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Power in the Age of the Green Energy Transition

Multinational Corporations, the State, and Cobalt
in the Democratic Republic of Congo

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Abstract

This thesis investigates the power balance between states and multinational corporations, and how the green energy transition impacts this balance, a connection commonly overlooked by researchers. I have sought to remedy this gap by conducting a qualitative case study of the relationship between the Democratic Republic of Congo, which holds the majority of global cobalt reserves, and major cobalt producer Glencore. Cobalt is a critical mineral to the transition towards renewable energy sources due to its usefulness in batteries used in electric vehicles. Approaching a wide array of empirical material from a Critical Political Economy perspective, I have found that the balance of power between Glencore and the DRC has shifted, although not in a linear fashion. As the DRC has begun to take advantage of its unique situation within the shift to renewable energy sources, it has been able to improve its position against MNCs like Glencore. The DRC has reached new levels of policy autonomy through policy changes reflecting an increase in resource nationalism. This case represents a weakening of the neoliberal hegemony, breaking with norms that previously guided natural resource governance.

Key words: cobalt, Democratic Republic of Congo, Glencore, multinational corporations, green energy transition

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Introduction

The Democratic Republic of Congo, abbreviated as the DRC, has a long and complicated history characterised by imperialism and conflict. Since gaining independence from Belgium the country has been mired in conflict, with extreme poverty as a result (Reyntjens, 2009; Iñiguez de Heredia, 2017; UNDP, 2022; World Bank, 11 October 2022). Yet, alongside conflict and poverty, a very different DRC has come into view. The nation possesses a significant wealth of natural resources, including roughly 70% of the world's supply of cobalt (USGS, 2022). Cobalt is commonly used in consumer electronics, such as mobile phones and computers. It is also crucial to producing batteries used in electric vehicles. In a world that increasingly relies on finding renewable alternatives to fossil fuels, cobalt and the DRC play a key role in the transition into a new era of green energy production and storage.

However, the bulk of the revenue from the DRC's mineral wealth has remained in the hands of a few foreign corporations operating within its borders. These include Swiss conglomerate Glencore, one of the largest producers of cobalt in the DRC (Gulley, 2022). Glencore established its cobalt mining operations in the country in the 2000's, and its presence has been marked by controversy. The company's relationship with the DRC government and wider state apparatus has been especially fraught with tension, as many believe Glencore leveraged their size and influence to benefit from the DRC's natural resources without compensating the country fairly. The DRC has started taking steps to change this, with President Felix Tshisekedi calling for a 'clean-up' of the mining sector in order for it to benefit the Congolese people (Al Jazeera, 20 Nov 2021).

In this thesis, I posit that the cobalt industry in the DRC has broader implications for the relationships between states and MNCs, and that this relationship is changing in the age of the green energy transition.

1.1 Research problem

There is a clear discrepancy between the potential of development and economic growth in the Democratic Republic of Congo, and reality. Money is being made off the back of the country's natural resources, however little of this wealth trickles down to the Congolese people (Buxton, 2021; Fabiola Lawson, 2021). This discrepancy calls for research into the power relations that uphold the unequal relationship between multinational corporations (MNCs) and developing states. In this thesis, I consider the balance of power between the state and MNCs, and the impact the green energy transition is having on this balance.

The green energy transition entails breaking down the energy infrastructure that fueled human development during the past two centuries while simultaneously building up new systems of energy production. The difficulty in doing so is often credited to incumbency, path dependencies, and the interests of fossil fuel companies (Newell & Johnstone, 2018; Goldstein et al, 2023; Nasiritousi, 2017). Less focus has been dedicated to how the green energy transition and the new technologies required to facilitate it have serious, sometimes unintended, consequences to human lives and environments. The social reproduction of high-energy ways of life is already having consequences that are more acutely felt in the global South (Di Muzio, 2016). This despite people and states in the global South using significantly fewer energy resources than their counterparts in the global North (Mbeva et al, 2023). To highlight the historical, power-laden context of energy production and consumption I approach the case using a Critical Political Economy perspective (Di Muzio, 2016).

At the moment, the Congolese cobalt sector is undergoing a major shift. As Western companies have withdrawn from the country, China has leaned in and become the largest cobalt extractor and producer in the world (Prause, 2020). However, one Western company still operates cobalt producing mines in the DRC, and that is Glencore (Gulley, 2022). Glencore, which currently operates two cobalt-copper mines in the DRC, has been accused of tax evasion, child labour, environmental pollution, and abusing workers in the country (Business & Human Rights Resource Centre, 17 Mar 2020; Pattison, 8 Nov 2021). Despite these allegations, Glencore continues to provide a sizable portion of the vast amounts of cobalt required to sustain the greening of the infrastructure sector.

New mineral discoveries in a developing country present challenges both for harnessing resource rents for economic growth and for state reforms to handle increased revenue to the country (Nem Singh & Bourgooin, 2013a). Although cobalt extraction is hardly a new phenomenon in the DRC, the general trend towards an increase in demand for cobalt over the past decades has meant the DRC has faced major challenges in converting natural resource revenues into sustainable economic development.

1.2 Research question and hypothesis

The central aim of this thesis is to reckon with the shifting power relations between the state and multinational corporations, particularly seeking to understand how the green energy transition affects this relationship. The research question guiding this thesis is:

How is the balance of power between states and multinational corporations shifting in the age of the green energy transition?

In line with the abductive approach presented later in this thesis, my research is guided by a hypothesis formulated based on extant research, initial understandings of the case, and knowledge about the green energy transition. I hypothesise that the balance of power between the state and MNCs is changing based on the increasingly urgent environmental threat posed by continued reliance on fossil fuels, and a wider understanding of the need to produce, store, and make renewable energy sources widely available. Similar to cobalt, fossil fuels are unevenly geographically concentrated in certain parts of the world. This has led to conflict and significant geopolitical shifts, as well as helped cement the multinational corporation as a key player in world politics. However, I posit that the power relations created during the fossil fuel era are in flux, as the material conditions underlying capitalism are called into question. This does not mean the green energy transition will inevitably lead to a fundamental change in the logic of capitalism. Rather, it presents a window of opportunity to question the rationale that governs relationships between the state and capital, as well as to consider how demand for new resources might reposition actors towards each other.

1.3 A brief history of cobalt in the DRC

Between 1885 and 1908, the country now known as the DRC was brutally exploited and abused by Belgian King Leopold II, until he was forced to hand over control to the Belgian state which continued to profit from the country until its independence in 1960 (Nault, 2020; Ovadia, 2020; van de Maele & Lagae, 2017). Cobalt extraction in the DRC dates back to 1914, when Belgian company Union Minière discovered deposits of cobalt-containing copper ore (Gulley, 2020). Union Minière continued to dominate the DRC cobalt industry until the sector was nationalised by President Mobutu in 1967, after which the Congolese state-owned mining company Gécamines controlled the majority of the industry until the outbreak of the Congo wars (Prause, 2020). At first glance, the DRC may appear like a typical postcolonial, resource rich African state struggling to transform resources into prosperity. However, what truly sets the DRC apart is the fact that the nation is world-leading, by a proverbial mile, in cobalt extraction and reserves (Zeuner, 2018).

In the years following its independence from Belgium, the country fell into deep disarray resulting in the conflict known as the Congo Crisis. Different sides to the conflict were supported by the U.S., the Soviet Union, and China, making the Congo Crisis a proxy conflict of the Cold War (Gulley, 2022; Yuzhou Sun, 2022; Raustiala, 2022; Ovadia, 2020). The Congo Crisis ended in 1965, and Mobutu came to power with support from the West (Gulley, 2022). However, as the Cold War came to an end and Western financial support dried up, the DRC was once again torn apart by conflict as the First and Second Congo Wars ravaged the country. The Second Congo War is sometimes referred to as the first African World War due to the immense scale of its destruction (Reyntjens, 2009; Iñiguez de Heredia, 2017). Mobutu managed to stay in power until 1997, in part because natural resource revenues allowed him to sustain his reign despite liberal democracy beginning to spread across Africa (Ovadia, 2020). Although the DRC is now officially a democracy, it has continued to be plagued by low human development, ranking 179th out of 191 countries listed in 2022 (UNDP, 2022). As of that same year, the DRC was among the five poorest nations in the world (World Bank, 11 October 2022).

The end of the Second Congo War in 2003 saw a large influx of mining investment in the DRC (Katz-Lavigne, 2020; Gulley, 2022). The cobalt sector has since continued to expand,

with a compound annual growth rate of 20% from 1995 to 2020 (Gulley, 2022). China, Prause (2020) notes, is the world's largest producer of refined cobalt, a position it has held since 2004, as well as being the leading manufacturer of cobalt products, followed by South Korea and Japan. A large reason behind the longterm trend towards increased demand is the fact that cobalt is crucial for producing rechargeable lithium-ion batteries, which primarily function as energy storage in electric vehicles (Zeuner, 2018; Gulley, 2022). Cobalt, therefore, is a key component in the transition towards an electrified transportation sector.

The central promise of the fast-growing electric mobility industry is that we can continue travelling by car while simultaneously reducing our dependence on fossil fuels and avoid their harmful impact on the environment (Månsson, 2015). This assumption fails to consider the resources required to make a car run on renewable energy. It also fails to reckon with the fact cobalt is a depletable resource. Nonetheless, as countries begin taking measures to gradually electrify their transportation systems, demand for cobalt continues to rise (Zeuner, 2018; Prause, 2020).

2 Literature review

Previous research on cobalt and the DRC often focuses on human rights abuses within the artisanal or small-scale mining (ASM) sector, as well as conflicts that arise between ASM and large-scale mining (LSM) sectors. In the media, ASM is often connected to human rights abuses, including child labour (Kelly, 16 Dec 2019; Gross, 1 Feb 2023; Niarchos, 24 May 2021). Despite this, ASM remains important to the DRC as it provides people with few other options with an income, granting them access to essentials such as food and housing (Zeuner, 2018; Katz-Lavigne, 2020; Kelly, 2014). Artisanal miners are often delegated to informal, ‘illegal’ work in LSM concessions, as LSM companies are understood to be the ‘legal’ owners of the land (Katz-Lavigne, 2020). The end of the Second Congo War and the subsequent rise in investments in the LSM sector meant many ASM miners were forcibly displaced, having previously experienced a boom under President Kabila who came into power during the first Congolese civil war (Katz-Lavigne, 2020). This too has exacerbated the already difficult conditions ASM miners operate under.

Conflicts over resources can often be traced back to questions over who should control resources that are locally abundant but globally scarce, such as cobalt (Månsson, 2015). While renewable resources are usually spread out, preventing conflicts over resources being concentrated in any one place, mineral deposits such as cobalt are highly site specific (Månsson, 2015; Kramarz et al, 2021). This concentration can induce conflict due to competition over said resource. This is a central aspect of the ‘resource curse’, an idea positing that resource wealth correlates with low human development (Kramarz et al, 2021). It is also associated with corruption, a lack of democracy, and slow economic growth, although it is difficult to establish any direction of causality (Habiyaremye, 2020; Ovadia, 2020). Dependence on natural resources has also been linked to civil war and conflict, with resource rich African states appearing even more prone to conflict and civil war after gaining independence (Habiyaremye, 2020; Ovadia, 2020).

As proceeds from the mining sector make up a large part of the state’s budget, the state is often unwilling to support local communities in conflicts with LSM companies (Katz-Lavigne, 2020). This lack of negotiation opportunities for miners to propagate for their

interests can lead to increased aggression from miners who see violence as their only means to gain access to LSM sites (Katz-Levigne, 2020). Some scholars argue that strengthening the artisanal or small-scale mining sector could disrupt the interdependency between the DRC government and large mining corporations, allowing local actors to counteract LSM operations' industry domination (Zeuner, 2018; Katz-Lavigne, 2020). Some go even further, arguing that artisanal miners represent domestic interests since the workforce is made up of 'regular' citizens. Strengthening artisanal miners could, therefore, make the government more reliant on the populace for tax revenue, decreasing its autonomy from its people (Zeuner, 2018).

