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TRAUMATIC DECARBONIZATION IN CARBON-BASED POLITICAL (UN)SETTLEMENTS

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ABSTRACT

Decarbonization, or the replacement of fossil fuels by renewables or 'cleaner' forms of energy is a key response to global warming, but most of the current thinking on decarbonisation and energy transitions is politics agnostic. In less-institutionalized oil-producing states, where oil rents play an important role in politics, decarbonization is likely to have major impacts on elite political manoeuvring. This paper examines some of those likely impacts by drawing on six case studies that have experienced instances of decarbonization over the past decade: Ecuador, Iraq, Nigeria, South Sudan, Sudan, and Venezuela. These include both instances of (semi-)permanent decarbonization and short-term falls in oil revenue due to market price swings. It also draws on two thematic papers – on peace-making during oil shocks, and a broad review of the existing literature on energy transition in fragile states. The paper finds that while decarbonization has different causes—ranging from mismanagement, crash in the global oil price, loss of oilfields due to depletion or secession, and disruptions to production – in almost all cases, it changes political economies, sometimes back to systems that resemble how those countries functioned before oil was discovered. There weren't any cases in which a government responded by moving towards a productive, development-focused economy. On the contrary, faced with a loss of oil rents, Governments respond by searching for replacement sources of political finance, often from rent, and repression. In the face of increased repression and rent-seeking by governments and elites, populations may respond with demands for democracy, and an end to corruption etc., but short-term gains have not proved durable (in the cases we have studied). There are few policies for how to manage traumatic decarbonization, or to leverage the energy transition to promote chances for democracy, but examining these cases provides scholars and policymakers with evidence of the need to incorporate these issues into the broader decarbonization research agenda.

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About Carbon Compacts, Decarbonization, and Peace in Fragile States in Africa and the Middle East Project

The Carbon Compacts, Decarbonization, and Peace in Fragile States in Africa and the Middle East project was a 21-month research project led by the World Peace Foundation at Tufts University and funded by the United States Institute for Peace. Our goal within the project was to analyze how traumatic decarbonization—a rapid loss of oil rents—would affect peace processes and political settlements in fragile oil-producing states in Africa and the Middle East. Under this project, a series of cross-cutting analyses and case studies (Iraq, Nigeria, South Sudan, Sudan, and Venezuela/Ecuador) were produced and are available at The World Peace Foundation [website](#).

About the World Peace Foundation

The World Peace Foundation, an operating foundation affiliated with The Fletcher School at Tufts University, aims to provide intellectual leadership on issues of peace, justice, and security. We believe that innovative research and teaching are critical to the challenges of making peace around the world and should go hand-in-hand with advocacy and practical engagement with the toughest issues. To respond to organized violence today, we not only need new instruments and tools—we need a new vision of peace. Our challenge is to reinvent peace.

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INTRODUCTION

The rationale for decarbonization – that is, the replacement of fossil fuels by renewables or ‘cleaner’ forms of energy – is irrefutable. According to the Intergovernmental Panel on Climate Change (IPCC), global warming is likely to reach 1.5°C between 2030 and 2052 (Hoegh-Guldberg et al. 2018). This will have *significant and negative* impacts on health, livelihoods, food security, water supply, human security, and economic growth, not to mention ecosystems across the world (Intergovernmental Panel on Climate Change 2022). Since there is a ‘near-linear relationship’ between cumulative anthropogenic carbon dioxide (and other) emissions and global warming, limiting warming will require reduction of emissions, including through energy demand reductions, decarbonization of electricity and other fuels, electrification of energy end use, deep reductions in agricultural emissions, etc. (Gopalakrishnan and Miller 2022; Intergovernmental Panel on Climate Change 2022). Governments will recognise the problem, or so the current thinking goes, and will take steps to achieve the net-zero emissions target over the next few decades (for an example of this type of analysis, see Bulmer et al. 2022). As a result, the demand for fossil fuels will decline over the medium-term, notwithstanding periodic spikes in oil prices, such as the one caused by the war in Ukraine. Thus, there is an assumption that decarbonization will be a planned and gradual process.

Decarbonization will mean declining oil revenues for oil-producing states. Some are relatively well-prepared for the energy transition. Others are not. Among the latter are many in which oil rents play a critical role in politics. Especially ill-prepared are those which are less-institutionalised, violent, and kleptocratic – in other words, states which are often referred to as ‘fragile’. In countries such as South Sudan, Venezuela, Iraq, and Nigeria, political leaders (mostly men) rely on oil rents to control government and the state, buy elections and assemble political coalitions, control armies and militias and extend patronage to their allies. In some of these contexts, oil rents also fund public goods and redistributive spending, as well as public sector employment.¹ In many of these countries, leaders are not planning for, and have no incentive to plan for the energy transition. Instead, they are focused on short-term political survival and on retaining power. Oil revenues are a crucial component of these survival strategies.

Despite decarbonization’s likely political implications in these states, much of the current thinking on energy transitions is ‘politics agnostic’ (Gopalakrishnan and Miller 2022). It pays little attention to the specificities of the political systems where these transitions are to occur. Where politics is discussed, it is usually in terms of ‘policy-gone-wrong’ rather than being grounded in an analysis of how different types of extractive economies actually function. As a result, political systems which do not resemble the western European or north American model of relatively institutionalised statehood are lumped together in an omnibus category. Assumptions about how ‘rentier’ states work are applied to ‘fragile’ states and vice versa, and flawed policy recommendations abound (Gopalakrishnan and Miller 2022). This paper, and the exploratory research project on which it draws, are motivated by this significant gap in the literature on climate transitions and the need to bring a theory of politics to the decarbonization conversation.

For the ‘decarbonization’ agenda to be ‘successful’—that is, to avoid harmful unintended consequences—researchers need to pay closer attention to its *political* impacts. To do this, we apply an explicitly material theory of politics to analyse decarbonization in precarious, poorly-institutionalised, conflict-affected countries—those countries where decarbonization poses some of the

1 This is also the case in more institutionalised contexts (such as Saudi Arabia, UAE, or Kuwait), where oil-rents underpin the social contract and legitimize the continued rule by often-autocratic or at least undemocratic governments.

greatest political risks.² We do not treat fragile countries as deviations from the ideal type (institutionalised) state-form (Boege, Brown, and Clements 2009; Ferguson 2010; de Waal 2020). Instead, we are interested in how oil-dependent political systems actually function.

This paper synthesises findings from six case studies that have experienced instances of decarbonization over the past decade³: Ecuador, Iraq, Nigeria, South Sudan, Sudan, and Venezuela, and two thematic papers – on peace-making during oil shocks, and a broad review of the existing literature on energy transition in fragile states. This allows for examination of what *has already happened* in contexts which have gone through decarbonization, which yields insights into what *might happen* in other rent-dependent political systems during energy transitions.⁴ This approach is distinct from research which sought to examine the 'resource-curse' hypothesis – which focused on the relationship between resource dependency and regime types or economic development at a high level of generality.

There are two reasons for focusing on 'fragile' countries. First, countries that are conventionally referred to as fragile, can be better understood as 'subaltern open political systems', whose political dynamics may show the imprints of global trends (including decarbonization) more clearly and sooner than they are evident in more 'developed' political economies (de Waal 2020, 2–3). Second, studying these political systems can offer critical insights into the changing contours of global extractive capitalism, and by extension 'into the workings of the world at large' (Comaroff and Comaroff 2015).⁵ The extraction of oil (especially, but not solely in these countries) is underpinned by both licit and illicit economies. Core processes of mining, production, and distribution are mediated by technology, law, finance, logistics and state authority (Riofrancos 2020b; Arboleda 2020). These extractive processes lie close to and are sometimes imbricated in a global shadow economy dependent on illegal activities like smuggling, drug and people trafficking and money-laundering (Mbembe 2012). These broader world historical processes are felt everywhere, but manifest most acutely in disordered political systems.

