# The geography of EU discontent and the regional development trap

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# The geography of EU discontent and the regional development trap

by

### Andrés Rodríguez-Pose<sup>§</sup>, Lewis Dijkstra<sup>6</sup> and Hugo Poelman<sup>\*</sup>

**Abstract:** While in recent times many regions have flourished, many others are stuck —or are at risk of becoming stuck— in a development trap. Such regions experience decline in economic growth, employment, and productivity relative to their neighbours and to their own past trajectories. Prolonged periods in development traps are leading to political dissatisfaction and unrest. Such discontent is often translated into support for anti-system parties at the ballot box. In this paper we study the link between the risk, intensity, and duration of regional development traps and the rise of discontent in the European Union (EU) —proxied by the support for Eurosceptic parties in national elections between 2013 and 2022— using an econometric analysis at a regional level. The results highlight the strong connection between being stuck in a development trap, often in middle- or high-income regions, and support for Eurosceptic parties. They also suggest that the longer the period of stagnation, the stronger the support for parties opposed to European integration. This relationship is also robust to considering only the most extreme Eurosceptic parties or to including parties that display more moderate levels of Euroscepticism.

**Keywords:** discontent, Euroscepticism, development trap, economic growth, employment, productivity, regions, EU

JEL Codes: D72, R11, R58

<sup>◊</sup> JRC, European Commission

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#### **1.** INTRODUCTION

Popular discontent has been brewing in many parts of the world, including most of Europe (Greven, 2016; Zakaria, 2016; Hawkins et al., 2019; Hopkin, 2020). The rising wave of dissatisfaction with a 'system' that many feel no longer benefits them is manifested in different ways: from declining participation in elections to low citizen engagement in civil society. Growing discontent is also reflected in: (i) an increasing tendency to support more extreme, often populist options at the ballot box; and (ii) mounting signs of distress and outright revolt by those disaffected from the system (Rodríguez-Pose, 2018; Kitschelt, 2022). In the European Union (EU), this disaffection is connected to a rise of Euroscepticism (Torreblanca and Leonard, 2013; Dijkstra et al., 2020). Since the 2008 financial crisis, the share of votes in national legislative elections for 'hard' Eurosceptic<sup>1</sup> parties has more than trebled from 4% in 2002 to 14% of the electorate in 2022. If we include 'soft' Eurosceptic parties, their combined vote share has almost quadrupled from around 7% to 27%.

The rise of Euroscepticism is part of a broader recent increase in popularity of anti-system and/or populist parties (Hopkin, 2020). Explanations of this turn in the electorate can be classified into two camps. On the one hand, there are those who posit that the rise of electoral discontent at both extremes of the political spectrum is the result of the re-emergence of identity issues and culture wars (e.g., Norris and Inglehart, 2019). The second camp contends that the appeal of anti-system and/or populist parties is connected to long-term decline in places which once experienced greater prosperity (e.g., Autor et al., 2016; Becker et al., 2017; Fetzer, 2019). According to this view, economic and demographic stagnation have fuelled the perception that the future is less bright in those areas that have lost their past dynamism. But explanations that rely either on cultural, or on economic or demographic decline are not mutually exclusive

<sup>&</sup>lt;sup>1</sup> Eurosceptic parties are defined based on the Chapel Hill Expert Survey. See Section 2.

(Noury and Roland, 2020; Schmid, 2022). People living in declining places frequently feel trapped in regions they think no longer matter and where they perceive there is (or they have) no future (Rodríguez-Pose, 2018, 2020; Lenzi and Perucca, 2021). Many people in these regions feel ignored, neglected, and marginalised by a distant and aloof elite (McKay et al., 2021) and are ill at ease with a changing world they consider threatens their identity and security.

The paper builds on research conducted by Diemer et al. (2022) on the 'development trap,' as much of the rise in discontent is concentrated in trapped regions. Diemer et al. (2022: 487) define development trapped regions as those facing "significant structural challenges in retrieving past dynamism or improving prosperity for their residents." These regions have lower economic growth compared to the EU average, the country they are located in, and/or their own previous period. Growth is measured using three indicators: GDP per capita, employment, and productivity. A classic example of a region in a development trap is one that initially experienced rapid growth, reaching middle-income levels (Kharas and Kohli, 2011). However, many regions in Europe have stagnated or even regressed at all stages of development.

The paper delves deeper into the notion of the development trap by exploring two critical questions: a) Does the likelihood, severity, and duration of a regional development trap incite regional discontent? and b) Can the origins of Euroscepticism be linked to regions ensnared in a development trap? Previous research has established a link between long-term economic and industrial decline, low employment rates, demographic decline, and the rise of Eurosceptic, populist, and anti-system voting (Dijkstra et al., 2020; McCann, 2020; Pinilla and Sáez, 2021; Rodríguez-Pose et al., 2021). However, there has been no attempt to connect the broader idea of a regional development trap with the increasing appeal of extreme and Eurosceptic parties

at the ballot box. This paper addresses this gap by linking the phenomenon of the regional development trap to the growing rise of Euroscepticism in the EU.

Our analysis demonstrates that falling into a development trap is possibly the strongest driver of the rise in discontent and the increasing support for Eurosceptic voting across European regions. Inhabitants of trapped regions —particularly at high- and middle-income levels— are more likely to be tempted by both 'hard' and 'soft' Eurosceptic political options and to support them in elections. Furthermore, factors such as the risk, intensity, and duration of the development trap significantly increase the Eurosceptic vote.

To reach these conclusions, this paper first discusses the rise of Euroscepticism in Europe in the last two decades, before turning to what have been the drivers, according to scholarly research, of the rise of a geography of discontent against European integration. The third section introduces the concept of the development trap in the EU. The fourth section presents the empirical model, data, and methodology used for this analysis, followed by the econometric results. The paper concludes with some preliminary and necessarily cautious policy discussion and a reflection of the implications of the analysis for economic and political geography.

#### 2. THE RISE OF EUROSCEPTICISM

Euroscepticism has been on the rise. It generally grew from parties —such as the French National Front, the Austrian Freedom Party, the Danish Progress Party, the German Republicans, or the Greek Communist Party— with histories as anti-system movements and/or traditions of illiberalism. Initially, their opposition was primarily directed at national governments rather than European institutions (Betz, 1993). Later —and without renouncing their stance against national elites— their Euroscepticism has grown. Yet, throughout most of the 2000s, support for parties opposed or strongly opposed to European integration remained

low, despite many of the above-mentioned parties already having a presence in the European Parliament. This is because they garnered a higher share of votes in European than in national elections. European elections are generally considered by political scientists as second-order elections (Reif et al., 1997) and tend to have lower turnout and fewer votes for mainstream parties compared with national elections. However, when it came to national legislative elections, support for Eurosceptic parties historically remained rather muted.<sup>2</sup>

Because of the second-order nature of European elections, in this paper, we focus on national elections rather than European ones and combine Eurosceptic votes into two categories based on the Chapel Hill Expert Survey (CHES) (Jolly et al., 2022). We define 'hard' Euroscepticism as support for parties opposed or strongly opposed to EU integration. This threshold includes parties that not only oppose but also fundamentally challenge core aspects of European integration, like monetary union or the supremacy of European law. Some of the parties in this hard Eurosceptic group are: the Forum for Democracy or the Freedom Party in the Netherlands; the Rassemblement National or Débout La France in France; the Lega per Salvini, Fratelli d'Italia, or Italexit per l'Italia in Italy; Alternative für Deutschland in Germany; Gibanje Zedinjena Slovenija and Domovinska Liga in Slovenia; the Danish People's party in Denmark; and Vlaams Belang in Belgium.

The second category is broader. It includes both 'soft' and 'hard' Euroscepticism, encompassing parties somewhat opposed to those strongly opposed to European integration. This wider categorization captures a more comprehensive range of Eurosceptic sentiments. Soft Eurosceptic parties do not advocate for the exit of their countries from the EU, but oppose

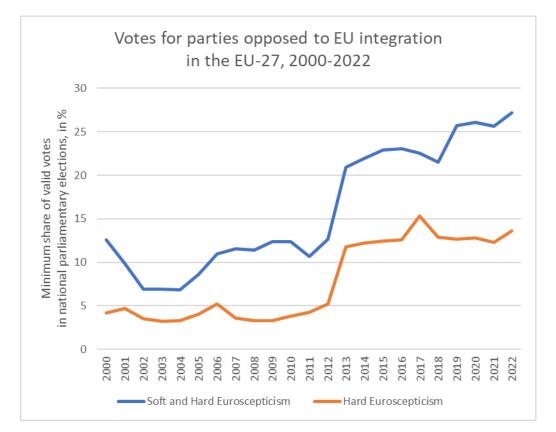
<sup>&</sup>lt;sup>2</sup> Citizens of the EU participate in a variety of elections. Elections to the European Parliament occur every five years. National elections take place every four or five years and determine the national governments, influencing EU policies through representation in the Council of the EU. Regional and local elections allow voters to elect representatives for local governance and are especially significant in countries with a high degree of self-rule. The electoral systems and frequencies of national and subnational elections vary across member states, reflecting the unique political structures of EU countries.

specific aspects of European integration or European policies. Among the parties categorised as soft Eurosceptic using the CHES classification are: the Socialist party in the Netherlands; la France Insoumise, the French Communist Party, or Reconquête! In France; Fidesz in Hungary; the Law and Justice Party in Poland; the Five-Star Movement in Italy; or Vox in Spain.

The list of Eurosceptic parties incorporates parties at both the extreme right and extreme left of the political spectrum. By contrast, most traditional, mainstream, moderate left-wing and right-wing parties have scores above 6 on the CHES scale. This means that they are strongly pro-European.<sup>3</sup>

Support for hard Eurosceptic parties remained below 5% throughout most of the 2000s. Soft and hard Eurosceptic parties received, on average, around 10% of the vote in this period (Figure 1). The financial crisis and the reaction to austerity saw a rapid increase in the vote for Eurosceptic parties. Support for hard Eurosceptic parties in national parliamentary elections has mostly remained below 15% of the vote since 2012. But the share of the combined soft and hard Eurosceptic support has continued to rise, reaching 27% in 2022 (Figure 1). The Brexit vote and its consequences for the UK and Europe may have reduced the appeal of hard Euroscepticism, but not that of soft Euroscepticism.

<sup>&</sup>lt;sup>3</sup> See the data section for a more detailed explanation, including specific scores.



**Figure 1.** Votes for parties opposed to EU integration in national parliamentary elections in the EU-27, 2000-2022

Source: DG REGIO calculations based on the Chapel Hill Expert Survey (CHES) (Jolly et al., 2022) and DG REGIO data collection. Note: Hard Euroscepticism is defined as a score of 2.5 or lower on the EU-position index. Soft and hard

Euroscepticism is defined as a score of 3.5 or lower on the EU-position index.

Hard Euroscepticism does not affect all EU countries in the same way. Romania, Malta, Luxembourg, Spain, Cyprus, and Lithuania have virtually no parties that advocate an end to the European project or that propose the withdrawal of their country from the EU. By contrast, support for hard Eurosceptic parties has become prominent in national elections in Italy, Sweden, and France (Figure 2). As indicated by the prevalence of darker shades in the upper echelons of Figure 2, hard Euroscepticism has grown as the 21st century has progressed. The main exceptions to this are Lithuania, Hungary, Slovenia, and Poland. In the cases of Hungary and Poland, the changes over time reflect changes in the views of the EU held by some of the major parties. This means that although the share of votes for hard Eurosceptic parties is lower

than in some of the previous elections, the vote share for soft and hard Euroscepticism combined is now above 50%.

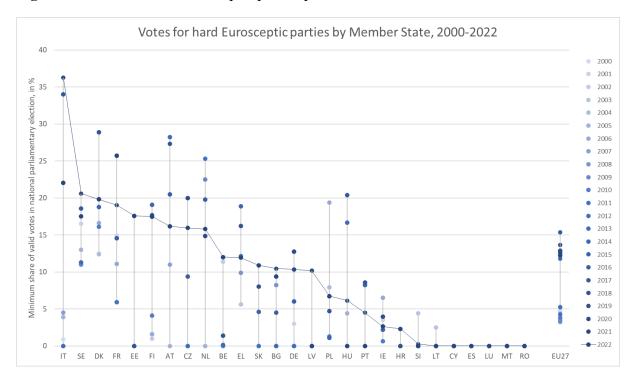


Figure 2. Votes for hard Eurosceptic parties per Member State, 2000-2022

This figure shows all parliamentary elections in the years between 2000 and 2022. If multiple years have the same value, only the most recent year is visible.

Note: Hard Euroscepticism is defined as a score of 2.5 or lower on the EU-position index.

The combined votes for soft and hard Eurosceptic parties also vary considerably by country. The height of the austerity crisis in 2012 resulted in a significant increase in support for soft and hard Eurosceptic parties and, as highlighted earlier, this trend continues. Soft and hard Euroscepticism are pervasive in countries that, at the time of writing, are governed by Eurosceptic parties or coalitions, such as Hungary, Italy, or Poland. These forms of Euroscepticism are also strong in France and growing in the Netherlands, Sweden, Belgium, or Slovakia (Figure 3). Malta is the only country were support for Eurosceptic parties has remained negligible.

Source: Calculations by authors based on the Chapel Hill Expert Survey (CHES) (Jolly et al., 2022) and own data collection.

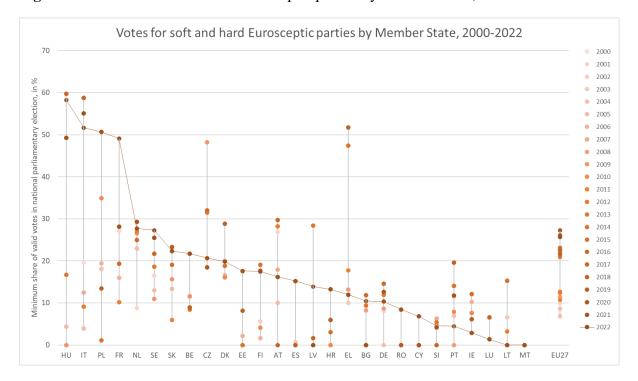


Figure 3. Votes for soft and hard Eurosceptic parties by Member State, 2000-2022

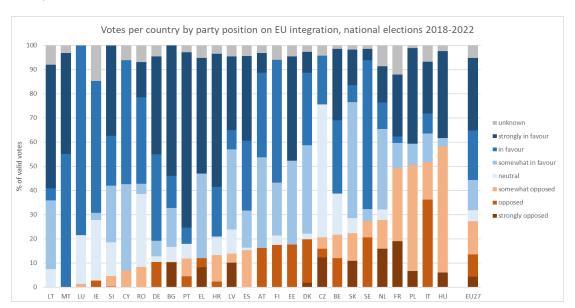
Source: Calculations by authors based on the Chapel Hill Expert Survey (CHES) (Jolly et al., 2022) and own data collection.

This figure shows all parliamentary elections in the years between 2000 and 2022. If multiple years have the same value, only the most recent year is visible.

Note: Soft and hard Euroscepticism is defined as a score of 3.5 or lower on the EU-position index.