There has also been research done on the relationship between the Congolese state and LSM corporations. The DRC is highly dependent on mining revenues, engaging in rent seeking from corporations operating in the country (Zeuner, 2018). However, rent-seeking comes with risks, including social instability in the case of deteriorating revenue or by enabling the state to become detached from the population, potentially resulting in authoritarianism and low democratic accountability (Månsson, 2015). Scholars including Zeuner (2018) argue that the focus on artisanal or small-scale mining takes away from the issues of large-scale mining performed by multinational corporations. He posits that large-scale operations, which are dependent on relationships between multinational actors and state-owned actors, worsen socio-political risks by disconnecting the government from its citizens through making the government financially autonomous, leading to political instability and corruption.

Furthermore, scholars have considered the relationship between the state and the market in post-colonial Africa. Oloruntoba and Falola (2020) note that the political economy of Africa has long been shaped by the same extractive logic as during colonialism. The authors argue that since the end of colonialism, the role of the state and the role of the market in the economy have shifted back and forth. During the early years of independence, many African states established state-owned enterprises and public institutions, leading to record growth. However, after a series of crises in the 1970s, international financial institutions became increasingly involved in African economies, often seeing the state as a barrier to economic growth. What followed, Oloruntoba and Falola note, was privatisation and liberalisation of economies as a prerequisite for the assistance of international financial institutions. Despite these developments, the state has never become fully separated from the economy, continuing to for example promote and protect business (Oloruntoba and Falola, 2020).

Gulley (2020) has questioned why cobalt extraction is considered such a risk, both in terms of investment and supply, even as production has multiplied over the past decades. Viewing the DRC cobalt industry through a historical lens, Gulley notes that corporate concerns include nationalisation and renegotiation of contracts. This, Gulley argues, creates uncertainty for investors and is likely the reason the only Western company currently operating cobalt mines in the DRC is Glencore, who leverage their size. While Gulley implies that more liberalisation would benefit the DRC, others dispute this claim. Prause (2020) argues that the DRC has already undergone extensive liberalisation of its mining sector. Others note that calling on low-income countries to liberalise obscures the core problem, which is that these countries have been incorporated into the global economy on unequal terms (Hickel et al, 2022; Taylor, 2020; Seteolu, 2020). Phiri (2020) argues that the terms on which Africa was incorporated into global capitalism were used to justify violence and inequality. Taylor (2020) further contradicts the common perception of Africa being marginal to the global economy, noting that the character of Africa's integration into the system is the central issue.

Further research on the global economic inequalities that lie behind the DRC's integration into the world economy includes unequal exchange theory, which understands the economic growth of 'advanced economies' as built on the appropriation of resources and labour from the global South, extracted through price differentials (Hickel et al, 2022). This drives global inequality, ecological degradation, and uneven development. The assumption that countries remain poor due to failures in governance and corruption is deeply flawed, and we might instead consider that the global economy is very much still impacted by the legacies of the colonial era (Hickel et al, 2022; Oloruntoba & Falola, 2020). Neoliberal market ideas, especially those entrenched by the Bretton Woods institutions, have further imposed the logic of global capital on Africa (Oloruntoba & Falola, 2020). To better understand the effects of capitalism on Africa, Phiri (2020) proposes a concept of 'racial capitalism', an understanding of capitalism that places the historical roots of present-day inequalities at the forefront of research. Phiri argues for the use of race as an analytical category when understanding patterns of inequality across the global capitalist system.

The global South, including Africa, experienced a resource boom that started in 2003 (Nem Singh & Bourgoign, 2013a). Others have contended that the economic boom experienced across sub-Saharan Africa was not only due to the profitability of natural resources, but proof

of Africa's evolving financial sector, developments in communications, and a dynamic informal sector (Oloruntoba & Falola, 2020). Taylor (2020) nuances this, noting that the narrative of 'Africa Rising', which became very popular during the first decade and a half of the new century, was likely overly optimistic. The growth experienced by Africa during the resource boom was ultimately unsustainable, due to its reliance on commodity price increases, foreign capital, and discoveries of new natural resources, which generally deplete over time and do not multiply the way productive sectors of the economy do (Taylor, 2020; Nem Singh & Bourgooin, 2013a). The challenge of resource booms, Taylor argues, is figuring out how to transform revenues from natural resources into structural change.

A limitation of the focus on the relationship between the global North and global South is where China and other emerging economies fit in, as they cannot be neatly categorised into either category (Hickel et al., 2022). However, as Taylor (2020) has argued, the presence of emerging economies such as China in Africa does not present a fundamental change to the broad pattern of foreign corporations establishing themselves on the continent, rather it mainly serves to increase the number of competitors and business practices present.

The power dynamics of the Congolese cobalt sector have shifted several times over the past decades. For example, after a conflict between the state and a rebel group in 1978, supply chains were significantly disturbed and the price of cobalt rose by 24% (Zeuner, 2018; Gulley, 2022). This caused several industries to seek alternatives to cobalt, which prompted the DRC government to make efforts to keep prices down in order to maintain cobalt as a valuable export for the country (Zeuner, 2018). However, Zeuner notes that in 2017 the average price of cobalt doubled, suggesting a shift of power dynamics in the favour of the DRC. This is further exemplified by the country adopting changes to its mining code in 2018, which notably required ore be refined domestically rather than exported raw (Zeuner, 2018). This opens up for interesting new research avenues regarding the DRC's ability to assert itself against the large corporations that operate within the country's borders, including Glencore.

Another notable aspect of cobalt is its status as a 'critical' mineral. The attribute 'critical' is frequently applied to raw materials. This criticality often derives from its economic importance and the presence of supply risks (Zepf, 2020). However, Zepf argues, transnational companies such as Glencore are another factor that should be considered, as raw

materials by way of these corporations also become financial products, in the form of shares, speculations and exchange trade funds.

Furthermore, it is interesting to consider research on the underlying assumptions of the green energy transition, including the idea of continuing ‘business as usual’ except with renewable energy. Individuals’ use of cars is envisioned to be compatible with climate protection through electric mobility, thus making Western modes of production as well as lifestyle habits reconcilable with environmental responsibilities (Prause, 2020). ‘Green growth’ presupposes the continuation of colonial structures, as the clean energy transition is likely to necessitate rising levels of extraction from the global South to allow for continued growth in the global North (Hickel, 2021). Various awareness campaigns aimed at Western consumers by NGOs have linked cobalt, as well as other minerals, to human rights abuses such as child labour, as well as highlighting the intersections between green energy transitions and adverse conditions in the countries these minerals originate in (Prause, 2020). Other campaigns advocating for increased extractive industry transparency and tax justice have also had some impact (Ovadia, 2020).

There has been some research specifically looking at Glencore’s operations in the DRC. Zeuner (2018) views Glencore, and its dealings with DRC-owned mining company Gécamines and US-sanctioned businessman Dan Gertler, as a case of obsolescing bargaining. Dan Gertler secured cobalt concessions through his personal relationship with then DRC president Joseph Kabila and established a number of cobalt operations in the DRC, two of which he later sold to Glencore (Zeuner, 2018; Gulley, 2022). Zeuner notes that for Glencore to become the world’s top producer of cobalt it has to operate in the DRC, simply due to cobalt’s concentration in this particular area. If there were other nations with equally high deposits of cobalt, Glencore would be able to move their operations elsewhere. However, since the DRC alone holds the majority of cobalt deposits, the country was able to bargain with Glencore despite its vast size and power. Zeuner argues that this supports the claim that the DRC government relies on industrial giants such as Glencore to make up the state’s revenue. Although Glencore suspended operations at their Mutanda mine in 2020 on the grounds of low cobalt prices and a shortage of consumables required for production, Gulley (2022) notes this decision appears to have been made shortly after the DRC government revised their mining code, increasing taxes and government royalties.

While various legal scholars have shown interest in Glencore and their operations over the years (see Nciko, 2022; Lemaître, 2019), the company has mainly appeared as one of many large-scale mining operators in political science research. However, as the only remaining Western company in the DRC cobalt industry, Glencore is worth looking closer at in regard to shifting power relations. As the world transitions away from fossil fuels, large corporations remain difficult to hold accountable for their actions and business practices, while holding outsized power not only over resources, but over people and states. In a poor country that relies heavily on multinational corporations, it is especially important to consider their impact.

3 Theoretical framework

The first question we may ask, given the topic of this thesis, is why we should study the role of MNCs. Strange (1991) has argued that the role of international business must not be overlooked in the field of international relations. Since the 1980s, corporations have played a large part in shaping neoliberal capitalism (Babic et al., 2017; Bakir, 2015; Nem Singh & Bourgouin, 2013a). This, in combination with the spread of market fundamentalism within the political sphere, helped ideologically cement neoliberal capitalism as the only viable path to societal transformation (Phiri, 2020). Increased transnationalisation of both production and finance has provided corporations with the option to move production, avoid taxation, and take part in global value chains that are difficult for states to regulate (Babic et al., 2017). Furthermore, large corporations create wealth and therefore have a significant impact on who gets what, and how much (Strange, 1991). When large amounts of power is placed in the hands of a small number of people, Strange reasons, questions of public, class, and national interests and how these are to be secured are raised. Braungardt and Braungardt argue that MNCs and states are the two primary antagonists in a global struggle for power, noting that “Multinational corporations have evolved into the most dynamic and pervasive component of the modern capitalist world” (1979, p. 8). All these aspects converge to create a new global economic landscape in which the relationship between the state and the corporation is, perhaps, more complex than ever before.

3.1 Critical Political Economy

The issue explored in this thesis is the relationship between states and MNCs, as exemplified by the DRC and Glencore, and how this relationship is made increasingly complex in a world that is slowly transitioning towards green energy sources. I have chosen to apply Critical Political Economy (CPE) as my overarching theoretical framework, since the research problem necessitates a theoretical understanding of the intersections between the political and the economic, the public and the private, as well as the local and the global. Political economy, as a field, is concerned with the production of material wealth as the basis of life in human societies (Sule-Kano, 2020). The critical element comes from putting questions of

ethics, power, and justice, as well as social issues and sustainability at the centre of analysis, paying specific attention to how these elements interact in constituting and shaping our world order (Gill, 2016). Critical theory not only serves to demystify power but to develop new concepts and language for alternative visions of what could be, not just what is (Gill, 2016).

CPE extends our scope beyond solely formal institutions such as states and international organisations, allowing us to also focus on corporations, NGOs, and various interest groups (Talani, 2016). It can help us understand the importance of multinational capital and international financial institutions by placing the extractive sector in a global context (Nem Singh & Bourgooin, 2013a). Furthermore, CPE aids us in recognising that the norms that underpin the global resource economy are not predetermined, but products of ongoing processes, ideally helping the researcher take a step back and view changes within the resource economy from outside traditional parameters (Nem Singh & Bourgooin, 2013b). Berglund and Bailey (2022) argue that CPE, like political economy in general, aims to understand and explain how institutions and extra-economic social relations impact processes of production and distribution, and vice versa. The critical element, the authors note, comes from the assumption that socio-economic change is possible and that CPE scholars are both able to and have a duty to advance such change.

Many researchers argue that African Political Economy should be further developed as a field of study in its own right since theories and concepts developed elsewhere are not always applicable to the African context (Oloruntoba & Falola, 2020). During the colonial era, African economies were shaped by the interests of imperial powers and this phenomenon continues in the present day, and thus the history of colonial capitalism must be accounted for when attempting to analyse contemporary events (Sule-Kano, 2020). To make sure this thesis does not neglect the specifically African context of the case in question, I have drawn significantly on work by scholars of African Political Economy. However, as African and critical political economists share a critical approach to the global processes of capitalism, the two theoretical strands complement each other well.

Furthermore, CPE highlights the importance of crises in the political economy. Gill (2016) argues that the world is prone to intersecting and interrelated crises, which present both dangers and opportunities for different political forces. However, these possibilities remain dependent on what political and economic relations are in force. Additionally, shifts in the

structures of production tend to be followed by changes to social relations and power structures (Newell, 2021). By interrogating the norms that have defined the neoliberal era of state-market relationships, and looking at how these might be shifting as a result of the green transition, I hope to foster a deeper understanding of the processes of power that flow between the state and MNCs and how these are changing at the intersection of the various environmental, economic, and social crises the world is currently experiencing.