Periods of boom and bust are par for the course for oil dependent economies, and each of the case studies exhibit instances of dramatic falls in hydrocarbon revenue which have occurred over the past decade. Figure 1 traces these fluctuations since 2000; it plots oil rents as a proportion of GDP, alongside the average price of crude oil (in US\$/barrel). While there are significant data gaps, and the numbers should be treated as indicative of trends rather than definitive, it demonstrates that for most of the countries in our case-set, there was a significant decline in 2015-16 (tracking the global fall in oil prices), and again in 2020 (due to Covid).⁶

2 The countries included in this project are all classified as fragile and conflict-affected countries by the World Bank (except for Ecuador) – the full list is available at <https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations>. Together, they accounted for 32.21 percent, or about one third of proven global crude oil reserves in 2020 (Organization of the Petroleum Exporting Countries 2021). Proven reserves (with proportion of global reserves in parentheses) are as follows: Iraq – 145,019 million barrels (9.36 %); Venezuela – 303,561 million barrels (19.6 %); Sudan and South Sudan – 5000 million barrels (0.32%); Nigeria – 36,910 million barrels (2.38%); Ecuador – 8273 million barrels (0.53%). Note that proven reserves are not the same as production levels, nor does this indicate that the oil reserves can be extracted easily, or that it is financially feasible to do so. Author's calculations based on Organization of the Petroleum Exporting Countries 2021.

3 Each of these countries, with the exception of Ecuador is classified as a 'fragile and conflict-affected state' by the World Bank, though as we discuss briefly below – the nomenclature of fragility is problematic and obscures more than it illuminates. See World Bank, "Classification of Fragile and Conflict Affected Situations", available at <https://www.worldbank.org/en/topic/fragilityconflictviolence/brief/harmonized-list-of-fragile-situations>.

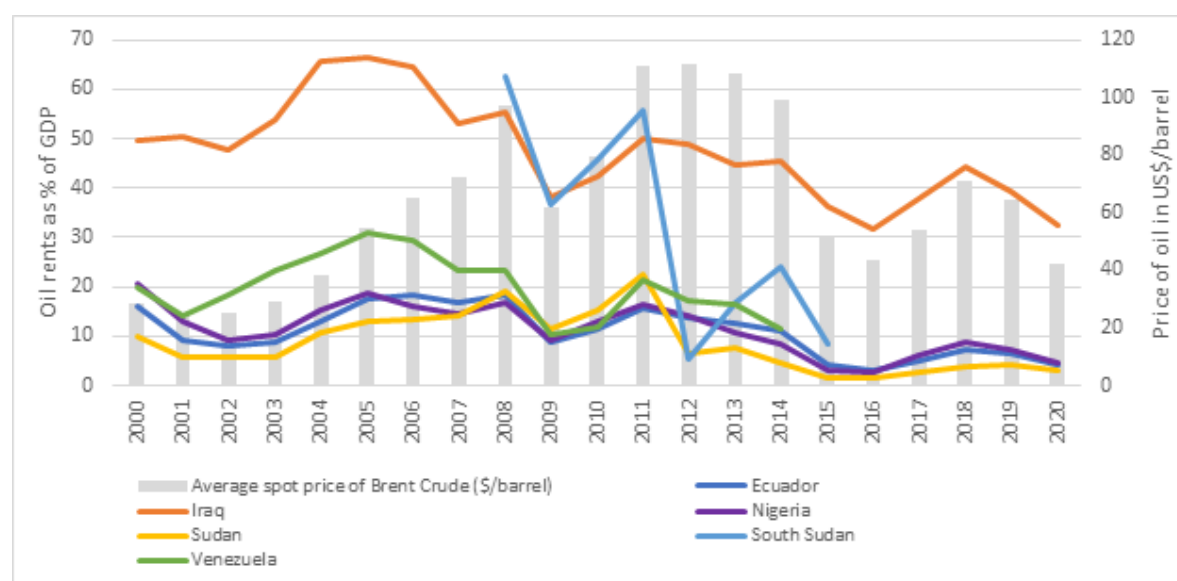
4 The research was done before the resurgence in oil prices in 2022.

5 This is not to imply that all decarbonizing states will follow the same trajectory as these 'disordered' political systems.

6 In Venezuela, a longer trend of decline is visible, as the oil industry has been plagued with inefficiency even prior to the decline in oil prices (Burgess and Corrales 2022).

Drops in oil revenue and decarbonization follow different dynamics depending on the case in question, sometimes due to price and production fluctuations, some due to (semi-)permanent losses in productive capacity. In Sudan, oil revenues declined precipitously after loss of most oil producing areas to South Sudan, after the latter's independence in 2011 (de Waal 2019; Gallopin et al. 2021; Patey 2022). In South Sudan on the other hand, oil-production was shut down by the government in 2012 as part of a strategy aimed at regime change in Sudan (Craze 2022; de Waal 2014). The Venezuelan oil industry was already in crisis due to mismanagement under then-President Hugo Chavez – prior to the 2014 fall in oil-prices.⁷ The particular effects of decarbonization on national and elite politics depend on the specific causes of contraction in carbon revenues. Where price fluctuations cause a decrease in oil revenue, such as in Nigeria or Iraq, politicians may seek short-term sources of finance to tide them over 'lean' periods. In other countries which have experienced a loss of productive capacity, such as Sudan, there may be a more fundamental reorientation of the political economy. Our case-set has examples of both types of decarbonization, and allows us to draw some preliminary conclusions about the political impacts of rapid and unplanned decarbonization and the mechanisms through which these impacts are channeled.

Figure 1: Oil rents as a proportion of GDP, 2000-2020



Source: Data on oil rents as a proportion of GDP (defined as the difference between the value of crude oil production at regional prices and total costs of production) is extracted from the World Bank (Indicator: NY.GDP.PETR.RT.ZS, available at data.worldbank.org). No data is available for Venezuela after 2014, or for South Sudan after 2015). Data on average price of oil (the spot price of Brent Crude in US\$/barrel) is extracted from the US Energy Information Administration (<https://www.eia.gov/dnav/pet/hist/RBRTED.htm>). Because spot prices are reported on multiple dates every year, we use the average annual spot price for the purposes of the graph.

⁷ No reliable production data is available for Venezuela after 2014.

This paper is organized as follows. The first section outlines the guiding assumptions that distinguish this research from other studies on resource economies and conflict. The second section introduces a typology of the ways in which oil rents can play a role in transactional political systems. Empirics from the six case studies are presented that illustrate these issues. The third section presents four general observations with implications for the future of decarbonization. (1) Transactional political systems endure, even though decarbonization can reconfigure elite dynamics and positioning. (2) Oil rents can help manage violence in the short term, but political settlements based on oil rents are unstable. (3) Political upheavals caused by decarbonization often lead to the immiseration of the general populace. (4) There are few—if any—off ramps from these transactional political systems with civic activism posing the most fundamental challenge to ruling elites. The final section concludes with some directions for future research and inquiry.



MOVING AWAY FROM THE ‘RESOURCE CURSE’ HYPOTHESIS:

Applying a material framework of politics to extractive and disordered political economies

Studies which seek to specify a direct causal relationship between the presence of oil (or other minerals) and conflict have declined in recent years, as peace and conflict research has moved towards multi-causal explanations for violence – focusing on poor governance, elite contestation, fragmented institutional configurations, and the politics of identity formation, among others (Pospišil 2021). Past research, usually identified as ‘resource curse’ hypotheses, had largely focused on how resource dependency shapes regime types or economic development – and concluded that resource-dependent states tend to be authoritarian and corrupt, that they govern societies that are politically quiescent or prone to violent resource-related conflicts or both (Riofrancos 2020a). These states were also thought to suffer from economic underdevelopment as a result of resource dependence⁸ – susceptible to fluctuations in global oil prices, with profligate state spending diverting investment away from productive sectors (see for instance, Karl 1997; Ross 2001; 2012; Beblawi 1987; Mahdavy 1970; Collier and Hoeffler 1998; Fearon 2005).

These theories have been critiqued on at least two grounds. First, moving away from older cross-country analysis, recent scholarship argues that the presence and intensity of the ‘resource curse’ is largely context-specific, depends on the type of resources, socio-political institutions present in the country, and linkages with the rest of the economy (Papyrakis 2017; Van Der Ploeg and Poelhekke 2017). A key point is that earlier studies did not pay sufficient attention to pre-existing patterns of political and institutional organization. The category of ‘oil producing states’ includes countries such as Canada, the United States, and Norway as well as Russia, Brazil, China, Saudi Arabia and Nigeria. This is in addition to more obviously conflict-affected states such as Libya, Iraq, South Sudan and Yemen. In other words, oil-producing states show extraordinary variation in ‘geography, history, governance systems, and levels of formal institutional rule’ making

8 The expression ‘Dutch disease’ is often used as shorthand to refer to resource dependence. Economists use the expressions to refer to changes in the structure of production that are predicted to occur in the wake of a favorable shock, such as discovery of a large natural resource or a rise in the international price of an exportable commodity that is perceived to be permanent. Such structural changes are expected to include, in particular, a contraction or stagnation of other tradable sectors of the economy; and to be accompanied by an appreciation of the country’s real exchange rate. In Netherlands, in the 1950’s, where the expression originated, changes also included increase in unemployment levels (Brahmbhatt, Canuto, and Vostroknutova 2010; Ismail 2010).

cross-country comparisons extremely difficult. Therefore, and even though most scholars seem to agree that there is some degree of correlation between the presence of oil and conflict (see for instance, Fearon and Laitin 2003), the causal relationship between the two and the conditions and mechanisms under which the causal relationship might hold continues to be debated (Pospisil 2021; Ross 2015). The literature on the resource curse has also become much more diverse over time, with greater focus on the imbrication of subaltern interests within extractive economies (Gilberthorpe and Rajak 2017), the sub-regional and community impacts of extraction on politics and violence (Papyrakis 2017), and the mechanisms through which resources (and most specifically oil) weaken institutions and affect the origins, intensity, duration and geographical manifestation of civil war (Paine 2016; Van Der Ploeg and Poelhekke 2017).

