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ARTICLE

Climate Policy Costs, Regional Politics, and Backlash against International Co-operation

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Abstract
This paper investigates the conditions under which subnational concerns shape public assessments of international climate governance. In line with existing literature, we maintain that costly policy adjustments fuel negative views of international co-operation in policy-exposed regions. At the same time, we argue that the more resentful relations are with the national center of politics, the more sympathetic these regions are to international institutions and global governance. Based on geographically targeted survey data from the United Kingdom, we find that fossil fuel-intensive regions with strong, institutionalized regional politics have more positive assessments of international climate co-operation than structurally similar regions where regional political institutions are less pronounced. The findings show that regional politics characteristics are key for understanding climate policy beliefs among citizens that bear the brunt of adjustments to international climate agreements.

Keywords: climate policy; regional politics; international governance; political backlash; public opinion

Introduction

Addressing some of the most pressing crises that countries face requires international co-operation. Under the right conditions, international agreements can govern global trade, geopolitical security, pandemics, and transboundary pollution. Yet public opposition to various types of international treaties has risen in recent years, and scholars have increasingly explored the roots of this new phase of global recoil (Lake, Martin, and Risse 2021; Walter 2021; De Vries, Hobolt, and Walter 2021). Along these lines, research on the political economy of policy losers has begun investigating the subnational distribution of costs from international integration as a source of backlash (Broz, Frieden, and Weymouth 2021; Colantone and Stanig 2018a; Baccini and Weymouth 2021; Gaikwad, Genovese, and Tingley 2022; Bolet, Green, and Gonzalez-Eguino 2024; Voeten 2025). This literature indicates that, while international policy co-ordination has various costly domestic effects, we still know little about how the geographical concentration of policy adjustment costs shapes opposition to international co-operation.

In this paper we explore the link between public attitudes towards international governance and geographically distributed policy costs in the context of climate change. The economic burden of ambitious climate policy – specifically for mitigation (but increasingly also for adaptation) – is known to vary considerably by geography (Gaikwad, Genovese, and Tingley 2022; Gazmararian and Tingley 2023). Place-based policy cost exposure determines public

assessments of national policy (Stokes et al. 2023). However, the extent to which geographic differences matter for attitudes towards *global* climate governance and how these attitudes differ from, for example, those towards local climate action remains largely unclear. Scholarship also tends to ignore how citizens' beliefs about governance as forms of distinctly non-ideological evaluations differ across subnational regions. Support for international co-operation may be linked to partisan cues, but the assessment of the *effectiveness* of different levels of governance independently of partisanship is an important prerequisite for policy implementation in many territories.

Our paper investigates the subnational variation of public assessments of different levels of climate governance in order to explain *where* and *why* citizens of some regions are more skeptical of international climate governance than others. Our argument starts from the observation that implementing climate policy accrues material costs, and that unmitigated costs will affect public opinion negatively (Bergquist, Mildenberger, and Stokes 2020; Colgan, Green, and Hale 2021; Bayer and Genovese 2020), so regions with high adjustment costs from ambitious climate policy will resent climate action in general. Evidently, costly adjustment to climate policy can be interpreted in various ways. For example, exposure to climate-relevant assets, such as wind and solar farms, can shape public attitudes towards climate policy and polarize opinions. On the one hand, some studies show that proximity to green infrastructure is associated with lower support for climate change mitigation projects, although less so than for gas projects (Jacquet 2012; Stokes 2016). On the other hand, the effect of green infrastructure exposure has so far been found to be mixed (Umit and Schaffer 2022). In fact, when territorial benefit-sharing mechanisms are in place, support for wind projects, even in close proximity, can be high (Ejdemo and Soederholm 2015).

For our purposes, our focus here is on climate opinions in more existentially exposed economic regions, namely geographies with fossil fuel assets. People in these regions are likely concerned about the costs of the energy transition. Importantly, we conjecture that these citizens oppose *international* climate action the most, because international institutions, by design, come with little political accountability or flexibility. By contrast, more local climate governance provides greater room to maneuver.

However, our argument goes further. We claim that material concerns may capture only one dimension that is relevant for belief formation in these places. Alternative, yet still geographically bounded dimensions of concern tap into other sources of vulnerability, such as out-group identity and social group identification. We know that these characteristics matter for attitudes towards international co-operation more broadly (Schaffer and Spilker 2019; Osgood 2022) and climate policy specifically, where adjustment costs are often perceived at the group level (Bechtel, Genovese, and Scheve 2019; Gaikwad, Genovese, and Tingley 2022; Zucker 2022). Following this logic, our theoretical contribution is to emphasize the role of regional politics for attitude formation among citizens in policy-vulnerable subnational geographies. Although most regions likely have distinct regional identities, they vary in their credibility for political self-representation and the desire for regional autonomy. Similarly, not all subnational regions have the same complex and contentious relationship with central political authorities at the national level whose task it is to implement international agreements. We argue that the nature of regional politics powerfully dictates the link between regions and national governments and that this relationship spills over into public assessments of international governance.

In sum, we suggest that certain types of regional politics can moderate the negative effects of policy adjustment costs from international climate agreements and, therefore, weaken voters' negative views of international co-operation. The European context is useful here, as international climate agreements are directly championed by an intergovernmental organization in the form of the European Union (EU). From the European politics literature we know that a contentious relationship between a region and the central government can give rise to support for stronger regionalist institutions, such as regional political parties or subnational parliaments, and more

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credible claims of regional autonomy by seeking legitimacy through the EU (Jolly 2015; Daniels and Kuo 2021). In such instances, supranational institutions have been shown to help regional policy makers short-circuit their conflict with national governments (Sambanis 2006; Gehring 2021).

Building on these observations, we present two hypotheses. On the one hand, we expect that citizens from fossil fuel regions that lack autonomous forms of political representation should not see any preferable alternative to domestic governance as the most effective authority of climate policy implementation. While ambitious climate policy may be generally disliked for its costs, we expect these voters to evaluate domestic control of climate action more favorably than international governance. On the other hand, we expect that fossil regions that are politically more separated from central government will be more skeptical of domestic policy. Voters in these regions, we argue, will assess international governance more favorably to distance themselves from the national center of political power.

We test our framework with original survey data from the United Kingdom (UK). Because of the salience of UK debates around net zero policies and long-standing legacies of fossil fuel extraction as well as separatism and devolution politics (including strong regional differences on European integration), the UK is a useful most likely case to study. Our research design leverages a nationally representative sample as our baseline group and respondents from three targeted samples in Yorkshire and Cumbria, Scotland, and Wales, where climate policy costs are comparably similar *but* regional relations with the national government in Westminster differ.