3.1.1 Resource governance and neoliberalism

The general trend across the global South has been that state-led economic governance has been slowly replaced by a ‘deep marketisation’ of society (Nem Singh & Bourgouin, 2013a). The DRC is, as will be discussed further on, no exception to this trend. Nem Singh and Bourgouin (2013a) argue that the current neo-institutionalist view on resource management has favoured open access to natural resources for foreign private capital, and that it is crucial to see the power relations implicit in this way of viewing the extractive sector. The authors point out that resource rich nations not only need to implement reforms that tackle the issues of resource dependency, but also take into account the costs of economic liberalisation. Nem Singh and Bourgouin (2013a) write that weak state capacity and the relative strength of transnational capital, in addition to undiversified local economies, is what is standing in the way of economic development in the global South. Resource dependency is often touted as a reason developing states fail to sustain economic growth, but we must not overlook the political, economic, and institutional factors that contribute to failures of development (Nem Singh & Bourgouin, 2013a). The lack of diversification in African economies is no accident, rather the extraction of economic surplus by multinational corporations has prevented surplus from being reinvested in domestic sectors, such as the manufacturing or agricultural industries (Taylor, 2020).

Nem Singh and Bourgouin (2013a) point out that the hegemonic neoliberal order informs the way we understand resource governance. Hegemony, as it is understood in this thesis, is the capacity of one socio-economic group to exert moral and political leadership over others (Talani, 2016). Neoliberal hegemony, therefore, is not an organic social development but something that is actively upheld by societal forces. It is within the interest of certain groups to uphold the current order, or at least modify it within the frame of the current hegemony

(Talani, 2016). This can be seen in the way the ‘resource curse’ has become increasingly important to how the politics of resources are conceived (Nem Singh & Bourgouin, 2013a). While this does not necessarily mean there is no room for change in the hegemonic neoliberal order, it does represent difficulties for breaking out of the neoliberal way of organising states and markets (Nem Singh, 2010). Private capitalist power is privileged within the neoliberal ideological paradigm, making the power of MNCs in developing states seem ‘natural’ (Nem Singh and Bourgouin, 2013b).

Yet, the resource sector has not fully conformed to neoliberal marketisation. Nem Singh and Bourgouin (2013a) question whether there is a standard neoliberal way of organising the resource sector. While market reforms have been introduced to limit state intervention, the state remains present in the resource extraction sector through for example royalties and taxes, despite opposition from global governance institutions such as the World Bank (Nem Singh & Bourgouin, 2013a). Additionally, potential renationalisation remains a concern in the eyes of foreign capital. This thesis will seek to further move past the neoliberal hegemony, in line with Gill’s (2016) argument that a priority for critical theory should be moving past the end of history, which necessitates looking beyond neoliberalism as the only feasible alternative.

3.1.2 Resource nationalism and policy autonomy

Resource nationalism discourse, characterised by a will to take control over a state’s natural resources, often attracts strong popular support, but in most cases host states lack actual control over exports (Nem Singh & Bourgouin, 2013a). Connecting resource nationalism to the wider nationalism project in Africa in the decades following independence from colonial rule presents some interesting parallels. Post-independence, nationalism was used to create a hegemonic society that would serve to unite people around issues beyond merely opposition to colonial powers (Taylor, 2020). However, attempts at harnessing nationalism to strengthen new states and elites largely failed. In part, Taylor argues, because of broader political complications, but also due to the failure of leaders to reform post-colonial societies economically in addition to creating political change. Similarly, resource nationalism may signal a political shift, but often fails to deliver real economic change (Nem Singh & Bourgouin, 2013a).

Nem Singh and Bourgooin (2013a) argue that governments avoid exercising power over the market due to the ideological dominance of neoliberalism, noting the debate regarding the state's role in the resource extraction sector comes down to the question of policy autonomy. This lack of economic policy autonomy can also be attributed to fears of deterring foreign investments or losing competitiveness, should a state not abide by the common practices entrenched by the global resource extractive industry (Onuoha, 2020). Furthermore, Onuoha writes that deregulation, liberalisation, and privatisation go against state-led development goals by furthering the retrenchment of the state. Essentially, the state has taken a step back, promoting development while providing minimal regulation (Onuoha, 2020). Onuoha elaborates that:

The policy framework prevalent in resource-rich African states which is based on market fundamentalism, a globally imposed project of marketization, and the opening up of its economies for foreign investment integrates Africa in a problematic manner into the hegemonic global order and denies African governments the initiative for development (2020, p. 633).

The central issue remains how to actually harness natural resource wealth, and how African states can benefit long term rather than falling behind in the scramble for its resources (Onuoha, 2020). Onuoha argues that it is possible to improve the position of African states vis-à-vis corporations through ensuring ownership of the development process, improving institutional capacity and governance systems, improving negotiation with investors, and reinvesting profits. Additionally, it is important to forge connections between extractive industries and other sectors of the economy, through for example investing natural resource revenues in more sustainable economic activities (Onuoha, 2020; Taylor, 2020). However, governance also matters. Taylor (2020) argues that constructing a hegemonic political project that spans all of society is incredibly difficult due to persistent cycles of crises, the relative autonomy of the state from its people, and a tendency for despotism amongst the elite. The results are unstable, personalised systems of domination (Taylor, 2020).

3.1.3 A green paradigm shift?

The fossil fuel-powered capitalism of the 20th century, that spread across the world and eventually reigned supreme as the ‘correct’ model of organising economic activity, is deeply ingrained into the fabric of our lives. For many decades, fossil fuel capitalism prevailed as the ‘common sense’ alternative, becoming perhaps the foremost hegemonic idea of our time (Buch-Hansen, 2018). However, the growing realisation that business as usual is no longer possible, and that change is necessary to uphold not just our economic structures but our way of life, should make us question whether the hegemony of neoliberal capitalism is starting to show signs of weakening. Gill (2016) argues that calls for ‘green capitalism’ should not only be evaluated by how effective they are at meeting specific ecological challenges, but by how the crisis of social reproduction exacerbates the ecological problem. Green capitalism remains defined by the contradiction between the enclosure of social commons for private accumulation on one hand, and social needs on the other (Gill, 2016).

Most strands within the field of CPE understand capitalism as being prone to crisis, due to the conflicts and contradictions built into the system (Buch-Hansen, 2018; Oloruntoba & Falola, 2020). The capital accumulation process can only be temporarily held up by whatever institutional arrangements are in place (Buch-Hansen, 2018). Buch-Hansen notes that deep crises of capitalism “mark the end of previously prevailing social structures of accumulation and associated social forces, and they pave the way for the ascendance of new social forces and ideas” (2018, p. 158). Such change can be termed a paradigm shift, that is when a hegemonic project is replaced by another (Buch-Hansen, 2018). No political project remains hegemonic forever. Eventually contradictions will emerge, causing a crisis, which allows alternatives to challenge the hegemony.

As previously established, global extractive processes are made even more complex by the fact that resource rich African states have very little control over the global value of resources extracted within their borders (Onuoha, 2020). Simultaneously, countries lack sufficient resources to mitigate the effects of environmental degradation caused by extractive industries. The lack of domestic firms operating within these sectors, meaning multinationals dominate the industry, further complicates the situation (Onuoha, 2020). African states’ difficulties in regulating extractive industries are exacerbated by the fact that “foreign multinationals still

exercise overall monopoly over the technology of production, and they also have considerable leverage in terms of management expertise, capital and political backing from their country of origin” (Onuoha, 2020, p. 638). Onuoha lists a number of reasons it is important to consider the role of resource rich states in natural resource governance, including that most state revenue comes from the extractive sector, that excessive dependence on particular resources leads to particular development issues, and that African states have a tendency to act as though they will be able to extract rents and taxes from foreign corporations extracting their natural resource forever, despite their highly depletable nature.

3.1.4 What is ‘power’?

Power is, famously, difficult to measure (George & Bennett, 2005). Nor is it particularly easy to define. To complicate matters further, power relations tend to change over time (Cox, 2002). Inspired by these rather vague statements, I view power as a process, rather than a definitive state. Situating the term ‘power’ within the green transition, then, is not without difficulty. I primarily base my understanding of power on the ‘capital as power’ approach, which seeks to capture the ways in which capital does not only grant economic power, but allows corporations to exercise social, ideological, and cultural power as well (Di Muzio, 2016). Corporations that perform best at accumulating capital are the dominant actors, whose power lies in their ability to shape social reproduction to a greater extent than smaller corporations (Di Muzio, 2016). Earnings therefore serve as a way of exerting material, cultural, and ideological power. The approach is critical in the sense that it does not credit the accumulation of capital to the individual’s hard work or contributions to society, instead viewing capital accumulation as a result of the institution of ownership which in turn is rooted in historical violence as well as access to political and legal power. The capital as power approach does not separate the state and the market, neither ideologically nor practically. Di Muzio argues that the process of accumulation can never be truly separated from the state or government, since the state itself is capitalised through for example national debt and the bond market. I recognise the difficulties in separating the state and the market and agree with Di Muzio that the state is capitalised. However, despite the complex intersections of state and capital, I do believe it is possible to separate an individual state from individual corporations.

To situate power within the green energy transition, I look towards Hoffmann (2018) who proposes the concept of ‘social energy’ to understand the underlying social relations of energy. Hoffmann argues energy is not only a biophysical matter, but a set of social relations as well as an arena for social change and contestation (Hoffmann, 2018; Newell, 2021). Social energy relations exist within the parameters of historically specific forms of power, which include technology, consumption, production, and storage (Hoffmann, 2018; Newell, 2021). Thus, the social relations of energy are dependent on the past, and there is no level playing field as actors have different levels of access to energy, as well as different capabilities of producing and storing said energy (Hoffmann, 2018). Power, from an energy point of view, is thus dependent on access and infrastructure, which are in turn dependent on capital.

Another aspect worth considering is the absence of power as an exercise of power. Newell (2021) argues that a lack of governance in energy policy is a political choice, even though governments are not always in control of these decisions. What Newell calls ‘un-governance’, not taking certain actions or adopting specific policies, is therefore also an exercise of power. Leaving certain matters for the market to decide reflects ideological and political preferences. Newell presents an ‘energy governance complex’, meaning power and agency are distributed, albeit unevenly so, across the energy system. It is important to pay attention to the interconnections and interdependencies that characterise this governance complex, as well as the way it neglects ecology. Newell also points out the need to avoid seeing the state as a monolith, instead looking at the power imbalances across and within the state.

3.1.5 The limitations of theory

One theoretical pitfall I attempt to avoid is placing too much importance on the adverse effects of ‘poor governance’, viewing the low quality of institutions as the main explanation behind the lack of development in countries such as the DRC. This model of explanation is closely connected to classical and neoclassical theories of political economy (Oloruntoba & Falola, 2020). The logic of poor governance also lies behind theories such as the ‘resource curse’ and the rentier state model (Nem Singh & Bourguoin, 2013). Both the resource curse and the rentier state model tend to encourage the assumption that leaders in developing

countries do not have developmental aims, which in turn places too much focus on this as the missing piece of the developmental puzzle, obscuring how the market and political power interact (Nem Singh & Bourgouin, 2013b). However, there is evidence supporting the claim that resource rich African states are more prone to becoming oligarchic or predatory, the results of which include mismanagement and mishandling resource revenues (Habiyaemye, 2020). Instead, we ought to recognise it as a complex system where several actors and systematic factors interact to produce certain outcomes, avoiding dichotomous understandings of the state as facilitators and MNCs as exploiters (Nem Singh & Bourgouin, 2013b).

3.2 Definitions

In the following subsections I will present a few key concepts that are important in order to understand the approaches used in this thesis.

3.2.1 ‘Clean’ or ‘Green’?