Overall, the backing for hard and soft Eurosceptic parties in the latest round of national legislative elections (2018-2022) across the EU shows that Euroscepticism is supported by 27% of the total electorate. In four countries —Hungary, Italy, Poland, and France— Eurosceptic parties represent half of those voting. Elsewhere in the EU (Figure 4), support for Eurosceptic options drops, but still remains above 25% in the Netherlands and Sweden, and above 20% in Belgium. Lithuania and Malta were the only countries that did not register votes for Eurosceptic parties in the last round of national parliamentary elections.

The distribution of the vote for hard and soft Eurosceptic parties also varies within countries. Figure 5 shows the distribution of the vote for both hard Eurosceptic parties and for soft and hard Eurosceptic parties combined during the most recent election round (2018-2022). In some cases, the variation in support for Eurosceptic parties is minimal within countries. This is especially the case in countries where Euroscepticism is limited.



**Figure 4.** Votes in national legislative elections by party position on EU integration (2018-2022).

In countries with significant support for Eurosceptic parties, regional variations in support for Euroscepticism are more common. In France, for example, the support for hard Eurosceptic parties is concentrated in the north-east and along the Mediterranean coast. It is far weaker in the two largest urban areas (Paris and Lyon) as well as in Brittany and in rural southern France. Soft and hard Euroscepticism combined is more evenly spread, but again weaker in some southern rural departments. The regional contrast in Germany fundamentally concerns hard Euroscepticism, and follows the old border between east and west Germany. Support for soft and hard Euroscepticism is higher in the east, with Berlin and other large cities representing the exceptions. In Belgium, the Eurosceptic divide mostly follows the regional and linguistic border between Flanders and Wallonia, with Euroscepticism being stronger among Dutch-

Source: Calculations by authors based on the Chapel Hill Expert Survey (CHES) (Jolly et al., 2022) and own data collection.

speaking Belgians. In Poland, the large metropolitan areas vote less for Eurosceptic parties than their surrounding regions. Soft and hard Euroscepticism also reflect the difference between the eastern and western parts of Poland. Euroscepticism is more prevalent in the east, with the exception of the large cities, including Warsaw, Łódź, and Kraków.

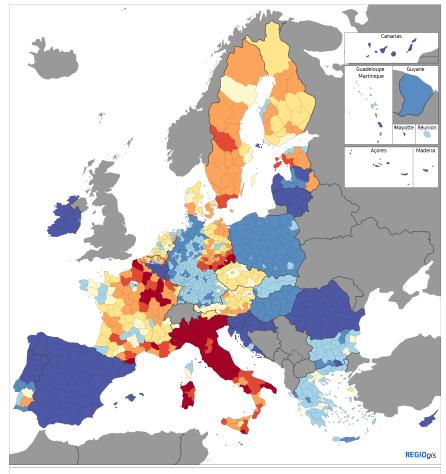
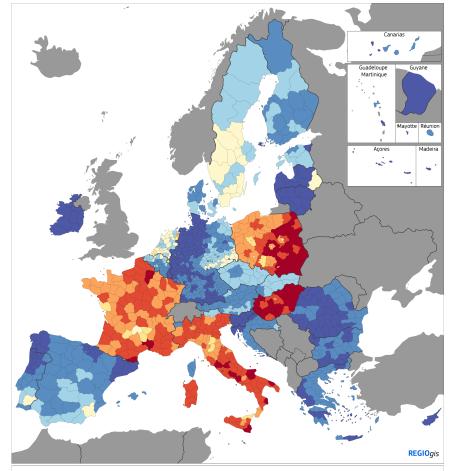
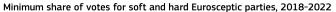


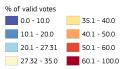
Figure 5. Votes for hard Eurosceptic parties and for hard and soft Eurosceptic parties for the most recent parliamentary elections, 2018-2022.

Minimum share of votes for hard Eurosceptic parties, 2018-2022









12

BG, FR, IT, LV, HU, MT, PT, SI, SE: 2022 CZ, DE, CY, NL: 2021 IE, HR, LT, RO, SK: 2020 BE, DK, EE, EE, ES, AT, PL, FI: 2019 LU: 2018 Source: DG REGIO based on EU-NED database, national administrative sources and Chapel Hill Expert Survey 2019



#### **3.** The drivers of discontent

What factors drive Europe-wide discontent? Why have some countries and regions seen such an increase in the Eurosceptic vote, while others have remained relatively unaffected by this trend? As indicated in the introduction, explanations for the rise in discontent world can be classified into two categories.

The first one emphasises cultural and identity issues (Norris and Inglehart, 2019: Bornschier et al., 2021). As western societies have become more diverse and inclusive, and as progressive values dominate, certain sections of society become ill at ease with these changes. Some people are uncomfortable with the new dominant values relative to those that prevailed when they were young. Others are unable or unwilling to adapt to those changing values. And the rest are anxious about a society that looks quite different from their own recollection of the past. They dislike these transformations that make them feel like 'strangers in their own land' (Hochschild, 2016).

This cultural and identity justification has a demographic and territorial dimension. On the one hand, some demographic groups are deemed far less capable of adapting to changes (Koeppen et al., 2021). For example, some scholars argue that the older we become or the less educated we are, the more difficult it is to adapt to changes in society. Hence, regions in Europe with a concentration of older people and with a less educated population are more susceptible to the arguments of Eurosceptic parties. Similar views about resistance to change have been made about places where population mobility has been limited. Places where most people are locally rooted (i.e., living in, or near to, the place where they were born) have been hotbeds of discontent and resentment (Lee et al., 2018). Urban societies are considered more malleable and adaptable, meaning that discontent can take hold to a far greater extent in rural areas than in urban ones (de Lange et al., 2023). Eurosceptic voting has been shown to be higher in rural

regions even after correcting for a range of economic, social, and territorial characteristics (de Dominicis et al., 2022).

A second category of explanations links discontent with economic and demographic decline (e.g., Rodríguez-Pose, 2018; McCann and Ortega-Argilés, 2021; Albanese et al., 2022). A growing body of scholarly research traces the origins of discontent to prolonged periods of relative economic and demographic stagnation in places struggling to adapt to the challenges brought about by globalisation, trade integration (Autor et al., 2016), and, more recently, the green and digital transitions. Places that have lost out in terms of economic growth and industrial production (Dijkstra et al., 2020; Pike, 2022), and witnessed considerable employment (Rodríguez-Pose et al., 2021) and demographic decline (Pinilla and Sáez, 2021), have been receptive to feelings of discontent. In Europe, these feelings have resulted in stronger support for Eurosceptic parties. And discontent rises the greater the intensity and the longer the duration of the region's relative decline (Dijkstra et al., 2020; Rodríguez-Pose et al., 2021).

Cultural and economic factors interact with one another (Noury and Roland, 2020) and often coincide in terms of geography. Large metropolitan agglomerations have, in general, remained dynamic, both from a population growth/change and from an economic perspective. Metro areas are also places with more diverse populations and where progressive ideas are more likely developed and diffused. By contrast, smaller cities, towns, and rural areas often combine a lack of economic dynamism with low diversity (Kenny and Luca, 2021), meaning that both main factors for the rise in discontent and Euroscepticism are present. Overall, discontent is the result of a series of multi-layered influences involving the adverse effects of: (i) living in 'places that don't matter'; (ii) being a person with many of the characteristics of 'people who do not matter'; and (iii) dealing with contexts where some people matter less than others (Lenzi and Perucca, 2021: 441) that is disadvantaging single individuals within their reference communities. This

latter aspect goes beyond individual cultural and identity characteristics (ii) and demographic and economic decline (i) and emphasises the role of intraregional inequalities, highlighting that broader societal and institutional contexts can exacerbate feelings of political marginalisation, institutional neglect, and social exclusion.

#### 3.1. The regional development trap and discontent

Research focusing on economic and demographic decline has analysed different dimensions of decline individually. The result of this is that the complexity of trajectories of decline remains overlooked (Blažek et al., 2020). Declines in GDP per capita, employment, wages, industrial output, innovation, or population have been considered in isolation, overlooking that decline is a multifaceted and self-reinforcing process. Places that suffer long-term stagnation and/or decline across multiple dimensions are far more likely to breed discontent than areas where one dimension of decline prevails. In this respect, recent research (Iammarino et al., 2020; Diemer et al., 2022) has introduced the concept of the regional development trap, which captures different economic dimensions of decline. The combination of these dimensions may better explain the rise of discontent and Euroscepticism than each of its constituent elements individually.

The regional development trap has been defined as "the state of a region unable to retain its economic dynamism in terms of income, productivity, and employment, while also underperforming its national and European peers on these same dimensions" (Diemer et al., 2022: 489). A region thus falls into a development trap if the prosperity of its inhabitants "does not improve relative to its past performance and the prevailing economic conditions in national and European markets" (Diemer et al., 2022:490). Diemer et al. (2022) measure the development trap along three dimensions: income, productivity, and employment. They assess

the performance of European regions on these three dimensions relative to the region itself in the past and its national and European peers.

The authors propose two alternative measurements of the regional development trap. The most basic index (which they call development trap index 1, or DT1) captures whether a region's growth in GDP per head, productivity, and employment is: (i) slower than in the EU; (ii) slower than in the country of which the region is a part; and/or (iii) slower than in the same region in the past. This results in nine (3x3) growth comparisons. The risk of falling into a development trap (trap risk from here onward) measures the number of growth comparisons on which a region performs poorly. The second development trap index (or DT2) considers the intensity of the trap risk of a particular region. This latter index allows for greater variation depending on the degree of stagnation of every region but is far more sensitive to outliers. The authors identify DT1 as their preferred index.<sup>4</sup>

Why are trapped regions more likely to breed discontent? Several reasons explain the link between economic stagnation and the growing frustration and disaffection spreading throughout Europe. First, as in any great Greek or Shakespearean tragedy, discontent is far more likely to grow among those who once had something and lost it than among those who never had anything. In a similar way, territories that have stagnated or even gone into economic reverse can be sites of greater discontent than those that have always lagged behind. Hence, relative economic decline is more important than low absolute levels of development as a driver of disaffection with the system. The development trap index also takes into account relative performance. Perceptions of development by individuals are mostly relative. Absolute standards of living and well-being in Europe have increased considerably. However, the

<sup>&</sup>lt;sup>4</sup> For a detailed explanation of the methodology used in the calculation of each development trap index, please refer to Diemer et al. (2022).

expansion in prosperity has not taken place at the same rate everywhere. Whereas many countries in central and eastern Europe raced ahead in economic terms after the collapse of communism and accession to the EU, large swaths of north-eastern and eastern France and most of Italy and Greece struggled to keep up with the pace of the rest of Europe. Many of these latter areas even experienced absolute declines in GDP since 2000 (McKinsey Global Institute, 2023). People in trapped areas realise that not only are they doing worse in terms of economic, employment, and productivity growth than in the past, they also realise that their neighbours in other regions within their countries (or in other countries) are performing better. They sense that they are both worse off than they were and worse off than other Europeans. Therefore, they are less likely to support a system and political options that they feel are not delivering for them.

The second dimension to consider in the link between economic stagnation/decline and the rise of discontent is that of the intensity of the trap. People in places where income has suffered the greatest relative decline, where employment prospects are far lower than in neighbouring regions, and where productivity has hardly increased for decades are bound to consider that their life chances are considerably worse than those of people living in more dynamic areas. They will also believe that life has handed them a bad set of cards. The lack of opportunities they have endured simply because of the place where they were born or live is not only preventing them from prospering; it is also thwarting their chances of finding better opportunities elsewhere.

Finally, the longer the length of time in a trap, the more difficult it becomes for individuals in trapped places to escape it, both individually and collectively. Extended periods in a trap lead to deteriorating conditions, opportunities, and basic services. In long-term trapped places, basic

facilities such as education, health, infrastructure, transport, or public services<sup>5</sup> have deteriorated over time. Those in long-term-trapped places lack opportunities relative to people elsewhere and are left with a feeling of being stuck in 'places that don't matter.'

As a result, people in regions that have lost their edge, where opportunities have declined, and where the provision of basic goods and services is worse than what it once was are at the forefront of the rise in discontent. And the level of discontent is commensurate to the intensity of the slump and to the length of time the region has spent in the development trap. It is not only the fact of being in a development trap that is important, but also its intensity and length.

#### 3.2. Regional development traps in Europe

To capture a development trap, we use three indices developed by Diemer et al. (2022), but we calculate them for NUTS-3 regions instead of NUTS-2 and for the period preceding the last round of elections (2001-2018). The three indices capture (i) the risk, (ii) the intensity, and (iii) the length of such a trap:

i) To measure the trap risk, we compare a region's growth rate over the previous five years across three indicators (GDP per head, productivity, and employment over total population) against three geographical scales (the EU, the country the region belongs to, and the region's own historical performance). For each comparison, a region scores 1 if it is lower and 0 if it is higher. These scores are added up to a score between 0 and 9, which is subsequently rescaled to a score between 0 and 1. Diemer et al. (2022) refer to this as DT1. This indicator is measured for four periods: 2018, 2015-2018, 2010-2018, and 2001-2018.

<sup>&</sup>lt;sup>5</sup> Economic decline is not the only reason why in some regions public services have been scaled back. Austerity measures or population decline may also lead to reduced public services.

- ii) The intensity of the trap is calculated by DT2. This indicator captures the magnitude/intensity of the deviations in income, employment, and productivity growth relative to the region itself, the country, and the EU. We consider DT2 over the same time horizons as DT1.
- iii)The length of time spent in the trap is identified by including longer periods of time starting in 2001 for DT1 and DT2, but also more explicitly by counting the years a region has been in a trap since 2001 and 2010. A region is trapped if it has a DT1 above 0.5 in a given year.

Figure 6 shows the trap risk (DT1) for the period 2001-2018. It reveals considerable variations both across and within countries.

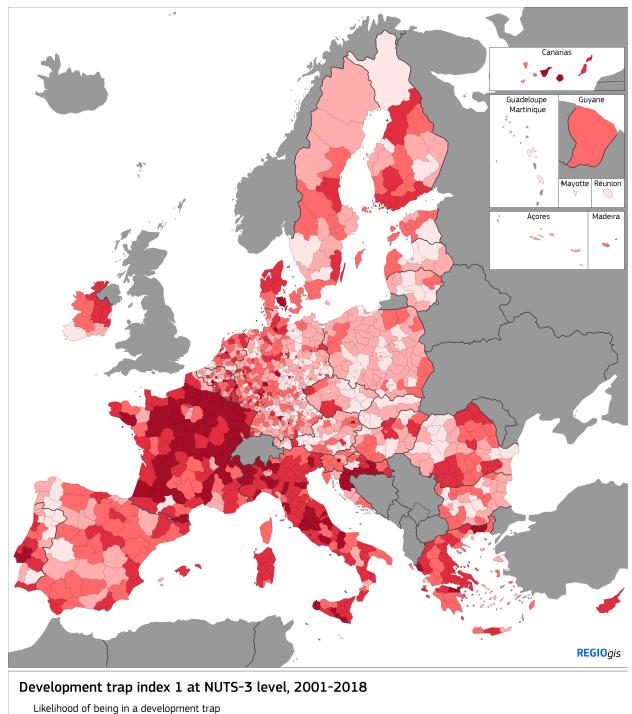
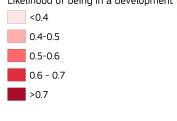


Figure 6. EU regions in a development trap (DT1) (2001-2018).



