

Critical Minerals, Critical Risks:

How Global Lithium Demand Reconfigures Security Dynamics in the Sahel

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Abstract: Contemporary debates on geoeconomics remain largely state-centric, assuming that governments exercise coherent control over resources, markets, and supply chains. This article challenges that assumption by examining how fragmented political economies can generate geoeconomic effects without consolidated authority or explicit geostrategic intent. Focusing on lithium extraction in the Sahel, it argues that where authority is dispersed across state institutions, armed non-state actors (NSAs), and informal economic networks, control over extraction and trade becomes structurally distributed. This fragmentation limits a state's ability to translate resource endowments into strategic leverage, while simultaneously reducing its vulnerability to external coercive capture, producing a form of defensive insulation. Drawing on documentary analysis and a case study of northern Nigeria, the article shows how lithium extraction is becoming embedded within pre-existing conflict economies. While NSAs pursue local objectives, their activities shape supply conditions and market dynamics within globally significant resource systems. The article concludes that geoeconomic theory must move beyond state-centric assumptions to account for fragmentation, informality, and the distributed nature of agency in resource-rich but weakly governed environments.

Introduction: Geoeconomics Beyond the State

Early post-Cold War academic analysis was sceptical of the role economics played in global security politics.¹ However, more recent scholarly work has seen geoeconomics move toward the centre of international political analysis.² Under such an academic shift in thought, trade controls, industrial policy, sanctions regimes, and supply-chain security have now all come to feature prominently within the relevant strategic language of major powers. Further, economic instruments, once treated as technocratic tools, are now increasingly recognised as being central to national security and geopolitical competition.³ This shift has been particularly evident in recent debates over critical mineral resources, whose importance has grown alongside efforts to decarbonise the existing global fossil-fuel-based energy system, electrify transport, and secure technological competitiveness.⁴

Among these new critical resources, lithium has emerged as one of the most strategically consequential, underpinning all battery technologies central to electric vehicles (EVs), renewable energy storage, and digital infrastructure, with demand projected to increase sharply over the coming decades.⁵ As such, governments in the United Kingdom (UK), the European Union (EU), and the United States (US) have all begun to treat access to lithium not merely as an economic concern but rather as a strategic imperative linked to resilience, autonomy, and geopolitical risk management.⁶ As a result, lithium is now firmly embedded within all narratives of the global green energy transition and, therefore, has become a necessary consideration for debate surrounding great-power competition.⁷

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Alongside such considerations, dominant approaches continue to frame strategic economic power and agency as the preserve of states, states that are almost always viewed as being capable of exercising consolidated authority over their resources, supply chains, and the associated markets through which said commodities are sold.⁸ Yet, this assumption sits at odds with observed political realities from across much of the Global South, where authority is partial, contested, or fragmented.⁹ In such contexts, control over territory, labour, and resources is frequently exercised not by governments, but by armed non-state actors (NSAs), informal networks, and arrangements of hybrid governance. As such, whilst formally owned by the state, strategic assets may, in reality, be governed by actors operating outside of official institutions.¹⁰ Whilst it is widely evident that legal sovereignty doesn't always translate into effective governance, geoeconomic analysis still treats the described fragmented conditions as being peripheral rather than constitutive of how strategic outcomes may be produced.¹¹

This divergence creates a conceptual puzzle for geoeconomic theory. If states cannot exercise consolidated control over both their extraction and supply networks, how should their geoeconomic agency be understood? More specifically, how do fragmentation and informality in mineral extraction and supply chains shape the geoeconomic leverage and limits of strategic agency within the mineral-rich states of the Global South amid intensifying global competition for critical resources? Addressing this question requires a reconsideration of how geoeconomics conceptualises power, authority, and control under conditions of fragmented governance. Crucially, under such consideration, fragmentation does not simply represent a deficit of state capacity; it also reshapes the terrain of geoeconomic competition by limiting the ability of external actors to convert economic access into political control.

Of late, a growing body of scholarship has begun to challenge portrayals of the Global South as a passive arena for external competition, emphasising how some states leverage geopolitical rivalry, resource endowments, and diplomatic alignment to enhance autonomy and bargaining power.¹² However, this capacity is uneven and often constrained in regions where governments exercise limited control over extraction and supply chains, as diminished leverage may coexist with greater insulation from external coercive capture. While these contributions are essential, they still tend to retain an implicit statist bias, treating the state as the primary agent, even where authority is visibly dispersed. Such a focus, therefore, risks obscuring how strategic outcomes can often be shaped by NSAs that are operating either below or alongside the state in contexts of limited governance.