Renewable energy sources (RES) are often dubbed both ‘clean’ and ‘green’, with little distinction made between the two (Tsagarakis et al., 2018). While cobalt itself is not a renewable energy source, it helps facilitate our use of renewables. Therefore, the use of cobalt falls within the confines of the ‘clean’ or ‘green’ energy transition. I have elected to use the term ‘green’ rather than ‘clean’. The reason behind this is that the ‘green energy transition’ functions as a concept, involving not just renewable energy, but every aspect of life, society, and nature. ‘Green’, as exemplified by terms such as ‘greening’, ‘greenwashing’, or ‘green growth’ functions as a catch-all term for environmental initiatives, whether their outcomes are meaningful or not.

3.2.2 Defining the MNC

I will use the term multinational corporation, MNC, to describe the type of organisation this thesis is concerned with. MNC is closely linked to the concept of transnational corporations (TNCs), and the two terms are often used interchangeably (Aggarwal et al., 2011). While

there is plenty of overlap between them, they differ in subtle ways. De Jonge and Tomasic (2017) motivate their use of TNC, rather than MNC, based on the understanding that global corporations do not just involve and impact multiple states, but have effects on relations between states, as well as an impact on global phenomena that transcends states. Mikler (2014) on the other hand argues for a reterritorialisation of the multinational corporation. His view is that exaggerating the global nature of MNCs obscures the fact that these corporations are based in a certain place while impacting another. The nationality of corporations reflects where global economic power lies. While I agree with de Jonge and Tomasic's view that corporations are increasingly transcending national borders, and it is important to not be so restricted by the state that we fail to see how corporations affect global phenomena, I consider Mikler's reterritorialisation argument highly valid. Hence, I have chosen to use the term MNC.

Among those who elect to use the term MNC, several understandings of the term coexist. Aggarwal et al (2011) argue that instead of talking about whether a given organisation is or is not an MNC, we should consider multinationality as a matter of degree. Kogut and Kulatilaka, on the other hand, view MNCs simply as "a network of activities located in different countries" (1994, p. 123). In the interest of clarity, I am basing my use of the term on Buckley's (2018) definition, which simply reads "Multinational corporations (MNCs) are firms that control economic activities across national boundaries". Glencore, which operates in many states, can therefore be considered an MNC. I will draw on literature on both MNCs and TNCs, since the line differentiating these concepts is hazy at best, and there is relevant research and theory using both terms.

It is important to keep in mind that dividing states and corporations into separate entities is not as easy as it may appear, as I have previously illustrated. Corporate state ownership, occasionally called 'state capitalism' or 'state-led market economy', is particularly common in emerging powers, such as China (Babic et al., 2017; Mohan, 2013). Hence, it is not always possible to draw a distinct line between private companies and the state. However, in the case of the DRC and Glencore, I believe I can make a distinction between state and MNC.

3.3 Positioning the MNC in relation to the state

Scholars from different backgrounds have long argued over the nature of the relationship between MNCs and states, particularly in developing nations. While liberals and dependency writers have generally agreed that the establishment of MNCs in (what older literature often refers to as) ‘Third World’ countries has reduced or undermined the ability of these countries to independently implement certain policies, they disagree on what consequences this has had (Biersteker, 1980). Some, most notably dependency writers, view MNCs as exploitative in their pursuit of profit, while others, mainly liberals, see it as a path towards modernisation and development (Henderson, 1979). However, there have also been those who proclaimed a ‘resurgence of the state’ in the 1970s, particularly neo-mercantilist scholars (Biersteker, 1980). They argued that the era of corporations being able to dictate or even influence policy in host countries was over. The following sections will offer a more detailed overview of different theories of the relationship between states and MNCs.

I would like to caveat this section by noting that I view the relationships between the state and MNCs as ever-changing, and I do not think these relationships fit neatly into any one of the models outlined below. As noted by Nem Singh and Bourgooin (2013b), there is no real pattern within the resource extraction industry as to where the role of the state lies. Power and authority instead move across the private and the public as well as between the international and the local. However, there are certain patterns in how scholars perceive the relationship between states and MNCs. While these are, at best, ideal types, I believe they provide both myself and the reader with a useful tool to understand how relationships between states and MNCs are constituted and how they shift over time. As the reader will notice, there are certain overlaps between the ideal types, which further exemplifies that these are merely tools to better understand how these relationships are theorised.

3.3.1 MNCs overtaking the state

Dependency writers have argued that MNCs constrain state power by linking ‘compradores’ in developing countries with international capitalism (Biersteker, 1980). Through doing so, Biersteker argues, certain mechanisms for controlling the country’s economy are removed from the state’s control, instead falling within the domain of the global market. In addition,

developing countries often have development plans that involve regulating the market extensively, which are frequently in conflict with the interests of corporations operating within a country (Henderson, 1979). Another charge frequently levied against MNCs is that corporations tend to seek stable environments in which to operate, a demand that is sometimes met with increased levels of authoritarianism in host states (Henderson, 1979). Some scholars argue that local elites use their relationships with MNCs to reinforce their own social and economic standing, failing to secure fair wealth distribution and harnessing MNC-derived revenue for the good of the country (Henderson, 1979; Huntington, 1973). Furthermore, Henderson argues that even as developing states industrialise they often remain dependent on MNCs due to the ever-increasing complexity of technology and business practices.

Some writers consider MNCs establishing themselves in developing nations to be a form of neo-colonialism. However, this does not necessarily mirror old colonial patterns. Huntington (1973) writes that American expansionism has primarily taken place under the guise of corporate expansion and is not grounded in a sense of racial or political superiority, but rather economic and technological dominance. This perceived superiority within the sphere of businesses gave Americans a 'right' to insert themselves in foreign societies and allowed them to do so without any formal political control.

Some researchers argue the state can, through its territorial authority, exercise a certain level of control over MNCs. Strange notes that: "The state has authority to act by virtue of its role as gatekeeper to the territory" (1991, p. 246). Furthermore, Strange argues that while the state has the power to withhold, should it decide to seize withholding it remains the MNC's decision whether or not to establish itself within the state's territory. If there is too much regulation upon entry, the MNC will simply leave or otherwise act to minimise risk. Strange also argues that rapid technological progress necessitates a loosening of rules and regulations, as well as increased transnational trade since the internationalisation of the financial system allows MNCs to outclass national corporations. These structural changes have had major impacts on the relationships between MNCs and developing countries, and Strange argues that protectionism is now more likely to harm the economic outcomes of developing nations.

More recently, Kline (2006) has used the concept 'surrogate sovereignty', arguing that there is some evidence MNCs have taken on responsibilities traditionally associated with the state.

However, this does not mean that MNCs now fulfil the role of a state, rather it indicates that the effects of globalisation have weakened state sovereignty. It is unlikely MNCs will morph into more state-like entities for a variety of reasons, including the fact that corporations often avoid establishing themselves permanently in any one geographical location for long enough to start resembling a traditional polity (Kline, 2006). Other contemporary scholars have argued that globalisation and the current economic system continues to favour corporations over states, particularly due to the flexible, transnational nature of corporations (Babic et al., 2017).

3.3.2 MNCs and states as cooperative

Early literature about MNCs and states tended to view their relationships as conflictual, fraught with tensions between the global interests of MNCs and the domestic interests of states (Haslam, 2007). However, the effects of globalisation and neoliberalism have increasingly meant the literature reflects a 'retreat' of the state from its interventionist role. Haslam writes that this has resulted in agreement within the field that while the state has not necessarily shrunk, its role has been redefined, and subsequently both weakened and strengthened albeit in different areas.

Many host states began to remove restrictions on foreign direct investment (FDI) in the 1980's, including ownership restrictions as well as screening and performance requirements (Bakir, 2015). Bakir argues this was due to states having increasingly begun to view inward FDI as beneficiary to their own development. This is also reflected in how interactions between host states and MNCs became more cooperative and non-adversarial in the high-technology manufacturing sector during the 1990s (Bakir, 2015). In short, states started to believe in their own ability to channel foreign investment in a way that facilitates economic growth and development. The shift towards market-opening reforms reflects this belief (Nem Singh & Bourgoignie, 2013a).

The question of sovereignty should also be raised when discussing state-MNC relationships. Huntington (1973), not unlike Strange (1991), notes that a transnational organisation can only operate on the territory of a state with the expressed permission of the state in question. This, Huntington argues, is not akin to the state giving up sovereignty, rather it is using its control

over a given resource to strengthen itself elsewhere. As a result, an access agreement has to be drawn up in which the organisation and the state agree on the terms of the organisation's operations within the state's territory. This agreement, Huntington theorises, will exhibit the relative bargaining strength of the organisation in relation to the state. Huntington therefore assumes that a government would only agree to proposed operations if they view them as beneficial to the state or they receive adequate financial compensation. Furthermore, he posits that as transnational organisations grow in size and number, demand for (as well as the value of) new territory will rise, benefiting those in control of it. Therefore, not only do transnational organisations not threaten the state, they actively strengthen it. Huntington differentiates between operations that serve a purpose for the government, and those that do not necessarily benefit it. Nonetheless, governments may benefit by choosing to incentivise organisations to locate their operations within its borders, or by agreeing operations may take place but extracting large fees from the organisation.

3.3.3 The 'resurgence of the state'

There are also those who argue that the focus on MNCs has obscured the power of the state. Most notably, neo-mercantilists have argued for a reintroduction of state power as the central focal point of analysis of the international political economy (Biersteker, 1980). Others, such as Henderson (1979), argued that it was no longer viable to claim corporations were engaged in a neo-imperial exploitation game with developing states. Instead, developing countries may have improved their bargaining position by becoming more aware of how MNCs operate, and therefore better at facing them. The increasing competition between MNCs could also mean developing countries are at a more advantageous position, as they have alternatives to choose from (Henderson, 1979). Henderson concludes that the world system is still state-centred, despite the vast resources of MNCs.

While we have witnessed, as seen in section 3.3.1, more scholars arguing that globalisation has meant MNCs now have more power than states, others claim the state has made a notable comeback in the 21st century. Many are interpreting the rise of China, Russian expansionism, and increasingly nationalistic discourses in American politics as signs the state is once again the most powerful unit in international relations (Babic et al., 10 July 2018). Indeed, resurgence of the state discourse has become more prolific. Perhaps the scale of

contemporary crises, including climate change, have led to an increased scepticism towards market solutions to complex issues that require large interventions over longer periods of time. However, it is worth remembering once again that we cannot definitively say that either the state or corporations are the dominant party. Biersteker (1980) has warned against equating an increase in state actions to control MNCs with an increase in effective such policies. Hence, we must maintain a critical approach to state interventions in the economy, and remember to analyse not only intended impacts, but outcomes.

4 Methodological considerations

I have chosen to study a single case in the form of a qualitative most-likely case study (Levy, 2008; Flyvbjerg, 2006; Bennett, 2022). The geographic concentration of cobalt in the DRC means it has a near monopoly on the mineral. Due to the uniqueness of this case, we may assume it is different from that of other developing states dealing with foreign corporations. Theories that posit that capital will simply flee if met with too many obstacles do not usually take into account how heavy concentration in a particular territory might impact the decisions of corporations. Theoretically, this should put the DRC at an advantage compared to other developing countries who lack the level of leverage the DRC has. The DRC should, in short, be able to bargain with MNCs, bolstered by its natural resource wealth.

4.1 Ontology and epistemology

Modern CPE originally sprung from dialectical materialism, although the contemporary metatheoretical foundation of the approach is often considered to be critical realism (Jäger et al, 2016). Critical realists view science as a social practice, which is not independent of historical, social, or institutional context. Critical realism, Jäger et al note, assumes that there is a world ‘out there’, but that world is complex. Searching for regularities in an attempt to establish causality is therefore misguided. Instead, objects and social relations have causal powers which do not necessarily result in regularities. Rather, focus is placed on the qualitative nature of the social relations and objects causal mechanisms depend on (Jäger et al, 2016). Critical realism also supposes that our understandings of reality are limited due to the natural limits of our minds as well as our view of reality being mediated by historical context (Jäger et al, 2016). Hence, direct observation is not possible, and being aware of this is important to how we approach empirical material.