A second line of critique accuses the past research of 'pessimistic [economic] determinism', and suggests that these analyses did not pay adequate attention to 'subaltern' efforts to resist the resource curse – for instance, attempts to use oil resources predominantly for national development, or a complete rejection of extraction (Riofrancos 2020a). While driven by the need to foreground the subaltern opposition to homogenizing cross-country large-n studies, examples of successful resistance to extraction remain thin on the ground. These alternative approaches to extraction and natural resources have often articulated alternative ecological principles and inspired people. They may also lead to the formation of alliances between civil society groups (most notably in Ecuador, amongst the cases examined in this paper) but the experience of resistance movements in many resource-dependent countries suggests that they are often repressed, co-opted or otherwise brushed aside. Nonetheless, as these critiques suggest, the 'resource curse' may be a limited way of framing the analyses of extractive political economies.

This paper reframes the debate by drawing on two related but distinct conceptual frameworks – the idea of the 'political *unsettlement*' and the 'political marketplace'. Both these frameworks focus on the functioning of 'disordered' political systems – though they approach the question somewhat differently. These evolved from, and as a reaction to, the 'new institutional economics' (NIE) approach pioneered by Douglass North and colleagues (North 1990; North, Wallis, and Weingast 2009). NIE sought to explain differential trajectories of development and conflict through analyses of 'institutions' – the 'rules of the game' or the 'humanly devised constraints which shape social interaction'. North and others (for instance Acemoglu and Robinson 2012) who have adopted this approach, seem to assume that the Western European model of hierarchical rule-governed bureaucracies for the administration of public affairs is the best possible institutional configuration. More recent scholarship recognizes that the path to development may not simply run through institutional development – it may be narrow, historically contingent, and dependent to a large extent on political leadership (Acemoglu and Robinson 2020; Dercon 2022). A more fundamental challenge is the manner in which NIE privileges the role of institutions in politics. In many fragile states characterized by constant political turbulence (and violence), transactional politics may dominate while institutions are either informal or dysfunctional. The rules, especially pertaining to elite agreements and bargains, are constantly subject to negotiation and change, and a political entrepreneur or autocrat can selectively break a rule with impunity if they have sufficient power.

NIE and approaches similar to it, are best oriented towards studying 'slow, incremental, directional change' (Guyer 2004, 128). In NIE, '[s]hocks have to be treated one at a time, not as the actual concatenations and successions' which characterize the experience of people living in these fragile states. In fact, despite increased attention to 'disorder' as a key theme of contemporary political analysis, de Waal (2020) argues that, but notes that political science lacks a theory of disorder. In doing so, he identifies five manifestations of disorder – lawlessness, chaos, incommensurability, disorder-by-design, and disruption. The two most relevant to this study are 'chaos' and 'incommen-

surability'. Chaos, de Waal argues, refers to behaviour which is unpredictable and apparently random. This includes turbulence, which refers to the characteristic of a system retaining a recognizable structure over time, while being unpredictable over short periods. Incommensurability, on the other hand, refers to the apparent disorder, or unintelligibility, that occurs when political systems shift from being governed by one set of 'rules of the game' to another.

The two frameworks outlined below, however, are premised on institutional instability or unsettledness and may be a better 'fit' for this paper. The key dimension along which they vary is the primacy of formal as opposed to informal rules.

The Political Unsettlement Framework

A political 'unsettlement' is defined in opposition to a 'political settlement' and thus the latter needs to be explained first. A 'political settlement' can be understood as a 'distribution of power across organizations' underpinning a particular institutional configuration in a country/political system, which 'reproduces itself over time' (Khan 2018). In lay terms, this can be understood as a *relatively stable* or at least commonly accepted 'balance of power' (Khan 2010), or the 'forging of a common understanding usually between elites that their best interests or beliefs are served through acquiescence to a framework for administering power' (Di John and Putzel 2009). Political settlements may be dynamic, evolve over time, and involve both formal and informal institutions (Bell and Pospisil 2017).

A 'political *unsettlement*' on the other hand, refers to the disordered political settlement which emerges when chronic violence and turbulence disrupt and modify the functioning of these institutions. Political unsettlements are characterized 'not just by political instability but by institutional instability, flux or even override... state structures may paradoxically find a measure of resilience through extraordinary mutation. Within these processes, no political position, no alliance, no interest is set in stone' (Bell and Pospisil 2017, 581). In some cases, political unsettlements may be formalized by peace agreements (or peace processes which keep belligerents talking within an agreed framework), or by constitutional arrangements. These 'formalized political unsettlements' (FPU) are premised on the supremacy of public law and formal political institutions which 'contain' rather than resolve conflicts – they provide ways of managing radical disagreements within society. In other words, FPU establish mechanisms by which processes of negotiation can continue within these institutions. While most of these FPU are presented as temporary and exceptional state configurations to be quickly replaced by a 'proper' and 'stable' political settlement in time – they usually result in a kind of permanent 'unsettledness', creating political dynamics which are indefinite and long-lasting (Bell and Pospisil 2017, 583).

The Political Marketplace Framework

The political marketplace framework (PMF) is another way of analysing this state of persistent turbulence. The PMF is best understood as an explicitly realist analytical lens – with a set of empirically grounded assumptions about elite behavior which allow researchers and analysts to investigate how power operates (Sarkar et al. 2021). The 'political marketplace' (PM) refers to a system of monetized political governance in which formal institutions, laws and regulations are subordinated to transactions or deal-making (Spatz, Sarkar, and de Waal 2021; de Waal 2015). Politics in PMs does not function as it does in states in which rational legal institutions regulate transactional politics. At the most basic level, political elites (mostly men) try to gain and retain power through near-constant bargaining using violence and material reward, which act as the 'twin currencies' of political power (Spatz 2020; Sarkar et al. 2021; de Waal 2015). Key to power is the ability to mobi-

lize and control the means of violence and material reward ('cash violence'). As a result, the core business of elite players in political market systems is to secure discretionary cash or the ability to grant or withhold access to material rewards (e.g. bribes, contracts, formal and informal licenses to operate/predate in certain areas, etc.). Material inducements are then used to buy or rent loyalty and/or violent capabilities (Sarkar et al. 2021; Spatz 2020).

PMs usually manifest as a type of indefinite 'political unsettlement' in which turbulence is managed by informal rules (manifesting some of the same skills and stratagems utilized for formalized political settlements). Elite bargains in PMs are only likely to hold if the political market conditions in which they were struck persist and the senior members of the elite who set the rules remain in place and do not change their rules. Alliances are fluid; elite members can compete one moment and collude the next, and often do both simultaneously. Where democratic institutions and practices do exist, they are effectively subordinated to the tactical calculus of elite negotiations. It is worth noting that almost all political actors in these contexts conform to these basic rules – failing to do so jeopardizes their political viability and goals. Even those who attempt to chart a different course – those pursuing a 'democratic' reform agenda, for example – are obliged to work within these rules, and take risks when they break them. PMs can, of course be organized very differently. Some are akin to 'oligopolistic' markets, characterized by a few powerful individuals or organizations, while others are more fragmented and violence, with a large number of smaller actors who are typically geographically or regionally confined.

Applying the Two Frameworks to Decarbonization

These theoretical frameworks provide a set of guiding empirically-based assumptions about how politics is conducted in disordered political systems. This allows researchers and policymakers to understand how processes of decarbonization will be understood by the leaders of those systems (i.e., as threats to key sources of political finance used to maintain power) and how decarbonization itself will materially impact the shape of these systems' political economy with knock-on effects for political incentives and decision-making. This frames the analysis of sections two and three.