This article explores whether (and how) fragmented authority structures alter the relationship between resource control and geoeconomic leverage. Rather than assuming that strategic economic influence is exercised primarily through centralised state control, it analyses how dispersed governance arrangements shape supply conditions, bargaining dynamics, and exposure to external pressure. Under such conditions, states may possess limited direct geoeconomic leverage while facing reduced vulnerability to coercive capture, as extraction and trade remain only partially under formal governmental control.

Within this context, the Sahel provides a particularly useful setting through which to examine these shifting dynamics. Long characterised by weak governance, porous borders, and entrenched conflict

economies, the region has recently emerged as a frontier for lithium exploration.¹³ This development also coincides with the expansion of jihadist and criminal groups already long embedded within the existing Artisanal and Small-Scale Gold Mining (ASGM) economies of the Sahel.¹⁴ Here, lithium's newfound geological accessibility and rising strategic value make it both desirable and vulnerable to similar patterns of nefarious actor capture, drawing a direct link between local extraction practices and global geoeconomic priorities.¹⁵

To analyse these processes, the article develops a framework for understanding how fragmented and informal systems of resource governance generate geoeconomic effects without necessitating any intentional geostrategic agency. Rather than treating NSAs as geoeconomic strategists, the framework examines how their control over extraction, taxation, and trade shapes supply conditions and political risk in ways that carry international consequences, even in the absence of coordinated geopolitical intent.

The following section situates critical minerals within debates on geoeconomics, fragmentation, and Global South agency. Analysis then develops a conceptual framework for interpreting geoeconomic effects in fragmented governance environments. Subsequent sections examine lithium's integration into Sahelian political economies, including a focused case study of northern Nigeria. The final section considers the implications of fragmentation and informality for Sahelian state leverage, vulnerability to external pressure, and the conceptualisation of geoeconomic leverage and agency in weakly governed resource contexts.

Geoeconomics, Fragmentation, and Global South Agency

At the theoretical level, existing geoeconomic thought largely assumes that states exercise meaningful control over strategic sectors and supply chains, enabling them to convert economic position into geopolitical leverage. Yet, in many resource-rich regions of the Sahel, extraction and trade operate through fragmented, informal, and non-state-controlled systems that are only partially subject to government authority. Under such conditions, the relationship between resource endowments and strategic influence becomes less a function of consolidated state capacity than of dispersed governance arrangements that blur the boundary between formal and informal control. Within such an argument, the concept of geoeconomic leverage is introduced, used to describe the capacity of an actor to convert control over economic resources or supply chains into political influence over other actors. This influence can exist either through forms of direct bargaining power or through an actor's ability to shape the conditions under which other actors can access strategically significant goods.

Conventional accounts of geoeconomics conceptualise economic power primarily as an instrument of state strategy.¹⁶ In contrast, more contemporary approaches have expanded upon this focus to include areas such as sanctions, financial networks, technological standards, and supply-chain dependencies.¹⁷ The concept of weaponised interdependence takes this debate further by incorporating considerations of how states exploit asymmetries within global networks to exert various forms of coercive influence whilst still remaining at the sub-threshold level in terms of necessary recourse to military force.¹⁸ However, such assumptions sit uneasily against the political realities experienced across much of the Global South, where state authority is often partial, contested, or fragmented, and where control over

territory, labour, and resources is frequently exercised by armed NSAs, informal networks, and hybrid governance arrangements, rather than by official institutions. Under such circumstances, it becomes clear that legal sovereignty doesn't necessarily translate into effective governance. Yet, geoeconomic analysis often treats these 'alternative' realities as peripheral rather than central to how strategic outcomes are in fact produced.¹⁹

Importantly, fragmentation not only constrains state geoeconomic leverage; it may also reduce a state's exposure to external coercive leverage. Where governments exercise limited control over extraction and supply chains, foreign powers face greater difficulty in converting economic pressure into political capture through state-centred agreements or exclusive production arrangements. In such contexts, the geoeconomic position of the state becomes characterised less by enhanced bargaining power than by forms of defensive insulation, in which diminished control simultaneously limits both strategic leverage and external vulnerability.

This paradox can be understood through a modified application of Robert Putnam's "two-level games" framework, in which domestic constraints can shape, and in some cases strengthen, a state's international position.²⁰ In fragmented resource economies, limited state control over extraction and supply chains reduces the ability of external actors to secure exclusive access through state-centred negotiation. Rather than enhancing bargaining power, fragmentation produces a form of structural insulation, constraining both state leverage and external coercive influence.²¹

Instead of automatically treating fragmented governance as a deficit in need of correction, deeper analysis through a fragmentation lens reveals how strategic outcomes are produced through dispersed and overlapping authorities that operate beyond consolidated state control.²² Under such a broadened understanding, markets can be seen as blending both licit and illicit practices, whereby functions of governance are performed by NSAs, and global demand transmits incentives into spaces beyond formal regulation.²³ Under such layered conditions, strategic influence is no longer monopolised by states but rather distributed across a range of actors, each of whom is capable of controlling access to economically significant assets.

