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The Politics of Extractivism: Mining, Institutional Responsiveness, and Social Resistance

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ABSTRACT

Natural resource exploitation often generates negative externalities and fuels social conflict. Yet, patterns of social resistance against mining differ considerably within and across countries. What explains differences in the occurrence and duration of anti-mining protest? Distinguishing explicitly between protest onset and continuation, we theorize that communities affected by mining engage in social protest to signal their grievances to political decision-makers. Yet, once protests have erupted, their duration depends on the institutional setup that shapes these decision-makers' likelihood of responding to grievances. Under conditions of high decentralized responsiveness, where regional governments have both the competences to enact policies and the electoral incentives to make use of them, regional governments are likely to rely on "policy side payments" in mining-unrelated domains to assuage mining-related grievances. Thus, decentralized responsiveness should reduce the duration of anti-mining protest. To test our argument, we introduce novel subnational data on mining activities and anti-mining protests in Bolivia, Peru, and Ecuador from 2002 to 2013. Using dynamic logit regression models, we find that the determinants of protest onset and continuation differ systematically. While the volume of mining activities impacts protest onset, the duration of anti-mining protests decreases significantly under conditions of high decentralized responsiveness. These results have implications for our understanding of governments' ability to balance the economic benefits and social costs of natural resource exploitation, as well as for the interplay between institutionalized and non-institutionalized arenas of political contention.

1. Introduction

Does natural resource extraction fuel anti-mining protest? And under what conditions does such protest persist or come to an end? Examining the various manifestations of what has been termed a "resource curse" (Auty, 1993), an extensive, interdisciplinary body of scholarship has argued that resource abundance or exploitation hampers economic growth (e.g., Sachs and Warner, 2001), hollows out state capacity (Fearon and Laitin, 2003), undermines democracy (Carreri and Dube, 2017; Ross, 2015), lowers public goods provision (e.g., Dell, 2010), increases social inequality (Loayza and Rigolini, 2016), and promotes corruption (e.g., Knutsen et al., 2017; Vicente, 2010). Many scholars also agree that, partly because of these negative externalities, natural resource exploitation has the potential to fuel violent and non-violent conflict (e.g., Arce, 2014; Christensen, 2019; Denly et al., 2022; Haslam and Tanimoune, 2016; Ross, 2015). Yet, on the other hand, resource extraction can also generate economic growth (Van Der Ploeg and Poelhekke, 2017). It is not surprising then that the degree of social resistance against mining differs markedly within and across countries, as well as over time (e.g., Bebbington et al., 2008). Moreover, anti-mining protests vary in their duration, raising the question why, once protest has erupted, it persists in some cases while fading in others.

Much of the burgeoning literature on mining and protest focuses on subnational variation within individual countries (e.g., Bebbington and Bury, 2013; Arce, 2014; Mähler and Pierskalla, 2015).[1] Thus, these studies are unable to account for the role of institutional differences *between* countries that previous works have identified as crucial in managing resource wealth. Indeed, a rich body of research in the field of development studies emphasizes that states' bureaucratic quality, the rule of law and private actors' risk of expropriation, government contract repudiation, and other institutional factors mediate the impact of resource wealth on outcomes such as economic development, quality of

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[1] Notable exceptions are Christensen (2019) and Haslam and Tanimoune (2016).

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governance, and political protest (e.g., Mehlum, Moene and Torvik 2006a, 2006b; Robinson,Torvik,and Verdier, 2006; Daniele, 2011). Yet, it remains unclear at what stages of (potential) social conflict specific institutional arrangements become relevant. For their part, relying on count models of protest events, most studies of anti-mining protest focus on protest *intensity* (e.g., Arce et al., 2018; Arce and Hendricks, 2019; Mähler and Pierskalla, 2015). Thus, they cannot differentiate between the distinct roots of protest onset and protest continuation or termination, potentially obscuring important variation across stages of social mobilization.

Our paper focuses on the design of regional state institutions and investigates how they shape states' responses to non-institutionalized expressions of social grievances and, thus, the trajectories of anti-mining mobilization. Explicitly distinguishing between protest onset and continuation, we conceive of anti-mining protests as a mechanism for communities affected by resource extraction to signal their grievances to policymakers. Yet, while grievances should affect the initial eruption of protest, protest continuation likely depends on how actors in the institutionalized arena of politics respond to protestors. We argue that where regional governments both have the institutional capacity to autonomously enact policies and are electorally accountable to their departmental constituencies, they are likely to implement policies in mining-unrelated domains that offset the detrimental consequences of mining activities. In other words, what we term "decentralized responsiveness" allows *and* incentivizes regional governments to compensate local populations for the damage incurred by mining even if they have little influence over the occurrence of mining activities themselves (and, thus, the onset of anti-mining protest). As a consequence, we expect decentralized responsiveness to reduce the likelihood of protest *continuation*.

To test our argument, we introduce novel subnational data on mining activity and mining-related protests in the three Latin American countries of Bolivia, Peru, and Ecuador from 2002 to 2013. Our data go beyond existing datasets by specifically focusing on protest related to mining, rather than general levels of mobilization or conflict. We combine these protest data with fine-grained geocoded data on mining activities as well as information on decentralization. We focus on these three Andean countries because they share crucial similarities in terms of the importance of the mining sector to the national economy, the multi-ethnic composition of their populations, and levels of development, thus providing an opportunity to analyze variation in the occurrence and duration of anti-mining protest across subnational areas within a set of otherwise highly similar countries.

Using dynamic logistic regressions that simultaneously model the onset and continuation of protest separately, we show that the determinants of the two outcomes differ systematically. Specifically, we find that mining activity triggers the onset of social protest against mining projects, but that such protest ends significantly sooner under conditions of high decentralized responsiveness. We also find evidence that the effect of decentralized responsiveness is particularly pronounced when protests target state institutions (as opposed to the mining company) and revolve around policies and the distribution of resources (rather than more fundamental environmental concerns) – thus, precisely in those cases where our theorized causal mechanism would expect decentralized responsiveness to be most relevant.

Overall, our results confirm the importance of collective grievances in spurring social mobilization (e.g., Cederman,Gleditsch and Buhaug, 2013; Gurr, 1994; Regan and Norton, 2005; Simmons, 2014). Yet, they also highlight the potential of specific political institutions for conflict management by channeling social mobilization into institutional arenas, dovetailing with an earlier literature on political conflict (e.g., Bermeo, 2002; Lijphart, 1977) that has rarely been applied to the realm of mining conflicts. In particular, our finding of a conflict-mitigating effect of decentralized responsiveness challenges the widespread negative assessment of the merits of decentralization both in the context of natural resource extraction (e.g., Arellano-Yanuguas 2011, Loayza and Rigolini, 2016) and beyond (e.g., Bardhan, 2002; Treisman, 2007; Gervasoni, 2010).[2] Indeed, while previous studies highlighted the ability of private firms to bolster support for mining activities through compensation (e.g., Amengual, 2018; Bebbington et al., 2008; Steinberg, 2019), we show that decentralization can unlock the potential of regional governments for an active role in balancing the economic benefits and social costs of natural resource exploitation and, thus, in mitigating social resistance against mining.

2. Natural Resources, Political Institutions, and Social Conflict

Natural resource extraction often produces negative externalities affecting the bases of livelihood and human health in the host communities (Bebbington and Williams, 2008) and disrupting the social fabric of local communities (Bury, 2005). Thus, it is not surprising that resource exploitation is expected to fuel violent (e.g., Berman et al., 2017; Denly et al., 2022; Humphreys, 2005; Ross 2005; Sexton, 2020) and non-violent conflict (e.g., Arce, 2014; Christensen, 2019; Haslam and Tanimoune, 2016; Mähler and Pierskalla, 2015). The literature on mining conflicts has typically analyzed these different forms of contention separately, often also in one specific world region – mostly non-violent protest in Latin America and violent conflict in Sub-Saharan Africa. Yet, social and political grievances have been invoked as a cause of conflict in both strands of the literature (e.g., Arce et al., 2018; Li, 2015; Pierskalla 2010; Simmons, 2014; Steinberg, 2019). This is in line with the broader conflict research and social movement literatures, which identify grievances as being at the roots of both violent and non-violent mobilization (Gurr, 1970; Chenoweth and Ulfelder, 2017; Germann and Sambanis, 2021).

At the same time, this scholarship also suggests that structural and institutional factors decisively shape the opportunities for different forms of contention as well as state responses to such contention and, therefore, conflict dynamics (Chenoweth and Ulfelder, 2017; McAdam, Tarrow,and Tilly, 2001). Indeed, differences in the predominant forms of conflict observed in different world regions might be linked to divergent historical developments of state formation and strength (Steinberg 2019, 44-49; Vogt, 2019). Thus, a crucial task then is to evaluate how different institutional setups *within* a given structural context affect states' responses to non-institutionalized expressions of social grievances over resource extraction and, thus, the trajectories of anti-mining mobilization. Existing research examines the conditions under which states repress violent expressions of discontent (e.g., Pierskalla 2010; Steinberg, 2019), yet less attention has been paid to how governments respond to non-violent protest. In fact, most studies of mining and protest focus on subnational variation within individual countries (e.g., Bebbington and Bury, 2013; Arce, 2014; Mähler and Pierskalla, 2015), which might obscure important institutional differences *between* countries determining the set of both available and observed responses of state authorities.

Institutionalist arguments maintain that the quality of political institutions conditions the effects of resource wealth and that the resource curse is in fact the product of poor institutional quality, which undermines good governance and encourages corruption (e.g., Mehlum, Moene and Torvik 2006a, 2006b; Robinson,Torvik,and Verdier, 2006; Daniele, 2011). Yet, these studies adopt relatively broad measures of institutional quality that combine elements such as bureaucratic quality, the rule of law and private actors' risk of expropriation, or government contract repudiation. They are also mainly interested in explaining economic outcomes, such as growth. While many of these economic outcomes might affect dynamics of social conflict related to resource extraction, we still lack a detailed understanding of the impact of

[2] Though see Faguet's (2014) introduction and the further contributions to a Special Issue of *World Development* (Vol. 53, January 2014) for a more positive view on decentralization.

specific institutional arrangements at different *stages* of (potential) conflict. For instance, some institutional features – or their positive political and economic corollaries – might be particularly effective in preventing conflict occurrence while others only become relevant once social mobilization is already under way, for conflict management.

One institutional intervention that has received considerable scholarly attention is decentralization (e.g., Hooghe and Marks, 2016; Hooghe et al., 2016). Interestingly, when it comes to balancing the positive and negative consequences of mining activity, existing scholarship tends to emphasize the negative aspects of decentralization. Scholars have argued that decentralization causes conflicts between governments at different levels (Bardhan, 2002; Treisman, 2007; Eaton, 2017), weakens the party system (Morgan, 2018), and leads to a proliferation of regional parties that, due to their lack of links to the national executive, deny voters adequate access to policymaking (Arce 2014, 54–65), thus fueling local conflicts over natural resource extraction (Arellano-Yanguas, 2011). What is more, decentralization may also intensify conflict over the distribution of resources. Indeed, several studies have found a link between (fiscal) decentralization and conflicts over the use and distribution of mining revenues in Peru and Bolivia (Arellano-Yanguas, 2011; Humphreys Bebbington and Bebbington, 2010; Ponce and McClintock 2014). Fiscal federalism may also harm democracy at the substate level by making those subnational units that benefit from redistribution – the "rentier" states – less depending on and, thus, less accountable to their populations (Gervasoni, 2010).

This notion that decentralization fuels (distributional) conflict contrasts with long-standing arguments on the positive impact of federalism on conflict *management* (Bermeo, 2002; Lijphart, 1977; Cederman et al., 2015). Furthermore, decentralization should shift local officials' incentives from satisfying higher-level authorities to responding to local citizen needs, thus enhancing democracy (Faguet, 2014, 5). Previous work theorizing the interaction between local populations, the state, and mining firms highlighted that governments need to balance their interest in the potential revenues from natural resource extraction with the goal of maintaining local political support (Steinberg, 2019; Costanza, 2016; Pierskalla 2010, 123). However, whereas most studies suggest that due to weak state capacity, only mining companies will be able to compensate local populations for potential damages incurred (e.g., Amengual, 2018; Bebbington et al., 2008; Steinberg, 2019), we argue that decentralization can unlock the potential of a specific type of state actors – regional governments – for providing such compensation.