Evidence from an observational ranking exercise and an analysis of open-ended survey responses shows a robust separation of attitudes towards international governance across these targeted groups. While respondents across all three geographies hold less favorable views of international climate policy compared to the UK general population, the considerable backlash (25 percentage points) against international climate governance among respondents from Yorkshire and Cumbria attenuates significantly for Scottish and Welsh citizens. Importantly, these findings do not seem to be driven by within-sample variation at the individual level for a battery of potential confounders, including differences in income, devolution preferences, or the rural–urban make-up of the sample. Rather, additional analyses of open-ended responses suggest that the relative moderation in backlash in Scotland and Wales can be qualitatively traced to mistrust in the assistance from the central government. Our evidence from comparing preferences for climate and trade governance also shows that our results are distinct for the former and not simply a generic preference for international governance. Supplemental analyses from Eurobarometer surveys point to empirical patterns that are consistent with our argument for data from the UK over time and from regions in other European countries.

Taken together, our findings demonstrate that the subnational costs of climate policy are not monolithic; rather, they interact with relevant characteristics of regional politics in ways that can attenuate opposition to top-down approaches of international governance among those living in the most policy-vulnerable regions. The findings also indicate that, under certain conditions, devolution and power struggles in federalist political systems can generate momentum in support of internationally co-ordinated public good provision.

Policy Adjustment Costs, Regional Politics, and International Climate Co-operation

Subnational Distributional Effects of Climate Governance

The implementation of global policies, if done credibly, causes adjustment costs that often materialize at the subnational level. Recognizing this, recent political economy research evaluates the subnational impact of economic shocks on anti-globalization sentiments (Colantone and Stanig 2018b; Ballard-Rosa et al. 2021) and their electoral repercussions (Carreras, Carreras, and Bowler 2019; Green, Hellwig, and Fieldhouse 2022). This literature underscores the relevance of focusing on

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those who are left behind to understand the deep roots of backlash against globalization and international governance (De Vries, Hobolt, and Walter 2021; Gazmararian 2025).

Climate policies have similar, if not larger, distributional effects because of a sharp separation between diffused winners and concentrated losers. Public opposition to regressive policy instruments (Fairbrother 2022; Finnegan 2022a) and resistance to geographically targeted climate action have prompted scholars to study the mass politics of 'pockets of losers' (Bechtel, Genovese, and Scheve 2019; Beiser-McGrath and Bernauer 2019; Colgan, Green, and Hale 2021). With an emphasis on exploring the distributional effects of ambitious climate policy, existing work primarily studies the effects of *domestic* climate policy (Gaikwad, Genovese, and Tingley 2022; Gazmararian and Tingley 2023). One of our contributions is to, instead, focus on opinions about *international* climate governance, not only because climate action requires international co-ordination, but also because the effectiveness of such co-operative efforts critically hinges on domestic public support (Falkner 2016; Urpelainen and Graaf 2018).

Conceptualizing domestic public support, research suggests that individual-level attitudes towards international co-operation are first and foremost shaped by the material costs of adjusting to international rules. International treaties may be supported for efficiency and solidarity purposes (Beiser-McGrath and Bernauer 2019; Bayer and Genovese 2020; Gaikwad, Genovese, and Tingley, 2025). However, if they are likely to decrease economic welfare or threaten domestic employment, backlash likely arises. Evidently, governments can compensate policy losers to prevent such backlash. Compensation can happen through welfare transfers, green industrial policy, or direct investments (Gaikwad, Genovese, and Tingley 2022; Bolet, Green, and Gonzalez-Eguino 2024; Chalmers and Dellmuth 2015). Yet these compensatory mechanisms require a high level of credibility, which is often undermined by tight government budgets, the long time horizon of climate change, and changing and often time-inconsistent political priorities (Finnegan 2022b; Hale 2024; Bayer, Crippa, and Genovese 2025). This limits the practicality of compensating policy-vulnerable citizens – that is, those who are most exposed to economic losses related to policy implementation – to, if at all, small groups in society. Large swaths of policy losers will therefore remain opposed to ambitious climate action due to material risks.

Importantly, these material concerns are not necessarily only captured by individual circumstances. The *group-level* perception of these costs is equally, if not more, relevant: citizens form opinions about policies as a result of anticipated group-level effects as well as diffuse concerns about policy adjustments more broadly (Bechtel and Scheve 2013; Kennard 2021). This matters for two reasons. First, while material adjustment costs will have contained effects for a limited number of households, for example, those employed in fossil fuel industries, the perceived costs at higher levels of geographical aggregation, such as at regional level, for example, will be much larger because of the indirect impacts on everyone surrounding those households that are directly affected by the policy. Second, and central to our argument, public assessments of international governance depend on what translating international agreements into national policies means domestically for the relationship between regional centers of political power and the national government which is in charge of treaty implementation.

This leads us to theorize that the extent to which people believe in the effectiveness of international governance depends on how they think about the position that their national government takes in relation to international institutions on one end and subnational, regional forms of political representation on the other end. We find backing for this claim in the literature on public beliefs about the legitimacy of international institutions (Brutger and Li 2022), while also relying on scholarship in European politics. This work demonstrates that attitudes towards international co-operation form as the result of a trade-off between sovereignty and direct control in the case of national policy making and greater co-ordination and efficiency in the case of international governance (Schneider 2018; De Vries 2018).

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We study these insights about public opinion towards subnational versus global climate policy in the UK. The UK is a relevant case partly because of its highly globalized economy, partly because of its unwavering climate ambition, and partly because of high levels of political salience around issues of international alignment in the context of UK–EU relations post-Brexit (Hobolt, Leeper, and Tilley 2021; Walter 2021). At the same time, the UK is characterized by strong politics of place, grounded in its history of devolution, which has resulted in notable geographical variation across Scotland, Wales, and Northern Ireland, but also within England (Willett and Giovannini 2014; Henderson et al. 2024). The politics of devolution continues to shape regional institutions, identities, and political representation, all of which can affect attitudes towards climate policy, as we discuss below.

Regional Politics as a Moderator for Attitudes towards Climate Governance

Following the logic above, the starting point of our argument is that from an average citizen's perspective, the main benefit of international climate governance is that internationally co-ordinated policy responses to climate change result in efficiency gains relative to other forms of governance at lower levels. We therefore expect average citizens to consider international climate governance as an effective policy choice (Bechtel and Scheve 2013; Bechtel, Scheve, and Lieshout 2022). However, for citizens in economically burdened geographies international governance is often not seen as an attractive choice, because adjustment costs are significant so policy vulnerability is high. This is particularly true for climate action on mitigation, which primarily creates diffuse, global benefits, whereas adaptation efforts could be assessed more favorably due to greater local benefits. In either case, we argue that international governance *could* come with important upsides for those communities that hold devolved, political powers. We maintain that regional levels of integration and devolution, that is, the configuration of regional politics, can moderate belief formation about effective levels of climate governance.