The incorporation of critical minerals into this landscape of consideration intensifies such dynamics. Unlike hydrocarbons such as oil and gas, many critical minerals (including lithium) are highly compatible with simplistic forms of Artisanal and Small-Scale Mining (ASM).²⁴ They can be mined with limited capital, integrated into informal trade networks, and laundered through complex supply chains.²⁵ As demand rises, control over extraction sites and transit routes becomes a key source of influence and value, even in the absence of formal ownership. This creates opportunities for NSAs to exercise strategic agency within global markets, structured by state demand.

Understanding the geoeconomic Global South, therefore, requires a move beyond state-centric models of power distribution. Agency must be understood as relational and contingent, shaped by control over resources where value is defined externally, but whilst the process of extraction remains a concern tied to local governance. This insight sets the stage for a reconceptualisation of geoeconomic agency that accounts for concepts of fragmentation.

Non-State Geoeconomic Agency in a Fragmenting World

Geoeconomic agency is typically understood as the ability of an actor to use economic instruments, such as control over trade, investment, or supply chains, to achieve political or strategic objectives. Within existing geoeconomic literature, this capacity is overwhelmingly attributed to states, which are assumed to exercise authority over domestic resources and economic networks. However, in fragmented political economies, where control over extraction and circulation is dispersed across multiple actors, this assumption becomes increasingly difficult to sustain. Under such conditions, actors operating outside formal state structures may also exercise meaningful influence over economically and strategically significant resources. In this sense, agency becomes understood not solely as an intentional strategy, but as the capacity to shape outcomes through control over economically significant processes, even where such effects are not explicitly articulated as geoeconomic objectives.

The concept of non-state geoeconomic agency captures how strategic economic influence can operate under conditions of fragmented authority. Here, non-state geoeconomic agency refers to the capacity of NSAs to shape the production, governance, or strategic significance of economic assets in pursuit of locally defined objectives, such as revenue extraction, territorial control, or organisational survival, in ways that carry international political or security implications.²⁶ The concept differs from pre-existing accounts of conflict resources and political violence in two key ways. Firstly, it cannot be reduced to simple revenue extraction or opportunistic predation. While armed actors may extract value from resource economies, their influence is viewed as extending far beyond finance to incorporate the governance of extraction sites, the regulation of access, and the structuring of supply chains that connect local production to global markets. Secondly, it argues that non-state geoeconomic agency does not depend on the articulation of explicit geoeconomic strategies comparable to those of states. While armed actors pursue locally defined objectives, their actions shape supply conditions and risk environments within globally significant markets. In this sense, their agency emerges from their position within strategic resource systems rather than from deliberate participation in geopolitical competition. This approach aligns with recent work that seeks to rescale geoeconomic analysis beyond the state, highlighting how localised forms of illicit or non-state authority can shape global economic processes and strategic outcomes.²⁷

Non-state geoeconomic agency also differs from both classical geopolitical influence and conventional accounts of resource predation.²⁸ Conflict-economy scholarship has long documented how armed groups exploit natural resources to finance violence, sustain organisational capacity, and entrench territorial control.²⁹ This is also reflected beyond the scholastic realm, now widely recorded in the reports of governments and think-tanks alike.³⁰ The combined output of such analysis emphasises regional exploitation, taxation, and coercion as being widespread mechanisms for survival. However, all generally fall short of addressing how such practices also intersect with global strategic demand.

Existing literature captures elements of these stated dynamics but has only partially engaged with the associated geoeconomic implications. Building on these insights, embeddedness within resource economies produces geoeconomic effects, shaping strategic competition and supply-chain dynamics even in the absence of deliberate geopolitical intent. In doing so, it shifts the focus from how resources

fund conflict to how fragmented control over strategically significant resources reshapes geoeconomic relations. Existing approaches tend to emphasise governance failure, conflict financing, or firm-level coordination, often treating global markets as background conditions rather than sources of strategic value. By contrast, non-state geoeconomic agency includes an emphasis on how strategic economic influence may emerge in the absence of consolidated governance, including when locally governed resources acquire heightened geopolitical salience through increased global demand. Such a perspective thus bridges international political economy and conflict studies by showing how strategic outcomes can be shaped not only by states and organisations, but also by a multitude of other actors, including those with nefarious motives, operating within fragmented political orders. This form of influence can therefore be understood as a structurally produced or unintended form of geoeconomic agency, through which locally purposive actions generate systemic economic and political implications without any concept of deliberate geopolitical strategy.