3. Regional Governments and the Onset and Continuation of Anti-mining Protest

Our argument combines insights from the social movement and decentralization literatures to explain how grievances and political institutions shape the onset and continuation of social protest against mining. First, building on previous studies of anti-mining social mobilization (e.g., Li, 2015; Arce et al., 2018), our baseline hypothesis postulates that grievances related to mining trigger protest. Protest is a key mechanism for aggrieved citizens to signal their discontent to rulers (Tarrow, 1994). This is especially true for political outsiders whose lack of direct access to decision-makers often prevents them from expressing their preferences on specific policy issues through more conventional channels, such as lobbying (Gamson, 1975; McAdam,Tarrow,and Tilly, 2001). Hence, communities affected by mining activities may turn to public protest to signal their grievances to state institutions and press for changes in mining policies, ranging from measures to mitigate externalities or higher wages for workers to a halt of mining altogether. Of course, mining activities can also create economic benefits, such as jobs and fiscal resources (Van Der Ploeg and Poelhekke, 2017). However, disagreements over the distribution of these benefits often become an additional source of social conflict.

We assume the degree of negative externalities, and conflict potential more generally, to be strongly influenced by the volume of mining activity in a given locality. Thus, communities are more likely to signal grievances through collective protest, the more mining activities occur in their region. This leads us to our first hypothesis:

H1: The more mining activity in a region, the higher the likelihood of protest *onset*.

Once protest has erupted, the key question is whether and how political actors respond to the signals provided by protestors. In particular, we argue that governments can mitigate grievances by compensating local populations for the environmental and social externalities of mining. While both national and regional governments have similar incentives to capture the rents (fiscal resources or illicit payments to politicians) accrued from mining activities,[3] their motivations to respond to protest differ significantly. For the national government, the fiscal incentives that mining entails are likely to vastly outweigh the possible loss in local electoral support in protest "hotspots". By contrast, the political survival of the regional government may, depending on the institutional setup, hinge on the electoral support of the aggrieved local communities.

Because regional authorities generally do not have the power to grant or refuse mining licenses, their capacity to directly reduce the externalities caused by mining activities is limited. However, depending on their competences, they might have the power to make "side payments" to compensate local populations for these externalities. As noted in bargaining theories (Kennan and Wilson, 1993; Fearon, 1995), side payments can be used by conflict parties when they are unable to find a mutually satisfying compromise for the core contentious issue. In our case, regional governments might be able to enact mining-unrelated policies beneficial to local populations affected by mining that attenuate popular grievances. This could range from improvements of local infrastructure, such as roads, electricity, and sanitation, to the promotion of alternative economic activities (e.g., through the management of protected areas). For example, provincial governments in Ecuador are in charge of roadworks, environmental protection, and rural development (and education) and can raise special fees to finance public services (Hooghe et al., 2016,84-5).

We use the term *decentralized responsiveness* to describe regional governments' institutional capacity and their political incentives to make such policy side payments to their constituencies. Decentralized responsiveness is a function of both regional governments' *competences* to decide on policies and their *accountability* to regional parliaments. First, regional governments with more competences in policy-making have a higher capacity to actually respond to the grievances of local communities. Second, regional governments that are held accountable by regional constituencies should be more attentive to these grievances. Thus, high levels of decentralized responsiveness should make it more likely for regional governments to resort to policy side payments in order to assuage mining-related grievances of local populations.[4] At the same time, regional governments are unlikely to do so preemptively. As emphasized by existing research, the proper functioning of state institutions hinges on their interaction with social groups that mobilize from below to articulate their claims (Rueschemeyer,Huber Stephens, and Stephens, 1992; Acemoglu and Robinson, 2019, Amengual and Dargent, 2020). Consequently, decentralized responsiveness is unlikely to prevent the initial onset of protest by which disaffected communities

[3] While the countries we study do not grant fiscal autonomy to subnational entities (Hooghe et al., 2016), they do transfer sizable fiscal resources to the regional and local levels. For example, Peru's "Canon minero" redistributes 50% of mining companies' profit taxes to the regional and local governments.

[4] Decentralized responsiveness should also mitigate issues of uncertainty in the bargaining process. According to Christensen (2019), anti-mining protest arises because local populations are unsure whether they receive their fair share of the benefits from exploitation. It seems plausible that local populations' trust is higher in contexts of decentralized responsiveness, while protest retains its role as an initial signaling mechanism.

signal their grievances. Yet, such protest should be less persistent where decentralized responsiveness is high. This leads to our second hypothesis:

H2: The higher the level of decentralized responsiveness in a region, the lower the likelihood of anti-mining protest continuation.

However, not all cases of social mobilization against mining will be equally suscpetible to this form of institutionalized conflict management. The effectiveness of side payments likely depends on the nature of the underlying grievances. For example, politically and/or economically motivated discontent (e.g., over the distribution of the benefits of mining) might be more easily deflected through compensatory policies than more fundamental environmental grievances. We will address this question empirically in our analysis below.

4. Alternative Explanations

In many parts of the world, marginalized ethnic communities are particularly affected by resource exploitation (see, e.g., Sawyer and Gomez, 2012; Stonich, 2001). Indeed, mobilization against resource extraction is intimately related to increased bottom-up mobilization of previously excluded groups (see e.g., Eckstein and Wickham-Crowley, 2012; Spalding, 2014). This ethno-political dimension might also influence the dynamics of mining conflicts in our three cases of Bolivia, Ecuador, and Peru, which are among the countries with the highest shares of indigenous people in Latin America. Indeed, Mähler and Pierskalla (2015) find that the effect of natural gas resources on levels of violent and non-violent social conflict in Bolivia depends on the share of the indigenous population in a department. On the other hand, the countries in our sample differ considerably in the strength of their ethno-political movements, with much stronger such movements in Ecuador and Bolivia than in Peru (Yashar, 2005). We empirically control for the regional presence of indigenous groups in our analysis.

Second, the strength of specific political parties – in particular, leftist parties – may have an effect on both a country's mining activities and social protest dynamics. Yet, the literature on the "left turn" in Latin America has emphasized the heterogeneity of the Left in Latin America (e.g., Levitsky and Roberts, 2011). Hence we do not expect strong differences based on the ideological leaning of governments. Left-wing governments in the region do differ on the neoliberal vs. statist dimension (Bury, 2005; Eaton, 2017): for example, while governments in Peru have consistently implemented neoliberal policies, Ecuador and Bolivia have adopted state-centered development models under presidents Evo Morales and Rafael Correa. However, it is unclear whether the state-centered model has really changed national governments' approach to mining (Silva, 2018). Even in Bolivia, conflicts between mining regions and the national government reoccurred under the Movimiento al Socialismo (MAS) governments (Humphreys Bebbington and Bebbington, 2010). Nevertheless, in our robustness tests, we control for a potential "MAS effect" using a dummy variable indicating whether MAS was in government in a given year.

5. Empirical Approach

5.1. Case Selection

Our analysis focuses on the three Andean countries Bolivia, Ecuador, and Peru between 2002 and 2013. Natural resource extraction is one of the main pillars of Latin American economies, and mining activities in Latin America have increased dramatically over the past decades. During the 1990 s, four of the ten countries with the highest mining investments worldwide were Latin American (Bebbington et al., 2008). This development has stimulated a burgeoning literature on mining and social protest in the region (e.g., Arce, 2014; Bebbington and Williams, 2008; Haslam and Tanimoune, 2016; Mähler and Pierskalla, 2015), which our study can fruitfully relate to.

Moreover, our focus on Bolivia, Ecuador, and Peru allows us to examine the relationships between mining activities, decentralized responsiveness, and anti-mining social protest at the subnational level in a set of highly similar countries. All three states contain a relatively high percentage of indigenous people who inhabit parts of both the highlands and the Amazonian lowlands. They exhibit similar levels of development, and natural resources constitute an important driver of the national economy in all three countries. Hence, going beyond the common within-country studies (e.g., Arce, 2014; Arellano-Yanguas, 2011; Bebbington and Williams, 2008; Mähler and Pierskalla, 2015), our approach strikes a balance between generalizability and minimizing unit heterogeneity.

5.2. Estimation

In line with our argument on regional-government competences and accountability, our unit of analysis is the department-year. Overall, there are 59 departments in the three Andean countries (26 in Peru, 24 in Ecuador, and nine in Bolivia). Following studies of civil war incidence (Boix, 2008; Sambanis, 2004), we rely on dynamic logit models to simultaneously estimate the distinct determinants of protest onset and continuation. Treating protest occurrence as a Markov transition process, these models allow us to estimate the effects of our explanatory variables on the likelihood of protest onset or continuation at time t, depending on the occurrence of protest at time t-1.

Importantly, in terms of continuation, we do not consider whether a specific *conflict*, defined as observed social resistance against a particular firm or mining project, continues without interruption from one year to the next. Rather, in line with our argument, the dynamic logit models examine whether the institutional setup in place reduces the likelihood of anti-mining protest activity in general to continue from one year to the next in the same department. This approach is based on three main substantive and methodological considerations. First, it is often difficult to link (series of) protest events to specific projects or unique conflicts as many protests simultaneously target multiple projects within a region and/or take up more general social, political, environmental, etc., issues affecting a given region as a whole as a consequence of mining activities. Thus, an analysis focused on particular conflicts would not only increase the threat from reporting bias in our protest data (given that newspapers might disproportionately report on the most notorious conflicts), but also overlook a significant portion of the relevant protest "universe". Second, many protest events within departments – including protests related to specific firms/projects – are interlinked, which makes it problematic to attribute them to separate conflicts.

Finally, and more generally, using conflicts as the units of analysis would not be useful for the purposes of our study, as this approach by default excludes units *without* conflict, thus making it impossible to analyze protest *onset*. We also refrain from using mining sites/projects as units of analysis, as this would treat such sites as exogenously given when, realistically, the location of mining sites likely depends on the very social and institutional factors that make up our variables of interest (see, e.g., Brunnschweiler and Bulte, 2009). Compared to these alternatives, our department-level approach offers the double advantage of focusing on subnational units that correspond to our theoretical argument and whose existence, location, and boundaries are arguably more exogenous to our key variables. Nevertheless, we also present a robustness test for protest continuation, specifically, focusing on a set of unique larger-scale conflicts, as described in more detail in the next section.

In addition, to probe our theorized causal mechanism, we run Weibull regressions that model the duration of protest activity once

initiated. These models are limited to departments that experienced at least one outbreak of anti-mining protest during our time period (51 out of all 59 departments). Given the coding of our protest activity dummy variable, described in detail below, protest terminations are defined by the absence of any anti-mining protest activity in a department-year that follows a year in the same department with protest activity.[5]

Considering the small number of countries (and subnational units within countries) in our sample, as well as the limited within-country variation in our decentralized responsiveness variable, we refrain from using country-fixed effects in our main models. Instead, our approach allows us to exploit the full variation in our key explanatory variables across subnational units within the three highly similar Andean countries. Nevertheless, in the appendix, we also present robustness tests with country-fixed effects. Since different observations for the same department are likely to have similar variances, we use Huber-White standard errors clustered on departments in all models. Finally, we account for spatial dependencies between departments by including a spatial lag, in the form of the percentage of neighboring departments that experienced anti-mining protest in the preceding year, in all models.

5.3. Anti-mining Protest

We introduce new data on anti-mining social protest events – defined as events of public, collective protest against past, present, or prospective mining activities – in Bolivia, Peru, and Ecuador from 2002 to 2013, based on newspaper reports (Vogt and Bornschier, 2023). By public and collective protest, we refer to the expression of collective demands through the physical gathering of people, such as demonstrations, marches, and popular rallies. Importantly, the events covered in our data are specific to protest related to mining. This allows us to test whether regional governments' ability to design and implement policies in *other*, non-mining related domains can mitigate mining conflicts through "policy side payments". Our data collection proceeded in three steps. First, at the newspaper article level, we identified potentially relevant newswire reports concerning protest related to mining activities from all news agencies included in LexisNexis in the above-mentioned time period, based on keywords. After retrieving over 2 million articles, we narrowed our selection down to 36,000 potentially relevant articles using a machine learning approach. The final selection of relevant articles was done by human coders.