There are key differences between the theories (most critically, the primacy of 'transactions' in the PMF) as well as key points of convergence. However, both are concerned with understanding politics – or how power originates, the forms it takes, and how it is distributed and controlled (Leftwich 2004) – in *fundamentally disordered* political systems. Neither is a theory of everything. The PMF, in particular, is not 'economically deterministic' – it is closely intertwined with, and operates alongside, other political logics such as exclusionary identity formation (Kaldor and de Waal 2020). Not all actions are permissible in the pursuit of power in PMs. Political markets, like all other markets, are socially embedded; societal norms shape the market (though norms evolve over time), and certain actions are clearly proscribed.

Elements of transactional politics and political settlements are visible in each of our cases, often underpinned by oil rents. Some of the countries – notably Sudan, South Sudan, Nigeria, and Iraq – are paradigmatic examples of PMs where political power is bought and sold using money, favors, jobs, and at times, violence (Patey 2022; Craze 2022; Miller 2022; al-Kli and Miller 2022). They also feature elements of political settlement. Politics in Venezuela shows many of the same symptoms, and may be well on its way to becoming a PM, but it is difficult to definitively categorize it as such without further analysis of elite bargaining and political spending. Ecuador is a clear outlier in our case set: its political system under President Rafael Correa included elements of authoritarianism and patronage, and oil rents were central to redistribution and expansion of economic benefits to the public – but did not include constant bargaining between elites, and formal institu-

tions continued to function to a greater or lesser extent (Riofrancos 2020a; Burgess and Corrales 2022). The point is not to categorize the cases in our study as 'political unsettlements', PMs, or something else, but to use these theories as guideposts for analyzing extremely complex, opaque political dynamics.

The key assumptions of the political marketplace framework that we draw upon are as follows:⁹

- (a)** These political systems (and their symptoms of disorder) are enduring. Systemic turmoil and disruptions to the political economy caused by decarbonization will not lead to change in the rules of politics.
- (b)** Political finance is central to the functioning of the political system; violence and 'cash violence' structure elite dealings. Put differently, patterns of war, repression, systemic corruption, and governmental finance shape and are the result of changes in elite bargaining.
- (c)** The dynamics of political markets act as an entrenched obstacle to the provision of public goods since political leaders are only incidentally concerned with welfare of the general population.
- (d)** There are few 'off-ramps' from political unsettlements or political markets. Even though large-scale civic activism and democratic protests have had some efficacy in overthrowing repressive regimes or reshaping political settlements, democratic transitions can be quickly overwhelmed by the degree of monetization and violence in these political systems.

These assumptions are general. Nonetheless, they can be 'tested' and fleshed out, however imperfectly, on the basis of the case studies.

The concept of political unsettlements is similarly helpful when understanding transactional elite politics. From this starting point, Pospisil (2021) categorises oil-producing states based on their political (un)settlements. These broad categories help reveal the ways in which decarbonization will likely impact different types of states, with varying institutional structures, and based on these specific the ways leaders of these states might respond. The three groups are:

- (a)** 'Stable states with diversified economies' – which includes the United States, Canada, Norway, the United Kingdom, Colombia, Mexico (and perhaps even Brazil, Indonesia and Russia),¹⁰
- (b)** 'Carbon-based political settlements' (CPS), which are often authoritarian and based on channelling of oil revenues to the populace in the form of economic benefits (such as UAE, Saudi Arabia, Kuwait, Qatar, etc.); this category may also have included Iraq, Syria, Libya, and, to an extent, Venezuela in the past, and
- (c)** 'Carbon-related political unsettlements' (CPU) which occur where oil reserves are discovered and exploited in an institutionally fragmented polity (for instance, Sudan, South Sudan, Nigeria, Mozambique, Yemen, and to an extent Syria). Oil does not trigger conflict in CPUs; it shapes the landscape of violence by reconfiguring parties to the conflict, and forms of violence.

A fourth category may be required to adequately describe countries such as Ecuador and Bolivia, where lower reliance on resources can co-exists with institutional instability. These categories are, of course, not watertight; countries and political settlements can and do move between them, and our case-set includes countries (Iraq, Venezuela) which have done so. The point is, analysing the political unsettlement in a country can tell us more about the impacts of decarbonization than

⁹ These are adapted from Spatz, Sarkar, and de Waal 2021.

¹⁰ Russia is a particularly complex case, and may belong in a category of its own. There is certainly an argument for it to be categorized as a CPS.

the mere presence or absence of oil. Political settlements may be ‘formalized’ by peace agreements or constitutional arrangements, but what is more important for our purposes is their characteristic of long-lasting or enduring disorder, with fluid institutions which are constantly in a state of transition, with the loci of power located within and outside the geographical boundaries of the nation-state.

Finally, a few points about what this paper *does not do*. It does not examine the role of globalization (in particular, supply chains) or resource imperialism in expanding and fundamentally reconfiguring extractive capitalism (Tsing 2009; Arboleda 2020). Nor does it touch on the lives and resistance of those working and living in the interstices of these oil economies, and those experiencing the ‘slow violence’ of ecological degradation (Riofrancos 2020a; Tsing 2015; Nixon 2011; Danyluk 2022). Instead, its focus is squarely on elite politics – with the hope that clear eyed analysis can help contribute to existing democratic efforts to dismantle these systems.

Oil rents in politics

An examination of decarbonization only makes sense if we begin with an analysis of the role of oil rents in our cases. Contrary to facile explanations, only in a few of these countries are oil rents directly channelled through the political system in the form of bribes or payments. It is more common for oil revenue to form part of much more complex, and opaque, patronage networks, often mediated by contracts and sub-contracts, as well as public payrolls. There are four primary ways in which carbon rents can play a role in politics.

First, and most obviously, oil rents can be stolen—or moved through corrupt channels—for elites to enrich themselves. This occurs across the spectrum of countries (that is, stable states with diversified economies, CPUs, and CPSs) but the precise mechanisms vary depending on a country’s political economy and degree of institutionalization.

Second, carbon rents can be used to support a developed economy. Within the classification of political settlements described above, these countries overlap with ‘stable states with diversified economies’ though the latter category is smaller – because it is possible to be a developed economy while being heavily reliant on oil rents. While the effects of resource dependence in developed economies can include shrinking of other tradeable sectors of the economy, increased unemployment, and appreciation of the exchange rate, with knock-on effects on politics, none of our cases fall into this category.

Third, oil rents can also be used to support centralized authoritarian rule. Centralized authoritarian rule can exist in ‘carbon-based political settlements’ (CPSs), ‘carbon-related political settlements’ (CPUs) and even in stable states with diversified economies (such as Russia). There are at least four ways in which authoritarians use oil rents to consolidate their hold on power, and these may co-exist within a single state, either concurrently or at different times. Carbon rents may be used to:

- (a) establish a welfare contract with the population, thereby generating popular support for an authoritarian system;
- (b) generate public employment – creating a salaried class which is (by definition?) subject to some form of governmental discipline, and assumed to be loyal to the state – at least in the calculations of ruling elites;
- (c) fund a military security apparatus, effectively increasing the ruler’s control over repression;
- (d) fund an assertive foreign and security policy.

The final and most relevant use of carbon rents is to finance political budgets in a rivalrous political market. This is most (but not solely) visible in ‘carbon related political unsettlements’ such as Sudan, South Sudan, and Nigeria. As noted above, some political markets are characterized by almost-continuous bargaining for power by groups of elites, who compete with each other for supremacy, but collude to exclude political challengers (similar to an oligopolistic economic system). Oil rents are critical for the political budgets of these elites, and control over oil rents can be exerted through territorial control, violence, control over key institutions and ministries within the oil economy, or a combination.

Notwithstanding the differences between the different techniques of governance, it is worth reflecting on the continuities in governance practices across most oil producing countries. In all but the most institutionalized countries, state reliance on oil rents decreases the need for accountability to taxpayers, while the volatility of oil prices makes for short term horizons among politicians. Further, the opacity/complexity of oil contracts invites corruption. Most critically, in less institutionalized states, once carbon rents begin to be framed as political reward by elites, they can hasten the marketization of politics – especially during periods of regime transition or leadership change.

These challenges are visible across the six case studies considered in this paper.