The geoeconomic significance of an actor's position is inherently relational; it is derived not simply from forms of resource control, but from the strategic value assigned to a specific resource by external actors. In such contexts, influence often emerges less from deliberate geoeconomic strategy than from the structural consequences of occupying a resource position within markets shaped by external demand. When a commodity becomes critical to industrial policy, energy transitions, or national security strategies, as with lithium, control over its extraction gains significance at a rate that quickly outpaces any concept understood at the level of the local political economy. NSAs, therefore, need not articulate formal geoeconomic strategies to shape systemic outcomes. While direct interaction between NSAs and great powers in geoeconomic terms remains limited or indirect in the Sahelian context, their control over extraction and supply conditions nonetheless shapes the strategic environment within which such interactions occur.

This type of agency can be viewed as being enabled through three forms of fragmentation. Firstly, the fragmentation of authority that undermines state monopolies over coercion and regulation. Here, armed groups frequently perform governance functions in areas where the state is absent, distrusted, or unstable, regulating access to land, imposing taxation, and enforcing rules. Secondly, the fragmentation of markets, which blurs the boundary between licit and illicit economic activity, allows resources extracted under NSA control to enter global supply chains through intermediaries and regulatory arbitrage.³¹ Thirdly, the fragmentation of geopolitical alignment that elevates the strategic value of resources located in politically marginalised regions, as states seek to diversify supply chains amid concepts of national security and great-power rivalry.

Together, these three dynamics create conditions under which NSAs can acquire forms of geoeconomic influence that extend beyond local markets without requiring deliberate geopolitical strategy. By controlling access to strategically significant resources, they shape supply conditions, risk profiles, and governance challenges across global markets, while also exercising a more direct form of leverage, vis-à-vis the states in which they operate, by constraining governmental control over extraction and trade. Furthermore, their actions shape the effectiveness of state strategies aimed at resilience and diversification by altering control over extraction sites and supply routes, thereby influencing economic leverage and market risk rather than merely constraining policy through conventional political or security pressure.

Critical Minerals and the Sahelian Political Economy

The Sahel exemplifies the intersection between fragmentation and strategic resource extraction. Stretching across West and Central Africa, this arid belt of land, which traverses multiple states, has long been characterised by weak governance, environmental stress, and protracted insecurity.³² State authority exists but is widely uneven, borders are porous, and large areas are governed through hybrid arrangements involving local elites, militias, and jihadist groups. These conditions have therefore shaped the region's political economy for decades, particularly in relation to the extraction of natural resources.

ASM occupies a central place within this landscape as a broad category of informal extraction. Within this, ASGM has expanded rapidly across the Sahel since the early 2000s, providing livelihoods for millions while simultaneously generating revenue for armed groups.³³ Jihadist organisations affiliated with al-Qaeda (AQ) and Islamic State (IS) have embedded themselves within gold-mining regions, generating funds by taxing miners, regulating access to sites, and controlling transport corridors.³⁴ These practices generate long-term income, reinforce territorial control, and embed armed groups within local governance structures.

Lithium has now also begun to enter this political economy. Geological surveys have identified lithium-bearing pegmatites (rocks) across several Sahelian states, including Mali, Niger, Guinea, and notably northern Nigeria, with numerous other states in the region now beginning their own lithium surveys.³⁵ While industrial extraction remains limited, due to the remote nature of sites, overall yield rates, and security threats, lithium mining through ASM, hereafter referred to as Artisanal and Small-Scale Lithium Mining (ASLM), has begun to thrive, emerging in areas characterised by weak oversight and existing conflict economies.³⁶ The geological characteristics of hard-rock lithium deposits make them accessible using ASLM techniques almost identical to those used in ASGM, lowering barriers to entry and enabling rapid expansion.³⁷ Unlike hydrocarbons, which typically require capital-intensive, state-backed infrastructure, lithium's compatibility with ASM allows it to be absorbed into existing conflict economies with minimal institutional transformation.

Lithium's integration into pre-existing Sahelian extraction economies follows familiar patterns for all involved. Informal miners extract ore with minimal capital investment, intermediaries purchase the output of their toil at extremely low prices, and regulatory gaps enable widespread smuggling, often through the misclassification of commodities.³⁸ Armed groups exploit these dynamics by imposing taxation, providing protection, or exerting coercive control over access routes. What distinguishes lithium from other conflict-associated minerals, however, is not the mode of extraction but the strategic context in which it is valued.