Second, we aggregated newspaper articles to unique protest events. For this purpose, we coded the location, motivation(s), and target(s) of the protest events described in individual newspaper reports. We also coded the participants of these events. Based on this information, we defined unique protest events as protest activities described in one or more news reports that took place on the same day, in the same department, and shared the same target or motivation. We identified a total of 883 distinct protest events. Finally, in line with our argument, we aggregated these events to the department-year in order to capture the *degree of protest activity* in a given department and year. Due to the heavily skewed nature of this indicator, our statistical analysis uses a dichotomous variable of protest activity indicating whether at least one protest event occurred in a given department and year. Overall, about a third of all department-years in our time period (241 out of 708) experienced protest activity.

Figure 1 aptly illustrates the importance of distinguishing between the onset and continuation of anti-mining protest. The figure shows the Kaplan-Meier survival function of protest activity once protest has erupted in a given department, revealing considerable variation in protest duration. Most importantly, the likelihood of protest activity to last more than a single year is around 40 %; thus, about as many instances of anti-mining protest end within a single year as there are instances lasting multiple years. This variation – and the potentially different causes of onset and continuation – can only be explored by explicitly distinguishing between the two stages.

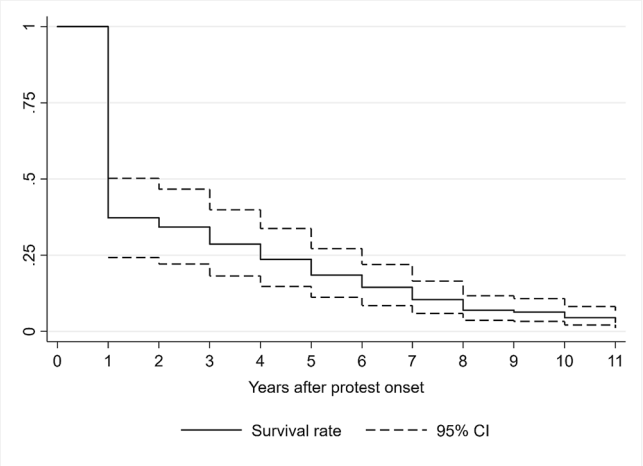

Figure 1. Duration of protest activity in Bolivia, Ecuador, and Peru Notes: Graph shows the Kaplan-Meier survival function of social protest against mining in Peru, Bolivia, and Ecuador, 2002–2013 (solid line), along with the 95% confidence interval (dashed lines), based on our dichotomous variable of protest activity. The unit of analysis is the department-year.

In addition, based on our codings of protest motivation(s), participants, and target(s), we constructed a series of dummy variables relevant for the purposes of our argument. Figure 2 shows their frequencies. The participants and motivations variables are not mutually exclusive (a given protest event can involve different types of participants and may have been motivated by several types of grievances), and the frequencies are aggregated to our units of analysis of department-years, so the variables are coded as 1 if they are true for at least one protest event in a given department-year.

The figure reveals that among the 241 department-years that experienced protest activity, political and economic motivations (over policies and the distribution of resources/rents) were the most common source of protest. For example, in 2004, peasants in the province of Orellana in Ecuador occupied local oil production sites demanding increased government investment in the region's agricultural development. Similarly, in 2007, local communities protested in Peru's Ancash department with demands for a redistribution of mining profits and an improvement of the regional infrastructure. Only very few department-years (31) experienced a protest event related to company-internal issues (e.g., labor disputes). Similarly, few department-year observations exhibited protests that involved workers. Finally, while mining companies were a frequent target of protests, in most of the 241 protest-affected department-years, protests were directed at least partly at state institutions.

As mentioned above, for the purpose of additional robustness checks at the level of distinct conflicts, we additionally identified a set of 65 unique larger-scale conflicts in our raw data, defined as conflicts over specific issues that featured multiple protest events in at least one year, and tracked their continuation over time. Plotting the temporal trajectories of all conflicts that can be attributed to one specific department and comparing these trajectories to the coding of our main department-level dichotomous variable, Figure A1 in the appendix reveals that our variable captures the trajectories of these conflicts with a very high degree of accuracy. The statistical analysis below also includes robustness tests using logistic regressions of conflict continuation based on this set of 65 unique conflicts.

[5] An individual department may experience several protest onsets (and thus enter the duration analysis multiple times). Protest activity duration ranges from one to eleven years in our sample, and the maximum number of protest terminations is four.

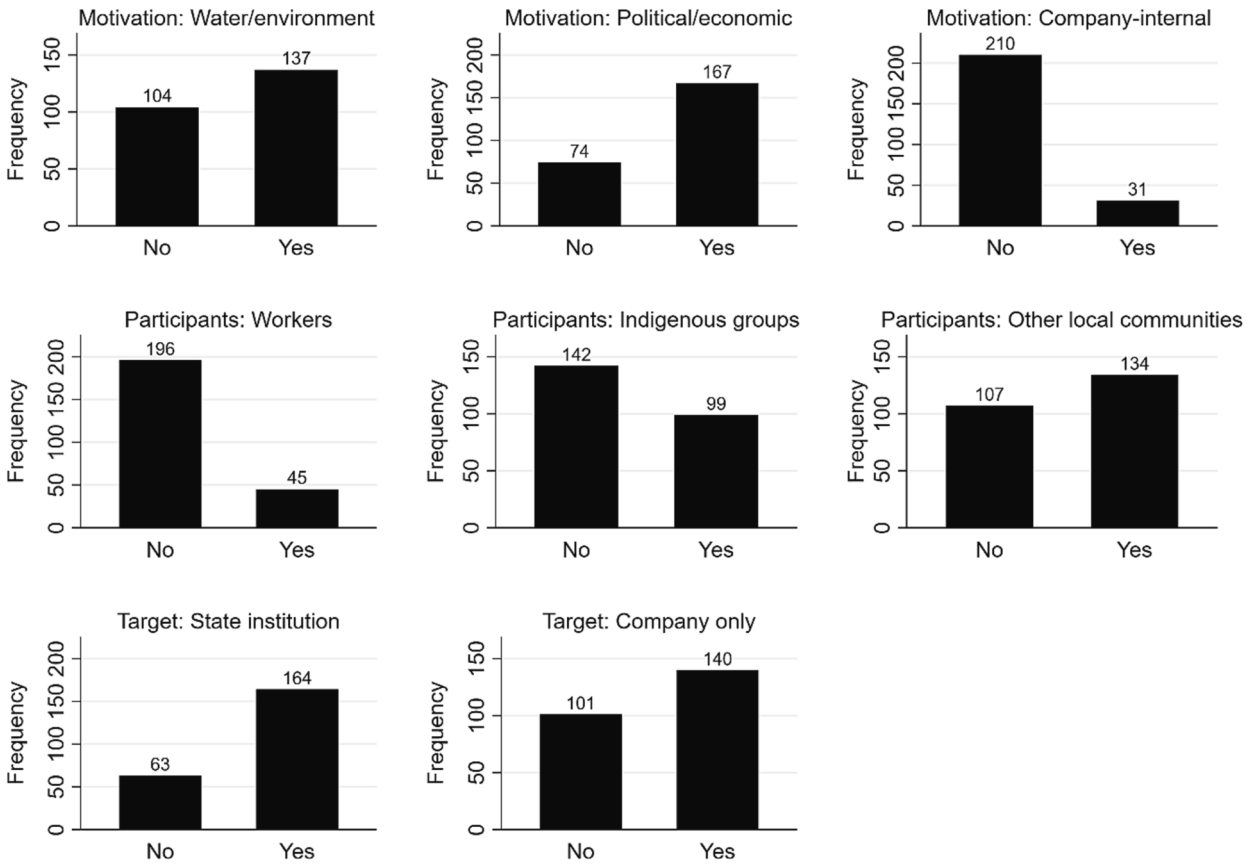

Figure 2. Protest motivations, participants, and targets Note: The unit of analysis is the department-year.

5.4. Mining Activities

We constructed a novel dataset on mining activities at various stages of production in Bolivia, Ecuador, and Peru between 2002 and 2013, based on two sources: the U.S. Geological Survey's (USGS) online Minerals Yearbooks and a custom extract for Latin America from InfoMine (now Glacier, see https://www.mining.com). Our dataset records the total number of distinct mining sites listed in these two sources in each department-year. In contrast to the USGS Minerals Yearbooks, InfoMine also contains information on closed mines, as well as mining exploration activities. Combining these two datasets allows us to include mining sites in the pre-production stage (including off-site and on-site planning, exploration, minor digging, feasibility studies, construction, etc.), resulting in a more fine-grained measure of the potential grievances associated with mining. We determined the location of mining sites based on information contained in the two sources.[6] Overall, the dataset includes 764 mines across our time frame.

Figure 3 maps all mines included in our dataset and their production stages (pre-production, active, and post-production) in 2013 in our three countries. It shows that even in the last year of our period of study, there was considerable variation in the extent of mining activities across different departments within the three countries. To evaluate the effect of mining on the occurrence and duration of anti-mining protest activity at the subnational level, we use the total number of all mining sites in each department-year as a measure of the intensity of mining activities. This variable ranges from 0 to 54, with a mean of 10.8. In our statistical models, we use a logged version of this count variable (plus 1) to account for skewness.

5.5. Decentralized Responsiveness

To capture the degree of decentralized responsiveness, we rely on the time-variant measure provided by Hooghe and colleagues (Hooghe et al., 2016; Hooghe and Marks, 2016). We combine four indicators that form part of their five-dimensional measure of *self-rule* (Hooghe and Marks 2016, 36–37) to construct our overall measure of decentralized responsiveness.[7] Two of these correspond to what we call the competences of a regional government: (1) *institutional depth* measures the extent to which regional governments can take autonomous policy decisions (or are subject to central government veto), and (2) *policy scope* captures the range of policy domains over which a regional government exerts authority.

The other two indicators refer to accountability: (3) *representation* indicates whether a regional legislature exists and whether it is elected by popular vote, and (4) *elected executive* specifies whether the region's

[6] For a small number of mining sites, we relied on data from Haslam and Tanimourne (2016). Overall, 86.3% of all mining sites could be assigned to a department.

[7] We leave aside their indicators of regional governments' fiscal and borrowing autonomy because the capacity of regional governments to compensate local populations for damages incurred by mining depends on the type of policies that regional governments adopt, and not whether the resources come from the national government in the form of mineral rents or are derived from autonomous taxation.

Figure 3. Mining activities in Bolivia, Ecuador, and Peru in 2013 Notes: Graph shows the location of the mining sites included in our dataset in Bolivia, Ecuador, and Peru and their production stages in 2013. Black dots refer to active mines, dark grey dots to mines in pre-production stage, and light grey dots to post-production sites.

executive is autonomously elected (rather than being appointed or co-appointed by the central government). We combine (1) and (2) into a measure of the *competences* of a regional government, which ranges from 1 to 5 in our sample, and (3) and (4) into a measure of its *accountability* to its regional constituency, ranging from 0 to 4.[8] Our overall indicator of decentralized responsiveness constitutes the sum of these two components and ranges from 1 to 9 in our sample.

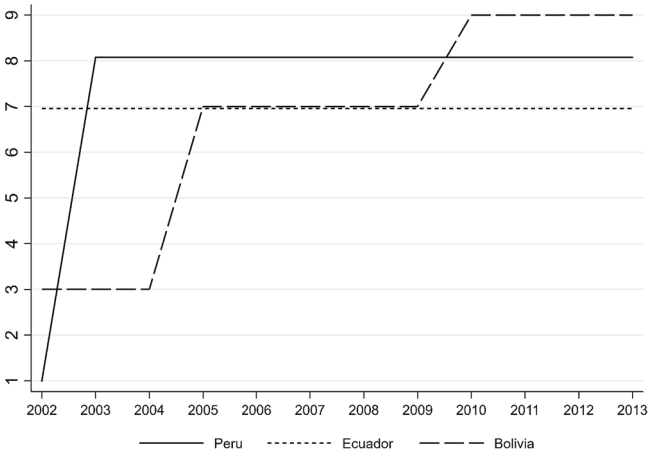

Figure 4. Decentralized responsiveness (competences and accountability of regional governments) over time Notes: Graph shows the yearly average value of decentralized responsiveness in Bolivia, Ecuador, and Peru between 2002 and 2013 (averaged across countries' departments).

[8] See Hooghe et al. (2016), Chapter 1 of Volume 1, for a more extensive explanation of the measurement of these subdimensions, as well as a discussion of their approach compared to previous decentralization measures.