Sudan and South Sudan

The Sudanese and South Sudanese cases are, of course, inextricably intertwined and thus best treated jointly. In Sudan, after the discovery of oil in 1979, President Jaafar Nimeiri (and his successors) sought to exploit ethnic tensions to displace southern Sudanese living in oil-areas to facilitate the production of oil. After production finally began in the late-1990s, President Omar al-Bashir and a small clique within the ruling National Congress Party used oil revenues to enrich themselves, but more critically, to feed and enlarge patronage networks and, ‘subdue some of the grievances of middle and upper-class Sudanese living in Khartoum and its surroundings’ ‘through improved economic conditions and new infrastructure and subsidies’ (Patey 2022). Public and security sector employment were used as a patronage mechanism, and shaped an electoral system geared towards electing those who were close to the ruling clique and could ensure access to a share of oil rents. This system of patronage slowly collapsed in the face of falling oil revenues after 2011.

Oil revenue was also critical in relation to Sudan’s violent contestation with southern Sudan and then South Sudan. In the years before secession, it helped President Bashir rent the loyalty of armed groups in southern Sudan to fragment and counter the Sudan People’s Liberation Movement/Army (SPLM/A) (and others), creating a system of tribalized counter-insurgency (de Waal 2015). Elite dynamics changed with the signing of the Comprehensive Peace Agreement (CPA) in 2005 which ended the second Sudanese civil war, and elevated the SPLM/A to the status of an alternate source of oil-financed patronage for armed groups.

After 2005, it was the SPLM/A in Juba that had access to oil revenues which it used to secure the loyalty of military commanders (Craze 2022), replacing pillage and aid diversion as the SPLM/A’s primary source of revenue. Violence became a means of bargaining used by armed actors to get a share of government payoffs. This was an inflationary political system, with the price of loyalty increasing faster than the increase in oil revenues. Commanders and provincial leaders would mutiny to lay claim to a share of oil rents, drawing violent responses from the government of South Sudan – and the cycle of violence would continue until a formula for allocating material reward had been agreed between the parties. Until, of course, the parties re-assessed their relative strengths, starting the cycle of rent-seeking rebellions all over again (de Waal 2014). The self-inflicted collapse of oil rents in 2012—when South Sudan shut down its own production—meant that the gov-

ernment in Juba could no longer pay for its 'big tent' and mismanagement of political tensions then sparked war.

Nigeria

Oil rents are a relatively minor part of the overall Nigerian economy, but an extremely significant component of its political economy. Indeed, oil is arguably the key source of funds for Nigeria's political market. This relates to two of the most salient aspects of Nigeria's political system. First, it is multi-tiered and multi-centered – no party/person has a monopoly over either the sources of revenue or the means of violence, but rather there is collusion and competition among many individuals and parties at the central and sub-national levels (Miller 2022). Second, politics is both 'lucrative and expensive'; while it has been a major source of wealth, obtaining and retaining political power is extremely costly. Oil revenue is key to both of these dominant elements of Nigeria's political economy. It is diverted before being remitted to the federal government, allocated through inflated and opaque government budgets and contract mechanisms, such as the national oil company – the Nigerian National Petroleum Corporation (NNPC)) a fulcrum within the market. The inefficiencies of the Nigerian oil sector – characterized by under-utilized infrastructure, sabotage, layers of sub-contracting arrangements, and inflated costs – are a key strategic resource for ruling elites – used to reward allies and keep them in check, and to prevent the rise of well-financed opponents.

Iraq

In Iraq, oil rents are the most significant (but not the only) source of political funds for elites, and the political system is fragmented with very different dynamics at the federal level and in different regions (Skelton and Ali Saleem 2020). Since the American invasion in 2003, most analyses of Iraqi politics have centered on the bargaining over budgets and ministries in an informal quota-based system between ethno-sectarian political parties (referred to as *muhassasah ta'ifiya* in Arabic) (al-Kli and Miller 2022). Under this system, and more generally, oil revenues are not primarily routed through direct bribes and payments but rather the extension of state-backed salaries (within a large public sector) and contracts. Revenues from oil sales across Iraqi governorates (with the exception of the Kurdish region) are centralized in the national coffers, which are in turn distributed to party-controlled ministries, security agencies, and provincial budgets. Oil also generates secondary sources of revenue for non-oil producing regions in the form of service contracts, public and private employment, and revenues from smuggling and checkpoints – which are controlled by political parties and militia. The federal payroll is the primary instrument through which patronage is distributed, and the way in which parties shore up fragile popular support. Yet, it is also a source of political finance with jobseekers paying to get access to a public sector position.

Ecuador and Venezuela

In both Venezuela and Ecuador, oil rents were instrumental in helping rulers establish and maintain political control and both exhibit redistribution and expansion of services to the poor as part of populist/welfarist-state models. But the cases diverge in type and degree of authoritarian leadership, the role of the military, and how economic mismanagement impacted decarbonization processes.

In Venezuela, erstwhile president Hugo Chávez won his first election in 1998, and took advantage of dissatisfaction with Venezuela's elite political settlement to weaken existing political parties, change the constitution, obtain control of the courts, place the military at the center of power, and challenge US influence in the region (Corrales and Penfold 2015). Oil rents were allocated to the military and to cronies, but also redistributed in ways which consolidated Chávez's control over society and made him extremely popular among the poor (Burgess and Corrales 2022). The mac-

ro-economic crisis in Venezuela pre-dated the crash in oil prices, however, and oil production (and revenues) were already in sharp decline due to underinvestment and mismanagement. In some senses, therefore, Venezuela was experiencing self-inflicted traumatic decarbonization before the 2014 fall in oil prices.

In Ecuador too, the model of oil-production was based on an authoritarian-welfarist political settlement often described as a form of 'resource nationalism'. Although there were no expropriations or nationalizations (unlike in Venezuela), the tax rate on extraordinary profits for oil companies were increased to channel profits to the state in the event of production above forecasted levels, thus increasing state revenues during oil booms (Riofrancos 2020a, 10). This acted as the basis of increased state spending on basic needs – including monthly cash transfers (*bono de desarrollo humano*). As a result, poverty and inequality declined significantly, and access to education, sanitation, housing, and healthcare increased. At the same time, however, former president Rafael Correa took steps to increase his control over the executive and the judiciary, and indigenous communities (who had been a significant source of support for Correa) continued to be violently displaced and bear the brunt of ecological degradation (Burgess and Corrales 2022). When oil rents declined, the two countries took very different paths – arguably due to the nature of political bargaining in them.



What happens to politics after decarbonization?

Four key points of intersection emerge between decarbonization and the political systems in our case-set. Each follows from and examines the four assumptions about the operation of transactional political systems which were outlined in Section I. The empirical findings show that while traumatic decarbonization can have very different causes – ranging from mismanagement, oil price crash, loss of oilfields due to depletion or secession, and disruptions to production – they cause significant disruptions to the political economies of oil producing states. In some cases, this results in a reversion to the political economy which existed prior to the discovery of oil. In others, elites respond searching for replacement sources of political finance. There are, however, no cases in which a government responded by moving towards an economy organized based on economic orthodoxy (broadly defined) and organized around the provision of public goods, though the case of Ecuador is complex. Faced with the inequities of extractive and rent-seeking political economies, populations may respond with demands for democracy, and an end to corruption, but their short-term gains have not proved durable (in the cases we have studied). These findings are developed in greater detail below.

1. The rules of these political systems are 'sticky', but decarbonization can reconfigure elite dynamics and positioning

It is widely assumed that countries in which fossil fuel rents account for a significant portion of GDP are vulnerable to negative consequences of an energy transition, though the precise impacts remain poorly understood (see Gopalakrishnan and Miller 2022). At the very least, decarbonization would be expected to lead to instability. The case studies suggest, however, that this instability is more in the nature of everyday 'turbulence' – affecting the day-to-day conduct of politics, intensifying societal and economic disruptions, while leaving the fundamentals of the political systems unchanged. Turbulence predominantly takes the form of intensified elite bargaining, as politicians and armed actors (who are often the same) look for other sources of revenue to establish/maintain their primacy in the market and construct new coalitions. At the risk of over-extending North's pithy

axiom: the rules of the game stay largely the same, but the players (and their strategies and tactics) change. These are some of the critical junctures during which elite bargains are renegotiated.