4.2 Case selection

My choice to study cobalt and the DRC is motivated by the critical necessity for cobalt in renewable energy powered batteries and its notable geographical concentration in one country. This is not an average case, since most countries do not control such large proportions of a particular natural resource. However, as Flyvbjerg (2006) notes, atypical cases are useful as they often reveal interesting information by activating more actors and mechanisms in a given situation. Atypical cases, therefore, allow the researcher to extract more information about a problem or phenomenon.

The reason I have chosen to focus on Glencore, rather than other MNCs active in the region, is threefold. Firstly, Glencore has an interesting relationship with the Congolese state, that I believe allows for new insights into how states and MNCs interact. Secondly, significant structural changes are taking place in the DRC cobalt industry as Western companies have retreated from the country one by one, leaving Chinese companies the largest extractors, producers, and refiners of cobalt in the world. This makes Glencore's presence in the DRC all the more unusual. One question I should briefly address is: if China looks as though it will be central to the future of cobalt, why is China not the topic of this thesis? This leads me to the third reason I have chosen to analyse Glencore, namely access to data. While Glencore certainly has a history of attempting to sweep their controversies under the rug, they have not always succeeded in doing so, leaving me with sufficient material to analyse.

4.3 Data collection, criticism, and limitations

I have approached the data collection process selectively, choosing data based on my research question and hypothesis (Mwita, 2022). This thesis does, however, contain a large amount of material to represent the complexity of the case. This 'thick' narrative is one of the benefits of a case study (Flyvbjerg, 2006). Qualitative researchers are occasionally accused of selecting material that reflects their own assumptions (Rapley & Rees, 2018). However, Flyvbjerg (2006) argues this is a fundamental misunderstanding of the case study approach. The case study's strength lies in its ability to produce deep knowledge, which calls for the

researcher to constantly challenge their own preconceptions when faced with the richness of the material.

Although a smaller portion of the data has been collected prior to analysis, I primarily use an iterative approach, allowing the data collection and analysis to interact during the research process to create a deeper understanding of the case and its broader implications (Kennedy, 2018). My method of data collection is inspired by the mode of abduction. Prior to the analytical stage of the research process, I formulated a provisional hypothesis based on my knowledge of the case to guide my research. The purpose of abduction is not necessarily to test my hypothesis, but rather to use it as a way of identifying and interpreting my findings (Kennedy, 2018). Since there are often several plausible explanations behind an empirical case, I have remained open to reformulating my hypothesis (Kennedy, 2018). I further deal with this issue in the theory section, where I compare and examine contrasting theories of state-MNC relationships.

My analysis is primarily based on news reporting and reports by various non-governmental organisations, since both Glencore and the DRC lack sufficient transparency. As there is significant interest surrounding this case there is a wide array of information available. This necessitates a critical approach to data collection in order to maintain the integrity of the analysis. By using a large amount of data, excluding information that cannot be corroborated by other sources, and ensuring I weigh the material collected against each other in order to represent events in a balanced way, I believe I can ensure the validity of my analysis. However, there are certain limitations posed by this form of data collection, including ensuring the reliability of research material. Another limitation that has affected the outcome of this study is the fact I do not read French, which is the official language of the DRC. Since I have not been able to access an English version of the DRC's mining legislation, I have had to rely on secondary sources. This is a weakness that could have been overcome by engaging a translator, which was not possible due to limited resources. I have endeavoured to overcome this issue by ensuring all information is extensively corroborated.

4.4 Research contribution and generalisability

While many researchers have made valuable contributions to a range of issues related to the purpose of this thesis, few have focused on the impact the green energy transition is having on the power balance between states and MNCs. The extant research tends to focus on the importance of bargaining and the rentier state model, rather than on the wider environmental context. By focusing on this case, I seek to contribute to the research field by analysing how social, environmental, and economic phenomena all impact power relations between the state and MNCs.

The case of Glencore, the DRC, and cobalt is interesting in its own right, due to its importance to the green energy transition. However, I also believe this case can offer certain generalisable insights, both regarding shifting positions of power between states and MNCs and how the green energy transition affects these shifts. Flyvbjerg (2006) argues that the notion one cannot generalise based on a single case is a myth. Intense observation of a suitable case can often help glean insights that are generalisable. Flyvbjerg cites Galileo falsifying Aristotle's law of gravity with a single experiment as an example. However, making broad generalisations based on a single case is not always possible or desirable (Bennett, 2022). Additionally, in line with the critical realist epistemology outlined previously, I do not believe establishing causality through identifying regularities is possible (Jäger et al., 2016). Therefore, while I seek to develop knowledge that is useful beyond this specific case, I do not think a single case can contribute to what Bennett calls 'estimates of average causal effects' to a wider population. However, I do believe this study contributes to contingent generalisations, and can be applied to defined populations (Bennett, 2022).

5 Analysis

So far, I have argued that cobalt, the DRC, Glencore, and the green energy transition are all intimately connected. In the forthcoming chapter I will elaborate on why this is the case, how these connections were made, and why it matters to our understanding of the wider decarbonisation of society. I will attempt to understand and explain the relationship between the DRC and Glencore, comparing the time around Glencore's initial establishment in the DRC and the years since the country introduced its 2018 mining code. The third and final section will compare these time frames, asking what has changed over the course of the past decade and a half, how the balance of power between Glencore and the DRC has shifted, and how the increasingly pressing realities of climate change have impacted their relationship.

5.1 Glencore, the DRC, and cobalt in the late 2000's

Glencore began operating in the DRC around the same time as the US housing bubble collapsed in 2007, initiating the worst financial crisis the world had seen since the Great Depression (Arestis et al., 2011). Meanwhile, Toronto-listed company Katanga Mining was bleeding money and struggling to find anyone who was willing to invest in the company given the volatility of the markets (Onstad et al., 25 February 2011). Glencore, however, was interested, eventually gaining control of Katanga Mining through acquiring a 74% stake of the company (Onstad et al., 25 February 2011). This was the beginning of what has become a close, but far from uncomplicated, relationship between Glencore and the DRC.

5.1.1 The DRC in crisis

In the late 2000's, the DRC was a young and inexperienced democracy, having recently held its first free and fair elections in over forty years (Bertelsmann Stiftung, 2007). The majority of the population were living in extreme poverty. While African states such as the DRC had significantly fewer ties to the global economy compared to Europe and North America, this did not protect the continent from the adverse effects of the financial crisis (Ali, 15 April

2009). The credit crunches and liquidity freezes that hit highly developed economies in the aftermath of the financial crisis did not directly harm African economies, rather it was the global recession that followed in their wake that had severe impacts on economic growth in Africa (Ali, 15 April 2009). The severe knock-on effects of the crisis included a drop in exports due falling commodity prices and slowed private capital flows, which all contributed to an increasingly dire financial situation (Ali, 15 April 2009; African Development Bank, 21 March 2009; African Development Bank, 2010). The financial crisis also dampened enthusiasm and investment at what many believed could have been a turning point for African economies (African Development Bank, 21 March 2009).

The DRC felt the effects of the financial crisis acutely. The country's economic growth rate slowed to 2.5% in 2009, a devastatingly low result compared to 6.2% the previous year (African Development Bank/OECD, 2010). The DRC also suffered from very low foreign exchange reserves, which meant the country was well underway towards struggling to afford essential commodity imports, including medical supplies and food (Ali, 15 April 2009). To combat the economic crises, the DRC government undertook projects to 'improve the business climate' of the country and thereby secure increased investment (African Development Bank/OECD, 2010). This included putting together a steering committee for 'Doing Business', a World Bank initiative intended to track regulations that either enhance or restrain business activity (African Development Bank/OECD, 2010; World Bank, 2008). In 2008, Doing Business ranked the DRC at number 181 regarding 'ease of doing business', the lowest ranking that year (World Bank, 2008). The DRC also took steps towards joining the African Business Law Harmonisation Organisation (OHADA) (World Bank, 2008). OHADA states its mission as "To harmonize business Law in Africa in order to guarantee legal and judicial security for investors and companies in its Member states" (OHADA, n.d., General Overview section).

The DRC government at the time were, or at least wanted to come across as, willing to make significant changes to the economic landscape of the country, including liberalising regulations to improve the ability of foreign corporations to operate within its borders. The country, which in addition to extreme economic hardship was still recovering from two civil wars, was not in a position to make demands from foreign MNCs. The DRC needed FDI, fast. The World Bank (2008) lists a lack of established ways of conducting the economy and the insecurity this causes as one of the main reasons a state is considered unfriendly to

businesses. While the DRC was very much in the process of deregulating foreign trade and setting up a liberal market economy, the lack of stability, reliability, and state control over implementing legal regulations meant the country struggled to function (Bertelsmann Stiftung, 2007). The objective of the DRC's attempts at establishing itself as a desirable host state was to 'rescue' its economy through FDI, while simultaneously hoping this would facilitate more long-term economic growth. While mining was seen as a viable path to recovery for the economy, it was also the sector through which the economy was hardest hit by the financial crisis (Kabuya Kalala & Cassimon, 2010). This had knock-on effects on other sectors that rely on mining, including transport and construction. The lack of diversification in the Congolese economy puts mining in an interesting position, simultaneously becoming a strength and a weakness, offering both economic opportunities and risks.

The DRC was undoubtedly in crisis in late 2008. The adverse effects of the financial crisis in combination with the country's poor development record meant the DRC was taking drastic measures to attract foreign investment. The country was at a major disadvantage against foreign MNCs, as it was essentially unable to turn down unfavourable contracts. The balance of power was essentially skewed towards anyone who could provide the DRC with FDI.

5.1.2 Glencore establishes operations in the DRC

In 2008, Glencore was already an influential player in the metals trade, as well as being a prominent trader in oil, crops, and coal (Magnowski, 14 February 2008). The company was not yet listed, meaning it was not obligated or expected to disclose as much information as a publicly traded company, and Glencore had a reputation of being highly secretive (Magnowski, 14 February 2008; Onstad & Webb, 17 April 2011; Doherty et al., 5 November 2017; Webb & Cage, 23 December 2009; Wachman, 18 May 2011). Glencore was also known for its opportunism and fast-paced decision making, cultivating a high-pressure work environment for the traders it employed (Magnowski, 14 February 2008; Onstad & Webb, 17 April 2011; Onstad et al., 25 February 2011). Glencore's initial entry into the DRC copper and cobalt industry was through acquiring an interest in Nikanor Plc, which operated mines in the Katanga region (Glencore, 6 November 2017; Onstad, 6 November 2007). Nikanor Plc eventually merged with Katanga Mining, converting Glencore's stake in Nikanor into a

slightly smaller stake in the combined group, owners of which included the DRC's state-owned mining company Gécamines with a 25% stake (Glencore, 6 November 2017). In 2009, Glencore acquired a controlling interest in Katanga Mining (Glencore, 6 November 2017).

One aspect of Glencore's acquisition of Katanga Mining that is worth taking a closer look at is the company's connections to businessman Dan Gertler. The extent of this relationship was unknown at the time in question, and the public might never have become aware of it had it not been for the Paradise Papers leak in 2017 (Doherty et al., 5 November 2017a). In 2009, Glencore sought Gertler's (who is well connected to the Congolese government) services to secure government awarded mining permits in the DRC, specifically in connection with Glencore's acquisition of Katanga Mining (Doherty et al., 5 November 2017a; Public Eye, n.d.; Doherty et al., 5 November 2017b; Global Witness, 2014). The reason was that Katanga Mining was due to renegotiate its joint venture agreement with state owned Gécamines (Doherty et al., 5 November 2017a). Katanga Mining, and therefore Glencore, managed to secure a favourable deal with Gertler's help, and Gécamines was awarded only a fraction of the signing bonus that had been expected (Doherty et al., 5 November 2017a; Public Eye, n.d.). A joint venture agreement between Katanga Mining and Gécamines was concluded in 2009 (Glencore, 6 November 2017). Both Glencore and Dan Gertler denied corruption charges levied at them (Doherty et al., 5 November 2017a; Public Eye, n.d.).