Comparable dynamics can be observed across the Sahel, particularly in Mali and Niger, where ASGM has long been embedded within conflict-affected peripheral regions. In northern Mali, armed groups and community militias have extracted revenue from mining through systems of taxation and protection, while in Niger, similar arrangements have emerged along smuggling corridors linking extraction sites to regional markets.³⁹ In both contexts, limited state presence and the growing reliance of local populations on ASM have enabled NSAs to exercise regulatory authority over both production

and circulation. These cases underscore how the mechanisms which are also observed in northern Nigeria are not anomalous but instead reflect broader patterns through which mineral extraction has become governed in fragmented political orders across the Sahel.⁴⁰

While the mechanisms observed in northern Nigeria resonate across the Sahel, important contrasts in state response and armed-group institutionalisation shape how these dynamics unfold. In Mali, ASGM has been embedded within conflict economies for a longer period of time, and at a greater scale, particularly in northern and central regions where jihadist groups and community militias exercise durable territorial control.⁴¹ In these regions, armed NSAs have developed more formalised systems of taxation and dispute resolution around mining sites, reflecting a higher degree of institutionalisation formed around a longer history of extraction-based governance.

Niger presents a different configuration to the same pressures. Although ASM is widespread, especially in gold-producing regions such as Tillabéri in the country's far west, the state has at times pursued more assertive interventions, including periodic mine closures and military operations aimed at disrupting armed-group access to extraction sites.⁴² These interventions have produced uneven results, often displacing rather than dismantling illicit extraction and pushing mining activity across borders. Compared to Mali, armed-group involvement in Niger tends to be more fluid and opportunistic, with control exercised through transit routes and protection rackets rather than through sustained territorial administration.

These variations highlight that non-state geoeconomic agency does not manifest uniformly across the Sahel. Instead, it is shaped by the interaction between local political economies, the intensity of state intervention, and the organisational capability of armed actors. The Nigerian case thus represents one point along a broader regional spectrum, rather than an outlier, reinforcing the need to analyse geoeconomic dynamics in fragmented contexts comparatively, rather than through the lenses of single-state study.

Unlike gold, lithium is directly embedded in global narratives of decarbonisation, technological transition, and industrial resilience.⁴³ Western governments increasingly frame lithium access as a matter of national security, linking it to climate commitments and geopolitical competition.⁴⁴ As a result, lithium extracted in fragmented environments becomes indirectly entangled in global geoeconomic strategies, even when extraction occurs entirely outside formal regulatory frameworks. This entanglement alters incentive structures for armed NSAs. Control over lithium extraction sites offers not only revenue but also elements of strategic relevance. While insurgent organisations don't seek to influence international markets, their actions shape supply conditions in markets of growing strategic importance. In doing so, they exercise non-state geoeconomic agency, converting local coercive capacity into influence over globally valued resources.

The Sahel thus illustrates how the global green transition intersects with conflict-affected political economies. Rising demand for critical minerals does not bypass fragmented regions; it intensifies their strategic significance. Without effective governance mechanisms, the pursuit of resilient supply chains risks reinforcing the very forms of instability it seeks to mitigate.

These dynamics are most clearly visible where ASM extraction, entrenched conflict economies, and emerging lithium demand all come to intersect within a single political space. In this respect, northern Nigeria provides a particularly instructive case study through which to examine this outcome and to determine how non-state geoeconomic agency operates in practice.

Northern Nigeria: From Gold to Lithium in a Fragmented Political Economy

Northern Nigeria provides a concentrated illustration of how non-state geoeconomic agency operates within fragmented governance environments. The region has long experienced insecurity driven by jihadist insurgency, communal violence, and criminal banditry.⁴⁵ Within this context, ASM has emerged as a critical source of livelihoods and revenue for both local communities and armed actors.⁴⁶ The Nigerian case demonstrates how non-state geoeconomic agency operates not only through market manipulation or diplomatic leverage, but through the governance of vital extraction sites, collectively embedded in global strategic demand.

