Navigating the Resource Curse: Lessons from Indonesia for the Management of Chinese Foreign Direct Investment in the Democratic Republic of Congo's Cobalt Sector

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Abstract

This thesis explores why Chinese foreign direct investment has contributed to industrial upgrading in Indonesia but reinforced dependency in the Democratic Republic of Congo. Indonesia has utilised foreign direct investment, particularly from China, to advance domestic industrial development in the mineral sector, reduce economic dependency, enhance local industrial integration, and foster sustainable development, while the DRC has struggled to manage Chinese investment, largely due to poor governance, resulting in continued extractive dependency, minimal local value addition, and a failure to translate resource wealth into broad-based economic development. Grounded in dependency theory, enclave economy analysis, and the leading sector model, this research compares the divergent outcomes of Chinese FDI in both nations. While Indonesia has used regulatory instruments such as export bans, local content requirements, and territorial industrial planning to promote downstream processing and economic upgrading, the DRC remains locked in extractive dependency. Weak institutional capacity, elite capture, fragmented governance, and limited bargaining power have impeded the DRC's ability to align foreign investment with national development goals. The DRC and Indonesia are compelling comparative cases, as both are resource-rich countries targeted by Chinese FDI in the critical minerals sector (cobalt and nickel, respectively), and both are central to the global energy transition. Yet, the divergent outcomes of industrial upgrading in Indonesia versus persistent dependency in the DRC, highlight how institutional and policy contexts shape the developmental impact of FDI. Results reveal that institutional integrity and state coordination are essential for turning resource wealth into inclusive development. Although direct policy transfer is constrained by structural differences, context-specific reforms such as targeted regulation, institutional strengthening, transparent contract negotiation, and the formalisation of artisanal mining could provide the foundation for more equitable and sustainable outcomes.

Acknowledgements and Dedications

To my parents, without whom none of this would have been possible.

To my partner Aayu, for supporting me every step of the way.

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Introduction

The increasing global demand for renewable energy technologies and electric vehicles has led to an unprecedented need for essential resources; none more so than cobalt. These materials are vital for producing electric batteries, power grids, and electronics, making them integral to the ongoing global transition towards greener and more sustainable economies. As nations strive to achieve climate targets and reduce their reliance on fossil fuels, the strategic importance of these minerals has grown significantly. According to the International Energy Agency, global cobalt demand is projected to increase fourfold by 2030 (IEA, 2021), primarily due to its critical role in smart phone technology and electric vehicle batteries.

Within this evolving global supply chain, the Democratic Republic of Congo (DRC) occupies a critical position, dominating global cobalt production by holding over 70% of the world's cobalt reserves (IEA, 2021). This immense resource wealth has placed the DRC at the centre of global energy attention and competition, particularly from foreign investors seeking to secure access to these critical minerals - so critical in fact, that some scholars have suggested branding cobalt a “conflict mineral” (Dasilva, 2022). Chinese Foreign Direct Investment (FDI) stands out as a particularly influential force in the DRC's mining sector, driven by China's strategic need to support its own green energy transition and industrial expansion (Chen et al., 2020). China's ambitious global infrastructure and investment programme - the Belt and Road Initiative (BRI) - has facilitated Chinese access to Congolese minerals, linking resource extraction closely with infrastructure development and geopolitical influence across Africa (Brautigam, 2011).

While Chinese investments have profoundly transformed the economic landscape of the DRC, they have also triggered significant debates concerning their long-term impacts on local economies, governance, and human rights. On one hand, Chinese FDI has provided crucial infrastructure, employment opportunities, and improved access to global markets. For instance, infrastructure-for-resources agreements, such as the Sicomines Agreement (2008) in the DRC, promised vital public infrastructure such as roads, schools, and hospitals in exchange for mining rights, highlighting the perceived mutual benefits of such partnerships. Conversely, these investments have arguably deepened structural dependency, constraining domestic industrialisation, limiting technological advancement, and exacerbating economic inequalities (Rapanye & Shai, 2020). Often, this leads to short-term economic gains at the expense of long-term economic sovereignty and sustainable development. The DRC's Deputy Prime Minister Eve Bazaiba summed up the feelings of many Congolese as she expressed her thoughts toward cobalt mining operations at COP26 in Glasgow:

"Cobalt cannot be exported, transformed, and manufactured into batteries outside the country, while we are reduced to selling our teeth to afford a green vehicle."

The DRC remains heavily dependent on the export of raw materials (Mavhunga, 2023), leaving its economy vulnerable to commodity price fluctuations and hindering the realisation of the full economic potential derived from its resources. This pattern is typical of historical conditions outlined by dependency theory, which argues that resource-rich but economically weaker nations (the "periphery") are structurally subordinate to stronger economies (the "core"). According to Madariaga and Palestini (2021), this unequal dynamic obstructs the sustainable development of peripheral nations by trapping them in low-value roles within the global economy, while core countries extract both resources and economic benefits. Dependency theory remains highly relevant today, particularly in understanding how foreign dominance in strategic sectors like mining influences the economic trajectory of resource-rich countries like the DRC.

Contrastingly, Indonesia has taken advantage of it's resource wealth and successfully implemented foreign investment in mineral resources to reduce dependency and stimulate domestic industrialisation. Employing a “leading sector” strategy, Indonesia significantly increased its domestic nickel processing capabilities through targeted industrial policies, such as export bans on unprocessed ores and local content requirements, implemented within projects like the Indonesia Morowali Industrial Park (IMIP) (Tritto, 2022). These policies successfully helped build strong forward and backward linkages across the economy, enhancing local technological capacity and promoting substantial industrial upgrading (Camba, Lim, & Gallagher, 2022). Despite certain challenges, including the concentration of market power among a small number of dominant buyers (oligopsony) and rent-seeking behaviour by politically connected firms that extract privileges without contributing to broader development , Indonesia’s approach has demonstrated substantial benefits in terms of economic diversification, employment creation, and technological development.

This research seeks to critically evaluate the negative economic, regulatory and social impacts of Chinese FDI in the DRC through a historical analysis, comparing their failures to Indonesian success, Afterwards, potential policy recommendations will be presented, focusing particularly on how Indonesia's experience might inform future Congolese policy. It aims to assess the extent to which Indonesia's industrial policy strategies could feasibly be adapted to the Congolese context, considering significant differences in governance structures, institutional capacity, geopolitical pressures, and cultural and societal dynamics. Through the integration of dependency theory, enclave economy analysis, and the leading sector model, it offers an original framework for understanding how institutional differences shape the developmental potential of Chinese FDI. Fundamentally, this thesis seeks to answer the question:

“What explains the divergent developmental outcomes of Chinese FDI in Indonesia and the DRC, and how do institutional governance, political economy structures, and industrial strategies influence the impact of foreign investment in resource-rich states?”

Theoretical Framework

Dependency Theory

Dependency theory, as articulated by Frank (1967), argues that resource-rich but economically weaker nations are often subordinated within global trade networks, deepening structural inequalities and limiting their prospects for development. These nations, referred to as the "periphery," are systematically exploited by wealthier, developed countries in the "core," which extract raw materials from the periphery while returning higher-value manufactured goods. This dynamic locks peripheral economies into low-value roles, reinforcing long-term dependency. Madariaga and Palestini (2021) explain that dependency theory originated in the 1960s to provide a critical framework for understanding post-colonial economic relationships and the persistent structural imbalance between the Global North and South. Building on Frank's work, Wallerstein (1974), through his World-Systems Theory, highlights how the global economic system continues to force peripheral economies into specialised, low-value sectors such as raw material extraction, significantly reducing their capacity for industrial growth, technological advancement, and economic diversification.

In the specific case of the DRC, Chinese Foreign Direct Investment clearly exemplifies this core-periphery relationship. Although Chinese investments have introduced substantial capital, infrastructure development, and employment opportunities, these largely cater to China's broader industrial and geopolitical objectives. China's predominant focus remains on extracting cobalt for export to its own industries, leaving limited opportunities for local value-added processing or meaningful industrial diversification. Kaplinsky and Morris (2009) indicate that this dynamic confines resource-rich African nations like the DRC to the lower echelons of global value chains, perpetuating their roles as suppliers of raw commodities without enabling advancement into higher-value sectors such as manufacturing or advanced technological processing and refining. Such engagement only perpetuates structural dependency and severely restricts local economies from fully capitalising on their vast resource wealth.

The application of dependency theory to Chinese FDI in the DRC distinctly shows the structural imbalance inherent in international trade and economic relationships. While the influx of Chinese capital is often viewed as a beneficial alternative to Western aid and investment, it frequently fails to encourage local technological innovation or genuine industrialisation. Instead, it reinforces a cycle of economic dependence, leaving countries like the DRC highly susceptible to exploitation by dominant investing powers such as China, with limited leverage to negotiate equitable terms. This vulnerability is particularly pressing in the contemporary context, given the rising global demand for cobalt, driven largely by the global transition towards renewable energy technologies and electric vehicles (Gupta et al., 2023). This escalating competition for critical minerals exacerbates the core-periphery divide, placing the DRC in a crucial yet vulnerable position within the global green energy economy. Additionally, the DRC's dependency is deepened by governance weaknesses, including political instability, endemic corruption, and insufficient regulatory enforcement (Anderson, 2023; Zeuner, 2018). These factors exacerbate environmental degradation, perpetuate social inequalities, and deepens the structural dependency on foreign capital, significantly impedign the DRC's potential to take advantage of its substantial mineral wealth for broader socio-economic advancement, thereby reinforcing its peripheral status within global economic structures.

Thus, dependency theory provides a foundation for understanding why Chinese FDI has reinforced economic dependency in the DRC, rather than promoting structural transformation. It highlights how historical and systemic inequalities in global economic relations play a key role in shaping investment strategies, especially in weak institutional settings. However, while the theory explains the persistence of core-periphery relations and external influence, it tends to underemphasise the role of domestic agency, policy choice, and institutional power. This limitation becomes apparent when comparing the DRC with Indonesia, a similarly resource-rich country that, through deliberate state intervention and regulatory reform, has redirected Chinese FDI towards domestic industrial development. As such, dependency theory is essential but insufficient on its own, requiring complementary frameworks that account for internal governance and policy-driven strategies in FDI outcomes.

Enclave Economy

The concept of the "enclave economy," (Gallagher and Zarsky, 2007), can be used to understand how industries dominated by foreign companies often operate in isolation from the host country's local economy. This model is especially relevant in the context of Chinese mining activities across sub-Saharan Africa, where high production outputs frequently occur without delivering substantial local economic benefits. Enclave economies can be broken down into three central characteristics: firstly, a primary focus on export-oriented production with minimal local value addition; secondly, very limited transfer of technology, expertise, or skills to local populations; and thirdly, a marked weakness in integrating operations with domestic supply chains.

Chinese mining operations in the DRC fit this model almost perfectly - they commonly rely heavily on imported machinery, equipment, and technology, significantly limiting opportunities for local industries to participate meaningfully or to develop capabilities in these sectors. Additionally, employment patterns often reflect minimal investment in the local workforce, as many technical and managerial positions within

Chinese-owned enterprises are occupied by expatriate Chinese workers (Yang, 2022). These labour practices contribute to persistent social inequalities by prioritising profit maximisation and cost reduction over local engagement, skill development, and sustainable long-term development objectives. The social and environmental impacts resulting from enclave economic activities in the DRC have also been notably severe. Regulatory frameworks within the country are generally weakly enforced, permitting ongoing environmental degradation, widespread displacement of local communities, and persistently poor working conditions in mining operations (Banza Lubaba Nkulu et al., 2018). Cobalt mining in the DRC, in particular, has gained international notoriety for its associated human rights abuses, such as the prevalent use of child labour, hazardous working conditions, and minimal safety standards (Mancini, 2021). These exploitative practices significantly undermine local social welfare and human rights, perpetuating a harmful cycle of dependency in which the substantial mineral wealth of the DRC does not translate into inclusive economic development or broader social advancement. In addition, the limited local economic integration characterising enclave economies means few spillover benefits are realised in domestic markets. Rather than enhancing the overall economic capabilities of the DRC, these isolated operations consolidate the peripheral position of the country within global commodity supply chains, reinforcing dependency on external market conditions and foreign investment strategies. Consequently, this enclave structure profoundly restricts the DRC’s potential to harness its mineral wealth for comprehensive national economic growth and sustainable socio-economic improvement.