Glencore's early involvement in the DRC was characterised by the company taking full advantage of the lack of legal, financial, and political capabilities of the country. With the help of Gertler and his close ties to the DRC government, Glencore could effectively cheat the DRC out of significant sums that a country with better developed state capabilities would likely demand in exchange for valuable mining permits. The DRC's economic state of emergency, occasioned by war and financial crisis, presented an opportunity for establishing advantageous operations in a vulnerable place. Glencore's position as a foreign MNC, with significant capital to expel in order to secure the deals it was aiming for as well as access to local elites, put the company in a prime position to begin their lucrative operations within the DRC. The DRC on the other hand had few opportunities to turn their back on Glencore, as getting the mining industry back on its feet was a priority for lifting the country out of the desperate economic situation it had found itself in. The lack of established trade regulation (that all parties actively comply with) and ways to maintain legal accountability only made

the power balance between Glencore and the DRC more unequal. Those least favoured by the agreement are, of course, the Congolese people, who would see few benefits from Glencore's overtaking of Katanga Mining and subsequent revised permits. In conclusion, both Glencore's corrupt practices and the DRC's poor, elite-run governance contributed to the acceptance of an agreement that significantly disadvantaged the DRC vis-à-vis Glencore.

5.1.3 The green energy transition in the late 2000's

The fact that our current way of life is not ecologically sustainable is far from a recent discovery (UKRI, n.d.). However, it was not until the 1990's that renewable energy technology and climate change legislation began climbing higher on political agendas (UKRI, n.d.). In 1997 the first legally binding climate treaty, the Kyoto Protocol, was signed, eventually going into effect in 2005 (CFR, n.d.; Jackson, 2007). While the harmful effects of fossil fuels were scientifically established and well-known to the public and decision makers alike at this point, we have nonetheless continued progressing towards a warmer planet in the years since. Increasingly widespread awareness of the effects of manmade climate change has, however, necessitated a search for alternative energy sources. Renewable energy sources are certainly not new, not least because they were the only available energy sources prior to the industrial revolution (Sørensen, 1991). Even technologies we tend to think about as recent inventions are rarely entirely novel. The first rechargeable battery was invented in 1859 and in 1997 the first hybrid car suitable for the mass-market was produced by Toyota (UKRI, n.d.).

While the cobalt-dependent electric vehicle industry was starting to grow in the 1990's, it did not truly start gaining traction until the mid to late 2000's when startup Tesla Motors announced plans to produce luxury electric cars (Matulka, 15 September 2014). At the time Glencore established itself in the DRC it appears copper, rather than cobalt, was the main attraction behind the company's presence in the country. Cobalt is a byproduct of copper mining (and to a smaller extent nickel mining), meaning the mining of these minerals go hand in hand (Glencore, n.d.). When covering Glencore's acquisition of Katanga Mining, many sources tended to place a larger focus on the copper side of copper-cobalt mining (Onstad et al., 25 February 2011; Metal Bulletin Daily, 29 December 2008; Trade Finance, February 2009). Katanga Mining had, as of late December 2008, stopped cobalt production in the DRC

altogether due to poor market conditions (Metal Bulletin Daily, 29 December 2008). The real cobalt boom did not take off until the 2010's, along with the growth of the EV market (Klobucista, 15 June 2018).

As for the DRC, sustainability was rather beside the point. Although the world was becoming increasingly aware of the dangers of climate change, poverty had left both local populations and the state with few options besides making use of natural resources, often with little consideration for environmental consequences (Bertelsmann Stiftung, 2007). There was simply very little space for the country to consider its own green transition, the way wealthier nations were beginning to do at the time. In the years following the financial crisis, mining seemed one of few viable options for economic recovery, and the DRC took that opportunity. For Glencore, the burgeoning green energy transition presented an opportunity to establish themselves in a region that, albeit not particularly lucrative at the time, had potential. Although cobalt was already used in electronic consumer goods, its true value lay in its potential for future use as an integral component of renewable energy storage.

While cobalt was certainly already a valuable mineral, it was not yet considered a critical mineral for the green energy transition. Cobalt was, at the time, one of many resources the DRC was attempting to utilise in order to turn the economy around. While the DRC had large copper reserves, these were still significantly smaller than those of the most copper-dense countries (Henckens & Worrell, 2020). The DRC lacked the leverage that being the principal source of an important metal affords you. As a result, the DRC was not able to regulate its mining industry for fears MNCs, including Glencore, would respond by moving their business elsewhere. This put the DRC at a significant disadvantage, making it difficult to autonomously govern its own natural resources. Instead, mining policy was indirectly guided by corporate power. This created a major imbalance in power, where the DRC was at the mercy of foreign investors.

5.2 Glencore, the DRC, and cobalt: 2018–present

The following section will analyse the case through a contemporary lens, starting with the DRC revising its mining legislation in 2018. A lot has happened in the past decade, and the world looks remarkably different now compared to what it did in the late 2000's. The climate

crisis has become even more of an urgent issue, necessitating society wide transformation which has, unfortunately, not materialised.

5.2.1 A new mining strategy for the DRC

The DRC is still experiencing violent conflict, with over a 100 armed groups active across the country (Ladd, 8 February 2023; CPA, 25 April 2023; Human Rights Watch, n.d.). The Eastern regions are particularly volatile, especially as tensions with neighbouring Rwanda continue to rise (Ladd, 8 February 2023; UN News, 29 March 2023; Human Rights Watch, n.d.; Security Council Report, 28 February 2023). However, the Lualaba Province, where Glencore's two mining operations are located, has been relatively spared from conflict compared to many other regions in the country (Ladd, 8 February 2023). The DRC's vast natural resources have exacerbated the situation by providing funds for rebel groups, despite legislation by countries including the US that aims to stop all trade with so-called 'conflict minerals' (CPA, 25 April 2023).

Other challenges that have faced the country in recent years include the Covid-19 pandemic. The pandemic was not only damaging but exacerbated many challenges the DRC was already facing, including food insecurity, lack of healthcare, inequality, and economic crisis (Batana et al., 15 November 2021; Izabayo & Gabrielová, 28 June 2022; World Bank, 29 March 2023). The Congolese pandemic response has also been accompanied by allegations of missing funds and corruption (BBC, 9 October 2021). In addition to the health crisis caused by Covid-19, the DRC has faced recurring Ebola outbreaks (MSF, n.d.; WHO, 29 September 2022).

According to Human Rights Watch (n.d.), the human rights and security situation in the DRC continued to deteriorate in 2022. The organisation argues that President Félix Tshisekedi and his administration have failed to deliver on promises they made prior to coming into power in 2018, including on corruption reforms. Later this year the DRC is set to hold elections, which may aggravate existing tensions between parties and candidates (Ladd, 8 February 2023). In addition to this, the 2018 election was postponed twice and led to unrest within the country, which some fear could be repeated in this year's election (Ladd, 8 February 2023; Amnesty,

n.d.). There remain major question marks over the legitimacy of the 2018 election, including over election fraud and voter suppression (Freedom House, 2022).

However, not all hope is lost in the DRC. In certain aspects, the country's prospects appear to be looking up. The Congolese economy's growth rate reached 8.6% in 2022, up from 6.2% the previous year (World Bank, 29 March 2023). This is largely thanks to the growing mining sector, while non-mining sectors experienced less growth than they did in 2021 (World Bank, 29 March 2023; IMF, 15 February 2023). FDI and external financing also rose in 2022, although the DRC economy continues to be vulnerable to changes in commodity prices as well as to how their major trading partners are performing (World Bank, 29 March 2023).

Another important development in the DRC is the implementation of new mining legislation in 2018 (UNCTAD, n.d.). The new mining code includes a clause stipulating that 'strategic minerals' (meaning minerals that the government deems to be of particular interest given their geostrategic context, criticality, and the international economic landscape) carry a royalty of 10% of their gross value (IEA, 31 October 2022; Herbert Smith Freehills, 25 April 2018). That same year, the DRC officially recognised cobalt as a strategic mineral for the country, while noting the high demand for cobalt in the worldwide energy transition (IEA, 27 October 2022). This recognition means cobalt now falls within the jurisdiction of the 2018 Mining Code (IEA, 27 October 2022). In comparison, the previous mining legislation from 2002 only had a 2% royalty on cobalt (Jansen van Vuuren, 13 March 2018). Other changes include a 50% tax on 'super profits', that is profits that exceed a project's bankable feasibility study with over 25%, and a provision that guarantees the state a 10% share in mining projects (Jansen van Vuuren, 13 March 2018; Leadership and Democracy Lab, 2020; Herbert Smith Freehills, 25 April 2018). Furthermore, the new mining code reduces the period of guaranteed contract stability from ten years to five years (Jansen van Vuuren, 13 March 2018; Ernst & Young, 19 April 2018). Foreign mining corporations were strongly opposed to the revised mining code, arguing it would deter future investment and that the DRC was violating existing agreements (BBC, 10 March 2018; Speight & Dorin, March 2018). It has been noted that the revised mining code could signify increased state power vis-à-vis businesses, and that this reflects a wider African trend of rebalancing mining regimes and resource nationalism (Herbert Smith Freehills, 25 April 2018).

While the DRC continues to be adversely impacted by poverty, health crises, and economic hardship, there are signs that the country is beginning to take advantage of their unique position in the new economic landscape being shaped by the need to build sustainable energy futures. The DRC government is aware that their mineral deposits, specifically cobalt, is highly sought after, and that they control a large portion of the global supply. While foreign MNCs in the mining sector were horrified by the revised mining code of 2018, it remains difficult for these companies to move their business elsewhere and be able to obtain even a fraction of the cobalt that can be extracted in the DRC. This should, theoretically, put the DRC at an advantage. However, there are signs that even though demand continues to rise, increased supplies might swamp the market, pushing down the price of cobalt in the process (Desai, 7 March 2023). A more detailed look at the nature of cobalt demand will be presented in section 5.2.3.

5.2.2 Tensions between Glencore and the DRC

Glencore, too, has changed since the company first established a presence in the DRC. In 2011, the company went public (MacLellan & Barreto, 4 May 2011; Wearden, 14 April 2011). As a public company, famously secretive Glencore is expected to adhere to a higher standard of transparency than before. However, the company has recently experienced pressure from investors to become more transparent, specifically regarding the company's coal production and how it aligns with climate targets outlined in the Paris Agreement (ACCR, 19 April 2023; Conchie, 5 January 2023; Burton, 5 January 2023). Furthermore, Glencore has continued to expand their presence in the DRC, taking control of the Mutanda Mine in 2012 (Reuters Staff, 22 May 2012; Wild et al., 29 December 2012). This, as well as Glencore's 2017 purchase of the remaining 31% of Mutanda from a company controlled by Dan Gertler, has attracted widespread scrutiny, including allegations of corruption (Wild et al., 29 December 2012; Topf, 13 February 2017; Patterson, 13 February 2017). Moreover, the company has been followed by accusations of environmental pollution and human rights abuses related to its mining activities (Sweeney, 14 April 2012; Bradley, 27 November 2018; Business & Human Rights Resource Centre, 17 March 2020).

As discussed in the previous section, the DRC introduced a new mining code in 2018. Glencore, arguing against the code, pointed out that the company had made large

contributions to the DRC, including paying \$308 million in taxes in 2017 (Sanderson, 29 June 2018). The company said that it would continue to make even higher payments as it continues to expand its copper and cobalt production in the DRC (Sanderson, 29 June 2018). In response to the new code, a number of mining companies set up the Mining Promotion Initiative (MPI) to voice their concerns, warning the DRC government it could lose more than \$3 billion over the following decade should the code be made into law (Jamasmie, 23 August 2018; Clowes, 29 May 2018). Glencore's CEO at the time, Ivan Glasenberg, said that while Glencore was complying with the tax increase, the industry was considering legal action in response to the new mining code (Reuters Staff, 8 August 2018; Tchertvertakov, 12 June 2018). However, the DRC government responded to the initiative saying mining companies had no right to question the legislation and should adapt to the law rather than try to change it (Casey, 13 September 2018). It has been speculated that the closure of Glencore owned Mutanda Mine in 2019 was a way of putting pressure on the DRC government, as the company said the mine was not economically viable in the long term (Whitehouse, 15 August 2019). Glencore maintains that the closure, which was scheduled as the mine was to undergo maintenance although was not expected to happen so soon, was due to decreased cobalt prices, concerns over economic viability, and lack of necessary resources for extraction (Biesheuvel & Clowes, 6 August 2019; Reuters Staff, 26 November 2019). In 2021, Glencore announced it was going to restart production at Mutanda (Holland, 22 June 2021; Brightmore, 22 June 2021).