Figure 4 plots the temporal development of the indicator for each of the three countries over time, displaying the yearly average value across the departments of each country for improved readability. While the variable is measured at the departmental level, in practice there is little within-country variation in a given year, although some departments (e.g., Galapagos in Ecuador or Lima in Peru) exhibited distinct levels of decentralized responsiveness compared to other departments in the country. The figure shows that notwithstanding their many similarities, the three Andean countries differ considerably from each other in terms of the competences and accountability of regional governments during our time frame. Moreover, with the exception of Ecuador, they also exhibit significant variation over time. Our subnational panel analysis allows us to exploit both the temporal *and* the cross-sectional (mostly cross-country) variation to evaluate the impact of distinct institutional setups on anti-mining protest.

5.6. Control Variables

Decentralization has frequently been enacted as part of a larger shift towards regional governance (Hooghe and Marks, 2016). In Latin America, this evolution was mostly a consequence of efforts to weaken corporatism and to promote a pluralist form of interest mediation that would favor the neoliberal agenda (Yashar, 2005). Therefore, we assume our variable of decentralized responsiveness to be orthogonal to anti-mining protest. Nevertheless, we include a calendar year variable to account for secular time trends in both the adoption of decentralization and protest activity.[9] Furthermore, the location of mining sites is likely to be influenced by factors that also affect anti-mining protest, including pre-existing levels of social mobilization, which in turn might partly be the result of earlier extractive activities in a given department. To address these endogeneity concerns, we rely on a historical mining dummy variable from Bruhn and Gallego (2012), which indicates whether the Spanish colonizers engaged in mining in a given department during the colonial period. This historical mining variable allows us to capture many of the factors that determine the location of mining sites recorded for our period of study.

In addition, we consider four sets of control variables. First, we control for socio-economic differences at the subnational level, using department-level data from the year 2000 on poverty rates and inequality (measured by the Gini coefficient) from Bruhn and Gallego (2012). We also control for departments' latitude and logged altitude, which should capture their suitability for agriculture and/or mining activities, as well as the percentage of indigenous people from Bruhn and Gallego (2012). Second, Arce (2014) argues that in Peru, regional parties have been less effective in providing local populations with public goods than national parties, fostering anti-mining protest. We account for this factor with a dummy variable that measures whether the regional government is headed by a national or regional party (or party alliance) in a given year.

Third, distinct historical experiences might affect department-level differences in the occurrence of both mining and anti-mining social protest. We include a dummy variable whether the Spanish colonizers relied on indigenous forced labor in a given department during the colonial period. We also control for the year in which a department became included in the colonial empire, defined as the first year that a governor or mayor began governing the department. Both of these variables stem from Arias and Girod (2014). Given that colonial policies partly relied on pre-existing socio-economic conditions, we also control for the level of pre-colonial development, using an indicator of pre-colonial population density from Bruhn and Gallego (2012).

Fourth, we consider a number of time-variant political and economic factors at the national level that capture relevant differences in the

[9] Using year-fixed effects, instead of this time trend variable, yields equivalent results.

opportunity structure for both mining activities and anti-mining social protest. We account for the institutional strength of political parties, political freedom, and corruption, using the party institutionalization, liberal democracy, and regime corruption indicators, respectively, from the V-Dem dataset (Bizzarro, Hicken, and Self 2017; Coppedge et al., 2016; Sigman and Lindberg, 2017). We also control for national-level annual GDP growth, drawing on the Maddison Project Database (Inklaar et al., 2018).

6. Mining, Institutional Responsiveness, and Social Resistance: Empirical Results

6.1. Main Results

Table 1 presents the results of our main models. Model 1 tests the effects of our key explanatory variables on protest onset and continuation without any control variables. The results point in the expected direction. The higher the total number of mines in a given department-year, the higher the likelihood of both protest onset and continuation. By contrast, our overall indicator of decentralized responsiveness only affects the persistence of anti-mining protest activity. Whereas the coefficient is statistically insignificant and close to zero in the onset equation, the indicator displays a strong and statistically significant negative effect on protest continuation.

Model 2 adds the controls. This reduces the number of observations slightly and also decreases the coefficient of the mining variable in the onset equation, but the effect of mining activities on protest onset remains robust. In the case of protest continuation, the variable loses its statisical significance. This seems intuitive given that mining activities should be particularly relevant for the onset of mobilization, functioning as a push factor for communities to engage in protest in the first place to signal their grievances. While these same grievances likely play a role in keeping protest activity going, once protest has erupted, a number of other factors will affect how social mobilization unfolds, thus intervening in the relationship between (old and new) grievances and the duration of protest activity.

The magnitude of the effect of decentralized responsiveness increases when including the controls. Thus, the results of Model 2 confirm that higher levels of decentralized responsiveness decrease the likelihood of protest continuation while its effect on the initial likelihood of protest outbreak is negligible. This provides support for our hypothesis H2. Models 3 and 4 replace our overall indicator of decentralized responsiveness by the two components of regional competences and accountability, respectively. We refrain from including the two variables in the same model because, unsurprisingly, the two are highly correlated ($r = 0.85$, $p = 0.000$). Both components exhibit a strong and statistically significant negative effect on the persistence of anti-mining protest activity. A unit change in both indicators is associated with a decrease in the likelihood of protest continuation of over 30 %. Due to its larger scale, the decrease is smaller in the case of the overall indicator, but still exceeds 16 %. In summary, the policy competences that regional governments possess and institutionalized mechanisms of accountability towards departmental constituencies are key in mitigating anti-mining social protest once erupted.

With respect to our control variables, we find no difference in the likelihood of either protest outbreak or continuation in departments governed by regional parties compared to those governed by national parties. Thus, contrary to Arce's (2014) findings, when extending the analysis beyond the case of Peru and employing a more direct measure of national or regional party government, national parties do not seem superior to regional parties in managing anti-mining social mobilization. Similarly, while Mähler and Pierskalla (2015) find that the joint presence of indigenous groups and natural resources has fostered protest in Bolivia, our analysis casts doubt on whether this finding applies to other countries in the region. The indicator of the percentage of indigenous people remains insignificant in all our models.[10]

By contrast, we find a significant positive effect of within-department inequality on protest onset, further testifying to the importance of grievances in spuring anti-mining mobilization. Unsurprisingly, departments located in higher altitudes are also more likely to experience protest outbreak, given that most mining activites are concentrated in the three countries' Andean highlands. Also, departments that were colonized later were less likely to experience anti-mining protest. This can probably partly be explained by the fact that Spanish colonization focused on the most resource-rich areas early on, which are still the departments where both mining activities and anti-mining protest occur today, pointing to a potential legacy of historical social mobilization, partly independent of contemporary mining activities, although we also observe that departments with mining activities during the colonial period experience less lasting protest activity.[11]

The appendix presents a series of robustness checks, which i) add country-fixed effects (Table A1), ii) consider additional potential confounding variables (Table A2), iii) discuss in more detail potential issues of reverse causation and the temporal sequence of mining and protest (Table A3), and iv) evaluate the effect of decentralized responsiveness on protest continuation at the level of individual *conflicts*, rather than departments (Table A4). Our results remain robust in all models.

6.2. Probing the Causal Mechanism

Our argument suggests that the negative effect of decentralized responsiveness on protest continuation is a consequence of regional governments' ability and willingness to compensate the affected population for potential damages through policy side payments. While measuring such side payments goes beyond the scope of this article, we can use the information on protest motivations and targets contained in our dataset to test the plausibility of our theorized causal mechanism. Given that these variables are only available where protest has erupted in the first place, we rely on Weibull regressions to model the hazard of protest termination after protest outbreak. Table A5 in the appendix reports the results.

Model A12 first replicates our main Model 2 in Table 1, including the same right-hand side variables. This yields consistent results. The effect of mining activities on protest termination is close to zero and statistically insignificant, providing further evidence that grievances play a more important role in spurring the outbreak of protest than at later stages of mobilization. By contrast, we find a significant positive effect of decentralized responsiveness on the likelihood of protest termination. As a first check of the plausibility of our causal mechanism, Model A13 interacts the decentralized responsiveness indicator with the state target dummy variable.[12] The comparison category is protests targeting the mining company only. Our theorized causal mechanism would expect decentralized responsiveness to be particularly relevant where protests specifically target state institutions. The interaction term is positive and statistically significant, suggesting that the effect of decentralized

[10] We also tested for an interaction effect between the scope of mining activities and the presence of indigenous groups and found no such effect.

[11] The correlation between the colonial settlement year and historical mining variables is very low and not statistically significant ($r = -0.06$; $p = 0.64$).

[12] Because of the lagged motivations, participants, and target variables, the number of observations decreases considerably in Models A12-A17. We cannot use unlagged versions of these variables in the Weibull regressions because, logically, they are only coded as true if there is at least one protest event in a given department-year and thus, by definition, protests are never coded as terminated in department-years in which these (unlagged) variables are coded as true, leading to perfect collinearity.

Table 1
Mining, decentralized responsiveness, and protest. Regression results.

	Model 1		Model 2		Model 3		Model 4	
	Onset	Cont.	Onset	Cont.	Onset	Cont.	Onset	Cont.
N mines (logged)	0.44***(0.11)	0.34*(0.17)	0.28*(0.13)	0.35(0.20)	0.29*(0.13)	0.34(0.20)	0.27*(0.13)	0.35(0.19)
Decentralized responsiveness	-0.01(0.06)	-0.40***(0.12)	-0.06(0.08)	-0.77***(0.19)				
Regional competences					-0.17(0.17)	−1.46***(0.35)		
Regional accountability							-0.08(0.14)	−1.53***(0.40)
Regional party in reg. government			0.38(0.42)	0.16(0.48)	0.38(0.42)	0.13(0.47)	0.37(0.42)	0.18(0.49)
Historical mining			-0.03(0.35)	-0.90*(0.45)	-0.02(0.35)	-0.89*(0.45)	-0.03(0.35)	-0.90*(0.45)
Altitude (logged)			0.52**(0.17)	0.29(0.25)	0.53**(0.17)	0.32(0.25)	0.52**(0.17)	0.25(0.25)
Latitude			0.01(0.05)	-0.12(0.08)	0.00(0.05)	-0.14(0.09)	0.01(0.05)	-0.11(0.08)
% indigenous population			-0.01(0.01)	0.00(0.02)	-0.01(0.01)	0.01(0.02)	-0.01(0.01)	0.00(0.01)
Poverty			0.18(0.27)	-0.26(0.45)	0.16(0.28)	-0.33(0.45)	0.20(0.27)	-0.19(0.45)
Gini			2.24*(1.12)	0.65(1.81)	2.22*(1.12)	0.53(1.83)	2.26*(1.12)	0.79(1.79)
Colonial forced labor			-0.49(0.54)	-0.06(0.77)	-0.49(0.54)	-0.10(0.77)	-0.50(0.54)	-0.01(0.77)
Historical population density			-0.10(0.13)	-0.13(0.18)	-0.10(0.13)	-0.12(0.18)	-0.10(0.13)	-0.15(0.18)
Colonial settlement year			-0.01*(0.01)	-0.02(0.02)	-0.01*(0.01)	-0.01(0.02)	-0.01*(0.01)	-0.02(0.02)
Party institutionalization			3.76(2.98)	3.76(2.93)	4.13(3.04)	5.62(3.06)	3.56(2.95)	1.68(2.84)
Liberal democracy			3.51(3.13)	6.67(3.43)	3.49(3.13)	5.30(3.41)	3.46(3.13)	8.02*(3.49)
Regime corruption			5.94(3.70)	−2.45(4.01)	5.95(3.71)	−1.69(3.88)	5.89(3.69)	−2.84(4.13)
GDP growth			−1.35(3.88)	1.70(4.35)	−1.15(3.88)	1.54(4.35)	−1.51(3.89)	1.54(4.34)
Calendar year			0.16(0.08)	0.14(0.09)	0.17*(0.08)	0.12(0.08)	0.16(0.08)	0.16(0.09)
Constant	2.35*		−263.11		−226.48		−292.09	
	(0.89)		(169.84)		(164.84)		(172.83)	
Spatial lag	Yes		Yes		Yes		Yes	
N	649		608		608		608	
Log likelihood	−372.69***		−329.45***		−329.83***		−329.37***	

Notes: Robust standard errors, clustered on departments, in parentheses. * p < *0.05,* ** p < *0.01,* *** p < *0.001.*

responsiveness is indeed significantly stronger when protests target state institutions as opposed to the mining company. A one-unit increase in decentralized responsiveness reduces the predicted median protest duration by about a year and a half where protests target state institutions ($p = 0.000$) whereas this decrease is three times smaller (0.5 years) when protests are exclusively targeted against mining companies.