Nigeria, provides an excellent example of how elites resist changes to the system – at the cost of the population's welfare (see Miller 2022). In 2020 for instance, the demand and supply side price shocks resulting from the COVID-19 pandemic and increased production by Saudi Arabia (because of disagreement with Russia over production limits) meant that the price of Nigerian crude oil dropped from \$65.89 to \$15.54 – leading to a situation where tankers of oil were floating off the Nigerian coast with no buyers. The administration of President Buhari, who had been elected on an anti-corruption platform, initially respond to the resulting budgetary shortfall by trying to cut spending and reduce leakages from oil-revenue. However, when the final budget was submitted, it reflected historical patterns of inflated spending, with massive loans making up the budget deficit. Line items which had historically been the conduit through which government funds were funneled into political budgets stayed the same, and sometimes increased. These included so-called zonal projects which are funds earmarked for community development often channeled into patronage networks, as well as statutory transfers to agencies and government bodies which are often channeled into patronage networks through opaque and unaccounted for sub-contracting arrangements. Instead, in the middle of a health and a learning crisis, funding for basic healthcare and learning and the ministries of education and health were cut. Nigeria also illustrates the impacts of short-term price fluctuations on elite politics – where loans fill the gaps in political budgets, with the expectation among elites that business-as-usual will be resumed when prices rebound.

In several of our cases, oil rents help maintain 'big-tent' patronage politics. When those rents decline, politicians look for alternate sources of revenue, make do with what they have, or cut spending on public goods. Either way, they make calculations about which constituencies need to be satisfied immediately, which can be postponed, and which can either be discarded or violently suppressed. They might mortgage future oil production for cash-in-hand, even if this means accepting a large discount.¹¹ In many cases they encourage other forms of commodity extraction (for instance, artisanal mining) and seek to make money from the allocation of licenses and from the commodity itself. In some cases, they may seek rents from illicit/semi-licit activities including trafficking of narcotics, smuggling, and extortion/protection. In lieu of offering cash, leaders might even license plunder and seizure of land (with accompanying displacement) to reward followers. Oil revenue centralizes political finance in the hands of those who control the 'state' and its institutions. The search for alternate sources of revenue almost always entails shifts in the political and moral geography of extraction, reconfiguring the relative balance of strength among leaders and shaping elite bargaining.

These patterns of political bargaining may take time to emerge. In Sudan, for instance, it took nearly a decade of life without oil to redefine the sources of power and elite positioning. The broader rules undergirding politics in Sudan remained the same even as Sudan's political economy reverted to reliance on different forms of extractive capitalism (Patey 2022). Sudan lost three quarters of its oil production when South Sudan became independent in 2011. While petroleum production from the remaining oilfields continued to meet some of the revenue needs of President al-Bashir for several years (and almost all of Sudan's domestic oil needs), the state turned to gold and mercenarism to fill the political revenue-gap. These replaced oil to become the most important source of export revenue. The locus of export revenue, which had historically been located in the partially mechanized farms on irrigated and rainfed lands near Khartoum, and had shifted to a handful of remote oil enclaves during the oil boom, shifted again, to a huge number of gold enclaves located in geographically peripheral parts of Sudan – but especially in Darfur (Gallopín et al. 2021).

¹¹ This leaves open the question of what such measures may mean for future attempts at managed decarbonization.

Gold mining in Sudan is predominantly artisanal. Unlike oil which requires capital intensive investments and infrastructure to extract and transport, gold is relatively easy to mine and to smuggle (especially from border areas). As a result, control over gold was diffused, and it could never play the role that oil had played in strengthening President Bashir's role in Sudan's political market. The government of Sudan tried a number of methods to try and ensure that gold would be channeled through the Central Bank – but these efforts failed and in the process caused significant macro-economic distortions (Elbadawi and Suliman 2018; de Waal 2019). Starved of funds, President Bashir's carefully managed patronage system began to fray at the edges and then unravel at the center. Paramilitary groups, especially the Rapid Support Forces (RSF) led by general Mohamed Hamdan Dagalo (commonly known as 'Hemedti') who controlled some of the gold-mining areas, gained in prominence (Patey 2022).

The economic situation, and especially food price inflation, led to widespread protests in cities and President Bashir finally fell in April 2019. Hemedti's position had also been bolstered by support from the UAE and Saudi Arabia, having provided fighters as mercenaries in Yemen and Libya (Berridge et al. 2022, 69; El-Battahani 2016). Flush with funds, he played a significant role in Sudan's transitional government – both competing and collaborating with General Abdel Fattah al-Burhan, the head of the Sudanese Armed Forces to undermine the civilian government. When the civilian government was overthrown in October 2021, Hemedti took power as part of a duopoly with al-Burhan. Despite the churn amongst the elite, and the extraordinarily courageous pro-democracy protests which continue to agitate against the military takeover, the broader system of transactional politics in Sudan remains largely the same. Only the players have changed, and in some part, this is due to the political ecology of gold – where it is located, how it is extracted, and how revenue generated from it is channeled into politics.

The Venezuelan case, in some respects is similar to Sudan, but instead of the president being overthrown, power was decentralized within the ruling elites – with the military and hardline factions gaining both commercially and politically in what had earlier been a highly centralized authoritarian regime (Burgess and Corrales 2022). In Venezuela, the decline in oil rents predated the drop in global oil prices – and was caused by mismanagement and underinvestment. Nonetheless, when the oil price fell in 2014-16, it compounded an existing macro-economic crisis. Venezuelan President Nicolás Maduro responded by resorting to repression but also by expanding the role of the military in economic activity (especially mining), and licensing elites to act with impunity, including by diverting funds from state-owned enterprises for their own enrichment. The Orinoco Mining Arc (*Arco Minero*) – a mining zone rich in gold, copper, and iron, among other minerals was opened up for strategic development, and the military was given special powers to manage the zone, and to ensure continuity of mining activities. Illegal mining sites mushroomed, and drug trafficking flourished; revenues from both were channeled to ruling elites. In effect, therefore, the regime turned to extracting revenue through a complex web of 'extraction, transportation and bribery that involves artisan miners, gangs and guerrillas, members of the military, and high-ranking government officials' (Burgess and Corrales 2022). In each of these cases, transactional and de-institutionalized (or at least less-institutionalized) political systems became more rivalrous as sources of political finance changed, becoming less centralized and less predictable.

In contrast, Ecuador responded to the decline in oil rents in 2014 through predominantly formal-institutional mechanisms and economic orthodoxy. It cut spending, awarded mining leases through formal mechanisms (though illegal mining did increase), allegedly mortgaged future oil production for discounted Chinese loans, and sought financial support from international financial institutions. As Burgess and Corrales (2022) note, this did not change Ecuador's resource dependence or inequitable income distribution, nor did it avert ecological crisis. The expansion of mining was also

accompanied by some instances of forced violent displacement of indigenous groups. Nonetheless, the country did not experience a complete economic collapse, nor did it move towards a system of political deal-making.

What these cases also point to is the inadequacy of the 'lay' definition of corruption, which is usually taken to mean 'the use of public office for private gain' (Bardhan 2015). While elites use oil revenues for self-enrichment in all cases, the key to these systems is political finance and the money (or access to material resources) which elites can deploy as part of their political budgets. In other words, political competition is a key driver for private accumulation of revenues, and a determinant of how much money is required to be politically competitive. From this perspective, embezzlement, mercenarism, narco-trafficking, extortion, loot, brigandage, pillage, and international finance form part of the same system – and help fill the gaps left by oil. In understanding these systems, the binaries of legal/illegal, licit/illicit are less useful than the lens of political finance which examines how political funds are extracted, who controls them, and how they can be leveraged to gain, maintain or exercise political power. That said, heavy reliance on illicit resources can have implications for the regime in charge. For instance, outright rule by a narco-financed military may be less of an option in Venezuela, keeping Maduro nominally in power.

2. Oil rents can help manage violence, but political (un)settlements based on oil rents are usually unsustainable and unstable.

In the previous section, we noted that the political systems in oil producing states are structured around the twin currencies of material reward and violence. These are interconnected, but one cannot simply be substituted for another, though they may be, and often are utilized at the same time by elites.¹²

Oil rents can help finance peacemaking. While this headline finding may not be surprising, the mechanisms may be. Pospisil (2021) finds credible evidence of a strong correlation between high price of oil, and peacemaking in violent conflicts in oil-producing countries. Drawing on data from the PA-X peace agreements database, produced by the Political Settlements Research Programme at the University of Edinburgh¹³ he argues that, since 1990 – high oil prices have been associated with broader and stronger peace-making processes in the form of fewer, but more comprehensive peace agreements. During these 'boom' years, elite rivals have greater incentive to establish a more-or-less inclusive political bargain for a share of oil-largesse. When oil prices fall, however, military-political entrepreneurs deploy violence as the preferred bargaining tactic, and the number of ceasefires increases at the cost of comprehensive peace agreements (Pospisil 2021). As a result, there are more agreements during periods of low oil prices, but these are essentially tools to manage violent bargaining. These findings turn the resource-curse hypothesis on its head; as Pospisil notes: 'it is safe to assume that decarbonisation has an at least equally substantial effect compared with carbonisation... it may not be oil that causes conflict. It may be the loss of oil that causes conflict'.