Gold mining expanded rapidly across northern Nigeria in the early 2010s, driven by rising global prices and limited alternative economic opportunities.⁴⁷ By the latter part of the decade, the gold-centred extraction economy had become institutionalised within local conflict dynamics, providing armed groups with regular revenue streams and governance experience that later facilitated their diversification into lithium. Thousands of informal ASM sites emerged across Zamfara, Kebbi, Niger, and Kaduna states, often operating entirely external to Nigeria's regulatory framework.⁴⁸ Local powerbrokers, criminal networks, and jihadist groups filled governance vacuums in these areas, embedding themselves within mining economies through systems of taxation, coercion, and protection.⁴⁹

Yet, the armed groups of Nigeria rarely engage directly in extraction themselves. Instead, they function as de facto regulators. Miners pay access fees, protection taxes, or production levies, all in exchange for permission to operate.⁵⁰ Armed actors also control the transit routes that link the mining areas to regional trading hubs, enabling them to extract rents at multiple points along the value chain.⁵¹ These various arrangements generate substantial revenue streams that are then used to fund the procurement of weapons, recruitment, and the consolidation of territorial control.⁵² Gold thus functions not only as a source of income but as a key mechanism of governance within insurgent-controlled spaces.

These arrangements have remained adaptive rather than static since being implemented. Armed groups such as those affiliated with AQ and IS respond to shifts in enforcement pressure, market prices, and local resistance by, as necessary, relocating sites, altering taxation regimes, or diversifying revenue sources. When Nigerian security forces have intensified operations against illicit ASGM sites, in areas seen to be overtly challenging the government, or following media backlash for political inaction, miners and intermediaries can be seen shifting their activities across nearby state borders or moving into more remote, and therefore safer areas.⁵³ Once the government efforts are completed or exhausted and security forces withdraw, the miners and intermediaries are once again free to return.

It is within this well-established gold-centred conflict economy that lithium has now begun to emerge. Geological surveys have identified lithium-bearing pegmatites across several northern Nigerian states,

often in close proximity to existing ASGM sites.⁵⁴ While industrial lithium extraction remains limited, ASLM has expanded quietly yet rapidly, largely under the radar of public scrutiny.⁵⁵ Here, miners extract lithium ore using techniques similar to those employed for gold, requiring little additional capital or specialised equipment. Knowledge related to the value of lithium circulates throughout these regions primarily through trade networks rather than any form of state or formal communication.

Any transition from gold to lithium does not represent a wholesale replacement, but instead a diversification of ASM extraction. Miners frequently alternate between commodities depending on demand, price signals, and enforcement conditions.⁵⁶ Once successfully extracted, Nigerian lithium ore is purchased by intermediaries at relatively low prices, reflecting miners' limited bargaining power and lack of access to formal markets.⁵⁷ The material is then transported across borders, often mislabelled or mixed with other minerals, before entering regional supply chains via neighbouring states such as Niger and Benin.⁵⁸

Intermediaries play a central role in mediating between local extraction and regional circulation. Traders aggregate material from dispersed ASM sites, provide advance payments or equipment to miners, and assume responsibility for transport across insecure territories. These actors often operate across commodity lines, shifting between gold, lithium, and other minerals in response to price signals and enforcement pressures. Their position within informal networks allows them to absorb much of the risk and navigate regulatory ambiguity, while simultaneously insulating both miners and armed groups from direct exposure to state authorities. Through these practices, intermediaries function as key transmission mechanisms through which local extraction becomes integrated into wider regional supply chains.

In addition to the work of these intermediaries, armed groups have also adapted existing governance mechanisms to lithium extraction with minimal friction. Taxation systems developed for gold are applied to lithium, and control over access routes enables armed actors to regulate the flow of resources. In some areas, lithium sites attract less scrutiny than gold, which often draws greater attention from Nigerian authorities and international partners due to its long-established role in conflict financing.⁵⁹ Lithium's relative novelty, therefore, provides additional opportunities for armed groups to operate below regulatory thresholds.

What truly distinguishes lithium from gold is not the structure of control, but the strategic context in which it is valued. Gold has long functioned as a store of value and as a medium for exchange within conflict economies. However, lithium, by contrast, derives its significance from its vital role in battery production and the global green-energy transition. Its value is shaped less by immediate local demand than by global industrial strategies pursued by advanced economies.

The distinction between the role and purpose of gold and lithium is central to understanding non-state geoeconomic agency in this context. Armed groups in northern Nigeria do not articulate geoeconomic strategies in conventional state-centric terms, nor do they engage directly with international markets as formal actors. Yet, by exercising *de facto* control over lithium extraction sites, they shape the availability and circulation of a resource increasingly framed as critical to national security elsewhere.

Their actions influence supply conditions, risk assessments, and governance challenges within lithium markets, even in the absence of formal participation.

Lithium's integration into northern Nigeria's conflict economy also reinforces insurgent governance, whether that of AQ, IS, or any of their numerous affiliates or subsidiaries. Revenues derived from extraction strengthen armed group capacity to provide security, adjudicate disputes, and regulate economic activity.⁶⁰ In areas where the state is absent or distrusted, these functions confer legitimacy as well as coercive power. Lithium thus contributes not only to material capability but also to the political entrenchment of NSA authority.