Notably, the UK offers a meaningful illustration of the importance of political geography which, so we argue, 'spills over' into the way voters think about climate governance. Scotland and Wales enjoy a much deeper and more established level of devolution than English regions (Willett and Giovannini 2014) – despite similar levels of public support for decentralization.[1] While the process of devolution was unclear until the 1990s (Jones and Lewis, 1999; Johns et al. 2010), in 1997 Scotland and Wales won referendums that built a new layer of institutions in the form of, first and foremost, devolved parliaments for both nations. By contrast, in the nine English regions, such as the North-East or the West Midlands, devolution happened at lower levels and took the weaker form of, for example, devolved mayoral authorities or devolved city regions.

We argue that differences in regional politics, operative through devolution in the case of the UK and through structurally similar political processes elsewhere, moderate how citizens in these parts of the country form attitudes towards international climate policy. Voters in more autonomous regions – for instance, those with their own parliaments – are politically more empowered and might thus be able to speak with a louder voice about their needs. They may also more credibly seek to find international allies beyond the national government. International co-operation can also have direct positive material effects for these regions through access to compensatory mechanisms or infrastructure investments like the EU's Regional Development Fund (Schneider 2011; Rickard 2023). In Europe, climate co-operation is also often seen as a form of European integration, which can soften views on climate

[1]In Scotland and Wales, three-quarters of the population see benefits in territorial parliaments and support devolution (English 2021). Similarly, more than 73 per cent of citizens in Yorkshire recently reported wanting to have more decision-making powers like Scotland and Wales (Yorkshire Society Representative Survey Report 2021).

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governance in more devolved, better integrated regions compared to less devolved, less integrated ones. For these reasons, we expect to observe less backlash against international climate governance, even when policy adjustment costs are high, in regions with greater devolution of political power compared to those which lack similarly comprehensive forms of regional political representation.

In sum, our central claim is that public assessments of international climate governance depend on a combination of two dimensions: the *material costs* from the adjustments required by ambitious climate policy and the characteristics of *regional politics*, defined as the relationship between regional and national centers of political power. In the logic of the first dimension, significant exposure to policy costs from climate governance raises doubts about international co-operation – for it is both materially painful and perceived as 'handed down' by international actors. At the same time, the political relationship between regional and national governments conditions the levels of public opposition to international policy such that greater regional autonomy moderates the backlash against international climate governance.

Expectations

Our expectations derive from combining the two key dimensions theorized above – group-level adjustment costs and configurations in regional politics – into a simple typology. We exploit variation across these dimensions to obtain observable implications and report expectations for all four theoretically distinct groups.

First, we consider the two types of groups that are characterized by low levels of climate policy costs. We consider these together, because we expect low policy adjustment costs to yield observationally equivalent expectations independent of regional politics. Whenever material costs from ambitious climate policy are low, international governance is welfare enhancing: climate policy that is internationally co-ordinated and implemented in global lockstep offers the most effective policy solution to addressing climate change. This logic should remain compelling no matter what form regional political representation takes. We therefore expect public support for international governance to be high among those two groups with minimal costs from policy implementation.

The more interesting expectations about a moderating effect of regional politics, which we centrally argue for in this paper, are observable when climate policy costs are high. Let us first consider the case in which policy adjustment costs are high but regional politics is weakly configured. In keeping with existing arguments about anti-globalization politics and green backlash, we expect geographies where carbon-intensive sectors (mining, extractive industries, heavy manufacturing) are located to strongly *oppose international climate governance*. This resistance arises from worries over high costs from ambitious climate action and a perceived lack of accountability and legitimacy ascribed to international actors. The absence of trust in international institutions further underpins our expectation that geographies characterized by high policy costs and modest levels of regional political representation *favor local forms of climate governance*.

Compared to this latter group, we expect the *backlash against international governance to be smaller* in geographies where policy adjustment costs are still high, but where regional politics play a more central role. We argue that, despite similar policy costs, a more moderated opposition to international governance prevails because of the recognition that greater alignment with, and thus public support for, international institutions can come with various potential benefits, including greater political legitimacy for regional ambitions, further devolution, or access to regional development funds, as in the case of the EU. Geographies with greater regional political representation should therefore be more amenable to international climate governance than those that lack comparable regional political institutions, such as, for instance, regional parliaments.

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Research Design

Our research design leverages observational variation in British respondents' areas of residence, which we classify based on the region's exposure to climate policy adjustment costs and political relations with Westminster. In this section, we justify our case selection, describe our sampling strategy that targets theoretically relevant geographies, and discuss our survey design.

Test Case: The United Kingdom

This paper's main objective is to trace public attitudes towards international climate governance as a function of policy adjustment costs and regional political configuration. We do so in the context of the UK, which allows us to identify geographies that are unambiguously exposed to climate policy adjustment costs, while also varying in their political relations with Westminster. The UK is, however, by no means the only case where our argument can hold. Europe as a whole has many regions that are economically vulnerable to ambitious climate policy and hold (aspirations for) regional autonomy. Wallonia in Belgium and the Basque region in Spain, for example, have charged relations with national centers of political power in Brussels and Madrid. Bavaria in Germany or Lombardia and Veneto in Italy are other examples despite contextual differences.[2]

In terms of measurement, we capture exposure to high climate policy adjustment costs by focusing on geographies with a legacy of significant fossil fuel extraction, namely coal mining and related metallurgical production. Recognizing that coal has been phased out across the UK as of 2024, we maintain that the organization of fossil fuel-driven industrialization in Britain runs deep in former mining areas (Beatty, Fothergill, and Gore 2019; Abreu and Jones 2021).[3] This prominently flared up in heated public debate over net zero policies and the consequences of ambitious climate action for former industrial powerhouse regions during the 2024 national elections. Today's climate policies will take away only few mining jobs in former coal regions in the North of England, the Scottish Central Belt, or South Wales, yet ambitious climate action *does* threaten these very same regions' local economies that remain linked to carbon-intensive industrial production.[4] Aside from direct economic effects, current climate policies are often also seen as negating the role that fossil fuels played in Britain's Industrial Revolution and as attempts to cancel industrial history, local pride, and regional identities tied to fossil fuels. Regions that can be characterized in this way will be severely affected by ambitious climate policies, both materially and in terms of their identities. This makes focusing on geographies that were rich in mining and coal extraction a good measurement strategy to capture climate policy adjustment costs.

As for the measurement of regional politics below the level of national government, in the UK this is directly measurable as a result of devolution. Specifically, we distinguish between the two nations of Scotland and Wales with their devolved parliaments and Yorkshire and Cumbria, which are part of England's official regions of Yorkshire and the Humber and North West, respectively. While devolution has been more comprehensive in Scotland and Wales, devolution in England has nonetheless meant a significant decentralization of a range of political powers to devolved administrations, city regions, and mayoral authorities.[5] Our measurement strategy uses

[2]We also see applications of our argument to regions outside Europe, such as Kurdish communities in Asia, or indigenous communities in North and South America.

[3]This is also true of the offshore gas/oil production in the North Sea, which has peaked but still retains legacies in the north of the country. Note however that this paper only engages with the old geographies of onshore coal production, which are easier to identify.

[4]In Appendix SI1, we show that Yorkshire and Cumbria, Scotland, and Wales are comparable across key structural economic and labor market characteristics.