The enclave economy model is therefore highly effective in explaining how Chinese FDI in the DRC has failed to generate broad-based economic development, instead creating isolated pockets of extraction disconnected from local industries, labour markets, and government structures. It captures the mechanisms through which FDI can deepen dependency by bypassing domestic value chains and reinforcing economic exclusion. However, while the model describes the symptoms of economic isolation, it offers limited explanation for the conditions under said enclaves can be avoided or transformed. It does not sufficiently account for cases like Indonesia, where policy interventions have mitigated enclave dynamics by mandating local processing and integration. Thus, the enclave economy model is a useful analysis tool, but must be supplemented with frameworks that explain variation in state response and institutional capacity to shape investment outcomes.

Leading Sector vs. Dual Economy Models

While dependency theory and the enclave economy model concentrate on systemic inequalities, the "leading sector" and "dual economy" highlight the critical influence of host-country policies in shaping the outcomes of foreign investment. These models delineate two distinct trajectories for countries managing substantial foreign investments, particularly in resource sectors. The concepts were originally theorised by Albert O. Hirschman (1958) and W. Arthur Lewis (1954). For the purposes of this paper, the application of these theories will be taken from Camba, Lim, and Gallagher (2022), to better suit the purposes of mining practices in Indonesia and the DRC.

The Leading Sector Model posits that FDI within resource-rich sectors can catalyse broader economic development, provided the host country proactively adopts policies designed to foster local economic integration, ensure technology transfer, and establish robust industrial linkages. A notable example of this approach is Indonesia, which has effectively utilised state intervention to encourage significant value-added processing, particularly in its mineral industries. Indonesia's deliberate strategy included export bans on unprocessed nickel ore and strong local content regulations (Pandyaswargo et al., 2021), compelling foreign firms to undertake domestic refining and processing activities. These policies have resulted in substantial industrial upgrading, infrastructural investments, employment creation, and technological enhancement, as demonstrated by the IMIP project.

The Dual Economy Model, on the other hand, describes how foreign investments may exacerbate structural inequalities in host countries that lack effective and proactive governmental regulation. In this scenario, foreign investments establish isolated extraction and processing enclaves, disconnected from broader domestic economic activities. This separation results in an economic bifurcation characterised by a highly profitable foreign-dominated resource sector and a stagnating, underdeveloped local economy. Countries following this model typically experience minimal economic diversification, limited technological spillovers, and persistent social and economic disparities. In the case of the DRC, governance weaknesses and an absence of robust policy frameworks have significantly contributed to the reinforcement of the dual economy model. Mining operations in the DRC are characterised by minimal local benefits, with profits concentrated among foreign firms and a small political elite. This lack of integration again reinforces existing social and economic inequalities, leaving the broader population with few tangible benefits from the country’s vast resource wealth (Geenan, 2012). The lack of effective governance structures, coupled with political instability and corruption, further impedes the DRC's capacity to harness FDI for meaningful industrial and economic transformation.

Together, the leading sector and dual economy models offer essential insight into the divergent outcomes of Chinese FDI in Indonesia and the DRC. These models help explain why similar external investment flows can yield starkly different developmental results depending on domestic policy choices, regulatory enforcement, and institutional capacity. The leading sector model is particularly useful in addressing the research question, as it highlights how Indonesia was able to steer foreign investment toward national industrial development through targeted interventions such as export bans and local content mandates. Conversely, the dual economy model captures how the absence of such interventions in the DRC has resulted in a fragmented, externally driven economy with minimal local spillovers. However, while these models account for policy-driven variation, they may overlook deeper geopolitical and historical structures of power that constrain policy autonomy - dimensions better addressed by dependency theory. As such, these models complement the broader theoretical framework by showing how state agency and strategic coordination can mediate dependency and reshape the developmental trajectory of foreign investment.

Theoretical Application

These three theoretical frameworks offer complementary perspectives for understanding how foreign direct investment shapes development outcomes in resource-rich countries. Dependency theory establishes the broader structural context, showing how global economic hierarchies perpetuate the subordination of resource-rich nations like the DRC to roles centred on raw material extraction rather than value-added production. The enclave economy framework deepens this analysis through examining the mechanisms whereby foreign investment can operate within a country whilst remaining largely disconnected from the domestic economy, generating limited spillover effects in terms of technology transfer, local supply chain development, or institutional capacity building. The leading sector model offers a more optimistic perspective, showing that strategic state intervention can transform foreign investment from a source of dependency into a catalyst for broader economic development. Indonesia's success in utilising its natural resource wealth illustrates how deliberate industrial policy, including export restrictions on raw materials and local content requirements, can compel foreign investors to contribute to domestic value addition and technological upgrading. The DRC's experience, however, exemplifies the consequences of limited state capacity and strategic coordination: Chinese FDI has largely reinforced existing patterns of resource extraction whilst failing to generate the forward and backward linkages necessary for sustainable economic transformation.

Existing Literature on Chinese FDI, Dependency, and Development in Africa and Southeast Asia

Scholarship on Chinese Foreign Direct Investment in Africa and Southeast Asia has expanded significantly in recent years, reflecting growing global interest in its long-term implications for economic dependency, governance, and development. Much of this literature focuses on resource extraction, uneven development, and the role of state regulation in shaping the outcomes of Chinese capital inflows. In both regions, debates remain polarised: some scholars highlight the benefits of Chinese FDI, such as infrastructure expansion, industrial activity, and job creation, while others emphasise the deepening of structural dependencies and the exacerbation of socio-economic inequalities. In Africa, attention has centred on extractive industries and large-scale infrastructure, with particular scrutiny on how weak regulatory environments and limited institutional capacity affect the developmental impact of Chinese investment. The Belt and Road Initiative has massively expanded China's economic footprint, leading scholars to examine how individual states, including the DRC, have navigated these developments, whether through policy reforms, bargaining strategies, or limited regulatory oversight. In Southeast Asia, countries like Indonesia and Malaysia have become key cases for evaluating how differences in state capacity and industrial policy shape FDI outcomes, with trajectories ranging from strategic integration and industrial upgrading to enclave-style dependency. Another strand of research has also addressed the issue of "debt-trap diplomacy," particularly within the context of BRI-related loans. Critics argue that Chinese lending can burden recipient countries with unsustainable debt, increasing their vulnerability to external influence. Although the deliberate nature of such strategies remains debated, instances in both Africa and Southeast Asia have raised concerns over transparency, fiscal risk, and the erosion of national policy autonomy. Where governance remains weak and regulatory institutions lack coherence, debt dependency creates another dimension of complexity in assessing the developmental impact of Chinese FDI.

Chinese FDI in Africa

Over the past two decades, Chinese Foreign Direct Investment in Africa has expanded rapidly, with a strategic emphasis on resource-rich nations. This surge stems from China's "Going Global" policy in the early 2000s, which encouraged Chinese state-owned and private enterprises to secure overseas assets critical to its industrial and energy needs (Bräutigam & Tang, 2014). Among China's African investment destinations, the DRC has assumed particular importance due to its vast cobalt reserves and other essential minerals. Chinese investment in the DRC since 2005 totalled $17.76 billion as of 2024 (American Enterprise Institute, 2024) and has helped in the creation of infrastructure, and expanded industrial activity in otherwise underdeveloped zones. However, the developmental outcomes of this investment are highly imbalanced. Kaplinsky and Morris (2009) argue that China's investment model in Africa offers merely a subordinate role for African economies in global production, focusing almost exclusively on extractive sectors and reinforcing a primary commodity export model. In this framework, African economies are locked into low-value positions in the global economy, with foreign actors reaping most benefits from the value chain.

Chinese mining ventures in the DRC frequently operate as enclave economies, functioning with autonomous governance structures, building their own infrastructure, and importing most capital goods and technical expertise from China. The benefits are largely externalised, while local linkages remain weak or non-existent. This model generates large profits for Chinese corporations without promoting any meaningful domestic industrial capacity. The Sicomines agreement, a flagship infrastructure-for-minerals deal signed in 2008, serves as a prime example. The deal promised $6 billion in infrastructure investment in exchange for mining rights. However, while mining activities have expanded, much of the promised infrastructure has been delayed, underdelivered, or scaled back, with poor oversight and limited transparency (Maiza-Larrarte & Claudio-Quiroga, 2019; Rapanyane & Shai, 2020). Such arrangements reinforced resource dependence and diminished the state's ability to guide investment toward structural transformation. Far from generating development, Chinese FDI in the DRC has reproduced economic enclaves where the state plays a minimal role in coordinating long-term industrial policy.

One of the most critical barriers to developmental gains from Chinese FDI is institutional weakness. Despite formal laws requiring transparency and local content provisions, enforcement in the DRC remains erratic (Geenan, 2012; Landry, 2018). Chinese investors, often backed by state-owned enterprises almost always have the upper hand in negotiating contracts. The DRC's limited bureaucratic capacity and widespread corruption, leads to investment terms disproportionately favouring Chinese interests. Resource-backed loans tied to future mineral revenues are common in Chinese financing (Malm, 2020) and can result in reduced state control over strategic resources and limit future governments' policy options in nations where resource-backed loans have become common place (Hurley et al., 2019). Weak transparency also undermines public accountability - most Chinese-backed mining projects in the DRC involve little consultation with local communities, and contracts are rarely made public resulting in limited democratic oversight and allowing politically connected elites to capture the benefits instead of the wider population (Anderson, 2023).

Chinese FDI has generated employment, however the quality and distribution of these jobs remain problematic. Many positions are low-wage, insecure, and lack upward mobility. Chinese firms often bring in expatriate engineers and technicians (Yang, 2022), relegating local workers to unskilled or semi-skilled roles (Jenkins & Edwards, 2006). This limits the scope for technology transfer, domestic development and education - key aspects of FDI that can contribute to long-term development. In many cases, Chinese firms bypass formal labour regulations, especially in remote areas where state presence is weak. Work conditions can be poor, and health and safety standards are frequently violated (Mancini et al., 2021). Local communities have raised concerns about displacement, pollution, and water degradation, however these issues receive limited attention due to weak enforcement mechanisms and a lack of corporate accountability. The situation is particularly glaring in artisanal and small-scale mining. These informal operations are rife with labour exploitation, including child labour, inadequate safety measures, and environmental harm (Banza Lubaba Nkulu, 2018). The influx of Chinese middlemen into artisanal and small scale mining areas has increased tensions, lowered prices, and weakened local bargaining power (Geenan, 2012). Despite the economic activity it generates, the social cost of this form of FDI is substantial and insufficiently addressed by either state or corporate actors.

Minimal contribution to technological upgrading is another key limitation of Chinese FDI in the DRC and Africa as a whole. Despite operating some of the largest mining projects in the world, Chinese firms in the DRC consistently show little interest in building local supply chains or supporting domestic industry. Most mining output is exported in raw or semi-processed form (Gulley, 2023), with little to no value-added industries being established locally such as mineral refining, leaving locals with little to no opportunity in career or skills development. While global best practices encourage FDI to be accompanied by skill development, joint ventures, and R&D transfer, these are notably absent in the DRC context. Chinese companies often rely on vertically integrated supply chains that exclude local participation, heavily diminishing opportunities for economic diversification and traps the country in a low-value, high-risk position in the global economy. As a result, rather than generating endogenous development or technological autonomy, Chinese investment in the DRC largely reproduces dependent structures, echoing the patterns long observed in postcolonial political economy (Rapanye & Shai, 2020).

Chinese FDI in Southeast Asia

Southeast Asia (SEA) has become a primary recipient of Chinese FDI since the start of the 21st century and is currently a vital strategic zone for capital, infrastructure, and geopolitical influence. The region's proximity to China, vast resource wealth and growing consumer markets have made it an inevitable destination for Chinese capital. Yet unlike many African countries, Southeast Asian states often exhibit higher institutional capacity and stronger policy regulations - giving them more leeway in negotiating the terms of engagement.