This index measures if a region's growth is lower than that of the EU, of its country or of the same region during the previous five years.

It considers GDP per head, productivity and employment per head growth over a five year period. A region scores 1 for each time its growth is lower. This score between 0 and 9 is then rescaled to 0-1.

Source: DG REGIO calculations based on JRC and Eurostat data

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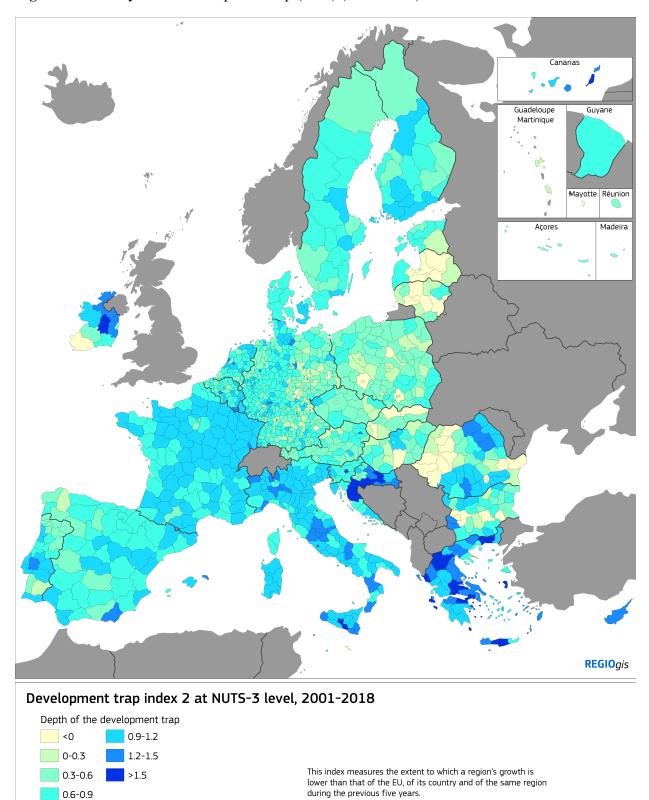


Figure 7. Intensity of the development trap (DT2) (2001-2018).

21

deviation of the first period.

It considers GDP per head, productivity and employment per head growth. The index is standardized by using the mean and standard

Source: DG REGIO calculations based on JRC and Eurostat data

500 km

0 © EuroGeographics Association for the administrative boundaries On the intensity of the trap (DT2) over the same period, the picture that emerges is somewhat different (Figure 7). Here, the general tendencies observed when identifying trapped regions (DT1 in Figure 6) are still in evidence. The intensity of the trap is lower in central and eastern Europe, and especially in Latvia, Lithuania, and some parts of Romania and Slovakia. However, it is far higher overall in Italy and France. The deepest traps (i.e., the most intense) are found in Croatia and Greece.

Finally, the length of time spent in a development trap across regions in Europe is depicted in Figure 8. Once again, the geography of the length of time in a trap is highly varied.

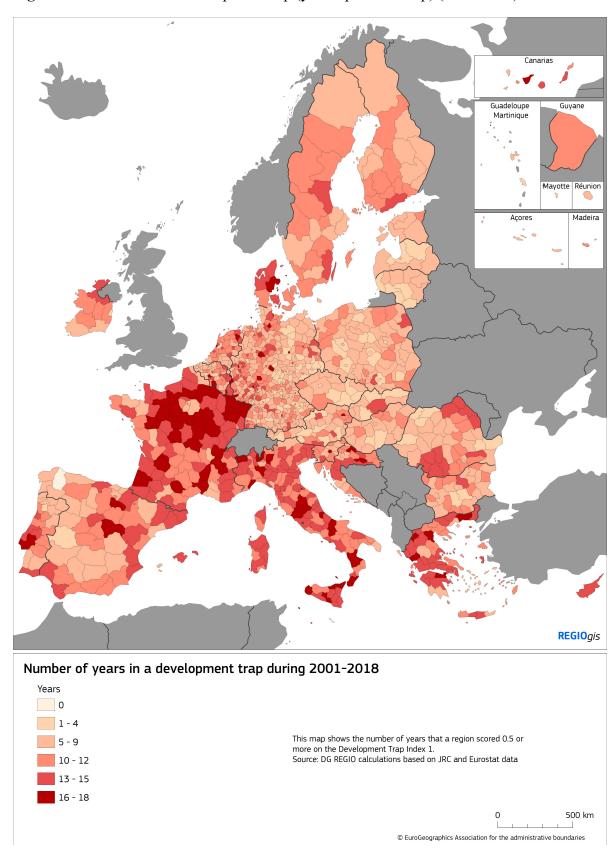


Figure 8. Duration of the development trap (years spent in a trap) (2001-2018).

#### 4. THE MODEL, DATA, AND METHOD

To what extent are the risk, intensity, and duration of a regional development trap drivers of discontent in the EU? Can the roots of Euroscepticism be traced to places stuck in a development trap?

Our main period of interest is that of the national legislative elections between May 2018 and October 2022. If multiple elections took place in that period, we use the most recent one. To verify whether these same correlations hold for earlier elections, we also analyse the elections between May 2018 and October 2022 in combination with the elections between September 2013 and April 2018.

#### 4.1. Model

To answer the above questions, we examine the link between Euroscepticism and the presence of development traps using the following empirical model:

Eurosceptic vote<sub>r,t</sub> = 
$$\alpha + \beta$$
 Development trap<sub>r,t-k</sub> +  $\gamma X_{r,t-k}$  +  
 $\delta$  Share CHES vote<sub>r,t</sub> +  $\varepsilon_{r,t}$  (1)

where *Eurosceptic vote* represents the share of votes for hard only or for hard and soft combined —depending on the analysis conducted— Eurosceptic parties in region r at time t. Time t covers two waves of national election cycles across all EU countries.

*Development trap* illustrates the risk, intensity, and length of the development trap in any given European region, measured by DT1, DT2, and the number of years in a development trap, respectively.

 $\bar{X}_{r,t,k}$  depicts a vector of cultural and economic factors that, according to scholarly research on anti-system voting and populism, could be at the root of the rise in discontent and, therefore,

of the Eurosceptic vote. The more cultural controls include: (i) the migration balance in a region (Ford and Jennings, 2020; Di Matteo and Mariotti, 2021); (ii) the share of foreigners born in another EU country or outside the EU; (iii) the share of the older population (Ford and Jennings, 2020); or (iv) the level of education of adults in a given region (Ford and Jennings, 2020). Other controls are of a more economic nature, including the wealth of the region or its employment rate (Di Matteo and Mariotti, 2021). Other controls reflect geography or variations in the regional ecosystem, such as the average neighbourhood population density (Rodden, 2019; Rickardsson, 2021) or the regional quality of government (Díaz-Lanchas et al., 2021).

The *Share CHES vote* considers that not all parties running in national legislative elections have been classified according to their degree of Euroscepticism in the CHES. The share of votes going to parties not classified in the CHES varies between a maximum of slightly over 15% of the total share of votes cast in Ireland to 0% in Slovenia and less than 2% in Poland, Belgium, and Sweden (Figure 4).

Finally,  $\varepsilon_{r,t}$  represents the error term, or the share of variation in Eurosceptic vote that is not adequately explained by the variables included in the analysis. The model is run without country fixed effects, as one of the components of the development trap index involves weighting the performance in income, employment, and productivity of each region in the analysis relative to the country it belongs to.

#### 4.2. Data

Using the views of the experts involved in the CHES, we distinguish two types of Eurosceptic votes . These experts examine the electoral programmes of the different parties running in national legislative elections against a series of dimensions, including the parties' views on European integration. Each party is classified by multiple experts on a scale from 1 to 7: 1

means a party strongly opposes European integration; 4 means it is neutral on this topic; and 7 means it strongly supports European integration. As indicated earlier, we make a distinction between hard and soft Eurosceptic parties. Hard Eurosceptic parties are strongly opposed or opposed to European integration. They have an average score of less than 2.5 on the CHES 2019 EU-position index. Soft Eurosceptic parties are somewhat opposed. They have an average score between 2.5 and 3.5. We use these to create two dependent variables: the first variable covers only the hard Eurosceptic votes; the second both the hard and the soft Eurosceptic votes. Table A1 in the Online Appendix presents the parties covered, together with their score on EU integration on the CHES scale and the year of election.

The independent variable of interest covers three distinct aspects of the development trap: (i) the risk of falling into a trap; (ii) the intensity of the development trap; and (iii) the length of time a region has spent in a development trap.

Finally, we include a series of controls depicting factors that potentially cause discontent. These factors comprise GDP per capita in any given region at the beginning of the period of analysis, as the wealth of regions may affect the extent to which the people living in those regions are happy with the system. Employment in industry —measured as the share of manufacturing in a region— has been connected with growing discontent, especially in cases where such manufacturing employment has declined (Dijkstra et al., 2020; Pike, 2022). Migration has also been repeatedly highlighted as a trigger of discontent (Rickardsson, 2021). We measure it as the average annual share of net migration per 1,000 residents in a region over the period of analysis. We include the share of the population aged 15 or above born in another EU Member State or outside the EU. An ageing population has also been identified as being linked with voter discontent (Goodwin and Heath, 2016). Our proxy for ageing is the share of population aged 65 and over in a region. We also consider the level of education in a region, measured as

the share of adults (defined as those between the ages of 25 and 64) with a higher education diploma (i.e., university or post-secondary school). Density, regarded by Rodden (2021) as another factor explaining differences in populist voting, is measured as the population-weighted average population density of a grid with cells of 1 square kilometre. This captures the density of the neighbourhood (defined as a square of 1x1 km) in which an average person in that region lives.

We finally control for employment, as regions with more people in jobs are bound to suffer less from discontent, and quality of government, measured using the regional quality-ofgovernment index proposed by the Quality of Government Institute in Gothenburg for 2017 (or 2013, depending on the regression) (Charron et al., 2019). This indicator has become the most used measure of institutional quality at a regional level for Europe (e.g., Rodríguez-Pose and Ketterer, 2020). Table A2 in the Online Appendix contains the variables used in the analysis, their definition, and their sources.

The unit of analysis is the EU region at the finest geographical scales for which data are broadly available: Nomenclature of Statistical Regions Data at level 3 (NUTS-3) regions. The maximum total number of regions covered by the data is 1,166.

#### 4.3. Method

Three econometric methods are used. For research covering just the latest electoral period for which data are available at the time of writing (2018-2022), we use an ordinary least-squares (OLS) estimation of model (1). The advantages of using OLS are its simplicity and flexibility. OLS is one of the most straightforward and comprehensive econometric methods, with coefficients that are easy to interpret. It is also efficient as it tends to have the smallest variance among linear unbiased estimators, yielding more precise estimates of the parameters.

27

When considering the two latest national election cycles (2013-2018 and 2018-2022), we use pooled OLS. Pooled OLS has the same advantages as OLS, while simultaneously making it possible to exploit the combinations of the cross-sectional and time-series dimensions of the data.

The likelihood of encountering endogeneity problems in our estimations is limited, as the rise of Euroscepticism is, as described earlier, a relatively recent phenomenon. However, to address potential endogeneity —where not just the development trap may influence the rise of Euroscepticism but also Euroscepticism affects the risk of a region being trapped— we resort to instrumental variable (IV) analysis. Our instruments involve the prevalence of historical family structures in a region —and, in particular, the presence of absolute nuclear and communitarian families— as proposed by Duranton et al. (2009). Appendix A3 provides the rationale for the IV analysis and the results.

#### 5. THE REGIONAL DEVELOPMENT TRAP AND THE GEOGRAPHY OF EU DISCONTENT

The question we now address is whether the risk, intensity, and length of time of a trap drives support for Eurosceptic parties. Charting the simple correlation between the trap risk on the horizontal axis and the share of votes for hard Eurosceptic parties (Figure 9) on the vertical axis, uncovers a positive correlation between both variables. Many regions in a development trap (e.g., Nièvre or Yonne in France or Perugia, Terni, or Viterbo in Italy) have shown considerable support for hard Eurosceptic parties. However, the relationship is not significant and there are many outliers. On the one hand, many regions with a high trap risk register no (or virtually no) Eurosceptic vote (e.g., Cyprus, Lisbon in Portugal, Heraklion in Greece, or Morbihan in France). On the other, a high share of votes for Eurosceptic parties is cast in many regions with a low trap risk (Chemnitz and Dresden in Germany, or Milan in Italy). Overall, however, voters in trapped EU regions show greater support for Eurosceptic political options.

Does this relationship hold when inserted into an econometric analysis including controls that affect the disaffection of voters with the current system?

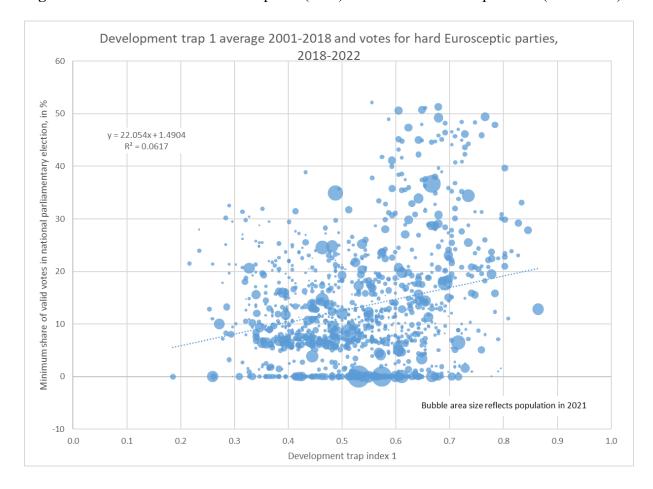


Figure 9. Correlation between the trap risk (DT1) and the hard Eurosceptic vote (2018-2022).

#### 5.1. Cross-section analysis

Table 1 presents the results of estimating model (1) using the development trap index (both DT1, to capture the trap risk, and DT2, to measure the intensity of the trap) for the period between 2001 and 2018.

Firstly, these results show that the coefficients for the control variables are in line with expectations and the scholarly literature. The share of votes for strong Eurosceptic parties is significantly higher in wealthier regions, in regions with more employment in industry, in regions where there is a greater share of older people, and in regions with lower shares of adults with higher education.

The observation that wealthier regions show significant support for strong Eurosceptic parties challenges the dominant narratives surrounding Eurosceptic voting, yet aligns with previous evidence (Dijkstra et al., 2020). Eurosceptic voting has often been associated with disadvantaged regions and individuals. However, feelings of discontent can permeate even relatively affluent areas. This reflects the broader discourse on inequality and relative deprivation in seemingly prosperous regions. As Dorling (2015) points out, injustice and a sense of exclusion are not confined to areas of overt economic hardship, but can also prevail in wealthier communities. As highlighted in the theoretical section, Euroscepticism is more likely to take root in previously prosperous regions experiencing significant long-term economic decline than in regions that have remained at the bottom of the economic hierarchy.