[5]This qualitative difference in devolution also shows in electoral competition, where the Yorkshire Party has won about 10 per cent of the vote in mayoral elections in the Sheffield City Region, West Yorkshire, and South Yorkshire, which is a strong showing for a regional party, yet nowhere near as strong as the Scottish National Party in Scotland or Plaid Cymru in Wales.

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this *relative* difference in devolution in the UK and classifies Scotland and Wales as geographies with heightened regional politics, as understood in our argument. In contrast, we treat Yorkshire and Cumbria as geographies where regional, political relations with Westminster are comparatively more muted, while recognizing that regional politics are not completely absent in these cases either.

Sampling Strategy and Targeted Geographies

Our sampling strategy builds on the comparison of public attitudes towards climate governance from four identical surveys, which we implemented across different target geographies that vary in meaningful ways along climate policy exposure and regional politics.[6] The baseline survey captures a nationally representative sample (by age, sex, and ethnicity) across the UK ($n = 1,169$, fielded by Prolific, 6–8 April 2022). It serves two purposes: theoretically, it approximates governance preferences of the 'average' British voter when policy adjustment costs are low; empirically, it provides a reference category against which to assess the magnitude of the backlash against international governance for geographies with high policy costs.

Our second survey targets respondents in Yorkshire and Cumbria ($n = 560$, fielded by Qualtrics, 22 March–11 April 2022).[7] In the context of our theory, this sample captures a political geography that is characterized by high climate policy costs due to its fossil fuel-intensive regional economy and (at least relative to Scotland and Wales) weaker levels of regional political autonomy. We identified our sample targets from the following multi-step process: first, we selected Yorkshire as the most populous of all former coal regions according to UK coalfields data (Beatty, Fothergill, and Gore 2019); we then selected South Yorkshire and West Yorkshire counties as areas with the highest number of still operational mines (Northern Mine Research Society 2022); from these two counties, we targeted seven districts (Barnsley, Doncaster, East Riding, Leeds, Rotherham, Sheffield, Wakefield) as sampling areas based on 2020 employment data in mining and quarrying (category B) from the Office for National Statistics (nomis 2021). Outside of Yorkshire, we targeted Cumbria in north-west England because the then-current Conservative government approved a new coal mine in Cumbria in December 2022.[8]

The final two surveys target Scotland ($n = 936$) and Wales ($n = 450$, fielded by Qualtrics, 22 March–11 April 2022). We focus on these two samples because testing our theory requires us to identify geographies with high climate policy costs and relatively greater regional political representation. Scotland and Wales meet both these conditions. As in the case of Yorkshire and Cumbria, Scotland and Wales were home to substantial coal mining and downstream smokestack industries, making them equally vulnerable to ambitious climate policy. However, Scotland and Wales differ from Yorkshire and Cumbria in an important way for our argument: they have their own devolved national governments that entertain contentious relations with Westminster, as has been on prominent display in the form of the 2016 Brexit referendum or the strong electoral return for the Scottish National Party (SNP) in Scotland and Plaid Cymru in Wales (Hobolt, Leeper, and Tilley 2021; Green, Hellwig, and Fieldhouse 2022).

Survey Design

Throughout our four samples we fielded the same survey instrument, which consists of multiple building blocks. We focus here mainly on a ranking exercise embedded in the survey, followed by

[6]Appendix SI2 shows a map of all targeted geographies.

[7]Out of the 560 respondents in our analysis below, 500 respondents come from Yorkshire and the remaining 60 respondents are from Cumbria.

[8]*BBC News*, 7/12/2022, 'First UK coal mine in decades approved despite climate concerns'.

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open-ended questions. Notably, we also asked a battery of questions on political attitudes, climate change perceptions, and basic socio-demographic information.[9]

The main outcome measure comes from the ranking exercise. Here, we ask respondents to order levels of governance from 'local governance' to 'international governance' by how effectively they think climate change can be governed at these levels. We prefer this approach of ordinal preference elicitation (Hanley, Mourato, and Wright 2001) to cardinal elicitation techniques which directly ask respondents to score governance levels on, say, a 0–100 scale. This latter approach is known to create problems when respondents find it difficult to articulate how much they prefer one governance level over another or when cognitive shortcuts based on elite cues or party ideology are used in belief formation.

We also do very consciously not ask about international climate policy *support* directly, because these questions tend to reproduce ideological positions on climate policies of the political parties that respondents identify with rather than their own positions (Bergquist, Mildenberger, and Stokes 2020; Hazlett and Mildenberger 2020). Instead, we ask survey participants to evaluate policy effectiveness, which is more suitable for our purposes because assessments of whether climate policy is more effectively governed at the national or international level, for example, offer more genuine comparisons of how favorably different governance levels are perceived (Dellmuth, Scholte, and Tallberg 2019). In doing so, we follow recent research that infers preferences for international climate governance from beliefs about policy effectiveness (Bayer and Genovese 2020; Bechtel, Scheve, and Lieshout 2022).

Our ranking exercise presents respondents with information about climate change and the necessity for policy action first. We then ask respondents to order four possible levels of climate governance from least to most effective: *local level* (city/town); *devolved nation level* (England, Scotland, and Wales); *central national level* (Westminster); *international level*. For each level, we give an example of what this level means practically to ensure respondents understand the question correctly. The distinction between the UK as a whole and its four devolved nations of England, Scotland, Wales, and Northern Ireland is well-known among British citizens, and it is analytically useful as it epitomizes core fault lines in UK devolution politics.

After the main outcome question, an open-ended question asks participants to briefly explain their top-ranked choice.[10] The qualitative analysis of the open-ended responses, which we discuss more fully below, shows high levels of comprehension and an understanding of governance levels that reflects varying degrees of trust in political authorities at different levels of governance.[11]

Results

We present our main results in four steps. First, we show that, relative to the average UK citizen, respondents from Yorkshire and Cumbria are least enthusiastic about international climate governance, while those from Scotland and Wales with similar exposure to climate policy costs moderate their backlash against international forms of governance. Second, we provide a discussion of additional results that help demonstrate the robustness of our findings and probe the scope conditions of our study. Third, we validate our quantitative evidence with the examination of the open-ended questions. We conclude with supplementary results from Eurobarometer data that speak to the external validity and the generalizability of our argument.

[9]Appendix SI3 presents results from a vignette experiment that was also part of our survey. The goal of the experiment was to help us evaluate whether assessments of international climate governance across UK geographies are linked to political attitudes towards the EU.

[10]Appendix SI4 shows the survey's main outcome frame. We separately also asked respondents to rank effective governance levels of trade policy with overall substantively weaker results.

[11]Only a small share of classifiable open-ended responses that ask respondents to elaborate on why they ranked their top choice on top suggests agnosticism or lack of engagement with the task. This reassures us that the ranking exercise was not seen as a forced choice that induces preferences where respondents do not really care.