SEA is both a maritime and overland corridor linking East Asia to South Asia and the Middle East. Railways, ports, energy plants, and industrial parks are just some of the major infrastructure projects that have been built. According to the American Enterprise Institute's China Global Investment Tracker, investment in the region has exceeded $100 billion since 2005. Major recipients include Indonesia ($46.62B), Malaysia ($27.34B), Laos ($16.57B), Cambodia ($13.63B) and Vietnam ($13.86B), respectively (AEI, 2024). Most investments are targeted toward sectors like transport, mining, energy, and technology. The variety of recipient country responses regarding Chinese FDI is noteworthy, as some countries have adopted highly unregulated, dependency-prone models akin to Africa. In Cambodia and Laos for example, investments are often rooted in clientelist political networks - bypassing formal regulatory channels in favour of elite patronage, where investment is traded for regime loyalty and resource access, with limited developmental spillover (Strangio, 2020). Other nations have exerted greater control and successfully used foreign investment to improve broader national development strategies, renegotiating or cancelling Chinese infrastructure deals when national interests were threatened. Malaysia's temporary suspension of the East Coast Rail Link (Chow-Bing, 2019) and Vietnam's restrictive approach to Chinese-backed industrial zones reflect a more contested and conditional model of FDI engagement (Chien & Zhang, 2012). Myanmar has also resisted unfair megaproject builds, such as the suspended Myitsone Dam (Chan, 2017) highlighting the significance of local contestation and negotiating power.

One of the critical factors that stands out regarding SEA responses is the presence of semi-functioning or hybrid developmental states. Several countries implement regulatory measures, legal frameworks, and industrial policies that help to shape FDI toward national objectives. Indonesia is the poster child for such success, have implemented downstream mandates and local content regulations to ensure that foreign investment contributes to value addition, employment generation, and infrastructure development (Tritto, 2022). These regulatory strategies have not always been successful or uniformly enforced across SEA nations, but they do represent an optimistic alternative appraoch from the more enclave-style investments found elsewhere in the region. Chinese investors in SEA are often forced to enter joint ventures with local firms, and are required to adhere to industrial zoning rules, often times made to deal with public accountability through civil society pressure or parliamentary oversight (Tritto & Camba, 2023; Tritto & Camba, 2022) - consequences far less common in weaker state contexts. Moreover, SEA states have demonstrated varying levels of autonomy in negotiating investment terms.Infrastructure projects are at the heart of Chinese strategy, so recipient states like Malaysia and Indonesia have sought to integrate them with national development goals, such as Indonesia's National Medium-Term Development Plan (RPJMN) (Nugroho, 2019) or Malaysia's Vision 2020 (Khan etal., 2014). These efforts have, for the most part, successfully integrated FDI within longer-term planning frameworks, resulting in a trickle-down effect that countries without such negotiating power have failed to implement.

In labour terms, Chinese-backed projects in SEA typically generate formal employment opportunities, though concerns persist around wage levels, labour segmentation, and safety. The employment of Chinese expatriates in managerial and high-skilled roles has raised tensions in host countries, especially Indonesia (Rochadi, 2021). However, SEA labour institutions have implemented some regulations regarding selective employment, working conditions, and resolving labour disputes (Warburton, 2024). Technology transfer between China and recipient countries remains limited, yet not absent. Some Southeast Asian governments like Vietnam have negotiated investment terms that include local supplier development, training programs, and technology licensing, especially in electronics and manufacturing sectors (Phi et al., 2024). Although successful technology transfer can be inconsistent, these policy models highlight the orientation of SEA nations toward industrial development, rather than allowing mere extraction or infrastructure provision.

The Belt and Road Initiative

Launched in 2013, China's Belt and Road Initiative is an expansive global infrastructure and trade programme intended to enhance China's economic connectivity and geopolitical reach. Framed officially as a platform for "win-win cooperation," the BRI spans more than 71 countries across Asia, Africa and parts of Europe, focusing on investments in transport, energy, and digital infrastructure (Huang, 2016). The Chinese government presents the BRI as a developmental lifeline for emerging economies, providing capital, logistics, and connectivity where traditional Western donors or lenders may hesitate. Yet, a growing body of research suggests the BRI is also a strategic vehicle for securing China's access to critical natural resources, ensuring supply chain dominance, and expanding geopolitical influence, particularly in resource-rich but institutionally fragile states (Johnstone, 2019; Breuer, 2017; Hurley at al., 2019; Chan, 2018).

China's outbound investment push since the early 2010s has occurred within a context of domestic economic restructuring and slowing returns on traditional growth drivers, as a result, Chinese policymakers sought new external outlets for surplus capital and infrastructure expertise (Huang, 2016). While the BRI was initially intended to be a vehicle for mutual development, Chinese international financing has also functioned as a strategic method for extending geopolitical influence and securing long-term access to critical resources (Huang, 2016; Bräutigam & Tang, 2014). As China's domestic growth has slowed, the government has looked outward to sustain its economy. Investing in infrastructure abroad helps meet development needs in other countries while also keeping China's construction and manufacturing sectors active by absorbing excess capacity (Johnstone, 2019). Not all Chinese investments have led to positive development results. In countries with weak institutions, like Sri Lanka or parts of sub-Saharan Africa, concerns have been raised about rising debt, lack of transparency, and political favouritism (Acker & Brautigam, 2021)

What distinguishes this wave of Chinese capital is its scale, and the asymmetry it can produce in fragile institutional settings, particularly in resource-rich states with weak regulatory institutions. The strategic motivations behind these investments thus need to be understood alongside their developmental rhetoric, especially in countries where policy autonomy is already constrained. Tension rises in Southeast Asia and sub-Saharan Africa, where the developmental promise of Chinese infrastructure is often weighed against its long-term political and economic costs. The BRI can be understood not only as an infrastructure programme, but as a means to construct resource corridors: logistics networks that facilitate the rapid extraction and transport of raw materials from peripheral economies to Chinese industrial centres (Breuer, 2017). Debates persist about the initiatives true intentions; is it truly a model for win-win, large scale development? Or is it simply a way for China to garner geopolitical influence and profit? (Cheng, 2016). Regardless, the BRI represents a 21st-century recalibration of the core-periphery dynamic, one in which global infrastructure increasingly serves China's industrial ambitions.

The BRI in Africa: Corridors of Extraction

Africa, particularly its mineral-rich states, has been a critical focus for BRI investment. Since its formal extension to Africa in the mid-2010s, the BRI has included a wide range of projects - from transnational railways and port developments to industrial parks and energy systems - targeting both landlocked resource basins and coastal trade corridors. The initiative has been promoted as a pathway to development through connectivity and investment. However, in practice, much of the infrastructure has been closely tied to extractive value chains, particularly in states with limited institutional oversight (Breuer, 2017).

The Democratic Republic of the Congo is a prime example of how BRI-linked infrastructure has reinforced patterns of extraction rather than enabling structural transformation. In cobalt-rich provinces such as Lualaba and Haut-Katanga, Chinese-built roads and logistical facilities have enhanced access to mine sites and made export operations easier. These investments have improved the efficiency of mineral supply chains but have done little to promote industrialisation, employment diversification, or local value addition. The Sicomines agreement, frequently cited as a flagship BRI project, was structured as a minerals-for-infrastructure exchange (Jansson, 2011). Chinese companies were granted large-scale mining concessions in return for commitments to public infrastructure development, yet implementation has been uneven. Much of the completed infrastructure has been limited to transport routes servicing mineral logistics, rather than improving domestic connectivity or supporting productive sectors (Landry, 2018). This asymmetry between extraction and development resulted in systemic issues regarding project governance, transparency, and enforcement (Maiza-Larrarte & Claudio-Quiroga, 2019). Despite the scale of Chinese capital inflows, the projects have rarely produced significant technology transfer, domestic procurement, or workforce development. Instead, firms rely on imported equipment, materials, and labour, effectively bypassing local economic structures (Yang, 2022)

These patterns are not unique to the DRC. In Angola, Chinese credit lines backed by oil exports have financed roads and public buildings, but repayment obligations have strained national budgets without spurring diversification (Rapanyane & Mkhatshwa, 2024). In Kenya, the Chinese-funded Standard Gauge Railway connecting Mombasa to Nairobi has faced criticism over the dominance of Chinese contractors and suppliers (Taylor, 2023). Similar concerns have been raised in Ethiopia, where industrial parks constructed with Chinese support are often isolated from local markets and workers (Weldesilassie, 2017) - an unfortunate trend seen anywhere the BRI expands into. While it has indeed channelled unprecedented investment into African infrastructure, the BRI's alignment with long-term development goals remains limited. Projects continue to prioritise strategic and logistical efficiency over inclusive economic transformation, and in nations where regulatory institutions are weak, the initiative does not act as a catalyst for industrial development in the global South, but more as an enabler of resource extraction and soft power diplomacy.

Southeast Asia and the BRI: Balancing Autonomy and Investment

Southeast Asia is a geostrategic cornerstone of the BRI, forming part of both the overland Silk Road Economic Belt and the Maritime Silk Road (Chan, 2018). Chinese investments in the region have surged over the past decade, covering sectors such as high-speed rail, ports, energy plants, industrial parks, and digital infrastructure. However, unlike many African countries, Southeast Asian states have responded to the BRI with greater variation in institutional assertiveness and developmental strategy (Tritto & Camba, 2023). Chinese investment in Southeast Asia accelerated significantly following the launch of the initiative in 2013, although the region had long been a focal point of Chinese economic diplomacy. Prior to that, China's growing economic presence had already been shaped by ASEAN-China free trade agreements, rising commodity demand, and bilateral infrastructure deals (Liu, 2021). What changed with the post-2013 wave was the scale, coordination, and political framing of these investments. Project deals were renegotiated and were increasingly tied to broader diplomatic commitments and national development visions promoted by Beijing. However, as discussed earlier, some nations have approached Chinese capital with caution.

Indonesia again stands out for its strategic and conditional engagement with the BRI. As stated, Chinese investments in Indonesia are heavily concentrated in the nickel and energy sectors and the Indonesian government has implemented a series of regulatory mandates and industrial policies that require foreign firms to process minerals domestically. This approach was formalised through the 2009 Mineral and Coal Law, which mandated in-country value addition (Yuniar, 2021), followed by the suggested ban on unprocessed nickel ore exports also in 2009, which finally became effective in 2020 (Pandyaswargo et al., 2021). Chinese firms were eager to secure long-term access to nickel, and so responded by investing in integrated industrial parks including the IMIP and Weda Bay. These facilities contain smelters, power plants, and supporting infrastructure, providing a level of local integration that many African BRI projects lack. Some serious challenges persist, including labour rights issues and elite capture, however Indonesia has used BRI-linked investment to upgrade domestic industry, generate employment, and build physical infrastructure aligned with its national development plans (Warburton, 2024; Tritto, 2023).

Infrastructure as a Geopolitical Tool

Beyond economic objectives, the BRI also functions as a platform for geopolitical repositioning (Huang, 2016). It provides China with a means to operate outside the influence of traditional Western institutions such as the IMF and World Bank, while simultaneously cultivating transnational alliances through project-based diplomacy. In both Southeast Asia and Africa, this strategy translates into strategic infrastructure footholds in the form of ports, roads, rail corridors, and energy systems that reinforce China's influence in regions increasingly contested by other global powers, including the United States, Japan, and India. Port projects in Malaysia, Indonesia, Myanmar, and Djibouti extend beyond commercial utility and help contribute to a wider geopolitical sphere of influence, giving China secure access to maritime chokepoints, manage supply routes, and project soft power (Kardon & Leutert, 2022; Noorali, 2022). In Africa, Chinese-funded infrastructure ranging from Kenya's Standard Gauge Railway to logistics hubs in Angola similarly reflects strategic calculations around market access, political influence, and long-term resource security. The infrastructure China builds is not only about trade or development, but also about reconfiguring regional power dynamics in its favour (Li et al., 2022). Of course, host governments are not unaware of these implications. Indonesia and Kenya have actively courted Chinese capital, but they have also worked to diversify their development partnerships, incorporating Japan, South Korea, Western donors, and multilateral agencies into their infrastructure strategies (Camba, Lim & Gallagher, 2022; Odhiambo, 2022). The renegotiation of large-scale projects across Africa and Southeast Asia, even when structurally constrained, can build agency within respective nations and the selective nature of engagement (engaging with some projects while revising or rejecting others) shows a desire to manage geopolitical risk while still taking advantage of Chinese investment for domestic development goals.