Next, Model A14 employs a triple interaction of the decentralized responsiveness indicator with both the state target dummy and a second dummy variable indicating whether protests were at least partly based on political/economic motivations. Model A15 then interacts the decentralized responsiveness and state target variables with the environmental motivations dummy variable, which marks observations in which protests were at least partly concerned with water pollution or the environment more generally. If our causal mechanism applies, we would expect the negative effect of decentralized responsiveness on the duration of protest targeting state institutions to be particularly pronounced in the presence of political/economic motivations – given that disagreements over policies and the distribution of resources should be most susceptible to a solution through side payments – whereas this effect should be less important in the case of fundamental environmental grievances. Figure 5 depicts the results of the two models by plotting the conditional marginal effects of decentralized responsiveness on the persistence of protest in the respective scenarios.

The figure reveals that the negative effect of decentralized responsiveness on protest duration is generally stronger when protests target state institutions as opposed to the mining company – yet, this is most pronounced in the presence of political/economic motivations. By contrast, the negative effect of decentralized responsiveness on protest duration in the case of protests targeting state institutions is only significant in the *absence* of water/environment-related motivations, confirming that such environmental grievances are less easily placated through mining-unrelated side payments. Finally, Models A16-A17 replicate Models A14-A15, but additionally control for protest participants (specifically, the participation of workers and indigenous groups) as well as the respective other motivational variables. This does not change the results. Overall, the conditional effects of decentralized responsiveness on protest continuation seem to clearly reflect the varying effectiveness of side payments in the face of different protest motivations, providing at least tentative evidence for our theorized causal mechanism.

7. Conclusions

Natural resource exploitation can foster economic growth and promote development. Yet, the numerous examples of countries affected by "resource curses" of various forms suggest that balancing the benefits and negative externalities of mineral resource extraction is complex. Indeed, the dramatic expansion of mining activities in Latin America and beyond has resulted in a rise of social resistance against mining, generating, in turn, a substantial academic literature on the contextual determinants of mining conflicts. While much existing cross-country work has studied violent conflict, we focused on peaceful social protest activity in this article. Advancing earlier institutionalist accounts (e.g., Mehlum, Moene and Torvik 2006a, 2006b; Robinson,Torvik,and Verdier, 2006; Daniele, 2011), we explored the potential of political institutions for positively affecting the balance between the economic benefits and social costs of natural resource exploitation.

Relying on newly collected subnational data that explicitly focus on protest related to mining in three Andean countries, we find that while the volume of mining activities impacts initial anti-mining protest, higher levels of decentralized responsiveness lead to less durable protest activity. Thus, the design of regional governance plays an important role in explaining why certain protests against mining ebb while others last for long periods of time. Regional governments typically have no strong influence on negotiations with mining companies, but where they have the institutional competences and electoral incentives to respond to local grievances, they can mitigate social conflict and, thus, contribute to making natural resource-driven economic development more socially sustainable.

Distinguishing between protest onset and continuation, our results also reveal the temporal logic of institutionalized conflict over natural resource exploitation. Because protest plays an important role in signaling grievances to policymakers, decentralized responsiveness does not affect the initial outbreak of protest. It is only after initial mobilization in the social movement arena that differences in the competences and incentives of regional governments play out in the institutionalized arena of politics. This suggests that some degree of mobilization from below is necessary to make institutions responsive to local

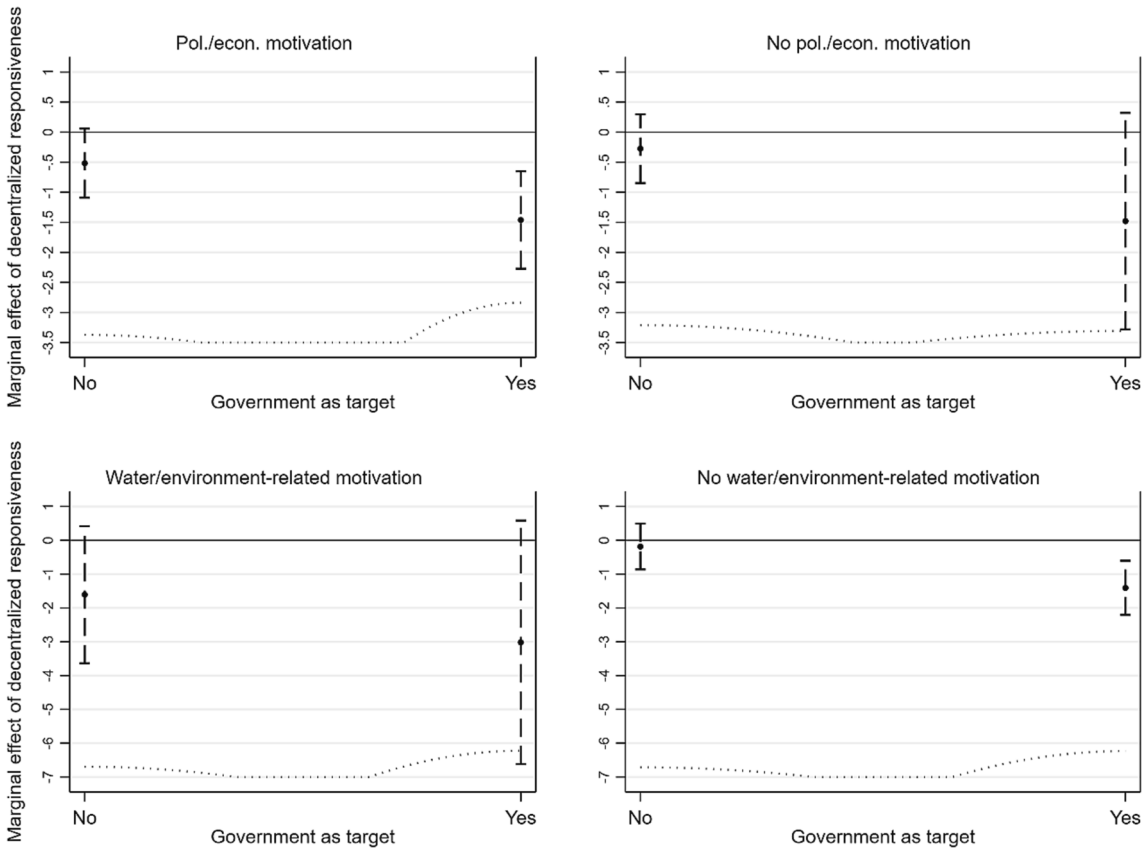

Figure 5. Effect of decentralized responsiveness on protest continuation as a function of protest targets and motivations Notes: Based on Models A14-A15 in Table A5. Graph shows the marginal effects of decentralized responsiveness on protest duration as a function of protest motivations: political/economic (Model A14, upper panel) vs. water/environment-related (Model A15, lower panel), and of whether protests targeted state institutions. Large dots denote mean effects; dashed lines indicate 95% confidence intervals; dotted lines show the distributions of the conditional variable on the x-axis. All other variables held constant at observed values.

constituencies and, more generally, for decentralization to achieve its potential. While we believe this argument extends beyond the domain of anti-mining mobilization, we leave the exploration of this more general proposition to future work.

With respect to mining conflicts, our results also deviate from the findings of earlier studies that focused on subnational variation within a single country (e.g., Arce, 2014; Mähler and Pierskalla, 2015). This points to the importance of taking into account institutional variation not only within, but also across countries when analyzing the determinants of anti-mining protest. While our focus on three Latin American cases with far-reaching commonalities in terms of geography, economic development, ethnic demographics, etc., is a first step towards more generalizable results, future studies should further expand their samples to a broader set of countries to deepen our understanding of the institutional factors that shape social resistance to mining activities.

Moreover, future research should study the interplay between the arenas of protest and institutionalized politics in more depth. Although the political process approach in social movement research is well established, empirical work on the interaction between the institutionalized and protest arenas is – with a few exceptions (e.g., Kriesi et al., 1995; Arce, 2014; Hutter, 2014) – still in its infancy. This paper therefore contributes to the emerging literature on the interactions between social movements and state agents that relaxes the assumption of states constituting unitary actors (Duyvendak and Jasper, 2015; Jasper and King, 2020). Finally, going beyond our statistical approach, future studies could analyze how exactly regional governments use side payments to mitigate protest, and how these side payments vary depending on the minerals exploited and specific grievances.

CRediT authorship contribution statement

Simon Bornschier: Conceptualization, Investigation, Data curation, Writing – original draft, Writing – review & editing, Supervision, Project administration, Funding acquisition. **Manuel Vogt:** Conceptualization, Data curation, Formal analysis, Funding acquisition, Investigation, Methodology, Project administration, Supervision, Validation, Visualization, Writing – original draft, Writing – review & editing.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

The data used in this article has been made available at: https://data.mendeley.com/datasets/ttc342z727/1

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Appendix

The following four tables (Tables A1-A4) present a series of robustness checks. First, we include country-fixed effects in Models A1-A3 in Table A1 below. Otherwise, the models are equivalent to Models 2–4 of Table 1 in the main text. Our results remain robust. This suggests that within-country increases in what we have termed the decentralized responsiveness of regional governments are also associated with a lower likelihood of protest continuation.

Table A1
Models including country-fixed effects.

	Model A1		**Model A2**		**Model A3**	
	Onset	Cont.	Onset	Cont.	Onset	Cont.
N mines (logged)	0.29*(0.13)	0.46*(0.18)	0.29*(0.13)	0.48**(0.19)	0.28*(0.13)	0.43*(0.18)
Decentralized responsiveness	-0.06(0.08)	-0.89***(0.19)				
Regional competences			-0.18(0.18)	−1.74***(0.35)		
Regional accountability					-0.08(0.15)	−1.75***(0.38)
Regional party in reg. government	0.42(0.42)	-0.04(0.48)	0.43(0.41)	-0.09(0.48)	0.41(0.42)	0.00(0.49)
Historical mining	-0.03(0.35)	-0.93*(0.45)	-0.03(0.35)	-0.92*(0.45)	-0.03(0.35)	-0.93*(0.45)
Altitude (logged)	0.53**(0.18)	-0.01(0.26)	0.53**(0.18)	-0.01(0.25)	0.53**(0.18)	0.00(0.26)
Latitude	0.01(0.06)	-0.02(0.09)	0.00(0.06)	-0.02(0.09)	0.01(0.06)	-0.01(0.09)
% indigenous population	-0.01(0.01)	0.00(0.01)	-0.01(0.01)	0.00(0.01)	-0.01(0.01)	0.00(0.01)
Poverty	0.16(0.27)	-0.10(0.39)	0.13(0.27)	-0.18(0.39)	0.18(0.27)	-0.02(0.41)
Gini	2.25*(1.10)	1.93(1.74)	2.26*(1.09)	1.98(1.73)	2.25*(1.10)	1.88(1.75)
Colonial forced labor	-0.49(0.54)	0.37(0.78)	-0.49(0.54)	0.36(0.78)	-0.50(0.54)	0.36(0.77)
Historical population density	-0.09(0.14)	-0.16(0.18)	-0.09(0.13)	-0.15(0.19)	-0.09(0.14)	-0.17(0.18)
Colonial settlement year	-0.01*(0.01)	-0.02(0.02)	-0.01*(0.01)	-0.02(0.02)	-0.01*(0.01)	-0.02(0.02)
Party institutionalization	-0.99(9.14)	8.91(9.02)	-0.69(9.10)	8.50(8.92)	−1.19(9.17)	8.63(9.02)
Liberal democracy	4.97(4.18)	11.17*(4.88)	5.13(4.18)	11.24*(4.87)	4.81(4.18)	11.11*(4.87)
Regime corruption	5.91(3.84)	−4.05(4.22)	5.87(3.85)	−3.63(4.11)	5.90(3.82)	−4.15(4.30)
GDP growth	−1.46(3.91)	2.28(4.23)	−1.23(3.92)	2.06(4.21)	−1.65(3.90)	2.21(4.25)
Calendar year	0.18(0.10)	0.21*(0.10)	0.19(0.10)	0.21*(0.10)	0.18(0.10)	0.20*(0.10)
Constant	−384.51		−386.73*		−369.30	
	(199.37)		(184.94)		(188.05)	
Spatial lag	Yes		Yes		Yes	
Country-fixed effects	Yes		Yes		Yes	
N	608		608		608	
Log likelihood	−326.85***		−326.63***		−327.28***	

Notes: Robust standard errors clustered on departments in parentheses. * p < *0.05,* ** p < *0.01,* *** p < *0.001.*

Second, we consider additional potential confounders. For one thing, our protest data focus specifically on mining-related protests. Nevertheless, some protests might refer to broader, national-level issues, rather than local grievances. This would introduce additional noise into our estimations, given that our argument refers to regional governments' policy side payments as a compensation for *local* mining activities. Therefore, in Model A4 in Table A2 below, we replicate Model 2 of Table 1 in the main text, but limit the analysis to department-years with at least one mining project recorded in our dataset. Furthermore, specific political parties could influence both a country's mining activities and social protest dynamics. In particular, the Movimiento al Socialismo (MAS) governments in Bolivia implemented institutional reforms and pursued state-centered development models while maintaining links to their social movement roots. In addition, Bolivia's 2009 Constitution, which proclaimed the Plurinational State of Bolivia, could have also influenced both mining activities (as well as regional institutions) and protest dynamics in the country. Hence, in Model A5, we use two dummy variables marking years with MAS governments and the years after Bolivia's 2009 Constitution, respectively. Neither of these robustness checks changes our results.