As such, Northern Nigeria can be seen as a means of illustrating how global demand transmits incentives into fragmented local contexts. As lithium prices rise and international interest intensifies, extraction becomes more attractive even in high-risk environments. Armed groups are thus not required to understand the broader geopolitical significance of lithium to benefit from it. Their control over territory and labour allows them to capture value generated by distant policy decisions related to both decarbonisation and supply-chain resilience.

In this sense, the transition from gold to lithium in northern Nigeria, or at least the adoption of this dual opportunity approach, reflects a broader transformation in how global economic priorities intersect with local political economies. As lithium becomes increasingly central to international industrial strategies, with great power rivalry driving a concerted need for access to diverse sources, regions often characterised by fragmented authority acquire ever-greater strategic relevance irrespective of state intent. The Nigerian case thus demonstrates how non-state geoeconomic agency operates in practice, converting local coercive power into influence over globally valued resources.

These dynamics generate broader geoeconomic effects beyond the immediate context of extraction. Fragmented control over lithium sites introduces uncertainty into supply chains, complicating efforts by external actors to secure stable access. The integration of informally extracted lithium into global markets through intermediaries undermines traceability and regulatory oversight, while the presence of armed actors increases transaction costs and risk exposure. In these ways, localised systems of control shape the conditions under which geoeconomic competition unfolds.

These dynamics extend beyond localised extraction into formal supply chains. Across the Sahel, illegally mined lithium has been reported to enter licensed processing systems through intermediary networks, where it is mixed with legally sourced output and exported through formal channels.⁶¹ This blurring of licit and illicit production undermines traceability and alters the conditions under which external actors secure access to supply demand.

The Externalisation of Geoeconomic Risk in the Green Transition

For the low and middle-income countries (LMICs) of the Global South, characterised by fragmented governance, the geoeconomic implications of rising critical-mineral demand are distinct from those faced by consolidated industrial powers. In Sahelian contexts, limited governmental control over extraction and supply chains constrains the capacity of states to convert mineral endowments into

direct strategic leverage. Exclusive agreements, production quotas, or coordinated export strategies become difficult to sustain where authority is dispersed across informal networks and armed actors. As a result, the strategic value of resources such as lithium does not automatically translate into commensurate state bargaining power. This form of insulation does not imply strength but rather reflects the reduced capacity of external actors to translate economic leverage into political control under conditions of fragmented governance.

Where production and trade are not fully centralised, foreign powers encounter greater difficulty in securing monopolistic access through state-centred pressure or diplomatic conditionality. Sahelian governments may therefore experience a paradoxical position in which diminished geoeconomic leverage coexists with a degree of defensive insulation, enjoying indirect economic benefits from heightened mineral demand while facing more limited risks of political subordination through resource dependency.

The growing strategic prominence of lithium highlights a structural tension at the heart of the global green transition, in which efforts by advanced economies to enhance supply-chain resilience may externalise risk into fragmented political economies. Western governments increasingly frame access to critical minerals as being essential to national security, industrial competitiveness, and decarbonisation.⁶² Strategies adopted by the UK, EU, and US all emphasise a critical need for diversification of supply chains, reduced dependence on dominant suppliers (particularly China), and the development of resilient sourcing networks.⁶³ These approaches all rest on assumptions that exposure to geopolitical risk can be mitigated through diversification and regulatory coordination. Yet, when diversification directs attention toward regions characterised by fragmented authority, it also generates unintended consequences. Expanding demand for critical minerals raises the value of resources extracted in politically marginal spaces, enhancing the revenue-generating potential of sites that exist outside effective state control. Within such contexts, supply-chain resilience and insecurity become intertwined, and efforts to secure access may in fact increase the profitability of extraction governed by armed NSAs, unintentionally and indirectly reinforcing instability.

This dilemma is not the result of flawed implementation or insufficient regulation. Rather, it is structural in nature, reflecting a tension between global decarbonisation imperatives and the political economies of fragmented governance. Efforts to secure critical mineral supply chains may inadvertently increase the value of extraction governed outside formal institutions, reinforcing the economic incentives of armed NSAs. In this sense, strategies designed to mitigate strategic vulnerability at the global level can generate conditions that risk intensifying local insecurity, complicating development and stabilisation objectives even where direct causal links are difficult to isolate, particularly in regions where extraction intersects with pre-existing conflict economies.