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Preferences for Climate Governance

Based on our argument, respondents in Yorkshire and Cumbria should be most skeptical of international climate governance, while respondents in the devolved nations of Scotland and Wales are expected to attenuate their opposition to international governance. Relative to these groups which all bear costs from climate policy implementation, preferences for international climate governance should be strongest among the general population for whom adjustment costs to climate action are minimal. For our purposes, the general population serves as a reference category against which to interpret substantive effect sizes.

We test these expectations in a multinomial logistic regression set-up. Specifically, we operationalize each respondent i's climate governance preference as their top choice from a set of four governance alternatives, ranging from local ($k = 1$), subnational ($k = 2$), and national ($k = 3$) to international governance ($k = 4$).[12] This choice is then modeled as a function of a set of binary indicators $\mathbb{1}_i^m$, which take the value of 1 when respondent i comes from sample m, where $m = \{\text{GEN POP}, \text{YORKSHIRE/CUMBRIA}, \text{SCOTLAND}, \text{WALES}\}$, and a set of individual-level control variables, including age, gender, education, and political left–right orientation. As is standard, we estimate predicted probabilities as our main quantity of interest (Paolino 2021) from the log-odds ratio of higher governance levels relative to 'local governance' as the baseline category with a linear index of the following form:

$$ln \ \frac{Pr[k = \{\text{subnational, national, international}\}]}{Pr[k = \{\text{local}\}]}$$

$$= \ \beta_{1,k}\mathbb{1}_i^{\text{GEN POP}} + \beta_{2,k}\mathbb{1}_i^{\text{YORKSHIRE/CUMBRIA}} + \beta_{3,k}\mathbb{1}_i^{\text{SCOTLAND}} + \beta_{4,k}\mathbb{1}_i^{\text{WALES}} + \gamma\mathbf{X}_i$$

Figure 1 presents our main results. Each panel plots the predicted probability for respondents from each of our four samples (shown on the y-axis) to choose the governance level indicated at the top of the panel as their preferred choice. We are primarily interested in the moderating effect of regional politics when comparing climate governance preferences from respondents of Yorkshire and Cumbria to those of Scotland and Wales, but we also show predicted probabilities for the general population (shaded in gray) to contextualize relative effect sizes. We denote statistical differences of *predicted probabilities* (at $p < 0.05$ from two-tailed equivalence tests) for Yorkshire/Cumbria and Scotland as well as for Yorkshire/Cumbria and Wales in yellow. Predicted probabilities are calculated for the empirical distribution of the covariates in our model.[13]

Let us start with the reference sample, that is, the general population. A predicted probability of 65 per cent offers strong support that the average UK citizen prefers international climate policy over any other level of governance. Preferences for the national (16 per cent), subnational (9 per cent), and local levels (10 per cent) are more muted. Overall, two-thirds of the average voters justify the principle of global co-operation to address climate change.

We now move to the comparisons with the targeted samples. One first insightful observation is that the variation in governance preferences across Yorkshire and Cumbria, Scotland, Wales, and the general population is largest in the cases of local and international governance. Predicted probabilities for national and devolved nation governance fall in somewhat similar ranges – despite preferences in Wales that are higher for national and lower for devolved nation governance relative to Yorkshire and Cumbria. Consistent with our

[12]We model each respondent's top-ranked choice because this ensures the best match between our empirical modeling strategy and our theoretical argument which is formulated in terms of respondents' most preferred governance level, while being agnostic about lower-level rank orderings.

[13]Appendix SI5 shows results from models without control variables to address concerns that suppression effects drive results (Lenz and Sahn 2021).

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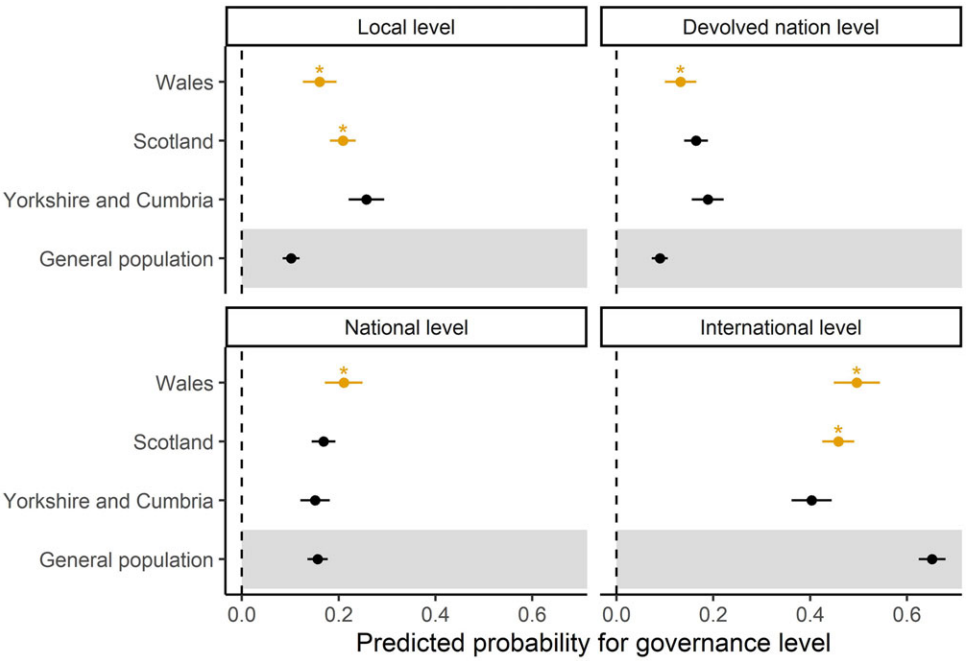

Figure 1. Main results: climate governance preferences by UK sample
Note: panels show indicated choice for local, subnational, national, and international levels of climate governance by respondents from our survey samples (y-axis). Point estimates and error bars denote average predicted probabilities by sample from multinomial logistic regressions and 95 per cent confidence intervals. Estimates for the general population sample are shaded in gray to help contextualize relative effect sizes. Statistically significant pairwise comparisons of average predicted probabilities between Yorkshire/Cumbria and Scotland as well as between Yorkshire/Cumbria and Wales are shown in yellow ($p < 0.05$, two-tailed equivalence tests).

theoretical expectations, which are silent about lower-ranked governance levels, regional politics cleavages seem to operate primarily along the fault lines of local and international governance.

Focusing on international climate governance (Figure 1, bottom-right panel), respondents from Yorkshire and Cumbria, whom we characterize as the unconditional losers from climate policy and whom we expect to be most skeptical of international governance, have indeed a predicted probability of only 40 per cent to support international climate governance. This is 25 percentage points lower compared to the UK average. Scottish and Welsh respondents assess international climate governance also less favorably than the UK average respondent (predicted probabilities of 46 per cent and 50 per cent, respectively), but they hold 5–10 percentage points more positive views than their counterparts of similarly climate policy vulnerable geographies in Yorkshire and Cumbria (statistically significant differences at $p < 0.05$, as indicated in yellow). Indeed, credible territorial institutions combined with contentious political relations with Westminster seem to moderate the opposition to international climate governance in Scotland and Wales in important ways and to a substantial degree.