Table A2
Further robustness tests.

	Model A4		**Model A5**	
	Onset	Cont.	Onset	Cont.
N mines (logged)	0.37*(0.16)	0.22(0.22)	0.32*(0.14)	0.37(0.19)
Decentralized responsiveness	-0.02(0.08)	-0.63***(0.19)	-0.01(0.09)	-0.60*(0.28)
MAS in government			−1.42(0.96)	−1.09(0.78)
Bolivia, post-2009 Constitution			-0.58(0.88)	-0.06(0.82)
Regional party in reg. government	0.27(0.43)	0.22(0.50)	0.34(0.41)	0.17(0.48)
Historical mining	-0.17(0.34)	-0.61(0.47)	-0.09(0.35)	-0.86(0.45)
Altitude (logged)	0.45**(0.17)	0.35(0.25)	0.51**(0.17)	0.25(0.24)

(*continued on next page*)

Table A2 (*continued*)

	Model A4		Model A5	
	Onset	Cont.	Onset	Cont.
Latitude	-0.01(0.06)	-0.15(0.08)	0.02(0.05)	-0.10(0.09)
% indigenous population	-0.01(0.01)	0.00(0.02)	-0.01(0.01)	0.00(0.02)
Poverty	0.13(0.29)	-0.33(0.45)	0.20(0.28)	-0.17(0.46)
Gini	2.16(1.15)	0.48(1.81)	2.38*(1.12)	0.87(1.80)
Colonial forced labor	-0.35(0.60)	0.24(0.73)	-0.44(0.55)	0.00(0.77)
Historical population density	-0.15(0.13)	-0.18(0.17)	-0.12(0.14)	-0.13(0.18)
Colonial settlement year	-0.00(0.02)	-0.02(0.02)	-0.01*(0.01)	-0.02(0.02)
Party institutionalization	4.12(3.09)	5.28(3.02)	8.58(4.57)	5.38(3.31)
Liberal democracy	4.92(3.47)	7.29*(3.54)	4.17(3.13)	7.01*(3.42)
Regime corruption	4.69(3.82)	−3.39(4.19)	3.39(4.31)	-0.31(4.25)
GDP growth	-0.21(4.17)	2.16(4.45)	0.01(4.14)	1.18(4.24)
Calendar year	0.19*(0.09)	0.13(0.09)	0.18*(0.09)	0.17(0.09)
Constant	–232.61		–322.29	
	(169.17)		(183.04)	
Spatial lag	Yes		Yes	
N	533		608	
Log likelihood	−301.75***		−326.88***	

Notes: Robust standard errors clustered on departments in parentheses. * p < *0.05,* ** p < *0.01,* *** p < *0.001.*

Third, the robustness of our results to the use of country-fixed effects, in conjunction with the secular time trend variable and historical mining indicator, makes it less likely that our results are driven by unobserved heterogeneity. Moreover, we find a positive effect of mining activities on protest onset, and given that governments and companies are unlikely to systematically prefer conflict-prone investment sites, reverse causation should not lead us to *over*estimate the effect of mining on protest. Rather, intuitively, we would expect prior protest to deter (potential) investors and governments from investing in the affected localities, biasing the relationship between mining and protest *downwards*.

Nevertheless, Models A6 and A7 in Table A3 shed additional light on the temporal sequence of mining and protest. Exploiting the fine-grained nature of our mining data, these models distinguish between mining sites in the pre-production stage and closed or abandoned mines. The results show that mining sites that are still in the pre-production stage significantly increase the likelihood of protest onset. By contrast, the number of closed mining projects does not affect protest onset or continuation. Together, these results provide further evidence that communities *react* to (planned) mining activities, rather than vice versa.

Table A3
Distinguishing between pre-production and post-production mining sites.

	Model A6		Model A7	
	Onset	Cont.	Onset	Cont.
N pre-production sites (logged)	0.31*(0.16)	0.43(0.25)		
N post-production sites (logged)			0.01(0.28)	-0.32(0.29)
Decentralized responsiveness	-0.06(0.08)	-0.73***(0.19)	-0.05(0.08)	-0.68***(0.17)
Regional party in reg. government	0.46(0.42)	0.27(0.47)	0.37(0.42)	0.24(0.47)
Historical mining	-0.07(0.34)	−1.05*(0.43)	0.05(0.35)	-0.88*(0.42)
Altitude (logged)	0.53**(0.17)	0.27(0.28)	0.56**(0.18)	0.42(0.27)
Latitude	0.00(0.05)	-0.13(0.09)	0.04(0.05)	-0.10(0.08)
% indigenous population	-0.01(0.01)	0.01(0.02)	-0.01(0.01)	0.00(0.01)
Poverty	0.14(0.27)	-0.35(0.49)	0.23(0.29)	-0.19(0.42)
Gini	2.33*(1.11)	0.86(1.80)	2.35(1.21)	0.80(1.81)
Colonial forced labor	-0.62(0.54)	-0.21(0.72)	-0.86(0.51)	-0.50(0.73)
Historical population density	-0.11(0.13)	-0.13(0.18)	-0.06(0.13)	-0.18(0.17)
Colonial settlement year	-0.01**(0.01)	-0.01(0.02)	-0.02*(0.01)	-0.04(0.02)
Party institutionalization	4.72(3.07)	5.39(3.24)	3.16(3.00)	3.37(2.93)
Liberal democracy	3.56(3.13)	6.61(3.41)	3.42(3.25)	6.82(3.51)
Regime corruption	5.17(3.67)	−3.01(4.04)	5.14(3.53)	−2.46(3.97)
GDP growth	-0.88(3.91)	1.94(4.34)	−1.21(3.85)	1.93(4.40)
Calendar year	0.17*(0.09)	0.16(0.09)	0.16(0.09)	0.16(0.09)
Constant	−287.12		−268.51	
	(180.69)		(179.84)	
Spatial lag	Yes		Yes	
N	608		608	
Log likelihood	−328.73***		−331.83***	

Notes: Robust standard errors clustered on departments in parentheses. * p < *0.05,* ** p < *0.01,* *** p < *0.001.*

Finally, our main analysis focuses on a dichotomous outcome variable of protest activity at the aggregate level of department-years. This allows us to simultaneously model the likelihood of both protest onset and continuation at time *t*, depending on the occurrence of protest at time *t*-1, using units of analysis that both correspond to our theoretical argument and whose existence, location, and boundaries are arguably exogenous to our key variables. On the other hand, our empirical strategy cannot distinguish between onset and continuation at the *project* or *conflict* level; thus, a positive coding of our protest variable in a given department in two consecutive years might represent the onset of a new conflict in the second year, rather than the continuation of the same conflict that occurred in the first year. Although, as explained above (see "Estimation" sub-section), our empirical strategy offers more advantages than disadvantages for the purpose of our analysis, we subject our key finding of the effect of decentralized responsiveness on the continuation of anti-mining protest to an additional robustness test at the "conflict level", drawing on additional information from our protest dataset.

Specifically, from our original raw protest data we identified a set of 65 unique larger-scale conflicts, defined as conflicts over specific issues that

featured multiple protest events in at least one year, and tracked their continuation over time. We attributed all conflicts to one or more departments in order to link our previously used department and country-level explanatory variables to individual conflicts. Conflicts that could not be assigned to one specific department, because they consistently affected multiple departments, received the median values in all department-level variables of the corresponding country-years. We also coded two additional conflict-level variables: a count of the number of protest events associated with a given conflict in a given year, according to our data, and the number of departments in which protests associated with a given conflict occurred. The former ranges from 0 to 33, with a mean of 1.74; the latter from 0 to 13, with a mean of 2.09.

The empirical focus on specific conflicts by default excludes observations without conflict, thus making it impossible to analyze conflict onset and, instead, limiting the analysis to conflict continuation. Nevertheless, replicating our original analysis with a distinct set of units serves as a useful additional test of the robustness of the effect of decentralized responsiveness on protest continuation. Hence, Table A4 reports the results from logistic regressions of conflict continuation/incidence based on this set of 65 unique conflicts, with conflict-years as units of analysis and a "conflict active" dummy as the outcome variable. In line with the nature of the data, the models estimate the effects of the explanatory variables on the likelihood of protest continuation at time $t + 1$, given the existence of a conflict at time t. The standard errors are clustered on countries to account for similar variances across conflicts within the same country.

Table A4
Conflict-level analysis of protest continuation.

	Model A8	Model A9	Model A10	Model A11
Decentralized responsiveness	-0.30*	-0.47*	-0.56**	-0.35**
	(0.15)	(0.20)	(0.21)	(0.10)
N protest events	0.04	0.03	-0.01	-0.01
	(0.07)	(0.06)	(0.06)	(0.03)
N affected departments	-0.25	-0.37	-0.48	
	(0.39)	(0.41)	(0.43)	
Calendar year	-0.01	0.22***	0.48	-0.01
	(0.12)	(0.04)	(0.44)	(0.09)
Party institutionalization		−8.41**	−8.32	
		(3.20)	(11.00)	
Liberal democracy		−2.66	−4.10	−3.84
		(2.45)	(12.67)	(2.38)
Regime corruption		18.69***	27.56**	
		(3.92)	(9.89)	
GDP growth		4.13	0.56	
		(23.27)	(28.56)	
N mines (logged)			0.26	0.34
			(1.21)	(0.40)
Regional party in reg. government			−2.45**	
			(0.92)	
Historical mining			−1.42	
			(2.37)	
Altitude (logged)			1.52	
			(1.01)	
Latitude			0.03	
			(0.18)	
% indigenous population			-0.05**	
			(0.02)	
Poverty			−1.90	
			(1.37)	
Gini			7.45***	
			(1.73)	
Historical population density			0.72	
			(0.74)	
Colonial settlement year			0.11	
			(0.09)	
Constant	14.29	−441.64***	−1149.00	25.88
	(249.39)	(73.44)	(895.42)	(187.86)
Conflict-fixed effects	No	No	No	Yes
N	85	85	85	85
(Pseudo) R2	0.11	0.26	0.47	0.67

Notes: Robust standard errors clustered on countries in parentheses. * p < *0.05,* ** p < *0.01,* *** p < *0.001.*

We start with a parsimonious model (Model A8) that only includes our decentralized responsiveness indicator and the two conflict-level controls of the number of protest events and the number of affected departments, as well as the calendar year variable to account for secular time trends. Model A9 adds the time-variant country-level controls; Model A10 additionally includes the department-level variables. Finally, we estimate a linear probability model (LPM) with conflict-fixed effects (Model A11). Given the dichotomous outcome variable, we prefer the LPM over a logistic regression when including conflict-fixed effects, as the latter would lead to the loss of all observations of conflicts without variation on the dependent variable, which might induce selection bias. Also, considering the small number of observations in conjunction with the fixed effects, we limit the number of controls in this model, only including those variables that exerted a significant effect on protest activity in our main analysis in Table 1 of the main text.