Two different mechanisms explain this result. First, people living a wealthy region may be more concerned by low economic growth as it reduces their standard of living compared with other regions. Second, it may be easier to persuade people living in more developed regions that they do not benefit from being part of the EU as many of the benefits they receive (such as greater prosperity, stability, and security) extend beyond direct financial support and are, therefore, less tangible. Enhanced access to wider markets, greater investment opportunities, a stronger voice within the EU's decision-making framework, and an enhanced sense of security and stability are not frequently monetised but are a fundamental source of prosperity.

Voters' reactions to migration are significantly connected to the origin of the migrants. Regions with higher numbers of migrants from countries outside the European Union —a type of migration controlled by national governments and not by the EU— tend to show greater support for hard Eurosceptic parties. Conversely, in regions where there is a higher proportion

of migrants from within the EU —a type of migration regulated by the EU— there is less support for hard Eurosceptic parties.

As expected, the hard Eurosceptic vote is, on average and depending on the regression, stronger in: (i) the less densely populated suburbs, medium-sized cities, towns, rural areas (de Dominicis et al., 2022); (ii) regions with a lower share of the population with higher education (Jennings and Stoker, 2019; de Lange et al., 2023); and (iii) regions with lower employment rates. Regions with a high quality of government also register lower support for hard Eurosceptic parties, albeit not when DT2 is considered (Table 1).

When we turn to our two main variables of interest —the trap risk (Table 1, Regressions 1-3) and the intensity of the trap (Table 1, Regressions 4-6)— the coefficients are always positive and highly significant. Voters in regions with a high trap risk (DT1) between 2001 and 2018 were far more likely to cast their votes for hard Eurosceptic options in national legislative elections than those in regions with a lower trap risk. The deeper the intensity of the trap (DT2), the greater the vote for hard Eurosceptic parties. These results are replicated when conducting the same analysis using instrumental variables (Table A3 in Online Appendix) —which also accounts for the nuanced changes in party ideologies and the shifting focus of their opposition to European integration— and when excluding the countries with almost no hard Eurosceptic vote (Table A4).

Dependent variable: Share of votes for hard Eurosceptic parties (2018-2022)	(1)	(2)	(3)	(4)	(5)	(6)
	DT1	DT1	DT1	DT2	DT2	DT2
	OLS	OLS	OLS	OLS	OLS	OLS
Development trap index (1) (Average 2001-2018)	21.61***	20.81***	18.98***			
	(2.833)	(2.916)	(2.948)			
Development trap index (2) (Average 2001-2018)				5.297***	4.108***	3.719***
				(0.855)	(0.976)	(1.213)
GDP pc index (EU-27) (2018)		0.0431***	0.0498***		0.0416***	0.0486***
		(0.0110)	(0.0123)		(0.0108)	(0.0121)
Employment in industry (%) (2018)		0.133***	0.149***		0.115***	0.128***
		(0.0398)	(0.0464)		(0.0408)	(0.0475)
Migration (‰) (2000-2018)		0.173***	0.111		0.221***	0.146*
		(0.0657)	(0.0742)		(0.0691)	(0.0777)
Foreigners (+15 %) born in another EU country (2018)			-0.810***			-0.869***
			(0.140)			(0.151)
Foreigners (+15 %) born outside the EU (2018)			0.234**			0.288***
			(0.0987)			(0.101)
Older people (%) (2018)		1.213***	1.003***		1.202***	1.009***
		(0.105)	(0.112)		(0.107)	(0.114)
Density 2011 (ln)		-2.219***	-2.351***		-2.038***	-2.218***
		(0.526)	(0.566)		(0.524)	(0.570)
Higher education, 25-64 (%) (2018)		-0.0302	-0.185***		-0.0519	-0.212***
		(0.0386)	(0.0421)		(0.0392)	(0.0431)
Employment (%) (2018)		-0.135**	-0.0334		-0.172***	-0.0687
		(0.0621)	(0.0689)		(0.0636)	(0.0708)
Quality of government (2017)		-1.176**	-1.452**		-0.929	-1.137
	0.0405	(0.572)	(0.672)		(0.595)	(0.692)
Share of votes covered in CHES (%)	-0.0435	0.0157	-0.0229	-0.0687**	-0.0233	-0.0706
	(0.0286)	(0.0316)	(0.0444)	(0.0319)	(0.0348)	(0.0469)
Observations	1,166	1,130	995	1,166	1,130	995
$\mathbf{R}^2$	0.064	0.262	0.288	0.040	0.236	0.264
Adjusted R <sup>2</sup>	0.0619	0.256	0.279	0.0382	0.229	0.255
DF	1,163	1,119	982	1,163	1,119	982

Table 1. Base table. Link between being in a development trap (2001-2018) and votes for hard Eurosceptic parties.

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

When considering the length of time a region has been in a development trap, we expect from a theoretical perspective to find considerable differences between regions that have been trapped for lengthy periods of time and those that have only been trapped for a limited period. This is what Table 2 tests. Here, we analyse the connection between how long a region has spent in a development trap and the support for parties opposed and strongly opposed to European integration at the ballot box. Regressions 1 and 2 in Table 2 represent the trap risk —measured by DT1— in 2018, while Regressions 3 and 4 cover the average trap risk for the period 2015-2018. Regressions 5 and 6 that between 2010 and 2018; and Regressions 7 and 8 over the longer span between 2001 and 2018. Regressions 9 through 12 opt for an alternative measurement of the duration of a trap, counting the number of years a region has been in a trap since 2010 (Regressions 9 and 10) or 2001 (Regressions 11 and 12). The model is run both without controls (regressions with odd numbers) and with controls (regressions with even numbers). The controls are not reported in the table for the sake of brevity but go in line with the coefficients discussed for Table 1 above.

The results show that the inhabitants of a region that is trapped, even if only briefly, are far more likely to support hard Eurosceptic options than people living in places that have not suffered —or that have suffered less— from stagnation in wealth, employment, and productivity.<sup>6</sup> As the coefficients for all the regressions including averages are comparable, the results of Table 2 show that, as expected, the longer the period we consider, the greater the impact on support for hard Eurosceptic parties. How much more likely are voters in long-term trapped places to cast a vote for hard Eurosceptic candidates? According to the coefficients,

<sup>&</sup>lt;sup>6</sup> The rise of political discontent has different roots in Europe than in the United States. While in Europe being caught in a development trap is fundamental for the rise of Eurosceptic feelings, in the US support for populism combines to a greater extent cultural and economic features. In the US, the interplay between economic factors and populism is heavily influenced by racial divides: predominantly white areas undergoing economic decline have veered more towards illiberalism than similarly declining areas with a different — often more mixed— racial composition (Rodríguez-Pose et al., 2023).

the impact is six times greater for the period 2010-2018 than if we only consider 2018 (Table 2, Regressions 6 and 2). If we consider the two decades starting in 2001, the ratio increases to more than 8 times (Regressions 8 and 2). Thus, while being in a trap matters, the length of time a region spends in the trap contributes to an almost exponential increase in the discontent that is later reflected at the ballot box.

The same results are in evidence when the years in a trap are regressed on hard Eurosceptic votes as when we consider the average trap risk over a period of time. The inhabitants of regions that have spent more time in a development trap support hard Eurosceptic options to a significantly greater extent than those living in more economically dynamic regions. This is the case for both the period 2010-2018 and 2001-2018.

If we include the intensity of the trap in the mix (DT2) (Table A5 in Appendix), the results reproduce those of Table 2: the longer the period, the greater the impact of intensity on Eurosceptic voting. When we consider a longer period, the impact of the intensity of the trap on the vote shares goes up, but by less than when using the trap risk (DT1). As compared to 2018, the impact of the period 2001-2018 is close to twice as high on Eurosceptic voting, while in the case of DT1 it increases by a factor of eight.

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Share of votes for hard	DT1,		DT1,		DT1,		DT1,		DT1,		DT1,	
Eurosceptic parties	2018		2015-2018		2010-2018		2001-2018		Years in trap since		Years in trap since	
(2018-2022)									2010		2001	
Development trap (1)	4.696***	2.407**	5.917***	4.936***	12.86***	14.77***	21.61***	20.81***	0.508***	0.528***	0.547***	0.456***
	(1.095)	(1.107)	(1.365)	(1.375)	(1.931)	(1.981)	(2.833)	(2.916)	(0.119)	(0.120)	(0.0875)	(0.0913)
Controls	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES
Observations	1,166	1,130	1,166	1,130	1,166	1,130	1,166	1,130	1,166	1,130	1,166	1,130
$R^2$	0.016	0.225	0.017	0.230	0.041	0.258	0.064	0.262	0.019	0.234	0.042	0.241
_												
Adjusted R <sup>2</sup>	0.0144	0.218	0.0157	0.223	0.0392	0.251	0.0619	0.256	0.0176	0.227	0.0404	0.234
DF	1,163	1,119	1,163	1,119	1,163	1,119	1,163	1,119	1,163	1,119	1,163	1,119

Table 2. Different time measures of the development trap (1) and hard Eurosceptic vote

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

When support for both soft and hard Eurosceptic parties is analysed alongside support for only hard Eurosceptic parties, the coefficients for the average DT1 between 2001 and 2018 remain connected with Eurosceptic vote in national elections and highly significant (Table 3, Regressions 1-3). By contrast, the intensity of the trap yields insignificant coefficients when we introduce controls (Table 3, Regressions 5-6).

The coefficients for the control variables, despite generally going in the same direction as in Table 1, experience some changes. When all the controls are included, they remain significant in the case of (i) industrial employment; (ii) the share of citizens born in another EU country; (iii) population density; and (iv) employment levels (Table 3, Regressions 3 and 6). This means that the voter who supports soft Eurosceptic parties has fewer distinct characteristics compared with the average voter. But the role of the development trap remains strong and significant.

The length of time a region has spent in a trap also matters when estimating support for both soft and hard Eurosceptic parties. The coefficient is insignificant for regions that were trapped in 2018 or that were trapped between 2015 and 2018. Over longer periods, the impact of the trap risk on Eurosceptic voting becomes significant and stronger (Table 4, Regressions 5 through 8). The impact of the trap risk on Eurosceptic voting doubles for those regions that have had the same trap risk for two decades relative to those having had that level in just the post-2010 period. When considering the duration of the trap, we find a strongly significant impact both for the period 2010-2018 and 2001-2018 (Table 4, Regressions 9 through 12).

Dependent variable: Share of votes for soft and hard	(1)	(2)	(3)	(4)	(5)	(6)
Eurosceptic parties (2018-2022)	DT1	DT1	DT1	DT2	DT2	DT2
	OLS	OLS	OLS	OLS	OLS	OLS
Development-trap index (1) (2001-2018)	35.58***	32.53***	32.28***			
	(4.307)	(4.768)	(4.710)			
Development-trap index (2) (2001-2018)				4.064***	-0.567	0.151
				(1.417)	(1.893)	(2.107)
GDP pc index (EU-27) (2018)		-0.0143	0.0387***		-0.0212*	0.0309**
		(0.0124)	(0.0142)		(0.0125)	(0.0142)
Employment in industry (%) (2018)		0.283***	0.174**		0.177**	0.0932
		(0.0677)	(0.0684)		(0.0701)	(0.0707)
Migration (‰) (2000-2018)		-0.0375	0.142		0.172	0.306**
		(0.133)	(0.137)		(0.141)	(0.143)
Foreigners (+15 %) born in another EU country (2018)			-1.670***			-1.803***
			(0.239)			(0.268)
Foreigners (+15 %) born outside the EU (2018)			0.0145			0.202
			(0.176)			(0.180)
Older people (%) (2018)		-0.0172	0.295		0.0504	0.343*
		(0.181)	(0.180)		(0.182)	(0.183)
Density 2011 (ln)		-2.517***	-1.794**		-2.241**	-1.536*
		(0.867)	(0.821)		(0.877)	(0.844)
Higher education, 25-64 (%) (2018)		0.268***	0.0115		0.213***	-0.0531
		(0.0747)	(0.0750)		(0.0750)	(0.0765)
Employment (%) (2018)		-0.520***	-0.450***		-0.696***	-0.605***
		(0.111)	(0.123)		(0.110)	(0.125)
Quality of government (2017)		-3.696***	-1.003		-2.909***	-0.447
		(1.005)	(1.173)		(1.043)	(1.228)
Share of votes covered in CHES (%)	0.0437	0.171***	-0.188**	-0.00141	0.0887	-0.284***
	(0.0425)	(0.0545)	(0.0864)	(0.0475)	(0.0553)	(0.0914)
Observations	1,166	1,130	995	1,166	1,130	995
$\mathbb{R}^2$	0.055	0.185	0.320	0.007	0.152	0.282
Adjusted R <sup>2</sup>	0.0530	0.178	0.312	0.00534	0.145	0.273
DF	1,163	1,119	982	1,163	1,119	982

Table 3. Base table. Link between being in a development trap (2001-2018) and votes for soft and hard Eurosceptic parties

Robust standard errors in parentheses: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Dependent variable:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Share of votes for soft	D	Г1,	DT	71,	D	Г1,	D	Г1,	DI	71,	D	Г1,
and hard Eurosceptic	20	18	2015-	2018	2010	-2018	2001	-2018	Years in t	rap since	Years in	trap since
parties (2018-2022)									20	10		01
Development trap (1)	-3.662*	0.344	1.907	3.710	23.57***	15.53***	35.58***	32.53***	1.063***	0.429*	0.827***	0.609***
	(2.094)	(1.966)	(2.609)	(2.503)	(3.269)	(3.625)	(4.307)	(4.768)	(0.209)	(0.225)	(0.142)	(0.158)
Controls	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES
Observations	1,166	1,130	1,166	1,130	1,166	1,130	1,166	1,130	1,166	1,130	1,166	1,130
$R^2$	0.002	0.152	0.000	0.154	0.041	0.166	0.055	0.185	0.021	0.155	0.029	0.164
Adjusted R <sup>2</sup>	0.000598	0.145	-0.00127	0.146	0.0397	0.158	0.0530	0.178	0.0198	0.147	0.0275	0.156
DF	1,163	1,119	1,163	1,119	1,163	1,119	1,163	1,119	1,163	1,119	1,163	1,119

Table 4. Different time measures of development trap (1) and soft and hard Eurosceptic vote

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

### 5.2. Changes over time

What happens to the connection between being in a development trap and the share of the Eurosceptic vote when, instead of considering just a single electoral cycle, we cover the two electoral cycles in which Euroscepticism has been on the rise? This is the exercise we conduct in Tables 5 and 6, where the link between being in a development trap —using the average development trap index between 2001 and 2013 or 2018 depending on the electoral cycle considered— and the electoral support for hard (Table 5) and both hard and soft (Table 6) Eurosceptic parties is evaluated over the 2013-2018 and 2018-2022 electoral cycles. The structure of the tables reproduces those of Table 1 (hard Euroscepticism) and Table 3 (hard and soft Euroscepticism).