In regard to local governance preferences (Figure 1, top-left panel), others have shown that geographies that bear the brunt of policy adjustment costs often consider themselves as being 'left behind' by the central government (Walter 2021; Rickard 2023). This can create distrust in national political institutions that are far away from people's needs, feeding a distinct preference for local governance (Abreu and Jones 2021). Along these lines, we find that the predicted probability for Yorkshire and Cumbria respondents to place local climate governance at the top of

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their ranking is at 26 per cent, the highest among all our samples and two-and-a-half times as high as the UK average. In absolute terms, predicted probabilities for Scotland (21 per cent) and Wales (16 per cent) are also high, but they are statistically significantly lower than for Yorkshire and Cumbria ($p < 0.05$, as indicated in yellow).

In summary, this set of findings produces several noteworthy results. First, the UK average citizen sees international climate governance favorably, while national governance is scored low. Second, Yorkshire and Cumbria, with their strong historical ties to coal mining and fossil fuel industries, object to international climate governance the most, while trusting local climate governance. Third, for Scotland and Wales, whose histories also rely on fossil fuel industries but have specific regional institutions in contention with Westminster, we find evidence of a backlash against international governance, but this backlash is moderated noticeably compared to Yorkshire and Cumbria.

Importantly, Appendix SI4 shows that these results are considerably larger – by 30 per cent for Scotland and by 70 per cent for Wales – for preferences on international climate governance than for other issues we inquired about, notably international trade. This offers reassurance that we do not simply pick up generic preferences for international governance as such, but that our findings capture reasoned preferences that recognize the highly distributional and regionally clustered effects of ambitious climate policy.

Additional Statistical Results

In our empirical strategy above, dummy variables for the three different geographies of Yorkshire and Cumbria, Scotland, and Wales serve as the main explanatory variables in our regression models. While this approach is desirable for ensuring a close match between theory and empirics, it also runs the risk of misattributing our findings to variation across these three geographies, when, in fact, subgroup variation within each of these geographies might be driving the results. To assuage such concerns we now present a set of additional results that help us demonstrate the robustness of our main findings and allow us to speak to the scope conditions of our argument.

Urban versus Rural Populations

A first concern for our analysis may stem from potential confounding from differences in the rural–urban make-up in our four samples. Urban and rural populations have, for example, different transport needs and housing options, which likely translate into different preferences for climate governance. When splitting our data into urban and rural respondents we find that results hold (Appendix SI6.1). We also demonstrate that results attenuate only slightly and just for Scottish respondents when focusing on a subset of survey participants who report being aware of current or past fossil fuel-heavy industry, such as coal mining or oil drilling, in the area they live in (Appendix SI6.2). This is another useful test to rule out our concern that urban–rural differences that are correlated with the physical presence of carbon-intensive extractive industries underpin our results. We are confident that our findings are not spurious due to differences in climate governance preferences between urbanites from Scotland and Wales and rural residents in Yorkshire and Cumbria (or vice versa). Instead, governance preferences in England's rural North differ from those of rural Scotland and Wales. Despite structural similarities across these geographies, we consistently find differences that map onto variation in devolution processes across the UK as identified in the main results.

Climate Concern and Mitigation versus Adaptation Preferences

Another potential threat to inference arises from different perceptions of climate change. Although broad public support for climate action is generally rising (Andre et al. 2024), not

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everyone will be equally concerned about the issue. At a most basic level, we verify that our results remain when dropping the small number of seventy-eight respondents who indicate being unconcerned about climate change (Appendix SI6.3).

More intelligibly, addressing climate change requires mitigation and adaptation efforts, which can create variation in perceptions on the issue. Some people may think of climate policy primarily as a way to reduce *global* greenhouse gas emissions (mitigation); others may think of it as building *local* resilience to climate impacts (adaptation); and for others climate action is about achieving both. Mitigation and adaptation policies are both costly, but benefits from mitigation are often diffuse and global, whereas benefits from adaptation accrue locally. This greater emphasis of adaptation policy on local returns should structure preference formation for local governance among respondents who see climate policy, first and foremost, as an adaptation measure. Among this adaptation-focused subgroup, which accounts for 16 per cent of total respondents in our sample,[14] we find much higher predicted probabilities for local governance for *all four* of our samples; however, even though local governance becomes more attractive across the board, the relative ordering of greater support of local governance in Yorkshire and Cumbria compared to Scotland and Wales still holds – yet, for reasons of statistical power, no longer at statistically significant levels (Appendix SI6.4). Perceiving climate change as a mitigation-only or mitigation and adaptation issue largely reproduces the main results. These additional analyses suggest that the moderating effect of regional politics in fossil fuel-dependent communities is strongest when climate policy is primarily seen as a mitigation effort, that is, to provide a global public good. On the other hand, types of climate policy that create local benefits which can offset some of the direct policy costs, such as climate adaptation, are evaluated differently, providing an important scope condition for our argument.

Income and Economic Vulnerability to Climate Action

Our main argument is squarely built around concerns of climate policy at the *regional level*. Of course, this theoretical focus by no means negates differential exposure to material costs from climate policy at the individual level. Recognizing such individual-level heterogeneity in economic vulnerability to climate action, we first show that our main results are qualitatively similar (although somewhat weaker for Scotland) for subgroups below and at/above the sample median income category of £30,000—£40,000. The same is true for respondents who reported that they are worried/very worried about the economic development in their local economy (Appendix SI6.5). In a more exploratory analysis where we subset our data to workers in various carbon-intensive sectors, such as agriculture, mining and quarrying, waste management, and construction, we confirm lower support for local governance and greater support for international governance in Scotland relative to Yorkshire and Cumbria ($p < 0.1$). Mindful of the heavily reduced sample size to just 9 per cent of the full data (284 respondents), these results, together with descriptive patterns for Wales that are consistent with our expectations, offer support for our argument.

In summary, variation in exposure to ambitious climate policy at the individual level does not appear to erode the moderating effect of regional political representation, as hypothesized in our argument. This finding offers new evidence that, as suggested elsewhere (Gaikwad, Genovese, and Tingley 2022), climate governance preferences in policy-vulnerable geographies are not solely a function of material considerations, but feature an important socio-tropic, group-level dimension as well.

[14]Every second respondent thinks of climate change as both a mitigation and adaptation challenge, while 34 per cent see it primarily as a mitigation issue. Breakdowns are roughly similar across Yorkshire and Cumbria, Scotland, and Wales.

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Brexit Preferences, Devolution Aspiration, and Vote Choice

Differences in preferences on Brexit and devolution as well as vote choice intersect with our target geographies of Yorkshire and Cumbria, Scotland, and Wales, so we provide additional results along these lines to nuance our core findings.