From a geoeconomic perspective, this dynamic complicates prevailing notions of resilience. Diversification reduces exposure to concentrated suppliers but does not eliminate risk; rather, it redistributes it. When supply chains extend into fragmented political economies, vulnerabilities shift from interdependence among states to governance gaps within them. These vulnerabilities are much less visible, harder to regulate, and often more resistant to conventional policy instruments.

The hybrid nature of critical-mineral markets further intensifies the outlined dynamic. Lithium extracted through informal or coercive arrangements may enter global supply chains through intermediaries, misclassification, or downstream processing hubs.⁶⁴ This blurring of licit and illicit flows undermines traceability initiatives and weakens the assumption that market participation equates to regulatory compliance. As a result, Western consumers and manufacturers may become indirectly entangled in conflict economies despite formal due diligence frameworks.⁶⁵

The dilemma also exposes the limits of prevailing development narratives surrounding critical minerals. Resource extraction is often presented as an opportunity for state-led growth, fiscal consolidation, and geopolitical leverage, particularly in the Global South. While such outcomes are possible under conditions of consolidated authority, the reality of fragmentation alters the expected distribution of benefits. Increased extraction may strengthen non-state governance structures, entrench conflict economies, and deepen political exclusion. As such, this demonstrates that strategic value does not automatically translate into forms of increased state value or capacity. Armed groups involved in lithium extraction pursue local objectives such as revenue generation and territorial control, yet in doing so shape production conditions and supply-chain dynamics within markets of growing strategic importance. In this sense, the green transition embeds NSAs within global geoeconomic systems even as they remain excluded from formal governance arrangements.

For Western policymakers, this presents a dilemma with no straightforward resolution. Militarised approaches to securing extraction sites may disrupt production without addressing underlying incentives, and often only offer a short-term solution, while forms of disengagement risk ceding strategically significant resources to informal networks. Efforts to formalise ASM and improve governance face structural constraints in regions affected by chronic insecurity.⁶⁶ The pursuit of resilience, therefore, risks reproducing instability unless accompanied by sustained engagement with the political economies of fragmentation.

Recognising this dilemma requires rethinking what geoeconomic security entails, both presently and as a desired outcome. Resilience cannot be understood solely in terms of diversification, stockpiling, or market access. It must instead also account for who governs extraction landscapes and how global demand reshapes local power relations. Without such recognition, the global green energy transition risks generating new forms of vulnerability even as it seeks to resolve existing ones.

While these dynamics complicate supply-chain resilience strategies for industrialised economies, their more immediate and enduring consequences concern how fragmented LMIC states navigate geoeconomic competition without consolidated control over extraction landscapes.

Conclusion: Fragmentation and the Reconfiguration of Geoeconomic Power

This article has argued that NSAs constitute geoeconomic agents within fragmented political economies, exercising influence over strategically significant resources through their control of extraction, governance, and circulation networks. As demand for critical minerals accelerates, actors operating beyond formal state structures increasingly begin to shape the strategic significance of resource production, often in ways that escape conventional geoeconomic analysis.

Through an examination of lithium's emergence in the Sahel and a focused case study of northern Nigeria, the article has shown how armed NSAs exercise de facto authority over extraction sites and integrate critical minerals into existing conflict economies. In doing so, the analysis clarifies how geoeconomic agency must be conceptualised in Sahelian contexts where state control over extraction and supply chains remains structurally fragmented. These actors do not articulate geoeconomic strategies in conventional state-centric terms, nor do they seek a formal role in global governance. Nonetheless, by controlling access to resources whose value is defined by global strategic demand, they exercise non-state geoeconomic agency and shape outcomes of international significance.

The concept of non-state geoeconomic agency reframes fragmentation not as an absence of power, but as a condition that redistributes influence across formal and informal actors. It highlights how global economic transformations embed local conflict dynamics within international strategic systems, generating unintended consequences for security and governance.

These findings also carry broader implications for how geoeconomic security must be understood. Efforts to secure resilient supply chains through diversification do not eliminate vulnerability; they relocate it. When supply chains extend into fragmented political economies, resilience strategies risk reinforcing the very forms of instability they seek to avoid. Addressing this dilemma requires analytical frameworks capable of recognising how power operates beyond the state.

As demand for critical minerals continues to grow (as is predicted), the dynamics explored in this article are likely to intensify. Understanding the geoeconomic Global South, therefore, demands sustained attention to fragmentation, informal governance, and the distributed nature of strategic agency. Only by acknowledging these realities can scholars and policymakers grasp the full implications of a fragmenting world for geoeconomic power and security. As competition over critical minerals expands beyond lithium to include cobalt, nickel, and rare earths, the dynamics identified here are likely to become a defining feature of geoeconomic competition in other fragmented regions.

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