Estimating model (1) over two national electoral periods yields comparable results to those already reported for the last electoral cycle. Both the risk of falling into a trap and the intensity of the trap explain the vote for hard Eurosceptic parties across Europe since 2013 (Table 5). The support for hard Eurosceptic parties has been considerably greater in EU regions with a lower economic dynamism and with a higher risk of stagnation. The coefficients for the controls reported in Table 5 also reproduce those of Table 1, with a few exceptions. These include the share of employment in industry and the quality of government, which become mostly not significant. Employment rates, by contrast, become significant with the full set of controls (Table 5, regressions 3 and 6).

When considering soft as well as hard Euroscepticism over two electoral cycles, both the risk and the intensity of the development trap matter —and they matter a lot— for Eurosceptic votes (Table 6). The results highlight that the link between economic stagnation and the rise of Euroscepticism is not confined to one electoral cycle. Voters in trapped regions —especially if the trap is deep and long— are unlikely to support European integration in the future unless the lack of economic dynamism in the places where they live is addressed.

The strength of the development trap variables over two electoral cycles contrasts with the weakening of the coefficients for most controls. Those that remain significant go in line with the previous literature. Support for hard and soft Eurosceptic parties is stronger in: (i) relatively less dense places; (ii) regions with worse endowments in higher education; (iii) regions with a higher share of foreigners born outside the EU; and (iv) regions with lower quality of government (the only control variable which is not weakened in Table 6). Once all these factors are taken into account, support for hard and soft Eurosceptic parties is, once again, stronger in richer areas (Table 6).

Dependent variable: Share of votes for hard Eurosceptic	(1)	(2)	(3)	(4)	(5)	(6)
parties (2013-2022)	DT1	DT1	DT1	DT2	DT2	DT2
	Pooled OLS					
Development-trap index (1)	16.40***	19.89***	24.46***			
	(1.759)	(1.846)	(2.135)			
Development-trap index (2)				3.412***	4.851***	5.665***
				(0.514)	(0.569)	(0.851)
GDP pc index (EU-27)		0.0172***	0.0448***		0.0160***	0.0425***
		(0.00509)	(0.00875)		(0.00491)	(0.00848)
Employment in industry (%)		0.0333	0.00949		0.0276	-0.000169
		(0.0272)	(0.0377)		(0.0273)	(0.0386)
Migration (‰) since 2000		-0.0628	-0.0660		-0.0234	-0.0208
		(0.0444)	(0.0515)		(0.0464)	(0.0551)
Foreigners (+15 %) born in another EU country			-0.892***			-0.959***
			(0.106)			(0.117)
Foreigners (+15 %) born outside the EU			0.104			0.154*
			(0.0800)			(0.0825)
Older people (%)		0.0785***	0.0750**		0.0751***	0.0621*
		(0.0220)	(0.0316)		(0.0222)	(0.0321)
Density 2011 (ln)		-1.073***	-1.687***		-1.030***	-1.580***
		(0.281)	(0.369)		(0.283)	(0.377)
Higher education, 25-64 (%)		-0.172***	-0.363***		-0.190***	-0.407***
		(0.0290)	(0.0344)		(0.0294)	(0.0351)
Employment (%)		0.0112	0.230***		0.0215	0.232***
		(0.0426)	(0.0532)		(0.0445)	(0.0559)
Quality of government		1.111***	-0.277		1.059***	-0.00854
		(0.375)	(0.491)		(0.393)	(0.512)
Share of votes covered in CHES (%)	0.0179	-0.00114	0.00103	0.00358	-0.0245	-0.0457
	(0.0207)	(0.0249)	(0.0341)	(0.0223)	(0.0274)	(0.0365)
Observations	2,332	2,260	1,583	2,332	2,260	1,583
$\mathbb{R}^2$	0.045	0.094	0.199	0.021	0.072	0.159
Adjusted R <sup>2</sup>	0.0439	0.0901	0.192	0.0201	0.0684	0.153
DF	2,329	2,249	1,570	2,329	2,249	1,570

Table 5. Pooled OLS. Link between being in a development trap and votes for hard Eurosceptic parties

Robust standard errors in parentheses: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

<b>Dependent variable:</b> Share of votes for soft and hard	(1)	(2)	(3)	(4)	(5)	(6)
Eurosceptic parties (2013-2022)	DT1	DT1	DT1	DT2	DT2	DT2
	Pooled OLS					
Development-trap index (1)	36.20***	31.22***	37.66***			
	(2.707)	(2.848)	(3.344)			
Development-trap index (2)				8.486***	6.574***	7.857***
				(0.926)	(1.058)	(1.532)
GDP pc index (EU-27)		0.00963	0.0707***		0.00718	0.0662***
		(0.00785)	(0.0131)		(0.00757)	(0.0126)
Employment in industry (%)		0.136***	-0.0590		0.116**	-0.0793
		(0.0472)	(0.0575)		(0.0474)	(0.0589)
Migration (‰) since 2000		-0.142*	-0.0841		-0.0617	-4.88e-05
		(0.0856)	(0.0946)		(0.0877)	(0.0990)
Foreigners (+15 %) born in another EU country			-1.407***			-1.518***
			(0.169)			(0.188)
Foreigners (+15 %) born outside the EU			-0.0649			0.0276
			(0.139)			(0.142)
Older people (%)		0.263***	0.0210		0.258***	8.79e-05
		(0.0343)	(0.0494)		(0.0349)	(0.0508)
Density 2011 (ln)		-0.841*	-1.883***		-0.769	-1.716***
		(0.476)	(0.586)		(0.480)	(0.602)
Higher education, 25-64 (%)		-0.0407	-0.406***		-0.0759	-0.479***
		(0.0537)	(0.0608)		(0.0543)	(0.0621)
Employment (%)		-0.501***	-0.0346		-0.503***	-0.0468
		(0.0779)	(0.0954)		(0.0807)	(0.102)
Quality of government		-1.998***	-3.957***		-1.996***	-3.523***
	0.000	(0.667)	(0.834)	0.0470	(0.688)	(0.881)
Share of votes covered in CHES (%)	0.0807***	0.192***	-0.00459	0.0479	0.154***	-0.0779
	(0.0307)	(0.0349)	(0.0609)	(0.0339)	(0.0364)	(0.0653)
Observations	2,332	2,260	1,583	2,332	2,260	1,583
$R^2$	0.072	0.179	0.316	0.043	0.155	0.277
Adjusted R <sup>2</sup>	0.0712	0.175	0.311	0.0423	0.152	0.271
DF	2,329	2,249	1,570	2,329	2,249	1,570

Table 6. Pooled OLS. Link between being in a development trap and votes for soft and hard Eurosceptic parties

Robust standard errors in parentheses: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

#### 6. CONCLUSIONS

Eurosceptic voting has risen substantially since the 2000s. Hard Eurosceptic parties increased their vote share from 5% to 14% in this period. Since the Brexit referendum, this vote share has not grown. However, softer versions of Euroscepticism have continued to expand, reaching 27% in the latest national legislative elections in the EU.

In this article we have explored the factors linked to Eurosceptic voting. The results confirm the impact of a range of social, economic, and demographic factors on the rise of Euroscepticism. In almost all of the regressions presented, Eurosceptic voting is reduced by: (i) higher employment rates; (ii) higher shares of the population with tertiary education; (iii) higher quality of government; (iv) higher shares of residents born in another EU Member State; and (v) higher population densities. When these factors are accounted for, the share of Eurosceptic votes tends to be higher in wealthier regions, countering the simplistic narrative that Euroscepticism is purely a product of economic hardship (Díaz-Lanchas et al., 2021). In addition, regions grappling with ageing processes and with a greater share of residents born outside the EU register relatively high shares of votes for Eurosceptic parties in most regressions.

The main focus of our study has been, however, on how regions caught in a development trap are experiencing a far greater rise of Euroscepticism. The inhabitants of regions that are trapped in a cycle of low employment and productivity dynamism and slow growth relative to their performance in the past and to their country and European peers, are veering towards greater Euroscepticism. This finding is consistent across various time measures of development traps, indicating the persistent and long-term nature of these effects. Moreover, the analysis suggests a directional causality from falling into a development trap to the rise of Euroscepticism, rather than the other way around. Sustained economic stagnation and the subsequent growth of regional inequality is shaping political attitudes and preferences towards European integration, endangering the future of the European project.

While the primary contribution of our article may be empirical, the results of the analysis are far-reaching and set the stage for profound theoretical advancements and conceptual shifts in economic geography and in the relationship between economic and political geography. First, the analysis highlights the need to reconceptualise development traps. The concept of traps in economics and economic geography has generally been approached from a macroeconomic perspective. Yet, our findings suggest that the formation and endurance of development traps does not just reflect static conditions but is a dynamic process influenced by geographic, demographic, and political factors. This calls for an integrated framework that accounts for the spatial heterogeneity of development traps and their socio-political ramifications, going beyond simply acknowledging the existence of development traps to delve deeper into their formation, persistence, and resolution (Crescenzi and Rodríguez-Pose, 2012; Achten and Lessmann, 2020).

The results also underline that existing theories looking at regional inequality may be somewhat inadequate to explain recent developments in the location of economic activity. The strong link between growing regional economic inequality and Euroscepticism that we have uncovered challenges and enriches existing theories of regional inequality. It pushes economic geographers to rethink and develop new theoretical models that incorporate political attitudes as both an outcome and a driver of regional economic performance (Storper, 2011; McCann and van Oort, 2019).

Most crucially, the results stress the importance of revisiting the relationship between economics and politics. Until now, the dominating view —and mainly from political science and political geography— has been that the rise in discontent in the so-called places that don't matter has been the result of cultural factors and cultural wars. Yet, we have shown that development traps and Euroscepticism feed on one another and economic decline affects political behaviours. It may also be the case that the rise of discontent and its political consequences then shape the geography of economic activity and the future shape of territorial inequality. The challenge that lies ahead is deciphering the intricate relationship between economic conditions and political realities, as is also starting to be done in political science (e.g., Mayne & Katsanidou, 2023; Vasilopoulou and Talving, 2023). Understanding the symbiotic relationship, feedback loops, and the potential alterations between economics and politics based on varying geographical and institutional contexts becomes paramount. Our research, thereby, underlines the need to realign existing understandings of how economic factors, as opposed to merely cultural wars, can deeply influence and reshape the terrain of political geography and how, in turn, changes in the political panorama affect the location of economic activity. In sum, it calls for economic geographers to develop new theoretical models that incorporate political factors as both an outcome and a driver of regional economic performance.

Finally, the research emphasises the pressing need to propose policies that can proactively prevent the onset of regional development traps and prevent them from becoming entrenched. While regions at various stages of development face potential vulnerability to these traps, certain interventions, such as bolstering government quality, catalysing innovation, and amplifying education and training, seem poised to fortify regions against falling into these traps. Cohesion policy investments (Rodríguez-Pose & Dijkstra, 2021) and careful spatial planning (Mattila et al., 2023), can also play a role in mitigating

Eurosceptic sentiments, which can be symptomatic of broader developmental discontent. Nevertheless, tailoring the optimal mix of preventive policies and investments requires a nuanced appreciation of the distinct regional dynamics and a better understanding of how traps are formed and why do they endure in time.

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## **DISCLOSURE STATEMENT**

No potential conflict of interest was reported by the authors. The content of this paper reflects only the views of the authors. The European Commission cannot be held responsible for any use that may be made of the information contained therein.

## 7. **References**

Achten, S., & Lessmann, C. (2020). Spatial inequality, geography and economic activity. *World Development*, 136, 105114.

Albanese, G., Barone, G., & de Blasio, G. (2022). Populist voting and losers' discontent: Does redistribution matter?. *European Economic Review*, *141*, 104000.

Autor, D.H., Dorn, D., & Hanson, G.H. (2016). The China shock: Learning from labor-market adjustment to large changes in trade. *Annual Review of Economics*, *8*, 205-240.

Blažek, J., Květoň, V., Baumgartinger-Seiringer, S., & Trippl, M. (2020). The dark side of regional industrial path development: towards a typology of trajectories of decline. *European Planning Studies*, 28(8), 1455-1473.

Becker, S.O., Fetzer, T., & Novy, D. (2017). Who voted for Brexit? A comprehensive district-level analysis. *Economic Policy*, *32*(92), 601-650.

Betz, H.G. (1993). The two faces of radical right-wing populism in Western Europe. *Review of Politics*, 55(4), 663-686

Bornschier, S., Häusermann, S., Zollinger, D., & Colombo, C. (2021). How "us" and "them" relates to voting behavior—social structure, social identities, and electoral choice. *Comparative Political Studies*, *54*(12), 2087-2122.

Charron, N., Lapuente, V., & Annoni, P. (2019). Measuring quality of government in EU regions across space and time. *Papers in Regional Science*, *98*(5), 1925-1953.

Crescenzi, R., & Rodríguez-Pose, A. (2012). An 'integrated' framework for the comparative analysis of the territorial innovation dynamics of developed and emerging countries. *Journal of Economic Surveys*, *26*(3), 517-533.

de Dominicis, L., Dijkstra, L. and Pontarollo, N. (2022) Why are cities less opposed to European integration than rural areas? Factors affecting the Eurosceptic vote by degree of urbanization. *Cities*, 130, 103937. <u>https://doi.org/10.1016/j.cities.2022.103937</u>

de Lange, S., van der Brug, W., & Harteveld, E. (2023). Regional resentment in the Netherlands: A rural or peripheral phenomenon?. *Regional Studies*, *57*(3), 403-415.

Díaz-Lanchas, J., Sojka, A., & Di Pietro, F. (2021). Of losers and laggards: the interplay of material conditions and individual perceptions in the shaping of EU discontent. *Cambridge Journal of Regions, Economy and Society*, 14(3), 395-415.

Diemer, A., Iammarino, S., Rodríguez-Pose, A., & Storper, M. (2022). The regional development trap in Europe. *Economic Geography*, 98(5), 487-509.

Dijkstra, L., Poelman, H., & Rodríguez-Pose, A. (2020). The geography of EU discontent. *Regional Studies*, 54(6), 737-753.

Di Matteo, D., & Mariotti, I. (2021). Italian discontent and right-wing populism: determinants, geographies, patterns. *Regional Science Policy & Practice*, *13*(2), 371-396.

Duranton, G., Rodríguez-Pose, A., & Sandall, R. (2009). Family types and the persistence of regional disparities in Europe. *Economic Geography*, 85(1), 23-47

Fetzer, T. (2019). Did austerity cause Brexit?. American Economic Review, 109(11), 3849-3886.

Ford, R., & Jennings, W. (2020). The changing cleavage politics of Western Europe. *Annual Review of Political Science*, 23(1), 295-314.

Goodwin, M.J., & Heath, O. (2016). The 2016 referendum, Brexit and the left behind: An aggregate-level analysis of the result. *The Political Quarterly*, 87(3), 323-332.

Greven, T. (2016). The rise of right-wing populism in Europe and the United States. *A Comparative Perspective*. Friedrich Ebert Foundation, Washington DC Office, 1-8.

Hawkins, K.A., Aguilar, R., Silva, B.C., Jenne, E.K., Kocijan, B., & Rovira Kaltwasser, C. (2019). Measuring populist discourse: The global populism database. In *EPSA Annual Conference in Belfast, UK, June* (17 pp.).