The DRC's attempt at harnessing their resource wealth in a way that would benefit the country more was, clearly, not well-received by Glencore. Higher taxes, royalties, and the potential of contract changes spooked the entire mining sector, as companies considered how they should respond to the government's proposal. This is where cobalt's geographical concentration, in combination with its critical status to the green energy transition, is once again actualised. A common assumption, heavily informed by hegemonic neoliberal ideas, is that states cannot implement legislation that would disadvantage corporations, as these corporations will simply move their business elsewhere. In the case of cobalt, this is just not viable as the mineral is more difficult and costly to extract, not to mention less abundant, in all other locations where it can be found. Whether or not the Mutanda Mine closing was a way of pressuring the DRC government, we do not know. However, we do know Glencore did eventually decide to resume production at the mine.

The corruption claims surrounding Glencore reached their pinnacle in 2022, when the US Department of Justice announced Glencore had entered guilty pleas for bribery and foreign market manipulation and that the company had agreed to pay over \$1.1 billion in US settlements (Department of Justice, 24 May 2022; Jolly, 24 May 2022; Hook, 5 December 2022). In 2021, Glencore had announced it would pay a record dividend of \$4 billion to shareholders, having set aside \$1.5 billion for legal costs (Jolly, 24 May 2022; Sweney, 15 February 2022). At the time, CEO Gary Nagle said the company recognised misconduct in the past and was working to correct this, expressing that Glencore is committed to operating the business responsibly in the future (Sweney, 15 February 2022). Glencore also had to pay a settlement amounting to \$180 million to the DRC over the company's alleged corrupt actions in the country (Hook, 5 December 2022; AP News, 5 December 2022; Glencore, 5 December 2022). The settlement covers both past and future allegations made against Glencore and their affiliates between the period 2007 to 2018 and could protect Glencore from future international investigations into its dealings in the DRC, including avoiding further pay-outs even if it is established that the DRC's losses exceeded \$180 million (Hook, 5 December 2022; Al Jazeera, 6 December 2022; Thomas, 5 December 2022).

Due to its size, influence, and considerable resources, Glencore is still able to exert power over the DRC. While \$180 million is not an insignificant amount to Glencore, certainly putting some economic, not to mention public, pressure on the company, it remains the case that Glencore's profits in the DRC far exceeds what it paid out. While the DRC has shared some of Glencore's profits in the form of taxes and royalties, it is likely the country would have gained much more had Glencore not received preferential treatment due to its widespread practice of bribing officials. The fact that it becomes very difficult for the DRC to take Glencore to court in the future prevents further pay-outs, meaning the DRC will likely never gain access to the level of profits it could have received had Glencore not engaged in corruption. Glencore, meanwhile, has continued growing across their operations, announcing a \$7.1 billion pay-out to investors earlier this year (Denina & Reid, 15 February 2023). This reflects how large MNCs are still able to exploit developing states by taking advantage of underdeveloped legal capabilities.

5.2.3 The green energy transition accelerates

As average temperatures have continued to climb, the climate crisis has become the foremost challenge of our time. The outlook is, perhaps, a little more pessimistic than it was back in the late 2000's. Time and time again we have seen just how difficult it is to halt emissions and counteract global warming, despite unprecedented efforts being made (WMO, 21 April 2023). The Paris Agreement entered into force in 2016, with the goal to limit global warming to 2°C above pre-industrial levels, ideally keeping levels under 1.5°C (UNFCCC, n.d.). As of March 2023, the IPCC maintained that this goal was still achievable, but would require critical action 'across sectors and by everyone at all levels' (UN Environment Programme, 20 March 2023). However, in May 2023 the World Meteorological Organization announced it is likely the world will reach the 1.5°C climate threshold for the first time by 2027 (WMO, 17 May 2023).

Meanwhile, the electric vehicle industry has grown dramatically in the past 15 years. In 2022, 14% of new cars sold were electric, compared to 9% in 2021 and less than 5% in 2020 (IEA, 2023). Many car manufacturers pledge to either multiply their production of electric vehicles within the coming decades, or aim to phase out fossil-fueled vehicles entirely within that time period (UKRI, n.d.). Thus, the EV industry appears to continue growing despite the current financial situation (Ribeiro, 31 January 2023). Some analysts predict electric vehicles will make up half of global car sales by 2035 (Goldman Sachs, 10 February 2023). With the growth of the EV sector's market share, and the increasingly frequent promise that EVs can be mass-produced and possibly even replace fossil fueled cars, EVs' importance to the green energy transition appears even greater (European Commission, 28 October 2022; The Guardian, 25 April 2023).

The demand for batteries to power the electrification of the transport sector is also expected to grow over the coming decade (Darbar et al., 2022). Cobalt-containing lithium-ion batteries' popularity is due to the fact they combine high energy with power density, making them highly efficient (Nitta et al., 2014). Heightened demand is likely going to prove a strain for the cobalt supply chain, exacerbating existing issues such as environmental damage, price instability, and the fact supply is ultimately depletable (Darbar et al., 2022). Concerns over supply and costs have fueled the EV sector's search for alternative battery compositions.

However, these cannot currently measure up to cobalt-containing lithium-ion batteries, due to issues including short range and a tendency to overheat (Darbar et al., 2022). Nonetheless, developing cheaper, effective batteries that are less sensitive to supply chain and price volatilities is a priority for the EV sector (Darbar et al., 2022).

Looking at Glencore, it too has felt the effects of the increasingly pressing climate crisis. Glencore's shareholders' reactions to its business strategy are, perhaps, a sign of change. Glencore's strategy has not been to sell or spin off their coal operations, as many other companies have done (Sweeney, 15 February 2022). Instead, the company plans to continue mining coal until the 2040's. This has worried investors, who question whether Glencore's business model will hold up over time or if the company might fall behind on the climate goals outlined in the Paris Agreement (Hook, 5 January 2023; Burton, 5 January 2023). Glencore's coal division is, however, extremely profitable, particularly in the wake of Russia's war in Ukraine (Hook, 5 January 2023).

Meanwhile, the DRC has become increasingly aware of its strategic importance to the green energy transition. In an interview, DRC Minister for the Environment Eve Bazaiba noted that Glencore's homeland, Switzerland's, green transition is made possible by resources provided by the DRC (Langrand, 11 November 2021). The minister makes the case for the DRC demanding more from Glencore in order for the country to embark on its own journey towards sustainable development (Langrand, 11 November 2021). She also tells the interviewer that the DRC will no longer allow resources to be exported raw, instead demanding they be refined in the country, and that Glencore will have to adapt to this new policy. The minister views Glencore as an integral source of income and power for the Swiss state. This is an astute point, as Glencore and Switzerland benefit from each other, at the expense of the DRC. The ban on exporting cobalt and copper is not the first issued by the DRC government. Back in 2013, the country issued a similar ban. However, due to insufficiently developed energy infrastructure and subsequent lack of electricity which effectively rules out the possibility of refining minerals within the country, companies can apply for waivers to circumvent the ban (Jamasmie, 28 May 2021). The ban was reinstated in 2021, although the issues plaguing the initial 2013 ban remain.

Returning to Glencore, the company has said that rising costs of producing minerals could mean lower future earnings (Denina & Reid, 15 February 2023). The high revenues reported

by the company were largely due to the rising price of coal and oil in the wake of Russia invading Ukraine (Denina & Reid, 15 February 2023; Mining Technology, 5 August 2022; Partridge, 15 February 2023). Glencore's increased reliance on coal and oil revenues raises the question of cobalt's profitability, and whether the mineral will become sidelined as fossil fuels become a more integral part of Glencore's operations as the war continues. It is not entirely easy to categorically conclude whether demand for cobalt is rising, shrinking, or remaining stable. The past decades have seen a general trend towards high demand and increased prices. In August 2018, cobalt prices had increased fourfold in two years, and part of Glencore's decision to schedule a reopening of the Mutanda Mine in 2022 was stated as a surge in demand for cobalt (Jamasmie, 23 August 2018; Davies, 17 August 2021). However, recently prices have declined. Between the summer of 2021 and the spring of 2022, the price of cobalt doubled to \$82,000 a tonne, before shrinking to a disheartening \$35,000 in February 2023 (The Economist, 16 February 2023). One reason behind the price drop is that cobalt has become superabundant after a supply boom in 2022, with extraction now exceeding demand (The Economist, 16 February 2023; Burton & Kavanagh, 6 March 2023). The main reason behind this superabundance is a sharp drop in demand for Chinese consumer electronics, which currently contain much more cobalt than the batteries used in electric vehicles (Biesheuvel & Burton, 9 February 2023). However, this also illustrates just how volatile the market for cobalt is. While it is true that industries have become slightly less dependent on the mineral, and that supply now exceeds demand, it is also true that demand and prices might climb in the event of, for example, a very large push for electric vehicles (The Economist, 16 February 2023). Some estimates predict the EV sector will account for half of cobalt demand by 2026 (Sobotka, 18 January 2023). While high demand and high prices benefits Glencore, it benefits the DRC even more. Only time will tell whether the DRC can continue its reliance on cobalt, however it seems increasingly evident the mineral is not the economic panacea some had hoped it would be.

5.3 Fifteen years of Glencore mining cobalt in the DRC – how has the balance of power shifted?

In the third and final section of my analysis, I will compare the relationship between Glencore and the DRC, and how it changed between the two time periods previously

discussed. In line with my research question, I aim to foster a better understanding of how the DRC and Glencore exercise power over each other. I will specifically place this relationship within the context of the green energy transition, attempting to understand how this might impact each party's position in relation to the other.

5.3.1 The balance of power between Glencore and the DRC

When Glencore first established their cobalt mining operations in the DRC, the country was suffering from the fallout of a global economic crisis as well as many decades of internal armed conflict, with widespread poverty as a result. Today, the DRC remains one of the poorest nations in the world, and the promise that natural resources were going to deliver prosperity to the country has not been fulfilled. However, the DRC's approach to foreign MNCs has shifted dramatically over the past 15 years. Glencore too have changed their tactics, not least in response to the DRC government implementing the country's new mining sector strategy. The relationship of power between the DRC and Glencore has shifted, although there has not been a definite major shift in favour of any party. Rather their relationship has gone back and forth, with one party gaining an advantage at one point and another at the next. These shifts in who holds power, whether that be over mineral resources, land, capital, or each other, are deeply intertwined with things happening outside both the DRC's and Glencore's control. World events such as the Russo-Ukrainian war and the subsequent crisis on the markets leading to dramatically volatile commodity prices could both harm and benefit the DRC and Glencore. However, while conglomerate Glencore has never been reliant on a single good to secure its profits, the DRC has been heavily dependent on its cobalt industry for state revenue.

In the late 2000's, the DRC was, at least partially, undergoing a deep marketisation of its economy. On one hand, the country had severely underdeveloped institutional capabilities, legal protections, and infrastructure as well as a conflict-ridden recent history meaning it was not particularly attractive to investors. On the other hand, the DRC was desperate to attract investors and willing to make concessions in order to secure FDI. While this lack of an established business climate might have deterred many investors, companies such as Glencore are defined by their willingness to take risks, especially when there is a potential for very high rewards. Glencore, thus, took advantage of the DRC's underdeveloped institutions

and state of crisis when it established a presence in the country. The DRC, fully intent on integrating itself into the fabric of the global economy, allowed this to happen. The country's desire to secure FDI through liberalising their economy reflects an understanding of FDI as mutually beneficial. This fits with the strand of literature, outlined in the theory chapter of this thesis, which understands the relationship between the state and MNCs as potentially cooperative.