These findings on peace-making need to be nuanced. The case studies show that 'comprehensive' peace-making is not the same as 'stable' peace or even peace across the country. This paper has already touched on the phenomenon of rent-seeking rebellions in South Sudan – where vio-

¹² Each 'currency' has its own logic but understanding the effects of violence is particularly complicated – these only become clearer over time, and can only be understood by reference to the consequences of violence. The role of violence in political markets remains under-theorized, but for a brief discussion see (de Waal et al. 2020)

¹³ See Bell and Badanjak 2019. The PA-X database categorizes peace agreements into six categories: ceasefires, pre-negotiation agreements, partial and full comprehensive peace agreements, implementation agreements, and renewal agreements.

lence was used as a bargaining tactic for state resources. In Sudan too, the oil-boom coincided with conflict in Darfur – where the government sponsored paramilitaries, who in turn demanded a high price for their loyalty (de Waal 2019). Venezuela continues to experience some of the highest homicide rates in the world (Burgess and Corrales 2022).¹⁴ In Iraq, violence has been deployed strategically by militia to extort funds, to suppress protests and target civil society leaders (al-Kli and Miller 2022; Skelton and Ali Saleem 2020).¹⁵ ‘War’ and ‘peace’ are not distinct categories in these countries, and peace is not particularly peaceful.¹⁶ Although widespread physical violence and open warfare are exceptions and not the norm, most of these disordered political systems exist in a state of ‘inter-war’: political negotiation and economic regulation are both shaped by coercion and the always-impending threat of violence (Debos 2016).

The cases suggest that carbon-related political unsettlements are inherently inflationary—in the sense of increasing the amounts needed to pay off political elites, making politics itself more expensive—because political bargains are not one-off static deals but are continually renegotiated. Unless there is effective repression of political competition, the price of politics tends to increase over time. This was clearly the case in South Sudan, where the prices for loyalty of armed actors increased rapidly after 2005. When the Comprehensive Peace Agreement was signed in 2005, Craze (2022) notes that the combined forces of the SPLA (including other groups absorbed into it) numbered between 50-70,000. By 2011, this had grown to an estimated 240,000 ‘soldiers’, but at least half that number were ghosts whose wages went straight to their commanders. In Nigeria too, the price of politics continually tends upwards – especially prior to elections. In Iraq, the public payroll – one of the principal conduits for patronage at the national level, increased from 1.2 million people in 2003 to well over 3 million in 2015 (Al-Mawlawi 2019). It follows that in times of decreasing oil revenues,¹⁷ deals must be renegotiated, and elite actors who are unwilling to accept reduced rents, will resort to violence to maintain their political status. However, the price of loyalty is ‘sticky’ and does not decrease at the same pace at which it had increased (Craze 2022). In these circumstances the only way in which prices of loyalty can be driven down is through the use of violence and coercion. This can also quell protest, or help extract resources more cheaply.¹⁸

3. Decarbonization in disordered political systems causes immiseration of the general populace

Government revenues and economies more generally are both likely to be affected by decarbonization. While the precise impacts on populations remains unclear, there are likely to be job-losses among those working in extractive industries¹⁹ and public services and payrolls funded by oil revenues are likely to be curtailed (Gopalakrishnan and Miller 2022). The literature suggests that, in response, governments may try and find rent-substitutes, turn to austerity measures, try and di-

¹⁴ This is not necessarily related to decarbonization.

¹⁵ In 2019, party and state militia opened fire on demonstrators agitating for reform – killing and injuring dozens, while intelligence and security forces co-opted by the parties targeted and threatened key leaders of the protest movement in an effort to deter future protests.

¹⁶ In this too, Ecuador is an outlier.

¹⁷ Regular cycles of boom and bust were compounded by conflict and political mismanagement in our case set. In Iraq, for instance, ISIS’ takeover of northern oilfields exacerbated the oil-price shock in 2014. In both Venezuela and Nigeria, oil production is plagued by inefficiency and under-investment in extractive infrastructure (though sabotage is also a factor in the latter).

¹⁸ Craze (2022) points to the complex role of identity politics even in these transactional political systems. On one hand, identity politics is instrumentalized by elites. At the same time, egregious violence organized along the lines of group identity can create constituencies who will simply not be a party to some forms of transactional politics. See also Pendle (2020).

¹⁹ Some organizations optimistically estimate that some of those jobs will be offset by ‘green’ jobs in renewable industries – though the benefits (and losses) will vary across countries (see for instance International Labour Organization 2018).

versify economies, and double down on fossil fuels (including by seeking compensation from the global community for leaving carbon deposits 'in-the-ground'). The impacts will vary across countries, but widespread immiseration of the general population is not among the expected impacts of decarbonization. Yet, the case studies suggest that this is precisely what occurs in fragile countries – though decarbonization is usually the catalyst and not the sole cause of economic distress.

The direct causal path can be traced to political behavior which manifest as either economic mismanagement or predation (or both). Even at their most benign, elites in these countries have little incentive to provide public goods or undertake welfare-enhancing economic reform (Sarkar et al. 2021). Instead, elite negotiations are likely to instrumentalize people. This is even true of cases such as Venezuela and Ecuador where funds were directed towards economic re-distribution or expansion of services, and at the same time, accompanied by investments in strengthening networks of cronies, in shoring up the security sector, and in maintaining patronage networks. At the other end of the spectrum lie countries like Sudan and South Sudan, founded on purely predatory political economies. In these contexts, the overall political economy shapes people's vulnerabilities which are exacerbated when elites turn to violence or to other sources of rent. The key role played by oil in these systems is to make elite negotiations relatively autonomous from society and the polity – and to insulate elites (for the most part) from the fall-out of economic misery.

All the cases contain some reference to the economic distress resulting from decarbonization, but not all go into the causal mechanisms in detail. What we can discern is this: across the cases, the decline in oil rents caused a budgetary shortfall, and precipitated macro-economic crises. In every case other than Ecuador, governments either ignored the crisis, or exacerbated it through (a) their efforts to find alternate sources of rent and (b) the often-violent methods they used to extract that rent.

In Iraq, for instance, the shortfall in budgets meant that the quota-based system for allocation of jobs and contracts – the *muhassasa ta'ifiya* – was no longer workable after 2014. Instead, the patterns of bargaining changed to one where ethno-religious considerations were replaced by negotiations based on business calculations between parties, businessmen and armed actors (al-Kli and Miller 2022). This system, the *muhassasa hezibiya*, continued to ignore the desires and aspirations for ordinary Iraqis, with widespread protests breaking out across the country in 2019, which cut across sectarian lines. In effect, some of the system has gone underground since those protests – with political parties negotiating in secret over special appointments to senior civil service positions – which in turn are responsible for routing political finance to party coffers through sub-contracts (Dodge and Mansour 2021). In South Sudan, the loss of oil, has marked a return to older patterns of predation and extraversion. Armed actors are 'licensed' by the regime in Juba to loot and pillage, tax and divert humanitarian resources, and forcibly displace populations. These violent processes have been accompanied by the enclosure of land using processes of formal land tenure and coercive land purchases, which have placed ever-increasing tracts of land in the hands of the elite (Craze 2022). Customary forms of resource circulation and land ownership have been replaced by widespread dependence on waged employment and markets (Thomas 2019; Majok 2019). Within this rapidly commoditizing economy, the displaced are effectively conscripted to work the land at below market wages. Although it is difficult to be definitive, increasing market dependence seems to be associated with inadequate access to cash among many of the displaced (Thomas 2019, 34–35). As a result, food insecurity has also increased.