As shown in Table A4, the decentralized responsiveness indicator has a statistically significant negative effect on conflict continuation in all models, thus corroborating our original finding. The substantive effect of the indicator is considerable: based on Model A10, a move from the 5th to the 95th percentile of the variable decreases the likelihood of conflict continuation by a factor of almost six, from about 44 % to merely 8 %. In other words, even at the level of specific individual conflicts, those conflicts occurring in department and years characterized by high decentralized responsiveness are more likely to end than those occurring in department and years with lower decentralized responsiveness. The robustness of this

finding across different empirical strategies and samples provides additional evidence for hypothesis H2 and our argument.

Table A5 reports the full results of the Weibull regressions discussed in the "Probing the Causal Mechanism" sub-section, which model the hazard of protest termination after protest outbreak.

Table A5
Mining, decentralized responsiveness, and protest continuation. Weibull regressions.

	Model A12	Model A13	Model A14	Model A15	Model A16	Model A17
N mines (logged)	0.01(0.07)	-0.25*(0.13)	-0.25(0.13)	-0.17(0.13)	-0.22(0.12)	-0.15(0.13)
Decentralized responsiveness	0.42***(0.13)	0.28*(0.14)	0.14(0.15)	0.08(0.16)	0.13(0.16)	0.09(0.17)
Target: state institution		−2.88*(1.18)	−3.45(2.24)	−3.75**(1.23)	−3.44(2.25)	−3.47**(1.31)
Decentralized responsiveness * target: state institution		0.35*(0.16)	0.40(0.30)	0.58***(0.17)	0.40(0.30)	0.53**(0.19)
Motivation: political/economic			−1.13(1.68)		−1.51(1.98)	0.12 (0.24)
Decentralized responsiveness * motivation: political/economic			0.18(0.22)		0.23(0.26)	
Target: state institution * motivation: political/economic			0.82(2.33)		1.33(2.46)	
Decentralized responsiveness * target: state institution * motivation: political/economic			-0.09(0.31)		-0.18(0.33)	
Motivation: water/environment				−5.08*(2.54)	-0.35 (0.21)	−4.26(2.50)
Decentralized responsiveness * motivation: water/environment				0.74*(0.33)		0.63(0.33)
Target: state institution * motivation: water/environment				2.58(3.17)		2.07(3.23)
Decentralized responsiveness * target: state institution * motivation: water/environment				-0.52(0.41)		-0.46(0.42)
Motivation: company-internal					0.37(0.31)	0.28(0.33)
Participants: workers					-0.26(0.37)	-0.22(0.36)
Participants: indigenous groups					0.05(0.20)	0.13(0.21)
Regional party in reg. government	-0.04(0.25)	-0.21(0.31)	-0.21(0.31)	-0.21(0.32)	-0.18(0.32)	-0.17(0.33)
Historical mining	0.47**(0.18)	0.55*(0.26)	0.62*(0.28)	0.59*(0.24)	0.70**(0.26)	0.65**(0.25)
Altitude (logged)	-0.17(0.10)	-0.23(0.15)	-0.24(0.15)	-0.24(0.14)	-0.25(0.15)	-0.26(0.14)
Latitude	0.03(0.03)	0.08(0.05)	0.08(0.05)	0.07(0.05)	0.08(0.05)	0.08(0.05)
% indigenous population	-0.00(0.01)	-0.00(0.01)	-0.00(0.01)	-0.00(0.01)	-0.00(0.01)	-0.00(0.01)
Poverty	-0.27(0.24)	-0.12(0.28)	-0.13(0.29)	-0.03(0.30)	-0.09(0.30)	-0.04(0.32)
Gini	-0.02(0.71)	-0.84(1.06)	−1.00(1.08)	−1.60(1.12)	−1.02(1.02)	−1.61(1.07)
Colonial forced labor	0.28(0.29)	0.40(0.45)	0.49(0.46)	0.69(0.44)	0.58(0.47)	0.72(0.46)
Historical population density	0.03(0.06)	0.05(0.10)	0.07(0.11)	0.09(0.10)	0.09(0.11)	0.12(0.10)
Colonial settlement year	0.01(0.01)	0.01(0.02)	0.02(0.02)	0.02(0.02)	0.02(0.02)	0.02(0.02)
Party institutionalization	−1.45(1.72)	−3.47(1.88)	−3.12(1.95)	−4.73*(2.00)	−3.55(2.03)	−4.43*(2.08)
Liberal democracy	−2.84(1.99)	−4.89*(1.96)	−4.61*(1.90)	−6.80*** (1.84)	−5.11*(2.00)	−6.63*** (1.94)
Regime corruption	3.31(2.67)	1.54(2.36)	0.96(2.42)	1.79(2.44)	0.98(2.51)	1.51(2.54)
GDP growth	−3.27(2.70)	−1.82(2.16)	−1.50(2.18)	−2.29(2.31)	−1.98(2.29)	−1.93(2.39)
Calendar year	-0.17*(0.07)	-0.21**(0.07)	-0.21**(0.08)	-0.22**(0.07)	-0.22**(0.08)	-0.23**(0.07)
Constant	323.72* (141.44)	406.64** (142.34)	399.57** (146.89)	428.00** (132.33)	417.43** (150.93)	438.48** (141.59)
Spatial lag	Yes	Yes	Yes	Yes	Yes	Yes
p	1.17***(0.10)	1.41***(0.12)	1.42***(0.14)	1.46***(0.13)	1.44***(0.15)	1.47***(0.14)
Subjects	50	50	50	50	50	50
N (years at risk)	373	224	224	224	224	224
Log likelihood	−108.55***	−53.20***	−52.47***	−48.21***	−51.00***	−47.77***

Notes: Robust standard errors clustered on departments in parentheses. * p < *0.05,* ** p < *0.01,* *** p < *0.001.*

Based on the set of 65 unique larger-scale conflicts described above, Figure A1 plots the temporal trajectories of all conflicts that can be attributed to a specific department, comparing these trajectories to the coding of our main department-level dichotomous variable of protest activity. Note that because these conflicts do not represent more than roughly three fourths of all coded events in our dataset, unsurprisingly, our protest variable contains many more additional positive codings. Nevertheless, the figure reveals that, overall, our variable captures the trajectories of these conflicts with a very high degree of accuracy.

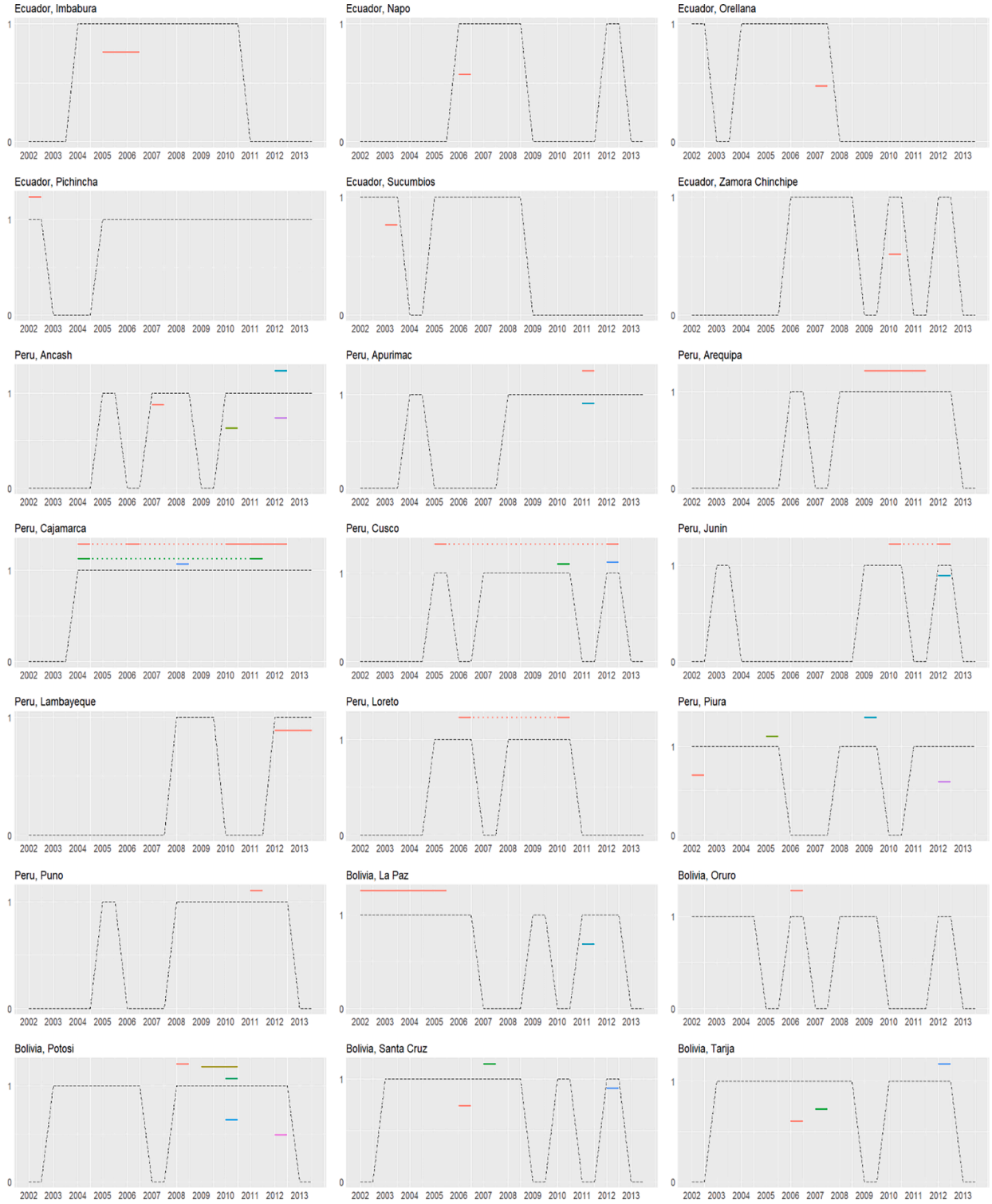

Figure A1. Temporal trajectories of distinct large-scale conflicts compared to department-level coding of protest activity Notes: Based on the set of 65 unique larger-scale conflicts identified in our protest data. Larger-scale conflicts are defined as conflicts over specific issues that featured multiple protest events in at least one year. Each colored line refers to a distinct conflict attributable to a specific department; solid parts of the colored lines denote actual years of protest recorded in our dataset while dotted parts mark "dormant" years (i.e., years between recorded protest years). Black dotted lines denote the coding of the department-level dichotomous variable of protest activity used in our main analyses.

Appendix A. Supplementary material

Supplementary data to this article can be found online at https://doi.org/10.1016/j.worlddev.2023.106493.

References

Acemoglu, D., & Robinson, J. A. (2019). *The Narrow Corridor: How Nations Struggle for Liberty*. London: Penguin.

Amengual, M. (2018). Buying Stability: The Distributive Outcomes of Private Politics in the Bolivian Mining Industry. *World Development, 104*(April), 31–45.

Amengual, M., & Dargent, E. (2020). The Social Determinants of Enforcement: Integrating Politics with Limited State Capacity. In D. M. Brinks, S. Levitsky, & M. V. Murillo (Eds.), *The Politics of Institutional Weakness in Latin America* (pp. 161–182). Cambridge University Press.

Arce, M. (2014). *Resource Extraction and Protest in Peru*. Pittsburgh, Pa.: University of Pittsburgh Press.

Arce, M., & Hendricks, M. (2019). Resource Wealth and Political Decentralization in Latin America. *Oxford Research Encyclopedias*. https://doi.org/10.1093/acrefore/9780190228637.013.1661

Arce, M., Miller, R. E., Patane, C. F., & Polizzi, M. S. (2018). Resource Wealth, Democracy and Mobilisation. *The Journal of Development Studies, 54*(6), 949–967.

Arellano-Yanguas, J. (2011). Aggravating the Resource Curse: Decentralisation, Mining and Conflict in Peru. *The Journal of Development Studies, 47*(4), 617–638.

Arias, L. M., & Girod, D. M. (2014). Indigenous Origins of Colonial Institutions. *Quarterly Journal of Political Science, 9*(3), 371–406.

Auty, R. M. (1993). *Sustaining Development in Mineral Economies: The Resource Curse Thesis*. New York: Oxford University Press.

Bardhan, P. (2002). Decentralization of Governance and Development. *Journal of Economic Perspectives, 16*(4), 185–205.

Bebbington, A., & Williams, M. 2008. "Water and Mining Conflicts in Peru." *Mountain Research and Development,* 28(3), 190–95.