Debt Trap Diplomacy

The rapid global expansion of China's Belt and Road Initiative has triggered widespread concern over the financial terms and political implications of Chinese development finance. Among the most contested narratives is the notion of "debt-trap diplomacy" (DTD); the idea that China deliberately extends excessive credit to vulnerable countries with the strategic intent of gaining leverage over key assets or policy decisions when these countries are unable to meet repayment obligations. This critique has gained traction in both academic and policy circles, particularly in the context of resource-rich states in Africa and infrastructure-dependent countries in Southeast Asia, where China's influence through financial diplomacy has grown significantly over the last decade (Liu, 2021; Tritto & Camba, 2023). Although Beijing officially rejects such characterisations, the patterns of BRI-linked lending raise serious questions about the sustainability of recipient country debt, and whether or not the recipient nations will fairly benefit from FDI.

The concept of debt-trap diplomacy was popularised by Brahma Chellaney (2017), who argued that China strategically uses debt as a tool to "lure" developing countries into borrowing heavily for projects of questionable economic viability, with the eventual aim of converting financial distress into geopolitical advantage. This model is most famously exemplified by the case of Sri Lanka's Hambantota Port, which was leased to China for 99 years after Sri Lanka was unable to meet repayment terms (Kratz et al., 2019) this deal is widely interpreted as a cautionary tale of Chinese DTD. Recent scholarship, however, has questioned this narrative. Brautigam (2020) rebuts the debt-trap hypothesis, arguing that while Chinese loans have certainly contributed to debt vulnerabilities, there is scant evidence of a coordinated geopolitical strategy to entrap borrowers. In many cases, loan distress arises from host country mismanagement, poor project selection, or broader macroeconomic conditions. Nevertheless, Brautigam notes that China usually avoids formal debt restructuring and instead handles negotiations privately, which allows it to maintain leverage and greater control over the terms.

Africa has emerged as a key site of concern for debt-trap dynamics. Countries such as Angola, Zambia, Ethiopia, and Kenya have become increasingly indebted to Chinese banks, particularly the China Exim Bank and the China Development Bank, through a mix of concessional and commercial loans (Acker & Brautigam, 2021). The DRC, while less indebted in absolute terms, has used resource-backed loans (Malm, 2020) in which future mineral revenues are pledged against infrastructure financing leading to fiscal sovereignty degradation and exposing countries to commodity price volatility. Some might suggest that the Sicomines deal in the DRC is an example of DTD; the deal involved $6 billion in promised infrastructure in exchange for cobalt mining rights. However, while it was hailed initially as a win-win model of infrastructure-for-minerals, DRC governance has remained weak, and future mineral revenues are increasingly tied up in repayment obligations limiting the country's fiscal flexibility and development options (Maiza-Larrarte & Claudio-Quiroga, 2019). Moreover, African governments often lack the institutional capacity to negotiate favourable terms or enforce accountability in large-scale investment projects. As a result, Chinese firms (often state-owned) enjoy considerable autonomy in project design, implementation, and disbursement (Kabemba, 2016) reinforcing concerns that debt is not simply a financial transaction but a political instrument of control.

While much of the debt-trap diplomacy debate has centred on Africa, Southeast Asia provides an instructive set of cases for evaluating China's financial statecraft under the BRI.

In Laos and Cambodia, Chinese finance has deepened strategic dependencies. Laos's $6 billion China-Laos Railway project has raised concerns about fiscal sustainability and asset forfeiture. Laos has already transferred partial control of its power grid to a Chinese state-owned firm as part of debt management efforts (Barney & Souksakoun, 2021). Cambodia, meanwhile, has embraced large volumes of Chinese investment with minimal conditionality. Investment flows in airports, casino infrastructure, and real estate (particularly in Sihanoukville) have been closely tied to elite patronage networks, with limited transparency or developmental oversight (Strangio, 2020). Malaysia on the other hand has demonstrated the ability to avoid the "debt trap" with greater institutional autonomy in managing Chinese debt. In Malaysia, the East Coast Rail Link was suspended and renegotiated in 2019 following concerns over inflated costs and infrastructure problems, resulting in a revised agreement that saw a significant cost reduction and expanded local contractor participation (Chow-Bing, 2019).

The evidence on debt-trap diplomacy reveals an imbalanced, seemingly unfair pattern of investment, but not necessarily a coordinated Chinese strategy to entrap. Rather, the data points toward a mutual production of dependency, in which weak state institutions, elite interests, and financial mismanagement result in unsustainable outcomes. More often that not, China avoids working through international debt relief systems and instead prefers to renegotiate directly with individual countries (Brautigam, 2020). While this approach may be practical from China's perspective, it still gives Chinese lenders more control over the outcome. Kratz et al. (2019) point out that these renegotiations frequently lead to deals where countries hand over valuable assets, offer special access to resources, or make political concessions. There is ongoing debate about whether this should be seen as deliberate coercion or simply a way for China to protect its interests. Either way, the result is the same: China expands its influence, especially in countries that are economically or politically vulnerable. Thus, the debt-trap narrative should not be accepted wholesale, but neither should it be dismissed outright. It is most applicable where institutional governance is weak, where elite capture prevails, and where project selection is politically rather than economically driven. In such contexts, Chinese debt, regardless of how it is framed, becomes a tool of influence, with long-term implications for state sovereignty and government policy.

Research Design

This section outlines the research design used to investigate the divergent developmental outcomes of Chinese foreign direct investment in Indonesia and the Democratic Republic of the Congo. It explains the logic of case selection, the conceptual framework, key hypotheses, time frame, and data sources. Building on the theoretical foundations discussed earlier (dependency theory, enclave economy, and leading sector models) this research seeks to uncover how domestic institutions, governance structures, and policy environments mediate the impact of FDI in resource-rich contexts. The central objective of this research is to examine why Chinese FDI has facilitated domestic industrial development in Indonesia while reinforcing extractive dependency in the DRC. It seeks to explain how institutional variation across both countries influences the outcomes of otherwise comparable flows of foreign investment. The guiding research question is:

“What explains the divergent developmental outcomes of Chinese FDI in Indonesia and the DRC, and how do institutional governance, political economy structures, and industrial strategies influence the impact of foreign investment in resource-rich states?

Hypotheses

To answer this question, the thesis puts forward the following hypothesis:

Institutional governance, political economy structures, and industrial policies are critical to determining whether Chinese FDI leads to industrial upgrading or sustained economic dependency.

This hypothesis builds on the idea that foreign investment outcomes are not determined solely by external investment or global market structures but are primarily shaped by how host countries govern, regulate, and direct such investment. In contexts where institutions are capable, coherent, and enforceable, FDI is more likely to contribute to national development objectives, including technological upgrading, value-added processing, and employment generation. Conversely, in states where regulatory frameworks are weak, enforcement is inconsistent, and elite capture is pervasive, foreign investment is more likely to reinforce enclave economies and structural dependency.

Conceptual Framework and Contextualisation

In order to test the central hypothesis, this research defines and integrates several key concepts that form the basis of its comparative analysis. At the core of the framework is the notion of "context," which refers to the institutional, regulatory, and socio-political environments in which foreign direct investment (FDI) takes place. This includes, first, institutional capacity, referring to the ability of state agencies to formulate and implement policy, regulate markets, and enforce legal standards. Second, it encompasses regulatory coherence, meaning the clarity, consistency, and effectiveness of legal and policy frameworks governing FDI across both national and subnational levels. Third, elite capture is considered a critical factor, referring to the process by which narrow political or economic elites appropriate the benefits of investment, often at the expense of broader public accountability and inclusive development. Finally, policy autonomy and strategic orientation are included as key contextual variables, referring to the state's capacity to set developmental objectives and shape the behaviour of foreign investors through mechanisms such as export bans, local content requirements, and joint venture conditions. Together, these dimensions form the lens through which the divergent impacts of Chinese FDI in Indonesia and the DRC are examined.

These contextual dimensions are treated as independent variables in the comparative analysis. The dependent variable is the developmental outcome of Chinese FDI, applied as either industrial upgrading (domestic value addition, supply chain integration, skill development) or economic dependency (continued raw material export, minimal technology transfer, enclave economic structures).

Case Selection Justification

This study employs a comparative case study design, selecting Indonesia and the Democratic Republic of the Congo as two critical cases of Chinese FDI in the extractive sector. Both countries share key structural similarities: they are rich in strategic minerals (nickel in Indonesia, cobalt in the DRC); they have attracted substantial volumes of Chinese investment under the Belt and Road Initiative (BRI); and they hold significant positions within the global transition to green technologies. These similarities make them suitable for most similar systems design, which aims to isolate the explanatory power of differing institutional contexts. At the same time, the developmental outcomes of Chinese FDI in each country are very different. Indonesia has pursued an increasingly interventionist industrial policy, enforcing domestic processing requirements and using FDI to support broader economic diversification. The DRC, by contrast, remains heavily dependent on raw mineral exports, with Chinese firms operating largely in enclave conditions and contributing minimally to local economic upgrading. This stark divergence enables a comparative investigation into how institutional factors mediate FDI impact.

Time Frame

The analysis covers the period from 2005 to 2024. This time frame captures the emergence and acceleration of Chinese overseas investment under the "Going Global" strategy and the later institutionalisation of the Belt and Road Initiative. It also coincides with a global surge in demand for critical minerals like nickel and cobalt, driven by the clean energy transition, particularly in electric vehicle and battery manufacturing. Focusing on this time span allows for a longitudinal analysis of how FDI strategies, host-country policy responses, and developmental outcomes have evolved over nearly two decades.

Sources and Data Collection

The research is grounded in a qualitative, document-based analysis that draws on a broad range of primary and secondary sources. These include academic literature on foreign direct investment, development theory, and political economy, as well as policy documents, mining legislation, and investment codes from both Indonesia and the Democratic Republic of the Congo. Reports from international organisations such as the International Energy Agency, and the African Development Bank provide comparative data and analytical frameworks. In addition, publicly available data on Chinese investment projects, such as Belt and Road Initiative papers, investment trackers, and official government statements, provides insight into the strategic patterns and focus of Chinese FDI. The study also incorporates NGO reports, and publications from civil society organisations, particularly those focused on labour conditions, environmental impact, and governance accountability. Finally, case-specific studies of the Indonesia Morowali Industrial Park (IMIP) and the Sicomines agreement in the DRC give insights into how Chinese investment works in practice. Using these alongside other sources allows for a well-rounded and context-sensitive understanding of how Chinese FDI interacts with different institutional settings and influences development outcomes in each country.

Background and Case Contexts

The Democratic Republic of Congo

Historical and Economic Context

The contemporary economic relationship between China and the Democratic Republic of Congo is deeply rooted in historical patterns of foreign influence and resource dependency. Historically, the DRC's abundant natural resources have been central to both colonial and post-colonial economic strategies, at the expense of local industrialisation and broader economic development. From Belgian colonial rule, notorious for its intense resource extraction and heinous human rights abuses, through the autocratic regime of Mobutu Sese Seko, the nation's economic model has persistently favoured foreign actors and created a structural dependency on primary commodities (Nzongola-Ntalaja, 2013).