Hunger is also a characteristic of post-oil Sudan and Venezuela (and to an extent, Nigeria). Burgess and Corrales (2022) point to the Venezuelan 'jokes' about the 'Maduro-Diet' – a reference to widespread food shortages (including of staples such as rice and milk) and extraordinarily high inflation, which caused rapid increases in both malnutrition and infant mortality (Rendon and Schneider

2018). In Sudan post-oil dynamics have flattened the differences in hunger between peripheries and urban center of the country (Thomas and de Waal 2022). Rural Sudanese have, of course, gone hungry for generations - even as wheat subsidies funded by oil revenues subsidized urban diets. This was the product of a particularly brutal agrarian economy which relied on continually increasing land under cultivation even as a steady stream of workers displaced and dispossessed by Sudan's peripheral counterinsurgencies provided cheap labour for the farms. Oil had papered over the fissures in the system - but when oil revenues declined, the Sudanese government could no longer pay for imports or balance budgets. Subsidies were removed, inflation spiked, and prices increased, and the resulting protests removed President al-Bashir from power (Patey 2022). The macro-economic pathologies were too severe for the civilian administration to survive, and the military returned to power in a coup on October 2021, using repression to suppress continued civic protests. Oil revenue had postponed the reckoning over Sudan's unsustainable model of peripheral governance and agrarian capitalism; the loss of oil brought the politics of coercion and cash into Sudan's cities (Berridge et al. 2022, 206-7).

The economic systems in several of our case-countries bear more than a passing resemblance to what Marxist theorists refer to as 'accumulation by dispossession' - or accumulation through violence, predation, and fraud (Harvey 2003). This, they suggest, is driven by a crisis of over-accumulation of surplus - where adequate avenues for profitable investment do not exist. As a result, the continued accumulation of capital requires either the constant opening up of new markets, or the cheapening of inputs - land, labour, etc., through methods such as commodification and privatization of land, the forceful expulsion of populations from that land (what some call 'accumulation-by displacement' (Araghi 2009)), and the forceful appropriation of assets (including natural resources). Critical to this constant accumulation is state power, which facilitates these processes through violence and notions of legality.

The case studies complicate (but do not challenge) these theories. Across most of our case countries, accumulation relies on state power during oil-booms, because of the large capital investments required, which are usually channeled through state institutions, no matter how incapable. Dispossession which takes place during this time, is at the behest of the state. During periods of decarbonization, on the other hand, some measure of coercive power (in the form of violence) may be sufficient to extract or extort rents, and accumulation is not dependent on control of the state.

4. 'Off-ramps'

What, if anything, do the cases tell us about 'off-ramps' - or possible paths away from commoditized violent politics in decarbonizing countries? The prognosis is troubling. Most case-countries witnessed some form of large-scale non-violent protests during or after decarbonization, though the focus of the protests was the functioning of politics in general. Iraq, for instance, witnessed historic levels of protest in 2019 -- 'denouncing the endemic corruption, economic decline, and endless cycles of violent conflict that have marked the post-2003 system' (Cooke and Mansour 2020). '#EndSARS' protests broke out in Nigeria in October-2020, initially sparked by the extrajudicial killing of an unarmed civilian by a special police squad - but came to encompass public outrage over corruption and governmental abuse of power (Miller 2022). The combination of austerity and kleptocracy drove popular discontent in Sudan that brought down the government, but the transition to democracy did not materialize; protesters continue to turn out on Sudanese streets every-day, facing repression after the military coup of October 2021 (Berridge et al. 2022). Protests have also taken place in Ecuador and in Venezuela around removal of fuel subsidies, and indigenous communities have resisted efforts to evict them for mining projects. In all these cases, the protests followed a well-established pattern (de Waal and Ibreck 2013): they were sparked

by material issues – the price of bread, unemployment, the lack of electricity during summer – but expanded to demand broader systemic change. None managed to fundamentally challenge the workings of the political systems.

Some of the protests have been brutally suppressed. In Iraq for instance, security forces opened fire on protesters – killing and wounding hundreds (Mansour 2021). Political parties and militia also deployed other tactics with impunity, including targeted assassinations, detention, torture, and intimidation of civil society and activists. In Nigeria and Sudan too, the government responded with violence and repression. And unfortunately, as history demonstrates – repression can be effective (Scott 1985).

In Ecuador, mass political agitation, especially by indigenous groups (who opposed an economic system based on pure extraction), labor organizations and anti-tax demonstrators did play a significant role in fueling a split within the ruling party – and subsequently, in ensuring that President Rafael Correa did not seek re-election in 2017. Burgess and Corrales (2022) also attribute this to the limited role of the military in Ecuadorian politics (and indeed in the economy) during Correa's rule. However, the Ecuadorian political system appears to have been far more institutionalized than some of our other case countries, making it difficult for these findings to be applied directly to other contexts.

The point is this: in every country, even amidst violent political conflict and turmoil, people organize to press for peace, democracy, law and justice (de Waal et al. 2020). In general, large-scale protests remain the only way to effectively challenge the fundamentals of a political system. However, the political systems that emerge out of these protests constantly run the risk of being overwhelmed or co-opted by rapid changes in elite politics.

Conclusion

This paper concludes with some reflections on what decarbonization can tell us about disordered political systems, and by outlining some directions for future research. It may be tempting to dismiss the findings in this paper as only applying to fragile states – ‘boundary’ cases at the margin of the global political economy, which holds no real lessons for more institutionalized countries. But as many scholars have pointed out, there are real risks to thinking about these marginal political economies as being either external to the way the world is ordered, or as simply having fallen behind in the inevitable arc of development (Das and Poole 2004; Iskander and Landau 2022). By the same token, there are risks to overstating the importance of these cases – to paraphrase James Ferguson, it is also not likely that Oslo will resemble Lagos in a few years (Ferguson 2012). There are, in other words, no clear trajectories for nations, and countries are not moving through linear historical time towards predetermined destinations. What these cases can do is to illustrate relationships and trends, and the cases examined by this paper hold lessons for scholars and policy-makers interested in the politics of climate crises in an increasingly disordered world.

Traumatic decarbonization involves several forms of disorderly change. First, and perhaps most obvious, is the systemic change in political economies when oil rents either are reduced long-term or disappear altogether. The transition is inherently disruptive, but for many of the countries examined in this paper, huge fluctuations in the level and type of resource rents have been the norm for decades. Elites in these states are well-adapted to these realities and have crafted governing systems that are designed to ride out such disruption, though there are clear differences between more-institutionalized cases such as Venezuela and Ecuador, and outright political markets such as South Sudan. Thus, even as the material foundation of the political economy and political fi-

nance changes, the rules of the political system remain the same.

A second type of disorder results from volatility in political finance. Elites navigating a temporary price shock respond differently to those responding to more fundamental loss of oil rents. Oil prices have fluctuated over the decades, and the apparent stability of oil-funded regimes masks their established practices at managing revenue downturns, usually through coercion.

Third, decarbonization changes the kinds of political agreement that can be negotiated to manage or resolve armed conflict. High and expanding carbon revenues are associated with more comprehensive deals, while low or contracting inflows correlate with more limited and tactical deals such as ceasefires. This poses the question of whether and how peace can be achieved in the absence of sufficient anticipated profit for the belligerent elites who sign deals. What, if anything, can replace the tangible material gains from carbon rents as the basis for elite compacts that underpin peace?

Finally, decarbonization can cause the fundamental restructuring of politics. These shifts could in principle be disruptive in that they change the rules of the game, or chaotic, in that the rules remain the same, but the number of elite players, and their relationships are reorganized. Scholars and policymakers are only just beginning to grapple with these different forms of disorder, but the fact remains that there are few policies (if any) for analyzing, managing or responding to traumatic decarbonization.

In closing, it is worth touching on future directions for research. This research project was begun with the express intention of bringing together those who work on climate change policies and those working on conflict/politics. Most of the case studies, however, were prepared on the 'conflict-side' of the aisle. As the research agenda evolves, it will be useful to revisit some of the key cases to expand that collaboration. Further, the key causal relationship needs to be tested across a wider spectrum of cases, including rentier states, authoritarian states, etc.

A second line of inquiry could be to look at the way the broader political economy is organized in these countries (beyond the political elite). Part of this will require examining the changing political ecology of extraction and natural resource exploitation, including the ways in which these resources connect to much wider supply chains and assemblages of extraction. This will also include studying everyday forms of resistance by those living with the political effects of decarbonization.

A final field of research is the ideational component of peace-making and political compacts in a time of radically changing expectations about the future. Climate crisis and the associated disruptions demand that publics think more holistically and longer-term about human societies' roles on the planet, while the immediate stresses of these crises compel short-term responses. Just as free markets are notoriously poor at providing long-term public goods, so too political markets show themselves in thrall to the need to satisfy immediate political outcomes. Fragile oil-producing states are emblematic of this tension. Any shift towards other sources of public finance to compensate for depleted carbon revenues will need to consider not only reconfiguring elite political finance, but also forging new public expectations of future wellbeing.

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