Hochschild, A.R. (2016). *Strangers in their own land: anger and mourning on the American right*. New York: The New Press.

Hopkin, J. (2020). *Anti-system politics: The crisis of market liberalism in rich democracies*. Oxford University Press.

Iammarino, S., Rodríguez-Pose, A., Storper, M., & Diemer, A. (2020). Falling into the middleincome trap? A Study on the risks for EU regions to be caught in a middle-income trap. *Luxembourg, Publications Office of the European Union. doi*, 10, 02363.

Jennings, W., & Stoker, G. (2019). The Divergent Dynamics of Cities and Towns: Geographical Polarisation and Brexit. *The Political Quarterly*, 90, 155-166.

Jolly, S., Bakker, R., Hooghe, L., Marks, G., Polk, J., Rovny, J., Steenbergen, M., and Vachudova, M. (2022). "Chapel Hill Expert Survey Trend File, 1999-2019." *Electoral Studies* 75 (February). <u>https://doi.org/10.1016/j.electstud.2021.102420</u>

Kharas, H., & Kohli, H. (2011). What is the middle income trap, why do countries fall into it, and how can it be avoided?. *Global Journal of Emerging Market Economies*, *3*(3), 281-289.

Kenny, M., & Luca, D. (2021). The urban-rural polarisation of political disenchantment: an investigation of social and political attitudes in 30 European countries. *Cambridge Journal of Regions, Economy and Society*, 14(3), 565-582.

Kitschelt, H. (2002). Popular Dissatisfaction with Democracy: Populism and Party Systems. In: Mény, Y., Surel, Y. (eds) Democracies and the Populist Challenge. Palgrave Macmillan, London. <u>https://doi.org/10.1057/9781403920072\_10</u>. Koeppen, L., Ballas, D., Edzes, A., & Koster, S. (2021). Places that don't matter or people that don't matter? A multilevel modelling approach to the analysis of the geographies of discontent. *Regional Science Policy & Practice*, *13*(2), 221-245.

Lee, N., Morris, K., & Kemeny, T. (2018). Immobility and the Brexit vote. *Cambridge Journal* of Regions, Economy and Society, 11(1), 143-163.

Lenzi, C., & Perucca, G. (2021). People or places that don't matter? Individual and contextual determinants of the geography of discontent. *Economic Geography*, *97*(5), 415-445.

Mattila, H., Purkarthofer, E., & Humer, A. (2023). Governing 'places that don't matter': agonistic spatial planning practices in Finnish peripheral regions. *Territory, Politics, Governance, 11*(4), 813-832.

Mayne, Q., & Katsanidou, A. (2023). Subnational economic conditions and the changing geography of mass Euroscepticism: A longitudinal analysis. *European Journal of Political Research*, 62(3), 742-760.

McCann, P. (2020). Perceptions of regional inequality and the geography of discontent: Insights from the UK. *Regional Studies*, 54(2), 256-267.

McCann, P., & Ortega-Argilés, R. (2021). The UK 'geography of discontent': narratives, Brexit and inter-regional 'levelling up'. *Cambridge Journal of Regions, Economy and Society*, 14(3), 545-564.

McCann, P., & Van Oort, F. (2019). Theories of agglomeration and regional economic growth: a historical review. In R. Capello and P. Nijkamp (eds.) *Handbook of regional growth and development theories*, 6-23. Cheltenham: Edward Elgar.

McKay, L., Jennings, W., & Stoker, G. (2021). Political Trust in the "Places That Don't Matter". *Frontiers in Political Science*, *3*, 642236.

McKinsey Global Institute (2023). Pixels of Progress: A granular look at human development around the world. <u>https://www.mckinsey.com/mgi/our-research/pixels-of-progress-introduction</u>.

Norris, P., & Inglehart, R. (2019). Cultural backlash: Trump, Brexit, and authoritarian populism. Cambridge: Cambridge University Press.

Noury, A., & Roland, G. (2020). Identity politics and populism in Europe. *Annual Review of Political Science*, 23, 421-439.

Pike, A. (2022). Coping with deindustrialization in the global North and South. *International Journal of Urban Sciences*, 26(1), 1-22.

Pinilla, V., & Sáez, L.A. (2021). What Do Public Policies Teach us About Rural Depopulation: The Case Study of Spain. *European Countryside*, *13*(2), 330-351.

Reif, K., Schmitt, H., & Norris, P. (1997). Second-order elections. *European Journal of Political Research*, 31(1-2), 109-124.

Rickardsson, J. (2021). The urban-rural divide in radical right populist support: the role of resident's characteristics, urbanization trends and public service supply. *The Annals of Regional Science*, 67(1), 211-242.

Rodden, J.A. (2019). *Why cities lose: The deep roots of the urban-rural political divide*. New York: Basic Books.

Rodríguez-Pose, A. (2018). The revenge of the places that don't matter (and what to do about it). *Cambridge Journal of Regions, Economy and Society, 11*(1), 189-209.

Rodríguez-Pose, A. (2020). The Rise of Populism and the Revenge of the Places That Don't Matter. *LSE Public Policy Review*, I(1).

Rodríguez-Pose, A., & Dijkstra, L. (2021) Does Cohesion Policy reduce EU discontent and Euroscepticism? *Regional Studies*, *55*, *354-369*. https://doi.org/10.1080/00343404.2020.1826040

Rodríguez-Pose, A., & Ketterer, T. (2020). Institutional change and the development of lagging regions in Europe. *Regional Studies*, *54*, 974–986.

Rodríguez-Pose, A., Lee, N., & Lipp, C. (2021). Golfing with Trump. Social capital, decline, inequality, and the rise of populism in the US. *Cambridge Journal of Regions, Economy and Society*, *14*(3), 457-481.

Rodríguez-Pose, A., Terrero-Dávila, J., & Lee, N. (2023). Left-behind versus unequal places: interpersonal inequality, economic decline and the rise of populism in the USA and Europe. *Journal of Economic Geography*, 23(5), 951–977.

Schmidt, V.A. (2022). The discursive construction of discontent: varieties of populist antisystem ideas and discursive interactions in Europe. *Journal of European Integration*, 44(2), 165-182.

Storper, M. (2011). Why do regions develop and change? The challenge for geography and economics. *Journal of Economic Geography*, 11(2), 333-346.

Todd, E. (1990). L'invention de l'Europe [The invention of Europe]. Paris: Seuil

Torreblanca, J.I., & Leonard, M. (2013). The continent-wide rise of Euroscepticism. European Council on Foreign Relations.

Vasilopoulou, S. & Talving, L. (2023). Euroscepticism as a syndrome of stagnation? Regional inequality and trust in the EU. *Journal of European Public Policy*, in press. DOI: <u>10.1080/13501763.2023.2264891</u>

Zakaria, F. (2016). Populism on the March: Why the West is in Trouble. *Foreign Affairs.*, 95, 9.

# **ONLINE APPENDIX**

# APPENDIX 1: EU POLITICAL PARTIES ACCORDING TO THEIR POSITION ON EUROPEAN INTEGRATION

**Table A1.** Political parties included in the analysis, position on European integration, and year of election.

Country	Year of election	Party name	Position on EU integration	Source
SK	2020	Vlast	1.0	Other
LV	2022	Politiskā partija Stabilitātei!	1.0	Other
LV	2022	SUVERĒNĀ VARA	1.0	Other
BG	2022	НАРОДНА ПАРТИЯ ИСТИНАТА И САМО ИСТИНАТА	1.0	Other
BG	2022	ВЪЗРАЖДАНЕ	1.0	Other
BG	2022	БТР – БЪЛГАРИЯ НА ТРУДА И РАЗУМА	1.0	Other
NL	2022	Forum voor Democratie	1.1	CHES
EL	2019	Kommounistiko Komma Elladas	1.1	CHES
EL	2019	Laikos Syndesmos / Chrysi Avgi	1.2	CHES
EL	2019	Laikos Syndesmos / Chrysi Avgi	1.2	CHES
NL	2015	PVV (Partij voor de Vrijheid)	1.2	CHES
SK	2021	Ludova strana Nase Slovensko (LSNS)	1.3	CHES
		KOMITET WYBORCZY KONFEDERACJA WOLNOŚĆ I NIEPODLEGŁOŚĆ - ZPOW-	1.4	CHES
PL	2019	601-5/19		CLIEG
FR	2022	Rassemblement National	1.4	CHES
DK	2019	Stram Kurs	1.4	Other
CZ	2021	Svoboda a př. demokracie (SPD)	1.5	CHES
HU	2022	MI HAZÁNK MOZGALOM	1.5	Other
CZ	2021	Trikolora Svobodní Soukromníci	1.5	Other
FI	2019	Perussuomalaiset	1.6	CHES
IT	2022	LEGA PER SALVINI PREMIER	1.7	CHES
DK	2019	Nye Borgerlige ZIVI ZID-PH-SIP-HSSCKS-ZSZ-NLSP-HSS	1.8 1.8	CHES CHES
HR	2020	SR		
HR	2020	ZIVI ZID-PH-SIP-NLSP-AM	1.8	CHES
DE	2021	AfD FRATELLI D'ITALIA CON GIORGIA	1.9	CHES
IT	2022	MELONI	1.9	CHES
SI	2022	ZOS - ZAVEZNIŠTVO OSVOBODIMO SLOVENIJO (GIBANJE ZEDINJENA SLOVENIJA - ZSI IN STRANKA SLOVENSKEGA NARODA - SSN)	2.0	Other
SI	2022	Gibanje Zedinjena Slovenija - ZSi	2.0	Other
SI	2022	DOMOVINSKA LIGA - DOM	2.0	Other
BG	2022	БЪЛГАРСКИ НАЦИОНАЛЕН СЪЮЗ – НД	2.0	Other
IT	2022	ITALEXIT PER L'ITALIA	2.0	Other
IE	2022	Solidarity - People Before Profit	2.0	CHES
112	2020	Somewity Teople Defore Tront	2.0	

DK	2019	Dansk Folkeparti	2.0	CHES
EE	2019	Eesti Konservatiivne Rahvaerakond (EKRE)	2.1	CHES
EL	2019	Elliniki Lisi	2.1	CHES
BG	2022	АТАКА	2.2	CHES
SE	2022	SD	2.2	CHES
BE	2019	Vlaams Belang	2.3	CHES
AT	2019	Freiheitliche Partei Österreichs	2.3	CHES
CZ	2021	Komunistická str.Čech a Moravy (KSCM)	2.4	CHES
		PCP-PEV - CDU - Coligação Democrática	2.4	CHES
PT	2022	Unitária	2.4	CHES
DK	2019	Enhedslisten / De Rod-Gronne	2.4	CHES
RO	2020	ALIANȚA PENTRU UNIREA ROMÂNILOR	2.6	Other
HR	2020	DPMS-LED COALITION	2.6	CHES
NL	2021	Partij voor de Dieren	2.6	CHES
		SLOVENSKA NACIONALNA STRANKA -	2.7	CHES
SI	2022	SNS		
BE	2019	PTB	2.7	CHES
BE	2019	PVDA	2.7	CHES
BE	2019	PTB*PVDA	2.7	CHES
NL	2021	SP (Socialistische Partij)	2.8	CHES
FR	2022	Nouvelle union populaire écologique et sociale	2.9	CHES
NL	2021	Staatkundig Gereformeerde Partij (SGP)	2.9	CHES
		KOMITET WYBORCZY PRAWO I	3.0	CHES
PL	2019	SPRAWIEDLIWOŚĆ - ZPOW-601-9/19	5.0	
LU	2018	Déi Konservativ	3.0	Other
LU	2018	KPL d'KOMMUNISTEN	3.0	Other
SI	2022	Državljansko gibanje Resni.ca	3.0	Other
LV	2022	Politiskā partija KATRAM UN KATRAI	3.0	Other
CZ	2021	PŘÍSAHA Roberta Šlachty	3.0	Other
FR	2022	Reconquête !	3.0	Other
BE	2019	Parti Populaire	3.0	Other
SK	2020	Slovenska narodna strana (SNS)	3.1	CHES
		FIDESZ - MAGYAR POLGÁRI SZÖVETSÉG-	3.1	CHES
HU	2022	KERESZTÉNYDEMOKRATA NÉPPÁRT	5.1	CHES
SK	2020	Sme Rodina - Boris Kollar	3.1	CHES
SE	2022	V	3.2	CHES
IE	2020	Renua Ireland	3.2	CHES
ES	2019	VOX	3.3	CHES
РТ	2022	CH - CHEGA	3.4	Other
IT	2022	MOVIMENTO 5 STELLE	3.5	CHES
CY	2021	ΕΘΝΙΚΟ ΛΑΪΚΟ ΜΕΤΩΠΟ (Ε.ΛΑ.Μ.)	3.5	CHES
IE	2020	Independents 4 Change	3.7	CHES
IE	2020	Sinn Féin	3.7	CHES
PT	2022	B.E Bloco de Esquerda	3.8	CHES
CZ	2021	SPOLU – ODS, KDU-ČSL, TOP 09	3.8	CHES
		Lietuvos Centro Partija LITHUANIAN	2.0	CHES
LT	2020	CENTRE PARTY	3.8	CHES
HR	2020	Most nezavisnih lista	3.8	CHES
		ПП ВМРО – БЪЛГАРСКО НАЦИОНАЛНО	3.8	CHES
BG	2022	ДВИЖЕНИЕ	5.0	CHES

NL	2021	50PLUS	3.9	CHES
FI	2019	Kristillisdemokraatit	3.9	CHES
BG	2022	НФСБ	3.9	CHES
SI	2022	ZA LJUDSTVO SLOVENIJE - ZLS	4.0	Other
SI	2022	POVEŽIMO SLOVENIJO (KONKRETNO, ZELENI, SLS, NLS, NS)	4.0	Other
SI	2022	NESTRANKARSKA LJUDSKA LISTA GIBANJA ZDRAVA DRUŽBA	4.0	Other
SI	2022	NAŠA PRIHODNOST IN DOBRA DRŽAVA	4.0	Other
21		NAŠA DEŽELA stranka dr. ALEKSANDRE		
SI	2022	PIVEC Lista Borisa Popoviča - Digitalizirajmo	4.0	Other
SI	2022	Slovenijo	4.0	Other
LV	2022	LATVIJA PIRMAJĀ VIETĀ	4.0	Other
		РУСОФИЛИ ЗА ВЪЗРАЖДАНЕ НА	4.0	0.1
BG	2022	ОТЕЧЕСТВОТО	4.0	Other
BG	2022	ПП ГЛАС НАРОДЕН	4.0	Other
		ДВИЖЕНИЕ НА НЕПАРТИЙНИТЕ	4.0	Other
BG	2022	КАНДИДАТИ	4.0	Other
BG	2022	ПП КОАЛИЦИЯ ЗА ТЕБ БЪЛГАРИЯ	4.0	Other
BG	2022	БНО	4.0	Other
BG	2022	БСДД – Български Съюз за ДИРЕКТНА ДЕМОКРАЦИЯ	4.0	Other
DE	2021	Freie Wähler	4.0	Other
BE	2019	DierAnimal	4.0	Other
BE	2019	Piratenpartij	4.0	Other
LU	2018	déi Lénk	4.0	CHES
LU	2018	Alternativ Demokratesch Reformpartei	4.0	CHES
RO	2020	PARTIDUL SOCIAL DEMOCRAT	4.0	CHES
NL	2021	ChristenUnie	4.0	CHES
DK	2019	[Ny] Liberal Alliance (LA)	4.1	CHES
SK	2020	Sloboda a Solidarita (SAS)	4.1	CHES
SI	2022	LEVICA	4.1	CHES
РТ	2022	PAN - PESSOAS - ANIMAIS - NATUREZA	4.2	CHES
BE	2019	N-VA	4.3	CHES
LV	2022	Latvijas Krievu savienība	4.3	CHES
BG	2022	ПП ИМА ТАКЪВ НАРОД	4.4	CHES
CZ	2021	ANO 2011	4.5	CHES
LU	2018	Piratepartei	4.5	CHES
LT	2020	Lietuvos lenku rinkimu akcija LITHUANIAN POLES' ELECTORAL ACTION	4.5	CHES
ES	2019	Euskal Herria Bildu / Reunir Euskal Herria	4.5	CHES
ES	2019	GBAI	4.5	CHES
EL	2019	European Realistic Disobedience Front [MeRa25]	4.6	CHES
NL	2021	DENK	4.7	CHES
DE	2021	Die Linke	4.7	CHES
LV	2022	Nacionālā apvienība Visu Latvijai!-Tēvzemei un Brīvībai/LNNK	4.7	CHES
HR	2022	Milan Bandic 365 - Stranka rada i solidarnosti	4.8	CHES
	2020			