Our results are robust to controlling for Brexit support as an additional covariate in the main model specification. Furthermore, splitting the data into subgroups of 'remainers' and 'leavers' shows that our results hold among respondents who wanted the UK to stay in the EU, and attenuate for those favoring Brexit (Appendix SI6.6). Results weaken primarily for preferences on international governance, with predicted probabilities being fairly similar across Yorkshire and Cumbria, Scotland, and Wales. This stymieing effect among Brexit voters is perhaps not surprising given the nationalist and inward-looking sentiment of Brexit, although it may also be dictated by the smaller sample size of the Leave subgroup. Altogether, we take this evidence to confirm the importance of regional politics as respondents' stance on Brexit is inherently rooted in regional differences and epitomizes the struggle with Westminster.

We also find that individual-level devolution preferences do not seem to interfere with our findings: no matter whether respondents see themselves as local/devolved nation citizens or as UK citizens, our main results hold (Appendix SI6.7). Lastly, we document that, while the direction of the results is consistent across Conservative and Labour voters, our core results are stronger among respondents who voted for the Labour Party in the 2019 General Election. This means that some of our findings may be partially motivated by respondents who hold strong anti-Conservative Party or anti-austerity attitudes (Appendix SI6.8).

Analysis of Open-Ended Responses

The main strength of the analysis presented so far lies in identifying general patterns in our data. However, what is less clear is whether respondents may have made their choices about effective levels of climate governance in light of considerations other than the ones we emphasize in our argument. To better understand respondents' rationales for their assessments of climate governance levels, we analyze data from open-ended responses that prompted survey participants to explain their top choice in the ranking exercise.[15] Our first analysis relies on the human coding of the response data according to different themes that speak to the four governance levels; in a second step, we also ran automatized topic models to validate our qualitative analysis.

Our manual coding follows keywords based on a dictionary of themes. We assigned responses to an *international* theme when they refer to foreign countries, international organizations, or the global nature of climate change and global efficiency. The *national* theme picks up responses that focus on the UK as a whole, the Westminster government, or national accountability. Issues of devolution, sovereignty or independence of British nations, and decentralization fall into the *subnational* theme. Finally, the *local* theme singles out municipal governance and the needs and duties of cities. This coding is useful because respondents may, for example, rank international governance on top but rationalize their choice with respect to, say, a dislike for other levels of governance, which was indeed the case for roughly 10 per cent of responses. It is also useful to gauge whether respondents predicate their top choice on reasons of efficiency or, as our argument assumes, on more political reasons of trust and legitimacy.

Among the baseline category of the UK general public, we find that the vast majority of respondents justifies their climate governance preference with references to international themes (74 per cent), followed by national (10 per cent), local (10 per cent), and subnational

[15]Right after the ranking exercise task, we asked respondents: '*Can you say very briefly why you ranked your first choice on top?*'

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ones (3 per cent).[16] In Yorkshire and Cumbria, respondents refer to international themes less often, although still in substantial amounts (59 per cent of responses). Respondents from this geography more often highlight local themes (19 per cent of responses), followed by national (11 per cent of responses) and subnational themes (3 per cent of responses), where the latter two occur in proportions similar to the general public. Among Scottish and Welsh respondents, international themes are common (66 per cent of responses in Wales), whereas the emphasis on local themes (11–12 per cent of responses) is weaker compared to respondents from Yorkshire and Cumbria.

This analysis adds to the overall logic of our argument. The average UK citizen is largely persuaded by the advantages of international climate action, mostly because they recognize the importance of co-ordinated climate efforts to address climate change as a global problem. Subnational geographies and regions that are expected to lose from ambitious climate policy, on the other hand, attribute much greater effectiveness to local and more decentralized forms of governance in public good provision, not least because local governance assuages fears of local needs being overlooked by the central government.

Further strengthening our claims, roughly one in ten Scottish and Welsh respondents who selected international governance justifies their preference with reference to devolution and governance at levels away from Westminster. One Scottish respondent that ranked international governance on top states, '*I think that Scotland would do more than Westminster for climate change, but it's all about having the money to do such change.*' A Welsh respondent adds that '*the UK Government aren't doing near enough, so maybe devolving it will get more done at least here.*' These selected quotes reflect the findings from our structural topic models, which highlight that Scottish and Welsh responses are more anchored to issues of responsiveness to regional needs compared to the ones from Yorkshire and Cumbria (Appendix SI7). Altogether, this evidence offers face validity to our main point on how certain configurations of regional politics can soften views towards international climate governance.

External Validity and Generalizability

Supplementing our original survey data analysis above, we finally provide initial evidence that our theoretical argument may hold more widely. In this section, we first discuss empirical patterns that are consistent with our logic among UK respondents *over time* from Eurobarometer data in 2013, 2015, 2017, and 2019.[17] Second, we also trace and compare responses from countries *other* than the UK. We focus specifically on Spain, which has, to some extent, similar dynamics in terms of strong regional politics (see, for example, Daniels and Kuo 2021).[18]

The key Eurobarometer question that is of interest to us asks citizens about which actors, they think, should be responsible for addressing climate change.[19] This question is useful for our analysis because, similar to the ranking exercise in our own survey, respondents can choose between different *levels* of governance, like the EU, national governments, or local and regional authorities.[20] We compare average responses to this question by NUTS2 areas. For the UK, we use

[16]Percentages do not add up to 100 per cent because the question was not forced and twenty-six respondents (3 per cent of respondents) did not respond to the qualitative prompt.

[17]We analyze pre-Brexit Eurobarometer survey waves 80.2, 83.4, 87.1, and 91.3, accessed through the GESIS repository, because they included questions on climate change as special topic items.

[18]In Spain, Catalunya has distinct regional claims and ambitions towards political independence and autonomy, much like Scotland, yet it is much less affected by material adjustment costs from climate policy. Other Spanish regions, such as Andalusia, however, will be hit hard by costs from decarbonization policies similar to coal mining regions in the UK.

[19]The question wording is: '*In your opinion, who within the EU is responsible for tackling climate change?*' Response categories are: a) the EU; b) the national government; c) local and regional authorities; d) businesses and firms; e) non-governmental organizations; and f) individuals.

[20]We note several caveats however: first, respondents can record multiple choices; second, 'Don't know' is a valid response; third, response options for 'businesses and firms' and 'non-governmental organizations' have changed across waves.

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respondents from London as the reference group, similar in spirit to our general population baseline in our survey above. We also use respondents from Yorkshire, Scotland, and Wales to reflect the regions in our original survey. In Spain, all first-level administrative divisions have some level of autonomy but some have more credible ambitions of independence than others; for our purposes, we focus on responses from residents in Andalusia, Aragon, and Catalunya as target areas (all of which vary in terms of carbon economies), and Madrid as the reference group.