The DRC's will to secure FDI in order to foster economic growth is typical of the world into which the country emerged after decades of war and poverty. Resource management has typically favoured granting open access to foreign investment. In the late 2000's, neoliberal models for development and economic growth had taken precedence over alternative paths towards prosperity. The norms of this market liberal approach, that barriers to trade and industry should be removed which in theory would benefit all those involved, are deeply ingrained in the prevailing neoliberal hegemony. However, these norms are not predetermined, but rather products of actions, thought processes, and ideas. The DRC could have continued to progress in the direction of increased marketisation, removing what MNCs perceive to be obstacles to economic growth. However, in the years since, the country has begun to demand more in return from foreign MNCs. We should, however, not forget that the DRC, in a failed attempt to harness their resource wealth, granted highly beneficial mining permits through corrupt government practices. These contracts were, as we have seen in previous sections, obtained through bribery and corruption. Glencore used their connections to negotiate a deal that benefited the company enormously, while the DRC got the short end of the stick. As such, these events are in many ways typical of how local elites tend to strike up personally advantageous relationships with MNCs, failing to harness resource rents effectively. We may also consider the argument that the state's main way of both attracting and controlling capital is through territorial authority. The DRC failed to use their only leverage, control over its own territory, to effectively transform natural wealth into actual economic growth and poverty reduction. Instead, the country's then government enriched themselves, rather than the population they had a duty to represent.

To better understand why the DRC was at a disadvantage towards Glencore in the late 2000's, I will return to the concept of hegemony. Within the current neoliberal hegemony, private capitalist power is privileged. Socio-economic groups that are in control exert both moral and political power, further entrenching market liberalisation as the hegemonic ideal. Private

investment, therefore, is seen as the most conducive way of facilitating economic growth and development, making the presence of MNCs in countries such as the DRC seem like the most viable path forward. However, although the country took steps towards liberalising their economy in the late 2000's, with the intention of making itself more attractive to foreign investors, it appears as though the DRC has begun to question whether this really is a viable way of achieving the kind of prosperity it had been promised. There are a number of reasons as to why the DRC chose to break with the free market norms it once appeared so keen to adopt. We may consider that the DRC, a developing country that has never truly been integrated into the global system in a way that has led to any significant benefit to the country itself, might be less tied to the ideological assumptions which serve to uphold neoliberal hegemony. The fact the DRC is far less invested in these hegemonic ideals might allow the country more room in forging their own path towards development and economic growth. Because the DRC tried to liberalise its economy, a strategy which eventually proved ineffective, it is not all that surprising that the country began to consider alternative ways forward.

In 2018, the DRC made the biggest change to its mining sector in many decades by substantially overhauling its mining code. Glencore's response to these legislative changes illustrates how the power relationship between the company and the DRC has changed over time. The revised mining code contains several policy initiatives that are not in line with how a deeply marketised state is expected to legislate its economy. These policy changes, if effectively enacted, would significantly reduce the power of corporations. By power, I mean economic power, but also ideological power. The revised mining code was met with Glencore and other mining companies essentially setting up a protest organisation, advocating for the rights of the industry. While this was certainly a response to potential negative effects on earnings and subsequent shareholder dividends, I would go even further, arguing that the new mining code was met with such opposition because it broke with what is considered common sense capitalism. The idea that a state could simply decide to renegotiate contracts, dramatically raise royalties on certain minerals, and in general turn an industry on its head was simply beyond what MNCs operating in the country thought possible.

In the 2020's, the DRC is increasingly attempting to convert natural resources into sustainable growth and long-term prosperity. This is in stark contrast to the state's actions in the late 2000's. Consider the argument that lack of governance is also a political choice, even

when governments are not necessarily in control of these decisions. While Glencore used bribery and corrupt practices to establish their operations in the DRC, the DRC's subsequent inability to extract rents from companies operating within its borders is also a failing of the Congolese state. However, the DRC has made strides towards breaking out of the market fundamentalist policy framework that was established in the years after its civil wars and economic crisis. Recently, the DRC has reiterated demands that Glencore's operations within the country must benefit the DRC and comply with its laws. The fact the DRC has managed to, with some success, implement its new mining code despite industry opposition shows the country has reached new levels of policy autonomy. However, we should not necessarily interpret the ambitions of the revised mining code as revolutionary or even effective. Given the volatile nature of the mining sector, we are yet to see whether the DRC will be able to effectively harness its natural wealth, although initial results are somewhat encouraging.

Returning to the ideal types of MNC-state relationships outlined in the theory section, the relationship between Glencore and the DRC in the late 2000's is best considered a case of an MNC overtaking the state. By liberalising the mining sector, control over the economy was further removed from the state and placed in the proverbial hands of the global market. In the late 2010's and early 2020's, there has, however, been a shift. While the DRC cannot be considered to have the upper hand over Glencore, Glencore and other corporate actors have lost some power in relation to the Congolese state. I would hesitate to call it a resurgence of the state. Because the DRC remains poor, and continues to suffer from underdeveloped institutional capacity, it still faces difficulties bargaining with large MNCs. However, in the age of unprecedented climate change, we are perhaps seeing a general shift in the power relations between states and MNCs, where states are more able to undertake the long-term, far-reaching interventions required to secure sustainable futures.

5.2.3 The impact of the green energy transition on the power balance

The criticality of the climate crisis, and therefore also the urgency of transitioning into green energy sources, has increased dramatically over the past decades. While the details of how this should transpire remain divisive, most people recognise changes have to be made. This notion of change as a requirement to avoid climate disaster could factor into a potential disruption of the neoliberal hegemony. Capitalism is prone to crisis, as there are

contradictions built into the system. One such contradiction is the unsustainable nature of how we fuel capitalism and perpetual economic growth. Rising harmful emissions despite unprecedented prevention efforts illustrates how capitalism appears unable to overcome the challenge facing us all. It forces us to evaluate how we relate to nature and to each other and necessitates asking questions about where we go from here. The emergence of other unprecedented crises thought impossible in a globalised and modern world, such as an interstate war in Europe and a global pandemic further calls into question whether the neoliberal hegemony is on the verge of breaking down. However, even in this context, corporations like Glencore continue to profit off the disruption of energy supplies while vulnerable people in countries such as the DRC carry the brunt of the consequences.

Proposed solutions to climate change often include various forms of scientific innovation. The global EV industry is an example of how technological fixes are presented as solutions to wider environmental issues. The growth of the EV industry remains a key driver of the global cobalt sector. Now, EVs are becoming increasingly more common and demand is set to rise dramatically in the coming decades, with some positing EVs could end up replacing petrol and diesel run vehicles altogether. Despite EV-related growth, the current superabundance and subsequent price drop for cobalt is a troubling prospect for the DRC. While prices might recover as the EV industry expands, the DRC's cobalt reserves could become drastically less valuable should it become possible to produce high-quality, high-performance batteries without cobalt. However, despite industry innovation, it does not appear as if it will be possible to phase out the use of cobalt for some time yet. Providing that EV industry growth continues, cobalt will remain in demand for some time. This means the DRC will continue controlling an extremely valuable resource key to the green energy transition. The country's reserves will thus remain a source of revenue in the forthcoming decades, and if the DRC is able to continue harnessing resource rents and reinvesting in other sectors of its economy it could benefit greatly from the transition into green energy sources. Yet, we must not forget cobalt is ultimately a depletable resource, and the DRC will eventually have to reckon with this fact.

A notable change between the two time periods studied is the DRC's increased focus on their own sustainable energy transition. As exemplified by the statements made by the country's minister for the environment, the DRC is beginning to prioritise its own green transition rather than just enabling this transition elsewhere. While it is too early to draw any

conclusions as to whether the DRC will effectively transition into renewable energy sources, particularly given the country's underdeveloped energy infrastructure, it is a sign that the DRC might be starting to reinvest resource revenues in ways that will hopefully facilitate long-term economic growth. Should this work, it would go a long way to remedy some of the more acute problems of the DRC's cobalt and mining strategy so far.

Once again, we are brought back to one of my central arguments, namely that cobalt through its unique concentration in the DRC has the potential to upend both the country's poverty and its subordination to foreign MNCs. While power relations in the fossil fuel era were also highly dependent on where in the world resources were located and who had control over them, these do not compare to the uniqueness of cobalt. Despite cobalt not being immune to the volatile nature of commodity price shifts, it does appear as though the mineral will continue having an important role in the green energy transition moving forward. The transition to renewable energy also presents an opportunity for change, as it necessitates a realignment of global industry, trade, and markets. Capitalism itself is in crisis, with its very foundations becoming increasingly untenable given the limits of the natural world. The green energy transition by no means guarantees meaningful change. However, any crisis necessitates finding solutions, which presents a window of opportunity for breaking out of the neoliberal hegemony. It is in this context that we are, perhaps, witnessing a realignment of power between the state and corporations, brought on by the necessity for change.

6 Conclusions

The central aim of this thesis has been to investigate how the green energy transition impacts power relations between the state and multinational corporations, as illustrated by the case of the DRC, Glencore, and cobalt. I have found that the power balance between the two parties has shifted, although this shift has not been linear. The general trend has been towards a more equal balance of power between Glencore and the DRC, primarily due to the DRC having gained an appreciation of their own unique situation through which they have improved their bargaining position vis-à-vis Glencore. This shift represents a weakening of the neoliberal hegemony, as norms that previously structured the DRC's resource governance have been called into question. By introducing legislation whose primary purpose is to benefit the country, not attract investors, the DRC was able to reach new levels of policy autonomy. It has done so using a logic of increased resource nationalism, underlining the need for its natural riches to first and foremost assist the DRC's own continued development.

The early power relations between the DRC and Glencore were defined by the DRC's desperation to secure FDI. Glencore used their considerable leverage to secure highly advantageous mining permits that failed to benefit the DRC, taking advantage of the country's poverty and low development in order to maximise its own profits. Meanwhile, the world was becoming increasingly aware of the risks associated with climate change, and alternatives to fossil fuels were being proposed. Today, many of the challenges that faced the DRC in the late 2000's still remain. The DRC is, despite its immense mineral wealth, still an extremely poor country. However, there are signs the Congolese economy is growing despite its continued overreliance on the mining sector. Glencore remains active in the DRC, even with its continued opposition to the DRC's revised mining code. The 2018 change in legislation can be considered a paradigm shift in the Congolese mining sector. It presented a break away from the liberal, free market norms companies had come to expect, by explicitly demanding the DRC should benefit from foreign MNCs operating within its borders. Glencore's decision to remain active in the DRC is likely due to the fact mining cobalt elsewhere is both more difficult and less profitable. In the late 2000's, it looked as though the Congolese state was being swallowed by large, foreign MNCs, whose size and resources granted significant advantages over the state. While I certainly do not claim the Congolese

state is now more powerful than Glencore, the power balance that so clearly favoured Glencore in the late 2000's has shifted somewhat in the direction of the DRC. This shift in the power balance is, to a large extent, due to the crisis climate change has caused within capitalism. The need to reorganise the economy and society to counteract the effects of global warming has created a window of opportunity which the DRC has taken advantage of. Cobalt's importance to the green energy transition means the DRC now controls a majority of a mineral that is crucial to ensuring a sustainable energy supply.

Going forward, research on the DRC's cobalt trade would benefit from focusing on the increasing Chinese dominance of the sector, and what implications this will have for the DRC, as well as global access to cobalt and cobalt-containing products. Further research on how countries that possess natural resources that are valuable to the green energy transition can effectively harness these for economic growth and development would also be interesting and could offer insights into how the green energy transition is impacting geopolitics and vice versa. Furthermore, research in this field, particularly within the CPE tradition, should continue approaching the green energy transition from a critical position, highlighting questions of justice and power, as well as how the green transition can disrupt or perpetuate existing systems of oppression.

This case illuminates the implications the green energy transition has on wider economic and political processes at a critical point in history. It reveals valuable, albeit contingent generalisable insights into how power structures are becoming more flexible as the development of renewable energy infrastructure advances. The shift away from fossil fuels will continue and will undoubtedly be accompanied by considerable challenges. Meeting the challenges posed by the climate crisis will require a significant restructuring of the world order, disrupting extant power structures in the process. Perhaps, as in the case of cobalt, this restructuring may open windows of opportunity for a realignment of unjust and unequal power relations.

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