SK	2020	Obycajni Ludia a Nezavisle Osobnosti (OLANO)	4.8	CHES
LV	2022	Zaļo un Zemnieku savienība	4.8	CHES
FI	2019	Maalaisliitto / Keskusta	4.9	CHES
IT	2022	FORZA ITALIA	4.9	CHES
HU	2022	MAGYAR KÉTFARKÚ KUTYA PÁRT	5.0	Other
BG	2022	ПП ИЗПРАВИ СЕ БЪЛГАРИЯ	5.0	Other
BG	2022	БЪЛГАРСКИ ВЪЗХОД	5.0	Other
BG	2022	МИР	5.0	Other
BG	2022	ПРЯКА ДЕМОКРАЦИЯ	5.0	Other
BG	2022	ПП Национално движение Единство	5.0	Other
CY	2021	АЛЛНЛЕГГҮН	5.0	CHES
		ΚΙΝΗΜΑ ΟΙΚΟΛΟΓΩΝ-ΣΥΝΕΡΓΑΣΙΑ	5.0	CHES
CY	2021	ΠΟΛΙΤΩΝ	5.0	CHES
		ΑΚΕΛ (ΑΝΟΡΘΩΤΙΚΟ ΚΟΜΜΑ	5.0	CHES
CY	2021	ΕΡΓΑΖΌΜΕΝΟΥ ΛΑΟΥ)	5.0	CHES
AT	2019	Österreichische Volkspartei	5.0	CHES
IE	2020	Social Democrats	5.0	CHES
EL	2019	Synaspismos Rizospastikis Aristeras (SYRIZA)	5.0	CHES
DE	2021	Tierschutzpartei	5.0	CHES
FI	2019	Vasemmistoliitto LEFT	5.1	CHES
DK	2019	Socialdemokraterne	5.1	CHES
EE	2019	Erakond Isamaa ja Res Publica Liit (IRL)	5.1	CHES
NL	2021	VVD	5.1	CHES
LT	2020	Darbo Partija LABOUR PARTY	5.1	CHES
BG	2022	БСП ЗА БЪЛГАРИЯ (BSP)	5.1	CHES
SE	2022	MP	5.1	CHES
SI	2022	SLOVENSKA DEMOKRATSKA STRANKA - SDS	5.1	CHES
ES	2019	JXCAT-JUNTS	5.1	CHES
		KOMITET WYBORCZY POLSKIE		
		STRONNICTWO LUDOWE - ZPOW-601-	5.1	CHES
PL	2019	19/19		
DK	2019	Socialistisk Folkeparti	5.1	CHES
SK	2020	Krestanskodemokraticke hnutie (KDH)	5.2	CHES
SK	2020	Smer - socialna demokracia	5.2	CHES
IT	2022	ALLEANZA VERDI E SINISTRA	5.3	CHES
ES	2019	PODEMOS-IU	5.3	CHES
ES	2019	ECP-GUANYEM EL CANVI	5.3	CHES
ES	2019	PODEMOS-EU	5.3	CHES
		APVIENOTAIS SARAKSTS - Latvijas Zaļā		<b></b>
		partija, Latvijas Reģionu Apvienība, Liepājas	5.3	CHES
LV	2022	partija		<b></b>
NL	2021	CDA	5.3	CHES
DK	2019	Alternativet	5.4	CHES
RO	2020	PARTIDUL PRO ROMÂNIA	5.4	CHES
		Lietuvos valstieciu partija LITHUANIAN	5.5	CHES
LT	2020	PEASANT AND GREENS UNION		
CY	2021	ΚΙΝΗΜΑ ΣΟΣΙΑΛΔΗΜΟΚΡΑΤΩΝ ΕΔΕΚ	5.5	CHES
EE	2019	Eesti Keskerakond	5.5	CHES

FR	2022	Les Républicains	5.5	CHES
		DeSUS - DEMOKRATIČNA STRANKA	5 5	CHES
SI	2022	UPOKOJENCEV SLOVENIJE	5.5	CHES
ES	2019	ERC-SOBIRANISTES	5.5	CHES
LV	2022	Saskaņa sociāldemokrātiskā partija	5.5	CHES
ES	2019	BNG	5.5	CHES
RO	2020	PARTIDUL MIȘCAREA POPULARĂ	5.7	CHES
DE	2021	CSU	5.7	CHES
DK	2019	Konservative Folkeparti	5.7	CHES
LV	2022	Konservatīvie (JKP)	5.7	CHES
CZ	2021	Česká str.sociálně demokrat.	5.7	CHES
SE	2022	S	5.8	CHES
DE	2021	FDP	5.8	CHES
DK	2019	Venstre	5.8	CHES
SE	2022	KD	5.8	CHES
IE	2020	Green Party/ Comhaontas Glas	5.9	CHES
ES	2019	MAS PAIS-EQUO	5.9	CHES
ES	2019	MAS PAIS	5.9	CHES
ES	2019	M PAIS-CHA-EQUO	5.9	CHES
РТ	2022	CDS-PP - CDS-Partido Popular	5.9	CHES
IT	2022	SÜDTIROLER VOLKSPARTEI (SVP) - PATT	5.9	CHES
NL	2021	Partij van de Arbeid (P.v.d.A.)	5.9	CHES
FI	2019	Suomen Sosialidemokraattinen Puolue	5.9	CHES
		ΕΝΕΡΓΟΙ ΠΟΛΙΤΕΣ-ΚΙΝΗΜΑ ΕΝ.ΚΥΠ.	6.0	Other
CY	2021	ΚΥΝΗΓΩΝ	0.0	Other
CY	2021	ΑΛΛΑΓΗ ΓΕΝΙΑΣ	6.0	Other
LU	2018	Demokratie	6.0	Other
HR	2020	PAMETNO-IP-FOKUS	6.0	Other
HR	2020	GREEN-LEFT	6.0	Other
SK	2020	DV	6.0	Other
LT	2020	LITHUANIAN SOCIAL DEMOCRATIC LABOUR PARTY LITHUANIAN SOCIAL DEMOCRATIC LABOUR PARTY	6.0	Other
		БЪЛГАРСКА СОЦИАЛДЕМОКРАЦИЯ –	6.0	Other
BG	2022	ЕВРОЛЕВИЦА		
BG	2022	ПРАВОТО	6.0	Other
		КОД /Консервативно Обединение на	6.0	Other
BG	2022	Десницата/		
BG	2022	Коалиция Справедлива България	6.0	Other
IT	2022	AZIONE - ITALIA VIVA - CALENDA	6.0	Other
BE	2019	Listes Destexhe	6.0	Other
BE	2019	DéFI	6.0	Other
BE	2019	B.U.B	6.0	Other
CY	2021	ΔΗΜΟΚΡΑΤΙΚΟ ΚΟΜΜΑ	6.0	CHES
CY	2021	ΔΗΜΟΚΡΑΤΙΚΟΣ ΣΥΝΑΓΕΡΜΟΣ	6.0	CHES
LU	2018	déi gréng	6.0	CHES
SI	2022	LISTA MARJANA ŠARCA - LMŠ	6.0	CHES
SI	2022	NOVA SLOVENIJA - KRŠČANSKI DEMOKRATI	6.0	CHES

BE	2019	sp.a	6.0	CHES
SE	2022	M	6.1	CHES
SE	2022	С	6.1	CHES
RO	2020	UNIUNEA DEMOCRATĂ MAGHIARĂ DIN ROMÂNIA	6.1	CHES
SK	2020	MKO	6.1	CHES
BE	2019	PS	6.1	CHES
AT	2019	Sozialdemokratische Partei Österreichs	6.1	CHES
CZ	2015	PIRÁTI a STAROSTOVÉ	6.1	CHES
62	2021	Lietuvos zalioji partija LITHUANIAN GREEN	-	
LT	2020	PARTY	6.1	CHES
MT	2020	Partit Laburista Labour Party	6.1	CHES
IE	2020	The Labour Party	6.1	CHES
IE	2020	Fianna Fáil	6.1	CHES
BG	2022	Движение за права и свободи – ДПС	6.3	CHES
RO	2020	PARTIDUL NAȚIONAL LIBERAL	6.3	CHES
IE	2020	Fine Gael	6.3	CHES
DE	2020	CDU	6.3	CHES
SI	2021	STRANKA ALENKE BRATUŠEK	6.4	CHES
FR	2022	Ecologistes	6.4	CHES
110	2022	REFORMISTI-HSS BRACE RADIC-		
HR	2020	UMIROVLJENICI	6.4	CHES
IIIX	2020	ZELJKO LACKOVIC INDEPENDENT LIST-		
		REFORMISTI-HSS BRACE RADIC-NSH-	6.4	CHES
HR	2020	HDS		
ES	2019	CCA-PNC-NC	6.4	CHES
ES	2019	EAJ-PNV	6.4	CHES
BE	2019	CDH	6.4	CHES
HR	2020	RESTART-REFORMISTI	6.4	CHES
FI	2019	Ruotsalainen Kansanpuolue / Svenska Folkepartiet i Finland	6.4	CHES
FI	2019	Kansallinen Kokoomus	6.4	CHES
NL	2017	GROENLINKS	6.5	CHES
SI	2021	SOCIALNI DEMOKRATI - SD	6.5	CHES
ES	2022	PP	6.5	CHES
HR	2019	Hrvatska demokratska zajednica	6.5	CHES
CY	2020	ΔΗΜΟΚΡΑΤΙΚΗ ΠΑΡΑΤΑΞΗ	6.5	Other
PT	2021	IL - Iniciativa Liberal	6.5	Other
LU	2018	LSAP - D'SOZIALISTEN	6.5	CHES
LU	2018	DP	6.5	CHES
LU	2018	CSV - Chrëschtlech Sozial Vollekspartei	6.5	CHES
FI	2019	Vihrea Liitto GREENS	6.5	CHES
AT	2019	Die Grünen - Die grüne Alternative	6.5	CHES
DE	2021	Piraten	6.5	CHES
BE	2019	MR	6.5	CHES
DE	2021	SPD	6.5	CHES
SK	2021	ZA LUDI	6.5	CHES
BG	2022	ГЕРБ-СДС	6.6	CHES
HR	2020	HNS	6.6	CHES
HR	2020	HNS-HSS BRACE RADIC	6.6	CHES

MT	2022	Partit Nazzjonalista Nationalist Party	6.6	CHES
		KOMITET WYBORCZY SOJUSZ LEWICY	6.6	CHES
PL	2019	DEMOKRATYCZNEJ - ZPOW-601-1/19		CUEC
EE	2019	Sotsiaaldemokraatlik Erakond - Moodukad	6.6	CHES
EE	2019	Eesti Reformierakond	6.6	CHES
BE	2019	CD&V	6.6	CHES
BE	2019	Groen	6.6	CHES
BE	2019	ECOLO	6.6	CHES
HR	2020	Kukuriku koalicija	6.6	CHES
LT	2020	Lietuvos Respublikos Liberalu sajudis LIBERALS MOVEMENT OF THE REPUBLIC OF LITHUANIA	6.6	CHES
LV	2022	Attīstībai/Par!	6.6	CHES
HR	2020	Hrvatska demokratska zajednica	6.7	CHES
	2020	Hrvatska demokratska zajednica - Hrvatska	6 <b>-</b>	
HR	2020	demokrscanska stranka	6.7	CHES
SK	2020	MOST-HID	6.7	CHES
		KOALICYJNY KOMITET WYBORCZY		
		KOALICJA OBYWATELSKA PO.N IPL	6.7	CHES
PL	2019	ZIELONI - ZPOW-601-6/19		
AT	2019	NEOS - Das Neue Österreich	6.7	CHES
		Lietuvos socialdemokratu partija LITHUANIAN		CUIEG
LT	2020	SOCIAL DEMOCRATIC PARTY	6.7	CHES
ES	2019	CS	6.7	CHES
RO	2020	ALIANȚA USR PLUS	6.8	CHES
EE	2019	Erakond Eesti 200	6.8	CHES
PT	2022	PPD/PSD - Partido Social Democrata	6.8	CHES
РТ	2022	PPD/PSD.CDS-PP - MADEIRA PRIMEIRO	6.8	CHES
		PPD/PSD.CDS-PP.PPM - AD / Aliança	6.0	CHEC
РТ	2022	Democrática	6.8	CHES
PT	2022	PS - Partido Socialista	6.8	CHES
IT	2022	+EUROPA	6.8	CHES
DE	2021	Grüne	6.8	CHES
		PARTITO DEMOCRATICO - ITALIA	6.0	CHES
IT	2022	DEMOCRATICA E PROGRESSISTA	6.8	СПЕЗ
LV	2022	PROGRESĪVIE	6.8	Other
LV	2022	Jaunā VIENOTĪBA	6.8	CHES
ES	2019	PSOE	6.8	CHES
		Tevynes Sajunga / Tevynes sajunga - Lietuvos	6.8	CHES
LT	2020	krikscionys demokratai HOMELAND UNION	0.8	CHES
		ДЕМОКРАТИЧНА БЪЛГАРИЯ –		
		ОБЕДИНЕНИЕ (ДА България, ДСБ, Зелено	6.8	CHES
BG	2022	движение)		
FR	2022	Ensemble ! (Majorité présidentielle)	6.8	CHES
BE	2019	Open Vld	6.8	CHES
SK	2020	Spolu - obcianska demokracia	6.9	CHES
SE	2022	L	6.9	CHES
EL	2019	Nea Dimokratia	6.9	CHES
EL	2019	Kinima Allagis	6.9	CHES

NL	2021	D66	6.9	CHES
HU	2022	DEMOKRATIKUS KOALÍCIÓ-JOBBIK MAGYARORSZÁGÉRT MOZGALOM- MOMENTUM MOZGALOM-MAGYAR SZOCIALISTA PÁRT-LMP - MAGYARORSZÁG ZÖLD PÁRTJA- PÁRBESZÉD MAGYARORSZÁGÉRT PÁRT	6.9	CHES
DK	2019	Det Radikale Venstre	6.9	CHES
SI	2022	VESNA - zelena stranka	7.0	Other
SI	2022	PIRATSKA STRANKA SLOVENIJE	7.0	Other
SI	2022	GIBANJE SVOBODA	7.0	Other
LT	2020	FREEDOM PARTY	7.0	Other
BG	2022	Продължаваме Промяната	7.0	Other
BE	2019	Volt	7.0	Other

Note: The coding for 219 political parties is based on the Chapel Hill Expert Survey (CHES see Jolly et al. 2022). To avoid that in some Member States a significant share of the votes is not coded, 69 parties have been coded following the same methodology by other country experts. Because most of these additional parties are quite small, they represent only 4.5% of the total vote at the EU level, while the parties coded by CHES cover 90% of the vote. The remaining 5% were not coded.