Marysse and Geenen (2009) clearly demonstrate how Sino-Congolese economic cooperation, particularly in the early 2000s, was framed within this legacy of dependency. The Sino-Congolese cooperation agreements have in practice reinforced a historically unequal exchange. Notably, the Sicomines Agreement represented a strategic pivot by the DRC toward China as a major economic partner (Maiza-Larrarte & Claudio-Quiroga, 2019). These agreements, however, have consistently prioritised China's strategic resource acquisition needs, often sidelining meaningful Congolese industrial development and long-term economic autonomy. Kabemba (2016) critically examines how China's involvement evolved from beneficial economic cooperation into a relationship potentially perpetuating structural economic dependency. Kabemba argues that Chinese investments initially appeared attractive to the DRC, especially due to their emphasis on infrastructure development and apparent lack of political conditionality. However, over time, the absence of rigorous governance mechanisms and a clear developmental vision from the Congolese government led to a dynamic where the benefits of Chinese investments accrued disproportionately to foreign actors and a narrow domestic elite. Thus, despite substantial inflows of Chinese FDI the structural weaknesses of the Congolese economy, notably poor institutional capacity and governance, have severely limited any meaningful transformation of these investments into broader economic growth and diversification (Radley & Geenen, 2021).

China's expanding presence has intensified the pre-existing economic governance issues in the DRC, as Chinese economic activities are predominantly extractive, with minimal local value addition or technology transfer (Putzel and Kabuyaya, 2011). Moreover, China's engagement has involved significant state-backed loans and trade agreements with limited transparency, often negotiated directly with Congolese political elites (Kabemba, 2016). This approach has exacerbated governance challenges, including corruption and regulatory capture, undermining the potential for Chinese investments to support genuine economic transformation or improvements in local livelihoods (Radley, & Geenen 2021).
Economically, the dominance of Chinese investments in cobalt mining illustrates a continued concentration of the Congolese economy around resource extraction. Cobalt has become the critical strategic mineral due to its importance in global technology supply chains. However, the substantial presence of Chinese companies in cobalt mining, often operating through joint ventures such as Sicomines, has not led to significant economic integration or industrial upgrading within the Congolese economy. Instead, economic gains have remained largely externalised, reinforcing historical patterns of resource dependency and limiting prospects for meaningful industrial diversification and economic resilience (Jenkins & Edwards, 2006; Gulley, 2023; Brautigam, 2011).

Regulatory and Governance Context

Effective governance and regulatory oversight are crucial in determining whether foreign investments lead to sustainable economic outcomes or perpetuate dependency and exploitation. In the DRC, governance surrounding mining and FDI have historically struggled with severe institutional weaknesses and high levels of corruption, significantly influencing the impacts of resource extraction (Anderson, 2023). A significant illustration of governance shortcomings in the Congolese mining sector is provided by Geenen and Radley (2021), who highlight the active collaboration between foreign corporate interests and the Congolese state, aimed at marginalising locally-driven initiatives for mining mechanisation and capital accumulation. They document a deliberate suppression of domestic efforts to enhance productivity and local economic participation, which is systematically enforced through a combination of legal restrictions, state intervention, and corporate influence. Such practices exemplify how governance failures perpetuate structural inequalities by undermining locally embedded economic development.

Even prior to the cobalt rush in recent years, inadequate governance and regulatory measures in the DRC have persistently intensified human rights concerns in mining operations. Weak institutional oversight has meant that multinational corporations (including prominent Chinese firms) have more than often operated with minimal accountability, further marginalising local communities (Maltazo, 2009). Inadequate governance and lax regulatory enforcement has directly contributed to persistent socio-economic inequalities and exacerbated existing conflicts around resource control. The DRC government's failure to implement effective policies or robust governance structures capable of holding foreign investors accountable to international human rights and ethical standards has been a thorn in the side of the Congolese people even since before the huge demand for cobalt.

Furthermore, the pervasive culture of corruption within the Congolese governance system has consistently undermined the country's ability to negotiate effectively with foreign investors (Anderson, 2023). Political elites and government officials have frequently prioritised short-term financial gains, captured through informal arrangements and personal enrichment, over long-term national development (Kabemba, 2016). This dynamic is often reinforced through opaque bilateral agreements and elite brokerage, which bypass institutional checks and reduce the role of public oversight in investment decisions. The corrupt environment significantly weakens the effectiveness of policy reforms intended to manage resource revenues transparently and equitably, as institutionalised rent-seeking limits the state's capacity to enforce benefit-sharing or accountability mechanisms (Radley & Geenen, 2021). As a result, governance failures hinder sustainable development and perpetuate the DRC's structural economic dependency on foreign actors (Rapanyane & Shai, 2020; Anderson, 2023).

The regulatory and governance context of the DRC's cobalt mining sector is characterised by profound institutional weaknesses, inadequate enforcement of existing regulations, systemic corruption, and minimal transparency. These deficiencies have facilitated the dominance of Chinese FDI without ensuring significant local development, technological transfer, or social improvement. without substantial governance reforms and strengthened regulatory frameworks, the DRC risks continuing its historical trajectory of economic exploitation and structural dependency, particularly in its critical cobalt sector.

Social Context and Human Rights

The failures of governance and regulation in the DRC's mining sector are not merely institutional or economic concerns but also carry direct and long-term consequences for affected communities. Weak enforcement, corruption, and the prioritisation of foreign interests over local welfare have created conditions in which human rights abuses can thrive. The absence of robust regulatory oversight has allowed exploitative labour practices, unsafe working environments, and widespread social exclusion to become systemic features of cobalt production. Rapanyane and Shai (2020) argue that the practices of Chinese companies in the DRC often mirror colonial-era patterns of extraction, privileging profit over ethical obligations. These conditions are compounded by widespread reports of child labour, occupational hazards, and environmental degradation in artisanal and small-scale mining operations (Gulley, 2023; Zeuner, 2018; Mancini et al., 2021). Despite the international scrutiny, enforcement mechanisms remain weak and accountability elusive, allowing such violations to persist unchecked.

This lack of robust governance structures is further explored by Gulley (2023), who provides detailed insights into artisanal cobalt mining in the DRC, stating that artisanal mining, often unregulated, informal, and reliant on precarious labour including child workers, has accounted for a substantial share of cobalt production, particularly during the early 2000s. Despite its scale, the DRC's governance apparatus has consistently failed to formalise or adequately regulate these operations, leading to systemic labour abuses and widespread human rights violations (Mancini et al., 2021). Chinese firms facilitated these outcomes, either by purchasing artisanal cobalt directly or by dominating the export and processing stages, locking these exploitative practices within broader global supply chains (Radley & Geenen, 2021). In the absence of effective regulatory frameworks or enforcement mechanisms, these violations have become systemic rather than exceptional, highlighting the governance failures that perpetuates both social harm and structural dependency (Mazalto, 2009; Banza Lubaba Nkulu et al., 2018).

Geenen and Radley (2021) similarly observe the exclusionary nature of mining policies, whereby artisanal and small-scale miners are systematically marginalised and criminalised by restrictive legal frameworks and hostile policy environments. While the Congolese state has established designated artisanal mining zones (ZEAs), the practical implementation of such policies has largely failed. Most artisanal miners remain outside formal regulation, operating in an insecure environment continually exposed to potential state repression and exploitation by more powerful economic interests (Zeuner, 2018). The suppression of artisanal mechanisation initiatives by local entrepreneurs illustrates the profound disconnect between policy rhetoric promoting domestic economic empowerment and the actual practices favouring foreign corporate interests.

Indonesia

Historical and Economic Context

Indonesia's post-independence history has been heavily shaped by its efforts to manage natural resource wealth within their political landscape. Under the New Order regime (1966–1998), led by President Suharto, the government centralised control over the country's natural resources, particularly oil. This period saw Indonesia's first major resource boom, where windfalls from oil exports were channelled into public investment - especially in infrastructure, rural development, and poverty reduction (Hill & Pasaribu, 2022). Despite widespread corruption and elite capture, macroeconomic management remained relatively stable, helping the country avoid the debt crises that afflicted many other resource-dependent nations in the 1980s. Following Suharto's fall in 1998, Indonesia transitioned to a more democratic and decentralised governance model. Resource management became more fragmented, with local governments playing a greater role. This coincided with a second resource boom, this time led by coal, palm oil, and gas, in a more private sector-driven economy (Garnaut, 2015). While decentralisation brought new problems, including regulatory inconsistency and rent-seeking at the regional level, Indonesia maintained macroeconomic stability and avoided the worst effects of the resource curse (Hill & Pasaribu, 2022)

Indonesia is frequently cited as a flagship case of effective resource governance, particularly in its ability to capitalise on foreign direct investment for broader industrial development. In response to the growing global demand for battery-related metals, the Indonesian government has adopted a more interventionist approach, using targeted policies to channel foreign capital into domestic processing and value addition (Tritto, 2022; Camba, Lim, & Gallagher, 2022). Over the past decade, the country's economic model has shifted markedly, with state authorities asserting greater control over how natural resource investments are structured and implemented. Central to this transformation is Indonesia's significant endowment of nickel, which has been used as a strategic resource capable of driving industrial upgrading and securing a competitive position within global supply chains (Warburton, 2024; Pandyaswargo et al., 2021).

Once heavily reliant on the export of unprocessed minerals, Indonesia undertook a major policy shift with the passage of the 2009 Mining Law, later bolstered by the 2020 enforcement of a ban on raw nickel ore exports. This move was intended to compel foreign firms to engage in domestic refining and industrial development (Pandyaswargo et al., 2021; Yuniar, 2021). One of the most prominent outcomes has been the rise of nickel-centred industrial zones, where Chinese companies have partnered with Indonesian counterparts to establish large-scale smelters and refining operations (Tritto, 2022; Camba, Lim, & Gallagher, 2022). The success of these zones stems from a hybrid regulatory approach, which combines assertive state planning with continued openness to foreign investment (Warburton, 2024). Policies such as value-added mandates and local content requirements have been enforced and the government has also offered incentives like tax breaks and logistical support (Tritto, 2022).

In practical terms, the export ban created an artificial scarcity of raw ore, drawing in Chinese firms that were already integrated into steel and battery supply chains, to build domestic smelting capacity. Camba, Lim, and Gallagher (2022) show how this policy environment turned nickel into a "leading sector," generating forward and backward linkages within the economy. Domestic employment, vocational training initiatives, and regional infrastructure development have all been linked to the growth of nickel processing zones. Yet these outcomes are not without complication - the consolidation of processing capacity into a few large, foreign-dominated parks has restructured the market in ways that may reproduce dependency in new forms (Camba, 2021; Warburton, 2024). Rather than exporting raw materials, Indonesia now exports semi-processed goods through highly centralised and foreign-controlled operations. Smaller firms and local producers such as those in artisanal and small-scale mining have struggled to compete in this new market structure. Their marginalisation is made worse by the oligopsonistic power of smelters, which are able to dictate prices and procurement terms due to limited competition (Camba, Lim & Gallagher, 2022).

The political and distributive consequences of Indonesia's resource strategy warrant close attention. The state has managed to reassert control over key economic sectors,but as Warburton (2024) notes, the gains from this industrial shift are not shared evenly. A significant share of the economic value tends to accrue to politically connected domestic elites and foreign investors, whereas labour protections, environmental safeguards, and opportunities for broader public involvement are often overlooked. In many cases, the emphasis on rapid investment and growth has come at the expense of equitable processes and long-term institutional capacity-building. Indonesia's nickel policy has effectively channelled foreign investment into domestic processing and generated considerable industrial momentum, however, this model also carries risks, particularly in terms of reinforcing elite capture and limiting the diffusion of benefits (Camba, 2021; Tritto, 2023; Warburton, 2024).

Regulatory and Governance Context

Indonesia's regulatory environment for mining and foreign investment has shifted significantly over the past two decades, moving from a liberalised approach to one shaped by selective state intervention. Policies such as the 2009 Mining Law and the later export restrictions on raw nickel in 2020 redefined how international investors could access the country's mineral resources. To avoid discouraging foreign capital, these policies set clear conditions: participation in domestic processing and value addition became non-negotiable requirements for operating in the sector (Yuniar, 2021; Pandyaswargo et al., 2021). This change helped reposition Indonesia from a raw exporter to a processing hub aligned with its national industrial objectives (Camba, Lim, & Gallagher, 2022).