The UK Eurobarometer data largely confirm the findings from our original data collection. Recognizing notable differences in survey design such as the absence of an 'international governance level' response category (other than the EU), at least one-third of UK respondents across all years and regions assign climate governance responsibility to the 'national government', although more economically vulnerable regions select it less often than others. For example, in 2019, responsibility for addressing climate change should sit with Westminster according to 45 per cent of respondents in Yorkshire relative to much higher shares in Wales (63 per cent), Scotland (70 per cent), and London (70 per cent).

Importantly, the 'European Union' is the actor chosen second most frequently, with roughly a quarter of respondents picking Brussels across all survey years. But regional differences towards the EU are prominent and comply with our theoretical expectations: respondents from Yorkshire select the EU only 22 per cent of the time, while EU support is relatively higher in Wales (38 per cent) and most pronounced in Scotland (49 per cent) and London (57 per cent). Importantly, in Wales (38 per cent) and Scotland (49 per cent) 'local and regional authorities' as actors responsible for addressing climate change are supported to the same degree as the EU. This suggests that, in more autonomous regions, even when policy adjustment costs are high and local authorities are salient, citizens see beneficial synergies between the EU and the provision of climate policy.

Similar patterns are observable beyond the UK. Spain, as a country with a significant stock of indigenous fossil fuels and salient regional politics, is our comparator case. We analyze geolocated Eurobarometer responses from Madrid (reference group), Catalunya (not policy vulnerable, but with contentious regional politics towards the national government), Andalusia (policy vulnerable and with contentious regional politics towards the national government), and Aragon (policy vulnerable and with salient regional politics, but targeted for climate compensation in 2019).

On average, the Spanish responses show that 'national government' and the 'European Union' are chosen with similar frequencies of 30–40 per cent of responses each across the four survey waves (2013–2019). Of all Spanish regions, Catalunya as the least policy vulnerable region consistently shows the strongest support for EU-level climate governance, rising from 49 per cent in 2013 to 62 per cent in 2019. This pattern confirms policy affinity of this autonomous region with the EU, and suggests a strong link between international organizations pushing clean energy and non-carbon communities credibly striving for independence. Andalusia, on the other hand, is a region with less credible ambitions for independence that is also more embedded in fossil fuels. Andalusia respondents indeed prefer climate governance mostly out of the hands of the EU (with less than 38 per cent consistently selecting it) or the national government (less than 50 per cent). Finally, we find that Aragon in 2019 did see a decrease of support for EU and national government governance and an increase in local government management; importantly, these levels of support are all much higher than in Andalusia. In the case of 'national' and 'EU' governance, they are at or above 50 per cent (thus substantially higher than other fossil fuel regions, for example, Andalusia). The Aragon example shows that exposed regions can actually be more pro-climate if realistic compensation is put in place, also through credible devolved institutions (Bolet, Green, and Gonzalez-Eguino 2024).[21]

[21]We also study the patterns of Eurobarometer responses in Italy. Here, we focus on Sicily as a policy-vulnerable region with institutionalized representation; Lombardia as a less policy-vulnerable region without institutionalized representation

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Conclusion

This paper sets out to study the roots of public backlash against international co-operation in climate policy. Building on the literature on mass contestation of global policies, we explore if and how material vulnerability to ambitious climate policy is shaped by other dimensions of place-based politics. We focus on the understudied configuration of regional politics and on how regional claims of political autonomy that often go hand-in-hand with fraught relationships between regional and national centers of political power may increase the appreciation for greater international integration on global public good issues like climate change.

Theoretically, we conjecture that strong regional politics in places that are highly exposed to the material costs from climate policy can moderate otherwise substantial opposition to international climate governance. This, we believe, may be the case because these communities tend to have negative perceptions of central national governments and, as a consequence, hold greater affinity to international institutions – especially if these institutions are supposed to filter policy effects, provide compensation, and offer credible alternative channels to gain legitimacy for regional ambitions. In a world in which multiple global crises are challenging the provision of public goods, regional political power may effectively steer the impact of centralized policy implementation by making global politics more local. This logic is exemplified well in the post-2024 Labour-led UK government's ambition to work together with regional mayors in an effort to kick-start a new era of devolution, for instance, through green energy investments.[22] Devolution makes for less tense relations between the central government and regional communities, in addition to more targeted investments. It follows that, under the right conditions, regional political configurations may be able to dilute the potential backlash against global institutions.

Empirically, we concentrate on the UK and compare mass attitudes towards international climate governance in policy-vulnerable target geographies that are characterized by the presence or absence of contentious regional political relations with the national government. For this purpose, we fielded the same original survey in four distinct geographies: in addition to a baseline general population survey, we targeted Yorkshire and Cumbria, Scotland, and Wales. Across a number of empirical tests, we consistently find that the opposition to international climate governance attenuates in the devolved nations of Scotland and Wales relative to economically similarly affected former coal regions in Yorkshire and Cumbria in the north of England, whose backlash is rooted in concerns over policy adjustment costs for fossil fuel-intensive and manufacturing-heavy regions. Further research is needed to corroborate these claims in other countries and to more systematically study the role of federalist institutions for climate policy more broadly. Future studies should also compare how our results travel to creating appeal for or opposition to international governance in regions that are differently exposed to climate policy, for example, by being close to renewable energy and green infrastructure.

Taken together, the results of our study contribute to various literatures. First, our research provides fresh evidence on how subnational politics form cogent assessments of climate policy not only at the domestic, but also at the *international* level. Second, our findings broaden the understanding of non-material determinants of climate policy attitudes and their interaction with material costs by centering attention on an understudied determinant in the form of regional politics. Bridging the scholarship on distributional comparative politics and the legitimacy of international organizations, our paper charts a new path forward for scholars interested in the

(although greater supply chain vulnerability); and Lazio as the reference group. We find that both Sicily (the region with the largest adjustment costs and institutional autonomy) and Lombardia (no direct adjustment costs and no institutional autonomy) are systematically less supportive of the EU than the non-exposed, non-devolved Italians in Lazio, where EU governance is supported in some years by more than 50 per cent. Respondents from Lombardia are least enthusiastic for EU-level governance in the early waves (only 19 per cent support in 2013), presumably because the League Party was running on a devolution-focused political platform before rising to national power.

[22]*The Guardian*, 16/7/2024, Labour to invite England's 'devolution deserts' to take on more power.

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micro-foundations and political geographies of backlash against climate policy, among other new battles of globalization.

Finally, our findings suggest that voters are attentive to multiple levels of governance and have mental rankings of which institutions they would like to rely on to handle public good provision. While international institutions would seem logically suited to manage global problems, such as action on climate change, our findings suggest that significant portions of voters in 'left-behind' places are introspective and consider empowered local institutions as more legitimate actors of governance. Nonetheless, policy makers who believe in the efficiency of international governance and multilateral co-operation may capitalize on the willingness of some regions to collaborate with international institutions. This comes, however, at the price of domestic tensions between these regions and national governments.

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Data availability statement. Replication data for this article can be found in the Harvard Dataverse: https://doi.org/10.7910/DVN/PAXCRR.

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