Bebbington, A., Humphreys Bebbington, D., Bury, J., Lingan, J., Muñoz, J. P., & Scurrah, M. (2008). Mining and Social Movements: Struggles Over Livelihood and Rural Territorial Development in the Andes. *World Development, 36*(12), 2888–2905.

Bebbington, A., & Bury, J. (2013). *Subterranean Struggles: New Dynamics of Mining, Oil, and Gas in Latin America*. Austin: University of Texas Press.

Berman, N., Couttenier, M., Rohner, D., & Thoenig, M. (2017). This Mine Is Mine! How Minerals Fuel Conflicts in Africa. *American Economic Review, 107*(6), 1564–1610.

Bermeo, N. (2002). A New Look at Federalism: The Import of Institutions. *Journal of Democracy, 13*(2), 96–110.

Bizzarro, F., Hicken, A., & Self, D. 2017. "The V-Dem Party Institutionalization Index: A New Global Indicator (1900-2015)." V-Dem Working Paper Series 48. Social Science Research Network. https://papers.ssrn.com/abstract=2968265.

Boix, C. (2008). Economic Roots of Civil War and Revolutions in the Contemporary World. *World Politics, 60*(3), 390–437.

Bruhn, M., & Gallego, F. A. (2012). Good, Bad, and Ugly Colonial Activities: Do They Matter for Economic Development? *Review of Economics and Statistics, 94*(2), 433–461.

Brunnschweiler, C. N., & Bulte, E. H. (2009). Natural Resources and Violent Conflict: Resource Abundance, Dependence, and the Onset of Civil Wars. *Oxford Economic Papers, 61*(4), 651–674.

Bury, J. (2005). Mining Mountains: Neoliberalism, Land Tenure, Livelihoods, and the New Peruvian Mining Industry in Cajamarca. *Environment and Planning A: Economy and Space, 37*(2), 221–239.

Carreri, M., & Dube, O. (2017). Do Natural Resources Influence Who Comes to Power, and How? *The Journal of Politics, 79*(2), 502–518.

Cederman, L.-E., Gleditsch, K. S., & Buhaug, H. (2013). *Inequality, Grievances and Civil War*. New York: Cambridge University Press.

Cederman, L.-E., Hug, S., Schädel, A., & Wucherpfennig, J. (2015). Territorial Autonomy in the Shadow of Conflict: Too Little, Too Late? *American Political Science Review, 109*(2), 354–370.

Chenoweth, E., & Ulfelder, J. (2017). Can Structural Conditions Explain the Onset of Nonviolent Uprisings? *Journal of Conflict Resolution, 61*(2), 298–324.

Christensen, D. (2019). Concession Stands: How Mining Investments Incite Protest in Africa. *International Organization, 73*(1), 65–101.

Coppedge, M., Lindberg, S. I., Skaaning, S.-E., & Teorell, J. (2016). Measuring High Level Democratic Principles Using the V-Dem Data. *International Political Science Review, 37*(5), 580–593.

Costanza, J. N. (2016). Mining Conflict and the Politics of Obtaining a Social License: Insight from Guatemala. *World Development, 79*(March), 97–113.

Daniele, V. (2011). Natural Resources and the 'Quality' of Economic Development. *The Journal of Development Studies, 47*(4), 545–573.

Dell, M. (2010). The Persistent Effects of Peru's Mining *Mita*. *Econometrica, 78*(6), 1863–1903.

Denly, M., Findley, M. G., Hall, J., Stravers, A., & Walsh, J. I. (2022). Do Natural Resources Really Cause Civil Conflict? Evidence from the New Global Resources Dataset. *Journal of Conflict Resolution, 66*(3), 387–412.

Duyvendak, J. W., & Jasper, J. M. (Eds.). (2015). *Breaking Down the State. Protestors Engaged*. Amsterdam: Amsterdam University Press.

Eaton, K. (2017). *Territory and Ideology in Latin America: Policy Conflicts between National and Subnational Governments*. Oxford: Oxford University Press.

Eckstein, S. E., & Wickham-Crowley, T.P. (Eds.) 2012. *Struggles for Social Rights in Latin America*. Routledge.

Faguet, J.-P. (2014). Decentralization and Governance. *World Development, 53*(January), 2–13.

Fearon, J. D. (1995). Rationalist Explanations for War. *International Organization, 49*(3), 379–414.

Fearon, J. D., & Laitin, D. D. (2003). Ethnicity, Insurgency, and Civil War. *American Political Science Review, 97*(1), 75–90.

Gamson, W. A. (1975). *The Strategy of Social Protest*. Homewood, IL: Dorsey Press.

Germann, M., & Sambanis, N. (2021). Political Exclusion, Lost Autonomy, and Escalating Conflict over Self-Determination. *International Organization, 75*(1), 178–203.

Gervasoni, C. (2010). A Rentier Theory of Subnational Regimes: Fiscal Federalism, Democracy, and Authoritarianism in the Argentine Provinces. *World Politics, 62*(2), 302–340.

Gurr, T. R. (1970). *Why Men Rebel*. Princeton, N.J.: Princeton University Press.

Gurr, T. R. (1994). Peoples against States: Ethnopolitical Conflict and the Changing World System: 1994 Presidential Address. *International Studies Quarterly, 38*(3), 347–377.

Haslam, P. A., & Tanimoune, N. A. (2016). The Determinants of Social Conflict in the Latin American Mining Sector: New Evidence with Quantitative Data. *World Development, 78*, 401–419.

Hooghe, L., Marks, G., Schakel, A. H., Osterkatz, S. C., Niedzwiecki, S., & Shair-Rosenfield, S. (2016). *Measuring Regional Authority: A Postfunctionalist Theory of Governance,* (Volume I). Oxford University Press.

Hooghe, L., & Marks, G. (2016). *Community, Scale, and Regional Governance. A Postfunctionalist Theory of Governance,* (Volume II). Oxford: Oxford University Press.

Humphreys, M. (2005). Natural Resources, Conflict, and Conflict Resolution: Uncovering the Mechanisms. *Journal of Conflict Resolution, 49*(4), 508–537.

Humphreys Bebbington, D., & Bebbington, A. (2010). Anatomy of a Regional Conflict: Tarija and Resource Grievances in Morales's Bolivia. *Latin American Perspectives, 37*(4), 140–160.

Hutter, S. (2014). *Protesting Culture and Economics in Western Europe*. Minneapolis: University of Minnesota Press.

Inklaar, R., de Jong, H., Bolt, J., & van Zanden, J. 2018. "Rebasing 'Maddison': New Income Comparisons and the Shape of Long-Run Economic Development." GGDC Research Memorandum GD-174. Groningen Growth and Development Centre, University of Groningen. https://econpapers.repec.org/paper/grorugggd/gd-174.htm.

Jasper, J., & King, B. G. (Eds.). (2020). *Protestors and Their Targets*. Philadelphia: Temple University Press.

Kennan, J., & Wilson, R. (1993). Bargaining with Private Information. *Journal of Economic Literature, 31*(1), 45–104.

Knutsen, C. H., Kotsadam, A., Olsen, E. H., & Wig, T. (2017). Mining and Local Corruption in Africa. *American Journal of Political Science, 61*(2), 320–334.

Kriesi, H., Koopmans, R., Duyvendak, J. W., & Giugni, M. G. (Eds.). (1995). *New Social Movements in Western Europe. A Comparative Analysis*. Minneapolis: University of Minnesota Press.

Levitsky, S., & Roberts, K. M. (2011). Latin America's 'Left Turn': A Framework for Analysis. In S. Levitsky, & K. M. Roberts (Eds.), *The Resurgence of the Latin American Left* (pp. 1–28). Baltimore: Johns Hopkins University Press.

Li, F. (2015). *Unearthing Conflict: Corporate Mining, Activism, and Expertise in Peru*. Durham, N.C.: Duke University Press.

Lijphart, A. (1977). *Democracy in Plural Societies: A Comparative Exploration*. New Haven: Yale University Press.

Loayza, N., & Rigolini, J. (2016). The Local Impact of Mining on Poverty and Inequality: Evidence from the Commodity Boom in Peru. *World Development, 84*, 219–234.

Mähler, A., & Pierskalla, J. H. (2015). Indigenous Identity, Natural Resources, and Contentious Politics in Bolivia: A Disaggregated Conflict Analysis, 2000–2011. *Comparative Political Studies, 48*(3), 301–332.

McAdam, D., Tarrow, S., & Tilly, C. (2001). *Dynamics of Contention*. Cambridge: Cambridge University Press.

Mehlum, H., Moene, K., & Torvik, R. (2006a). Cursed by Resources or Institutions? *The World Economy, 29*(8), 1117–1131.

Mehlum, H., Moene, K., & Torvik, R. (2006b). Institutions and the Resource Curse. *The Economic Journal, 116*(508), 1–20.

Morgan, J. (2018). Political Decentralization and Party Decay in Latin America. *Latin American Research Review, 53*(1), 1–18.

Regan, P. M., & Norton, D. (2005). Greed, Grievance, and Mobilization in Civil Wars. *Journal of Conflict Resolution, 49*(3), 319–336.

Robinson, J. A., Torvik, R., & Verdier, T. (2006). Political Foundations of the Resource Curse. *Journal of Development Economics, 79*(2), 447–468.

Ross, M. L. (2015). What Have We Learned about the Resource Curse? *Annual Review of Political Science, 18*(1), 239–259.

Rueschemeyer, D., Huber Stephens, E., & Stephens, J. D. (1992). *Capitalist Development and Democracy*. Cambridge: Polity Press.

Sachs, J. D., & Warner, A. M. (2001). Natural Resources and Economic Development: The Curse of Natural Resources. *European Economic Review, 45*, 827–838.

Sambanis, N. (2004). What Is Civil War?: Conceptual and Empirical Complexities of an Operational Definition. *Journal of Conflict Resolution, 48*(6), 814–858.

Sawyer, S., & Gomez, E. T. (Eds.). (2012). *The Politics of Resource Extraction: Indigenous Peoples, Multinational Corporations, and the State*. Basingstoke: Palgrave Macmillan.

Sexton, R. (2020). Unpacking the Local Resource Curse: How Externalities and Governance Shape Social Conflict. *Journal of Conflict Resolution, 64*(4), 640–673.

Sigman, R., & Lindberg, S. I. 2017. "Neopatrimonialism and Democracy: An Empirical Investigation of Africa's Political Regimes." V-Dem Working Paper Series 56. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3066654.

Silva, E. (2018). Social Movements and the Second Incorporation in Bolivia and Ecuador. In E. Silva, & F. Rossi (Eds.), *Reshaping the Political Arena in Latin America: From Resisting Neoliberalism to the Second Incorporation* (pp. 32–59). Pittsburgh: University of Pittsburgh Press.

Simmons, E. S. (2014). Grievances Do Matter in Mobilization. *Theory and Society, 43*(5), 513–546.

Spalding, R. J. (2014). *Contesting Trade in Central America: Market Reform and Resistance*. University of Texas Press.

Steinberg, J. (2019). *Mines, Communities, and States: The Local Politics of Natural Resource Extraction in Africa*. Cambridge: Cambridge University Press.
Stonich, S. C. (Ed.). (2001). *Endangered Peoples of Latin America: Struggles to Survive and Thrive*. Westport, CT: Greenwood Press.
Tarrow, S. G. (1994). *Power in Movement: Social Movements and Contentious Politics*. Cambridge: Cambridge University Press.
Treisman, D. (2007). *The Architecture of Government. Rethinking Political Decentralization*. Cambridge: Cambridge University Press.
[Dataset] Vogt, M., & Bornschier, S. 2023. "The Politics of Extractivism". Mendeley Data, V1. 10.17632/ttc342z727.1.
Van Der Ploeg, F., & Poelhekke, S. (2017). The Impact of Natural Resources: Survey of Recent Quantitative Evidence. *The Journal of Development Studies, 53*(2), 205–216.
Vicente, P. C. (2010). Does Oil Corrupt? Evidence from a Natural Experiment in West Africa. *Journal of Development Economics, 92*(1), 28–38.
Vogt, M. (2019). *Mobilization and Conflict in Multiethnic States*. New York, NY: Oxford University Press.
Yashar, D. J. (2005). *Contesting Citizenship in Latin America: The Rise of Indigenous Movements and the Postliberal Challenge*. Cambridge University Press.