# **APPENDIX 2: VARIABLES INCLUDED IN THE ANALYSIS**

**Table A2.** Variables used in the analysis, with definitions and sources.

Variable name	Definition	Geographical aggregation	Source	
Dependent variable				
Vote share for parties opposed to European integration	Votes for parties that, depending on the regression considered, are strongly opposed, opposed, or moderately opposed to European integration (score <= 2.5 on the EU position scale of the Chapel Hill Expert Survey 2019 for hard Eurosceptic parties and <= 3.5 for soft Eurosceptic ones) as % of valid votes.NUTS3		Chapel Hill Expert Survey (CHES) and other country experts	
Independent variable of ini	terest			
Development trap index 1 (DT1)	Regional development trap indicator identifying whether a region is in a development trap at a given point in time, standardised between 0 and 1.	NUTS3	Own elaboration using Diemer et al.'s (2022) DT1 formula	
Development trap index 2 (DT2)	ndex 2 Regional development trap indicator considering the magnitude of the accelerations of income, employment and productivity, constructed using unstandardised values.		Own elaboration using Diemer et al.'s (2022) DT2 formula	
Control variables				
GDP pc index	GDP per capita (PPS) expressed as index compared to the EU-27 average.	NUTS3	Eurostat	
Employment in industry	industry Share of employment in industry.		Eurostat	

Migration	Annual net migration plus statistical adjustment per 1000 persons	NUTS3	Eurostat
Foreigners born in another EU country	Share of the population aged 15 and older born in another Member State.	NUTS2	Eurostat
Foreigners born outside the EU	Share of the population aged 15 and older born outside the EU.	NUTS2	Eurostat
Elderly	Share of the population who is 65 and over.	NUTS3	Eurostat
Density	Weighted population density at 1 km <sup>2</sup> resolution.	NUTS3	Own calculations based on Eurostat GEOSTAT-2011 grid
Higher education	Share of adults (aged 25-64) with a higher education degree.	NUTS2	Eurostat
Employment	Employment rate (ages 20-64).	NUTS2	Eurostat
Quality of government	Quality of government index.	NUTS2	Gothenburg Quality of Government Institute
Share of votes covered in CHES	Votes for parties covered by the Chapel Hill Expert Survey 2019, as a percentage of valid votes.	NUTS3	Chapel Hill Expert Survey (CHES)

### **APPENDIX 3: INSTRUMENTAL VARIABLE ANALYSIS**

It could be the case that the development trap may not just affect the rise of Euroscepticism but also that Euroscepticism can, through its impact on the local economy, increase (or diminish) the risk of a region being trapped. In order to move beyond mere correlation and determine the direction of causality in this relationship, we resort to an instrumental variable (IV) approach. IV methods capture the exogenous variation in the variable of interest, with the aim of obtaining consistent parameter estimates and eliminating potential bias from omitted variables. They are also useful for isolating the effects of more recent factors influencing Eurosceptic voting while controlling for the evolving ideologies of Eurosceptic parties. By focusing on contemporary dynamics and employing the IV approach, we aim to mitigate the potential endogeneity arising from the complex and shifting historical landscape of parties that, after starting as anti-elite movements, have increasingly added Eurosceptic elements to their ideology. This methodological choice enhances the robustness of our findings and ensures that we capture the nuanced influences on Eurosceptic voting behaviour in the current political climate.

The IV estimation strategy isolates the portion of the independent variable (Eurosceptic vote, in our case) that is unrelated to the error term. This portion is then used to estimate the effect of a region being in a development trap on the share of Eurosceptic vote in a region. This requires the identification of an instrument. The choice of instrument is based on two criteria. It first needs to be relevant. This implies that it should be correlated with our variable of interest (the development trap), establishing a connection between the instrument and the variation in the endogenous variable and allowing for identification of the causal effect. But, at the same time, it should not be directly associated with the outcome variable (Euroscepticism), as this association would introduce bias. Second, the instrument should be exogenous. In other words, it should be unrelated to the error term in the regression equation. We therefore need an

instrument that drives variation in the endogenous variable but is unrelated to the unobserved factors, effectively eliminating the endogeneity bias.

To find relevant and exogenous instruments, recent research has tended to delve deep into history and identify variables that may have a long-term effect on the variable of interest. In our case, we have resorted to Emmanuel Todd's (1990) classification of the prevalent family types across regions of Europe. These are family structures that were the result of the amalgamation between the dominant Roman family, on the one hand, and the family organisations of the barbarian tribes that conquered the Western Roman Empire in the 5<sup>th</sup> century, on the other. According to Todd (1990) this interaction resulted in the formation of six different types of families. Two of these family types —the absolute nuclear and the communitarian family— have had, according to research by Duranton et al. (2009: 38), a positive influence over long-term regional economic growth in Europe. The absolute nuclear family is characterised by a total emancipation of children in adulthood and the award of the inheritance by testament to, generally, the eldest son. Communitarian families are extended families where the sons bring their spouses into the family home after marriage and there is equality among the sons in terms of inheritance (Duranton et al., 2009).

Table A3 reproduces regressions (3) and (6) of Table 1, using an IV estimation with these two family types as instruments, instead of an OLS regression. The number of observations is somewhat reduced (from 995 to 819 regions) as the historical family types indicators are only available for regions in western Europe.

When used as instruments, both family types are correlated with the risk of a region falling into a development trap but not with the share of Eurosceptic vote, fulfilling the exogeneity criterion. Moreover, the results of the tests reported in Table A3 —Kleibergen-Paap rk LM statistic, Cragg-Donald Wald F statistic, Anderson-Rubin chi<sup>2</sup> test of significance of endogenous regressors, and the Stock-Wright LM S statistic— are all within the adequate thresholds.

First, the Kleibergen-Paap rk LM statistic ranges from 5.560 to 8.526, suggesting that the instruments —the prevalence of absolute nuclear and communitarian families in historical times— are relevant and the equation is suitably identified. The Cragg-Donald Wald F statistic (ranging from 6.235 to 10.23) indicates that they are not weak. The extremely low p-values from the Anderson-Rubin chi<sup>2</sup> test (6.36e-08 and 2.09e-09) confirm the significance of the endogenous regressors. Finally, the Stock-Wright LM S statistic values (23.78 and 33.33) support the overidentification of our model, confirming that our chosen instruments are likely valid and uncorrelated with the error term.

<b>Dependent variable:</b> Share of votes for hard Eurosceptic parties (2018-		f absolute nuclear	IV: Prevalence of communitarian family		
2022)		storical times	in historical times		
	DT1	DT1	DT1	DT2	
	IV analysis	IV analysis	IV analysis	IV analysis	
Development trap index (1) (Average 2001-2018)	138.4**		191.5***		
	(58.54)		(62.70)		
Development trap index (2) (Average 2001-2018)		57.95***		74.00***	
		(21.80)		(22.67)	
GDP pc index (EU-27) (2018)	0.0699***	0.102***	0.0832***	0.120***	
	(0.0228)	(0.0328)	(0.0259)	(0.0376)	
Employment in industry (%) (2018)	0.496***	0.526***	0.654***	0.648***	
	(0.192)	(0.192)	(0.206)	(0.197)	
Migration (‰) (2000-2018)	-0.776**	-0.813**	-1.052**	-1.022***	
	(0.343)	(0.322)	(0.428)	(0.368)	
Foreigners (+15 %) born in another EU country (2018)	0.0495	-0.204	0.438	0.00663	
	(0.500)	(0.362)	(0.600)	(0.407)	
Foreigners (+15 %) born outside the EU (2018)	-0.941*	-0.880**	-1.345**	-1.155***	
	(0.505)	(0.429)	(0.543)	(0.431)	
Elderly (%) (2018)	0.675***	0.882***	0.713**	0.965***	
	(0.232)	(0.264)	(0.295)	(0.296)	
Density 2011 (ln)	-3.140***	-4.068***	-3.202**	-4.370***	
	(1.027)	(1.138)	(1.323)	(1.433)	
Higher education, 25-64 (%) (2018)	0.171	0.123	0.267*	0.179	
6	(0.137)	(0.115)	(0.156)	(0.131)	
Employment (%) (2018)	0.778***	0.657***	0.932***	0.735***	
	(0.221)	(0.177)	(0.252)	(0.198)	
Quality of government (2017)	-8.056***	-6.737***	-7.939***	-6.287***	
	(1.401)	(1.522)	(1.864)	(1.832)	
Share of votes covered in CHES (%)	0.284	0.107	0.452*	0.180	
	(0.224)	(0.166)	(0.257)	(0.191)	
Observations	819	819	819	819	
Uncentered $R^2$	0.360	0.422	-0.106	0.146	
Kleibergen-Paap rk LM statistic	5.560	6.742	7.911	8.526	
Cragg-Donald Wald F statistic	6.235	7.410	8.536	10.23	
Anderson-Rubin chi <sup>2</sup> test of significance of endogenous regressors	6.36e-08	6.36e-08	2.09e-09	2.09e-09	
Stock-Wright LM S statistic	23.78	23.78	33.33	33.33	

Table A3. IV analysis. Development trap (2001-2018) and hard Eurosceptic votes (using absolute nuclear and communitarian families as instruments).

Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

More importantly, the results of the IV analysis mostly match those reported in Table 1. Eurosceptic vote is concentrated in less dense and in industrial regions, undergoing ageing processes, and low government quality. Once these factors are controlled for, the share of Eurosceptic votes is higher in wealthier regions. The main differences in controls with respect to Table 1 correspond to higher education, which becomes insignificant, employment (positive and significant), and the share of foreigners born outside the EU (negative and significant).

The coefficients for the risk of being trapped and the intensity of the trap remain significant and are reinforced relative to those reported in Table 1. This indicates that, first, being caught in a development trap strongly drives discontent at the ballot box that, in this case, is translated into a waning of support for the EU. Second, it suggests that the direction of causality goes from falling into a trap to the rise of Euroscepticism and not vice versa.

## **APPENDIX 4**

**Table A4.** Base table. Link between being in a development trap (2001-2018) and votes for hard Eurosceptic parties, excluding countries with almost no hard Eurosceptic vote during the period of analysis (Croatia, Ireland, Lithuania, Luxembourg, Malta, Romania, Slovenia, and Spain).

Dependent variable: Share of votes for hard	(1)	(2)	(3)	(4)	(5)	(6)
Eurosceptic parties (2018-2022)	DT1	DT1	DT1	DT2	DT2	DT2
	OLS	OLS	OLS	OLS	OLS	OLS
Development trap index (1) (Average 2001-2018)	22.79***	16.99***	12.04***			
	(2.956)	(2.997)	(2.971)			
Development trap index (2) (Average 2001-2018)				6.675***	2.651**	1.190
				(1.022)	(1.151)	(1.288)
GDP pc index (EU-27) (2018)		0.0237**	0.0266**		0.0215**	0.0239**
		(0.00992)	(0.0107)		(0.00992)	(0.0108)
Employment in industry (%) (2018)		0.176***	0.242***		0.159***	0.227***
		(0.0398)	(0.0447)		(0.0417)	(0.0462)
Migration (‰) (2000-2018)		0.222***	0.201**		0.313***	0.271***
		(0.0762)	(0.0873)		(0.0785)	(0.0897)
Foreigners (+15 %) born in another EU country (2018)			-1.280***			-1.338***
5 ( )			(0.130)			(0.132)
Foreigners (+15 %) born outside the EU (2018)			0.456***			0.523***
(2010)			(0.0936)			(0.0948)
Older people (%) (2018)		1.206***	1.065***		1.213***	1.069***
		(0.108)	(0.113)		(0.109)	(0.114)
Density 2011 (ln)		-0.416	-0.526		-0.232	-0.410
		(0.544)	(0.595)		(0.543)	(0.596)
Higher education, 25-64 (%) (2018)		0.0484	-0.0418		0.0304	-0.0620
5		(0.0413)	(0.0426)		(0.0417)	(0.0428)
Employment (%) (2018)		-0.238***	-0.229***		-0.287***	-0.270***
		(0.0647)	(0.0717)		(0.0660)	(0.0730)
Quality of government (2017)		-1.997***	-1.366*		-1.581**	-1.077
		(0.639)	(0.710)		(0.655)	(0.721)
Electoral turnout (%)	-0.0141	0.0855**	0.142***	-0.0238	0.0598	0.121***
	(0.0254)	(0.0372)	(0.0393)	(0.0261)	(0.0369)	(0.0393)
Share of votes covered in CHES (%)	-0.0821**	-0.0597	-0.186***	-0.103**	-0.0830*	-0.211***
	(0.0415)	(0.0401)	(0.0554)	(0.0468)	(0.0451)	(0.0595)
Observations	1,013	993	900	1,013	993	900
$\mathbb{R}^2$	0.091	0.292	0.356	0.069	0.268	0.343
Adjusted R <sup>2</sup>	0.0882	0.284	0.346	0.0667	0.260	0.333
DF	1009	981	886	1009	981	886

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

# **APPENDIX 5**

Dependent variable: Share of votes for	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
parties strongly opposed and opposed to			DT2, 2015-2018		DT2, 2010-2018		DT2, 2001-2018	
European integration (2018-2022)								
Development trap (2)	2.514***	2.238***	2.789***	2.315***	1.786***	1.758***	5.631***	4.249***
Controls	(0.358) NO	(0.388) YES	(0.439) NO	(0.413) YES	(0.578) NO	(0.598) YES	(0.864) NO	(0.975) YES
Observations	1,166	1,130	1,166	1,130	1,166	1,130	1,166	1,130
R-squared	0.033	0.248	0.027	0.243	0.009	0.233	0.040	0.243
Adjusted R-squared	0.0316	0.242	0.0254	0.237	0.00693	0.226	0.0386	0.236
DF	1,163	1,119	1,163	1,119	1,163	1,119	1,163	1,119

**Table A5.** Different time measures of development trap (2), hard Eurosceptic vote.

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0