The government's strategy has proven effective in attracting large-scale investment, particularly from China. Investments have grown because of resource availability but also due to a relatively clear regulatory environment supported by tax incentives, permit facilitation, and infrastructure backing (Dinata et al., 2020). These policies have positioned Indonesia as an attractive investment destination whilst ensuring foreign capital directly supports domestic industrial upgrading (Warburton, 2024). Industrial parks like the IMIP demonstrate how strategic state intervention has successfully directed investment towards integrated processing operations. Although these zones frequently function with considerable independence and minimal public scrutiny, they achieve central policy objectives, such as expanding refining capabilities, generating employment, and anchoring mineral value chains within Indonesian borders (Tritto, 2022; Camba, 2021). This approach has produced tangible economic benefits and substantially enhanced Indonesia's position in global battery material supply chains (Dinata et al., 2020). Coordination between central and subnational bodies has been one of the more complex aspects of governance. Decentralisation reforms initially led to policy fragmentation and rent-seeking at the local level (Warburton, 2024), however, recent efforts to reassert central authority over strategic sectors have helped streamline investment procedures and reduce overlap across agencies. Bodies like the Ministry of Energy and Mineral Resources (MEMR) and the Investment Coordinating Board (BKPM) now play more assertive roles in managing approvals and shaping investment flows (Halimanjaya, 2019; Daryanto & Samidi, 2018). Difficulties still persist, particularly around environmental and labour oversight. Large projects tied to elite interests tend to receive preferential treatment, and enforcement of standards can be inconsistent (Warburton, 2024). Smaller domestic actors often struggle to influence decision-making processes. Still, these shortcomings have not undermined the core effectiveness of Indonesia’s regulatory model. The ability to maintain a balance between openness to foreign capital and control over investment outcomes has been critical to the country’s industrial transformation (Camba et al., 2022; Tritto, 2023).

Social Context and Labour

Indonesia’s industrialisation in the nickel sector has had wide-ranging social implications, especially in terms of employment patterns, labour rights, and community infrastructure. The creation of downstream processing hubs has contributed to export growth and industrial upgrading, but it has also triggered significant changes in local livelihoods and social relations. One of the most visible outcomes has been the large-scale absorption of Indonesian workers into formal employment. The IMIP has created over 30,000 jobs, drawing heavily from populations previously dependent on informal or subsistence labour (Dinata et al., 2020). This shift towards formalisation has brought greater income stability and clearer employment structures - features often absent in extractive industries elsewhere in the Global South. However, Labour conditions in Indonesia's industrial parks have drawn criticism over long working hours, limited unionisation rights, and uneven enforcement of occupational health and safety standards. Despite these concerns, the regulatory architecture around labour remains more developed than in many comparable contexts.

A central pillar of Indonesia's labour policy in the mining sector has been the push for workforce nationalisation. Foreign firms are subject to legal obligations requiring them to gradually reduce their reliance on expatriate labour and prioritise the hiring and training of Indonesian nationals (Pandyaswargo et al., 2021), which has supported skill transfer and opened up new pathways for upward mobility within the industrial labour force (Tritto, 2023; Warburton, 2024). The rationale behind this policy is both economic and political: it aims to ensure that the long-term benefits of foreign investment are not confined to capital owners and extend to local populations through workforce development. However, this process has also produced social tensions, particularly around wage disparities and perceptions of exclusion from managerial or technical positions and these frictions have sometimes fuelled anti-Chinese sentiment among local workers (Rochadi, 2021).

Beyond employment, Indonesia's downstream industrialisation strategy has had broader social impacts through improvements in public infrastructure and local service provision. In regions such as Sulawesi for example, the expansion of industrial parks has been accompanied by new roads, port facilities, energy systems, and telecommunications which has enhanced connectivity for both industrial actors and surrounding communities (Tritto, 2023). Community engagement procedures in Indonesia are also more institutionalised than in many peer economies. Resettlement, land acquisition, and environmental impact assessments are subject to legal frameworks that at least provide formal opportunities for grievance and negotiation . These assessments have their limits, particularly in regions with weak local governance or politically sensitive projects, but they do mark a step toward embedding social accountability in resource-led development. Although the Indonesian labour regime remains a work in progress, it operates within a clearer and more enforceable legal structure than is often found in other resource-dependent contexts. National legislation covers minimum wage thresholds, workplace safety standards, and social protections, while decentralised governance creates opportunities for local oversight. Enforcement varies by region and project, but the state retains the institutional capacity to intervene when necessary. Overall, the governance of labour and social impacts in Indonesia reflects a more coordinated and developmental approach to managing the challenges of rapid industrialisation - albeit one that continues to face important equity and enforcement gaps.

Theoretical Application

In the DRC, the continued influence of foreign investors in the cobalt industry, combined with poor regulatory enforcement and the concentration of power among political and business elites, aligns closely with the patterns described in dependency theory. The use of resource-backed loans, non-transparent bilateral agreements, and the near absence of domestic processing all point to an economic model centred on raw extraction rather than structural change. Chinese mining operations in the country exhibit many features of the enclave economy: high capital intensity, minimal local supply chain involvement, and weak social integration. These conditions have made it difficult for the DRC to use its resource wealth as a basis for broader economic transformation.

Indonesia, while not immune to the challenges of external dependence and elite influence, has taken a different path. State interventions in the nickel sector such as export restrictions, domestic processing requirements, and local content rules have influenced the terms of engagement with foreign capital. Nickel has become a strategic entry point for industrial upgrading, linking resource extraction with national economic development. Although there are evident trade-offs in terms of labour conditions, environmental costs, and uneven benefit distribution, the government has exercised a greater degree of control over investment outcomes.

These two cases show that the impact of foreign capital is highly dependent on how it is received by the institutional arrangements of the host country; its regulatory tools, administrative capacity, and policy direction. In the absence of credible enforcement and coordinated governance, as seen in the DRC, investment tends to reinforce existing inequalities and external dependence. Where policy is more coherent and strategically applied, as in Indonesia, foreign investment can support more integrated and locally beneficial outcomes. Together, the frameworks of dependency theory, the enclave economy, and the leading sector approach explain how countries facing similar external pressures can move along very different development paths. The following chapter is a comparative assessment of Indonesia and the DRC, examining the institutional, regulatory, and socio-environmental factors that help explain their divergent trajectories and what lessons, if any, can be carried across contexts.

Comparative Analysis

This chapter compares the structural, institutional, and developmental outcomes of Chinese foreign direct investment in Indonesia and the Democratic Republic of the Congo. Although both nations possess abundant natural resources and hold strategic importance in China's global investment framework, their experiences with Chinese FDI reveal markedly different trajectories in state responses, regulatory effectiveness, and economic transformation. The analysis applies the theoretical frameworks established earlier to understand these divergent outcomes as products of distinct institutional arrangements and political-economic approaches. Dependency theory illuminates the enduring structural constraints both states face within global economic hierarchies, whilst the enclave economy model and leading sector framework provide contrasting explanations for how foreign investment can either perpetuate or challenge existing inequalities. The main focus of this comparison is the developmental outcome of Chinese FDI, which serves as the dependent variable in this study. This outcome is defined in two ways: either as industrial upgrading, which includes value-added production, technology development, and stronger links to global supply chains; or as persistent dependency, where the economy remains reliant on raw material exports, operates in isolation from local industries, and sees little benefit beyond extraction. The comparison unfolds across four key dimensions: regulatory and institutional capacity; industrial integration and value chain participation; labour, environmental, and social impacts; and broader political economy considerations. Through examining these areas, the chapter explores why Indonesia has achieved greater success than the DRC in harnessing Chinese FDI for national development objectives, revealing the critical role of state capacity and strategic policy coordination in shaping investment outcomes.

Regulatory Institutions and Economic Policy

The divergent outcomes of Chinese FDI in Indonesia and the DRC are rooted in the regulatory capacity and strategic direction exercised by each state, not the endowments they recieve. Both countries have faced similar pressures like high external demand for critical minerals, strong investor interest from Chinese firms, and a need to attract capital without sacrificing long-term autonomy. Yet, the way each government has managed these pressures reveals stark institutional contrasts.

Indonesia has approached foreign investment with a structured and conditional framework. Legal instruments such as the 2009 Mining Law and subsequent export restrictions on unprocessed nickel have been used to redirect foreign capital into domestic processing. These interventions were not exceptional responses but part of a longer-term industrial strategy aimed at aligning external financing with national development goals. In contrast, the DRC's mining code reforms, while significant on paper, have rarely translated into enforceable practice. Weak institutional coordination, limited budgetary autonomy, and blurred lines between public and private interests have allowed investment deals to proceed with minimal scrutiny or oversight. Both countries have permitted foreign capital inflows on a substantial scale, yet only one has shaped it into an instrument of industrial development. In Indonesia, mechanisms such as local content requirements, tax incentives tied to value-added production, and streamlined investment approvals have established a clear set of expectations for investors. Government bodies like MEMR and BKPM have helped to maintain a degree of coherence across agencies. While elite networks and informal brokerage persist, the state has retained sufficient leverage to enforce processing mandates and extract commitments to domestic infrastructure (Warburton, 2024; Tritto, 2023). The DRC's experience has been markedly different. Although its 2002 and 2018 mining codes contain provisions on benefit-sharing, transparency, and environmental standards, these have been undermined by poor enforcement and a reliance on opaque, ad hoc negotiations (Calvão et al., 2021). The Sicomines agreement has largely favoured Chinese interests, with infrastructure delivery lagging and public oversight absent (Maiza-Larrarte & Claudio-Quiroga, 2019). Chinese firms have often bypassed formal regulatory channels by negotiating directly with political elites, reinforcing a system in which state institutions play a marginal role in directing investment (Rapanyane & Shai, 2020; Geenen & Radley, 2021). Legal reform alone is insufficient without enforcement capacity and institutional coherence. Indonesia has been able to translate its regulatory framework into an effective industrial policy albeit not perfectly, and not without elite involvement, but with enough consistency to shape investor behaviour. The DRC, meanwhile, illustrates what happens when legal authority exists without credible implementation. The result is a regulatory environment in which foreign firms operate with few obligations beyond those they voluntarily accept, leaving the state with little influence over how its resources are used. Ultimately, both cases show that foreign direct investment does not inherently produce structural change. What matters is the state's ability to regulate, coordinate, and compel investment to serve long-term development aims. Where Indonesia has been able to assert such control, Chinese FDI has contributed to domestic industrial growth. Where that capacity is missing, as in the DRC, it has simply reinforced dependency.

Industrial Integration

The degree to which Chinese FDI has supported industrial integration in Indonesia and the DRC reveals a fundamental difference in how each country has positioned itself within global mineral value chains. Both states are mineral-rich and occupy key roles in China's resource security strategy. However, only one has taken deliberate steps to convert resource extraction into a base for industrial upgrading.

Indonesia has employed regulatory frameworks to connect FDI with domestic production networks. The state has deployed policy instruments including mandatory in-country processing, local content requirements, and licensing conditions tied to downstream development to influence investor behaviour. These measures have spurred the creation of geographically concentrated industrial complexes such as the IMIP and Weda Bay facilities. These zones co-locate smelters, power generation, transport infrastructure, and worker accommodation to optimise logistics and promote operational integration (Tritto, 2023; Dinata et al., 2020). Although foreign investors retain ownership control, the state has preserved regulatory influence, ensuring investment contributes to some domestic capacity development (Warburton, 2024). Indonesia's participation in global nickel supply chains has transformed its position from raw material exporter to processor of battery-grade materials. Whilst the most sophisticated production stages like battery cell manufacturing remain overseas, the domestic location of smelting and refining represents meaningful value chain advancement. Spillover effects, though unevenly distributed, are apparent: vocational training initiatives, infrastructure projects, and increased demand for construction, logistics, and catering services have generated opportunities beyond mining operations (Camba, 2021; Warburton, 2024). These benefits remain concentrated within elite networks rather than broadly shared, yet the structural movement away from raw export dependence is evident. Despite controlling over half of global cobalt reserves, the DRC continues exporting raw or minimally processed cobalt with limited local transformation. Chinese companies dominate operations but, unlike Indonesia, function in isolation from the domestic economy. Procurement, technical expertise, and equipment sourcing occur externally, with processing confined to basic concentration before export (Gulley, 2023; Geenen, 2012). Local enterprises participate minimally in supply chains beyond elementary service provision, with negligible knowledge, skills, or technology transfer occurring.Artisanal and small-scale mining remains a major feature of cobalt production in the DRC, particularly in areas not fully incorporated into industrial concessions. While ASM contributes a significant share of output, it operates largely outside formal value chains, often under precarious and exploitative conditions. Chinese buyers frequently source directly from these sites, reinforcing informal circuits of extraction without linking them to any process of economic upgrading or regulation (Gulley, 2023). In this context, not only is industrial integration absent, but a parallel system of extraction has developed that is even further removed from state oversight or long-term planning. The absence of enforceable local content requirements or downstream investment obligations has allowed foreign firms in the DRC to engage in extractive activity with minimal domestic obligations. Even when commitments to infrastructure or job creation are included in contracts, they are often delayed, underdelivered, or selectively implemented (Maiza-Larrarte & Claudio-Quiroga, 2019). In the absence of state enforcement, value chain integration remains shallow, and spillovers are limited to low-skill employment or site maintenance. While Indonesia has succeeded in using FDI to generate industrial capacity and anchor itself in higher segments of global supply chains, the DRC continues to operate within a structure that exports value and imports dependency.

