations and reinforce our arguments on the interplay between material conditions and individual perceptions. However, relying on available survey data restricts our capacity to operationalise additional causal mechanisms suggested by the literature on EU attitudes. Second, these data constraints delimit the identification strategies we are able to apply in our analysis, although the structural PLS estimator allows us to capture a broader set of simultaneous induced effects than traditional econometric approaches. Third, we have constructed our EU discontent indicator using the most suitable standard EB questions. However, the design of such a multidimensional indicator might be influenced by data availability and, by necessity, necessarily simplifies the complexity of individual attitudes and the potentially incongruent behaviour. Lastly, all these problems are amplified at the regional level when accounting for the spatial distribution of our indicators.
We consider that our findings have important policy implications, especially in times of the unprecedented shock of the Covid-19 pandemic to the global economic system. Undoubtedly, the effects of this crisis will be characterised by spatial disparities. Those regions whose economic structure is more specialised in sectors particularly affected by the pandemic shock will suffer difficulties in the years to come. If the EU and the Member States do not react effectively, and the economic situation deteriorates further, it would be reasonable to anticipate a surge of social discontent as a consequence of the worsening of individual future expectations, particularly among those employed in the sectors affected by this new crisis, as well as those located in regions which might be more exposed to its effects. Nevertheless, the EU response to the pandemic with the creation of the Next Generation EU instrument presents a promising policy action. These funds will allow the Member States to react adequately to the health crisis and counter the associated economic crisis while improving the EU image. Whether such a response is enough constitutes yet another test for the viability of European integration.

Supplementary material

Supplementary material is available at Cambridge Journal of Regions, Economy and Society online.

Endnotes

1 The discussions in economic literature on who exactly are those who lose out in globalisation processes can be summarised as a debate between those who focus on the effects for specific sectors and those who look at factors endowment. In this paper, we incline towards the latter approach, and consider that in the relatively developed EU member states, those lacking skills provided by education tend to be on the losing side of these processes.

2 The arguments regarding the effects of economic grievances at the regional level are somewhat contested, as other studies have argued that it is the regionally divergent cultural effects of globalisation that constitute a deciding factor for social discontent (Abreu and Öner, 2020). But while the role of economic factors vs cultural explanations remains unsettled (Georgiadou et al., 2018), overall, these studies strongly suggest that it is necessary to account for the contextual factors which might be shaping individual attitudes and behaviour.

3 Throughout the text, we use H1 to indicate hypotheses at the individual level, whereas regional contextual hypotheses are notated as H2.

4 We choose 16 different questions from the EB, common to the 2018 and 2019 waves of the survey. Extending the number of years might be cumbersome because questions are not always coherent and constant across EB surveys. Moreover, we focus on 2018 and 2019 to obtain comparable results to those of recent studies on the geography of discontent that looked at eurosceptic vote (Alabrese, E. et al., 2019; Abreu, M. and Öner, Ö., 2020; Dijkstra et al., 2020, among others). Supplementary Table A.1 in the Appendix details the questions chosen from EB 90.1 and EB 91.1, and their codification as items for our empirical analyses.

5 The majority of the regions are codified at the NUTS-2 level, except for Italy, Germany and UK, which are codified at the NUTS-1 level.

6 We use Smart-PLS 3.2.7 software.

7 The use of EB data in a descriptive map could be problematic as some regions might not have enough observations to achieve statistical representativeness. In our sample, the average (median) sample size for NUTS-2 (NUTS-1) regions are 245 (456) in 2018 and 297 (690) in 2019, correspondingly. To overcome potential limitations of the EB for the NUTS regions with reduced sample sizes, we combine the two EB waves for 2018 and 2019 and get the average values of EU discontent by region. Then, we weight these average values using as weights the number of individuals located in a certain NUTS region divided by the total number of individuals sampled by the EB in each country.

8 Supplementary Tables B.1 and B.2 in the Appendix provide further evidence on the measurement model and on the reliability of our composite indicators through the composite reliability index and the average variance extracted index (AVE). These values...
should be greater than 0.7 for the former (Nunnally and Bernstein, 1994) and 0.5 for the latter (Fornell and Larcker, 1981; Roldán and Sánchez-Franco, 2012). Both conditions are met and the loading factors obtained with our baseline model (Figure 5) suggest a reliable fit of our indicators. Admittedly, there could be even more relevant items (questions), but with the results above, we are confident about the composite indicators we obtain and we think they do not present serious omitted variable problems.

Supplementary Table B.3 in the Appendix provides complete details. The table is organised in subparts in which items are located below the composite indicator to which they belong. The first part represents the primary analysis with respect to the EU Discontent. The subsequent parts do the same for the secondary and indirect relationships between the indicators on the Losers of globalisation, Democratic Disaffection, Negative Future Expectations and Regional Wealth. In terms of explained variance, Supplementary Table B.3 includes the R² and Q² indicators. The latter indicator is expected to present values greater than 0 (Chin, 1998).

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Interplay of material conditions and individual perceptions