Labour, Environment, and Social Outcomes

The social and environmental consequences of Chinese FDI highlight the clear differences in how each state manages labour standards and ecological risks. Regulatory enforcement, legal coherence, and the ability to mediate investor behaviour shape the outcomes of industrial growth and the extent to which affected communities benefit or suffer.

Nickel-processing zones have created substantial formal employment opportunities, delivering income security that was previously unavailable in many host regions. Workers benefit from employment contracts, regular wages, and improved health and safety standards. Local hiring targets and comprehensive on-site training programmes have successfully integrated thousands of regional workers into industrial employment, demonstrating the government's commitment to workforce nationalisation (Warburton, 2024). These employment initiatives represent meaningful progress in skills development and job creation. Whilst technical and supervisory roles often remain with foreign nationals during initial phases, training programmes are gradually building local capacity for more advanced positions. Industrial parks have established structured career pathways and professional development opportunities for Indonesian workers. Although regulatory oversight varies across different facilities, the overall framework has created formal employment at scale and provided workers with access to dispute resolution mechanisms previously absent in informal mining activities (Tritto, 2023; Dinata et al., 2020). The employment structure, whilst still developing, demonstrates how strategic policy can channel foreign investment towards meaningful job creation and skills transfer for local communities. Meanwhile, the bulk of cobalt extraction continues to depend on artisanal and small-scale mining, where informal operations take place under highly precarious conditions. Sites are rarely regulated, and labour protections are virtually non-existent. Child labour, physical risk, and wage insecurity are commonplace (Mancini, et al., 2021: Zeuner, 2018). Attempts to formalise or regulate these activities have largely failed, and without support infrastructure or investment in local supply chains, such mining remains disconnected from industrial policy or national development planning (Gulley, 2023).

Environmental oversight in Indonesia's nickel sector is a functioning, albeit imperfect, regulatory framework. The development of integrated processing facilities has required environmental impact assessments, creating formal procedures for monitoring and mitigation (Dinata et al., 2020). Whilst enforcement standards vary and approval processes sometimes prioritise speed over thoroughness, established licensing and review mechanisms provide opportunities for public engagement and environmental safeguards. These procedures, when properly implemented, help balance industrial development with environmental protection (Tritto, 2023). The DRC presents a starkly different environmental reality. Mining operations in cobalt-rich regions frequently operate without meaningful environmental controls. Both industrial and artisanal mining activities have generated severe water contamination, widespread deforestation, and forced community displacement. Research by Banza Lubaba Nkulu et al. (2018) documented alarming concentrations of heavy metals in local water supplies and residents' bloodstreams. Environmental assessments, when conducted, lack enforcement mechanisms. Chinese mining operations typically proceed without community consultation, and displaced populations have no effective channels for addressing grievances or seeking compensation (Geenen & Radley, 2021; Mazalto, 2009). This absence of regulatory oversight has created environmental degradation that has lasted for decades, directly threatening public health and community livelihoods.

The management of social and environmental impacts clearly outlines the fundamental institutional differences between these cases. Indonesia's established legal frameworks and bureaucratic coordination mechanisms create opportunities for oversight and accountability, even when implementation remains incomplete. These institutional foundations enable worker protections and provide channels for addressing environmental concerns. The DRC's weaker institutional capacity, however, allows extractive activities to perpetuate historical patterns of dispossession and ecological degradation with limited recourse for affected communities. Both nations depend significantly on mineral resources, yet their outcomes diverge based on the state's capacity and commitment to regulating the consequences of extraction. Indonesia's regulatory infrastructure, whilst imperfect, provides tools for managing the social and environmental dimensions of mining investment. The DRC's institutional limitations leave communities vulnerable to the negative externalities of resource extraction without adequate protection or compensation mechanisms. This contrast highlights how institutional strength fundamentally shapes whether resource wealth contributes to development or reinforces existing inequalities.

Theoretical Implications

This comparison makes clear that the outcomes of Chinese foreign direct investment clearly depends on how each country regulates access and extraction. It is the strength of legal systems, the consistency of enforcement, and the ability to demand value beyond raw exports that shape how investment operates. Institutions alone do not determine outcomes, however, when they function with coherence and intent, they are able to direct investment toward national objectives.

In the DRC, cobalt is extracted and exported with minimal domestic processing or involvement from local supply chains and labour (Gulley et al., 2019). Although regulations exist, they are poorly enforced, and oversight is often exchanged for short-term political or financial advantage. Foreign investors and domestic elites benefit disproportionately, while affected communities absorb the environmental and social costs. The DRC can certainly be described as an enclave economy where cobalt extraction occurs in isolation from the broader national economy, offering limited opportunity for structural transformation. Indonesia has approached foreign investment but by setting terms that links their resource extraction to industrial development. Through mandates on mineral processing, licence requirements tied to downstream activity, and the consolidation of operations within industrial zones, the state has redirected investment into sectors seen as nationally strategic (Camba etal., 2021; Tritto, 2023). Nickel, has become the vehicle through which industrial upgrading can occur and Indonesia has built a successful leading sector model capable of generating linkages across supply chains. Foreign capital is still primary, and local firms face some distinct disadvantages, but the policy direction has created more consistent coordination between investment and developmental priorities. Dependence might have been deepened through raw exports, but Indonesia has used selective intervention to tie resource wealth to a broader industrial strategy, albeit one marked by uneven benefits. Theories of dependency, enclave development, and leading sectors assist in the understanding these differences. More importantly, they show that what separates extraction from development is not investment itself, but the institutional capacity to influence what that investment turns into. When fragmented or easily bypassed, poor governance makes it possible for extractive relationships to persist, but when it is coordinated and backed by policy intent, there is ability to shape outcomes.

While the theoretical frameworks employed are highly effective in explaining the divergent outcomes of Chinese FDI in Indonesia and the DRC, this study also reveals their limitations and contributes to their refinement. Specifically, the empirical analysis shows that dependency and enclave dynamics are not inevitable consequences of foreign investment but they are heavily dependent on institutional agency, regulatory enforcement, and the strategic use of policy instruments. This shows the importance of state action despite structural constraints which is a nuance often underexplored in classical dependency theory. The Indonesian case demonstrates that elements of the leading sector model can operate within political economies marked by elite capture and partial regulatory capacity, suggesting that successful industrial outcomes do not require perfect institutional conditions, but more importantly strategic coherence and political will. Thus, this thesis contributes to existing theory by offering a more dynamic, context-sensitive understanding of how institutional variation mediates the developmental impact of FDI in resource-rich countries. It also highlights that the relationship between extractive, industry-based dependency and transformative development is more flexible than traditional theories often suggest, depending less on external influence alone and more on how government and institutions navigate, negotiate, and repurpose those relationships.

Limiting Factors for Policy Transferability

Attempts to replicate Indonesia's industrial policy framework in the Democratic Republic of the Congo must contend with a range of structural constraints. While Indonesia has demonstrated the ability to direct foreign investment toward value-added production, the institutional and political conditions that made this possible are not easily found elsewhere. This section examines the limits of policy transferability across four dimensions: institutional capacity, geopolitical context, cultural and societal dynamics, and their combined impact on feasibility.

Institutional Capacity and Corruption

What gives Indonesia some control over the terms of foreign investment is its legal framework and its ability to act on it. Coordination between ministries, legal follow-through, and bureaucratic continuity have made it possible to enforce downstream processing rules and hold foreign firms to basic conditions (Camba, 2021; Dinata et al., 2020; Tritto, 2023). This capacity is uneven, and influence from elite networks is still strong, but there is still enough institutional coherence to sustain long-term strategies across electoral cycles. In the DRC, much of this institutional groundwork is missing. Laws exist, and policy ambition is not entirely absent, but implementation repeatedly collapses under the weight of weak enforcement, fragmented authority, and the dominance of informal systems of power (Anderson, 2023). Ministries operate in silos, local and national levels compete rather than coordinate, and compliance is often negotiable. Regulatory agencies, where they function at all, are chronically underfunded and politically constrained (Calvão, 2021).

Corruption is unfortunately and inherent part of how the system often works. Resource concessions, permits, and contracts are routinely filtered through patronage networks, distorting incentives and undermining public trust. Rent-seeking is not limited to the political elite but extends through layers of administration, making it difficult to build the kind of professional bureaucracy that could support structural reform (Kabemba, 2016; Radley & Geenen, 2021). Indonesia has not eliminated corruption, nor has it avoided elite capture. But it has been able to manage these pressures through a mixture of decentralised enforcement, targeted regulatory interventions, and selective institutional insulation (Warburton, 2024). There is a functional distinction between formal and informal channels. In the DRC, these lines are blurred to the point that formal rules often lose meaning in reality. Any effort to adapt Indonesia's policy model to the Congolese context must begin with the institutional question. Without credible enforcement, even the most technically sound reform will struggle to shift outcomes. Targeted capacity-building in specific agencies, better resource allocation, and greater autonomy for regulatory bodies could offer a starting point. These would not fix the system overnight, but they could create limited pockets of functionality which may be the most realistic foundation on which to build.

Geopolitical Dimensions

Room to manoeuvre in shaping investment terms is partly a function of how a state is positioned in the global economy. Indonesia benefits from its size, strategic location, and diversified partnerships. It has engaged with multiple sources of capital and has not tied its industrial development to a single geopolitical patron. This has allowed it to negotiate investment terms with a degree of conditionality, and to recalibrate relationships when necessary (Tritto, 2022). Chinese investment in the nickel sector, while extensive, has been balanced against other regional and international partnerships. The DRC faces a very different international landscape in which, despite its mineral wealth, its global position remains peripheral. Investment is routed through bilateral deals that give more leverage to external actors. Chinese-backed infrastructure and mining projects frequently come with few enforceable obligations beyond the initial agreement, and once signed, the state has limited means to influence their direction (Kabemba, 2016; Maiza-Larrarte & Claudio-Quiroga, 2019). There is little redundancy in the system and if one partnership fails or underperforms, alternatives are not easily available.

External actors also shape what is possible within the domestic policy space. In the DRC, the policy space available to pursue long-term industrial development is shaped as much by external expectations as by internal capacity. Donors and financial institutions have continued to promote liberalisation, fiscal restraint, and procedural transparency. While these agendas may support governance reforms, they also tend to discourage the kinds of state-led industrial interventions that have proven effective elsewhere, including in Indonesia (Tritto, 2023). Indonesia has maintained a more flexible stance by engaging with multiple international partners and by retaining discretionary tools to shape investment flows. Export bans, domestic processing mandates, and local content requirements have been applied not from a position of isolationism but from one of selective openness (Warburton, 2024). The ability to negotiate on these terms stems not only from Indonesia's strategic geography but from the state's internal coordination and willingness to set clear conditions for foreign investors.

Rebalancing this external dependency requires institutional reform that enhances the state's ability to act strategically. Transparent and coordinated negotiation processes and clearer articulation of national development priorities are necessary. Agreements with foreign investors should be subject to independent review, parliamentary oversight, and public disclosure to shift bargaining dynamics over time. Indonesia's advantage lies in how it has used institutional tools to navigate global economic imbalances. For the DRC to expand its policy space, internal coherence must improve. Without that, external relationships will continue to be a source of constraint rather than opportunity.

Cultural and Societal Aspects

Public perceptions, historical memory, and lived experience shape how communities respond to reform. In Indonesia, central authority has long operated through a framework of top-down governance, shaped by the legacy of the New Order regime and reinforced by nationalist economic narratives (Warburton, 2024). While public trust in institutions is not uniform, there is a degree of acceptance when state interventions are seen to align with national development goals. Even when control is concentrated among political and business elites, the state retains a capacity to steer policy narratives and absorb local resistance allowing the nickel sector to thrive, becoming a point of pride for the Indonesian people. In the DRC, the story is tragically different. Years of conflict, corruption, and institutional neglect have fostered deep distrust between citizens and the state (Kaiser & Wolters, 2013). Efforts to regulate the mining sector or formalise artisanal activity are often considered to be methods by which the political elite can generate profit rather than build development. The informal economy is a primary means of survival for many (Banza Lubaba Nkulu, 2018) and attempts to bring it under state control, especially without material benefits, are likely to provoke resistance or be quietly ignored (Mancini et al., 2021). Working conditions in the informal mining sector remain very dangerous. Workers operate without safety equipment, in unstable pits, or in proximity to toxic materials. Child labour is widespread in cobalt-rich areas, and the absence of viable alternatives has normalised these risks for entire communities (Zeuner, 2018).

Imposing technical reforms without local legitimacy will not shift behaviours or expectations. Community engagement, participatory design, and benefit-sharing mechanisms are necessities. Where trust in state actors is low, any attempt to introduce industrial or regulatory discipline must begin with concrete improvements in livelihoods, not abstract promises of long-term gain. Cultural narratives also shape how foreign investment is interpreted. In Indonesia, the state has used international partnerships as a route to sovereignty over resources and industrial advancement. This framing, while contested, has been effective in linking foreign capital to nationalist goals (Tritto, 2022). In the DRC, external investment is more often associated with loss, be it of land, livelihoods, or autonomy. Changing this perception would require a serious restructuring of how policies are communicated and who is involved in shaping them. Rebuilding the relationship between state and society is essential to whether reform takes hold at all.

Reflections on Feasibility

The problems that the DRC face are multifaceted, involving political and institutional dysfunction that creates powerful resistance to change. Regulatory frameworks remain incomplete, authority is scattered across competing institutions, diplomatic influence is limited, and citizens harbor deep skepticism toward government initiatives (Hanai, 2021). These weaknesses create a vicious cycle where each problem amplifies the others, making even small-scale reforms extraordinarily difficult to implement. This nature of the DRC's challenges is discouraging for the near term, however, history shows examples of nations that have managed to break free from similar cycles of institutional failure and stagnation - Indonesia being a prime case. After decades under authoritarian rule, the country successfully restructured its institutions and governance systems allowing their economy to flourish and national pride was instilled. Indonesia’s success in restructuring governance postauthoritarian rule despite elite interests, raises important questions about how institutional reform occurs under structural constraints. The answers to this puzzle suggests that targeted state intervention, even in imperfect democracies, can redirect FDI towards national development. Change is possible, but the DRC must figure out what conditions might eventually create an opening for meaningful institutional reform. The path forward lies in identifying and exploiting pockets of opportunity. The state apparatus is uneven and certain agencies maintain stronger capacity whilst particular provinces benefit from more robust administrative traditions or greater political stability (Hanai, 2021). It's in these areas that change is more likely to occur.

Reform can happen if circumstances allow for clearer contractual terms, enforce compliance mechanisms, basic supervisory structures are built and corruption is minimised. The strategy should concentrate on sectors where regulation remains achievable and where social benefits can be accessed by local populations. Such an approach demands fundamental changes to how foreign investment operates and the DRC must move away from shadowy bilateral arrangements towards agreements that prioritise transparency and establish clear divisions of responsibility. Community engagement must be reconceptualised around genuine participation rather than resource extraction and it is imperative to create structures where local voices carry weight in decision-making processes that affect their livelihoods and environments. If the DRC and successfully integrate lessons from Indonesia the potential for progress is high. Political environments can change quickly, regulatory capacity can be strengthened through targeted support, and partnerships can be constructed provided there is strong accountability. There is hope, but the path to change is more than difficult. If incremental change can take place, the DRC might discover a path suited to its own context and ambitions.

Policy Recommendations

The comparative analysis in previous sections has highlighted Indonesia's success in regulating Chinese FDI to support domestic industrialisation. While imperfect, the model demonstrates the developmental potential of state-led regulation, territorial planning, and investment conditionalities. For the DRC, where FDI has largely reinforced enclaves and elite brokerage, the transfer of policy instruments must be tempered with caution. This chapter identifies the most critical and actionable policy reforms, drawing from Indonesia's experience and supplemented by targeted strategies tailored to the Congolese context.

Regulatory and Institutional Reforms

Indonesia's ability to extract long-term value from foreign investment rests, in part, on clear and enforceable regulation. Laws such as the 2009 Mining Law and the 2014 ban on raw mineral exports set conditions that investors had to meet in order to access resources, and they were backed by state agencies capable of monitoring compliance (Pandyaswargo,2021; Yuniar, 2021). These interventions were not uniformly enforced, but they gave shape to a development strategy where the state did more than observe from the sidelines. The absence of a comparable model in the DRC has made it difficult to manage investment in ways that support national development. A ban on unprocessed cobalt exports could become a powerful tool to encourage domestic refining, but only if it is part of a broader effort to rebuild administrative capabilities. Enforcement depends on law, but also on systems that can act on it. Licensing, inspection, and dispute resolution must be coordinated rather than fragmented across agencies. One possibility would be to establish a regulatory body with the sole mandate of managing investment in the mineral sector. Such an agency would need autonomy from political interference, and must have a clear relationship with all key parties. Without this kind of coordination, policy signals are easily diluted.

Reducing corruption must be central to any regulatory reform effort. Informal payments, rent-seeking, elite brokerage, political interference, and the manipulation of contract terms have made it near impossible to enforce national priorities or maintain public trust (Rapanyane, 2022; Dasilva, 2022; Anderson, 2023). Efforts to reduce corruption in the DRC have been intermittent and limited in scope. Institutions such as the Agence de Prévention et de Lutte contre la Corruption started in 2020 and have been created to monitor and address corruption, while donor-backed initiatives have encouraged transparency in licensing, procurement, and revenue reporting. Reforms to the Mining Code and commitments under international partnerships have included anti-corruption clauses, and civil society actors have played a role in monitoring extractive sector governance. Despite these initiatives, their effectiveness has been modest - investigations are rare and enforcement remains selective. As Anderson (2023) explains, corruption in the DRC is a mechanism through which political power is distributed and maintained. Patronage networks continue to shape how contracts are awarded and how institutions function. Without changes to this underlying political logic, technical reforms are unlikely to produce sustained impact.

Reforms should focus on limiting discretion at key decision areas: setting fixed approval criteria, and requiring public disclosure of contract terms and revenue flows. Institutions responsible for oversight must have legal protection from political retaliation, and audits should be routine, independent, and made public. Anti-corruption commissions, civil society monitors, and parliamentary committees all have a role to play in making this system work. Future agreements with investors should move away from informal negotiation and include fixed provisions on domestic processing, employment, and infrastructure. These should be legally binding and subject to review. Civil society groups, parliamentary committees, and independent audit bodies could be empowered to track compliance. None of these reforms require perfect governance to begin. But they do require clarity, consistency, and a willingness to act.

Industrial and Economic Strategy

Where governments have successfully combined spatial planning with coordinated policy incentives, industrial development has gained traction. Concentrating processing infrastructure within defined areas could create opportunities to anchor foreign investment to domestic production objectives. Strategic use of tax incentives and targeted infrastructure development can establish conditions that encourage firms to move beyond short-term resource extraction towards sustained industrial engagement. Indonesia's deployment of Special Economic Zones (SEZs) illustrates how territorial concentration can attract long-term investment in mineral processing activities (Bräutigam & Tang, 2014; Warburton, 2024). These zones have successfully integrated joint ventures, energy infrastructure, and logistics services within coherent regulatory frameworks. They demonstrate how state-coordinated approaches can redirect investment away from raw material exports towards value-added production (Camba et al., 2022). Indonesia's experience with Chinese capital in nickel processing particularly highlights how regulatory frameworks can be structured to capture greater value from mineral resources (Tritto, 2022). The copper and cobalt deposits concentrated in Haut-Katanga and Lualaba provinces represent among the few locations in the DRC where such a focused industrial strategy might be viable. Creating dedicated zones for mineral processing would enable state authorities to establish more precise investment terms. Access to these zones could be conditional upon commitments to refining industry development and the employment of local people.

To avoid reproducing the failings of isolated bilateral deals, investment within these zones should be structured through joint ventures that include Congolese public or private entities if possible, to allow domestic firms to take part in management, access financing, acquire knowledge and develop skills. Development banks, donor support, and technical assistance can help build this infrastructure, but they will need to work through Congolese institutions, not around them. Unfortunately, industrial zones are not a silver bullet, but when paired with enforceable conditions and a broader development strategy, they can provide a foothold. When production occurs domestically under rigorous supervision, economic benefits stand a better chance of being retained within the country.

Social and Environmental Governance

Mineral sector governance must extend beyond regulatory frameworks to encompass trust-building, livelihood improvement, and mitigation of mining's harmful impacts on communities and environments. Mining operations in the DRC are perceived as wholly extractive (economically, socially, and environmentally) meaning policy initiatives will lack credibility unless they produce tangible improvements (Mazalto, 2009; Geenen, 2012). Labour conditions demand immediate attention, as throughout the cobalt industry, especially within ASM, exploitative and hazardous working practices are par for the course. Children remain employed in mining operations without adequate protection, educational opportunities, or regulatory oversight (Banza Lubaba Nkulu et al., 2018). Tackling this crisis requires unambiguous national action to eliminate child labour from every stage of the supply chain. Enforcement strategies could also be coupled with social programmes: educational access and fundamental worker protections being the most important.

Formalising ASM is a crucial component of this transformation and registration processes, cooperative structures, and systematic training programmes can establish pathways towards safer, better-regulated mining practices (Geenen, 2012; Radley & Geenen, 2021). Financial and technical support should be available to miners prepared to make this transition, with processing facilities providing structured purchase agreements that integrate informal operators into national development frameworks. Community development agreements require legal enforceability and must be developed through meaningful consultation with affected populations. Such agreements should guarantee employment opportunities, infrastructure investment, and benefit-sharing arrangements. Complaint procedures must be transparent, accessible, and capable of producing substantive remedies (Mancini et al., 2021).

Environmental reform requires equivalent urgency. Any expansion of mineral processing must avoid reproducing the environmental destruction that has characterised previous extractive periods. Environmental impact assessments must undergo independent review, be made publicly available, and carry enforceable penalties when breached. Oversight bodies require structural independence. Establishing a national monitoring authority with access to real-time operational data and clear mandates to inspect, report, and impose sanctions without political interference would constitute a fundamental reform. Improving mining governance is a moral and political imperative. Until children are no longer working in the dust of unregulated pits, until environmental damage is addressed at its source, and until communities are treated as partners rather than collateral, the sector will not have the legitimacy it needs to be part of a national development strategy.

Conclusion

This thesis has aimed to assess whether the institutional strategies employed by Indonesia to harness Chinese FDI for domestic development can inform a viable pathway for the Democratic Republic of the Congo. This paper highlights the structural depth of the challenges faced by the DRC yet it also shows that trajectories are not predetermined. Even marginal policy shifts, when strategically targeted and institutionally embedded, can lay the groundwork for more meaningful transformation.

From a theoretical standpoint, these findings confirm the continued importance of dependency theory and enclave economy models in analysing resource-driven development within structurally subordinated nations (Frank, 1967; Gallagher & Zarsky, 2007). The DRC exemplifies the classical dependency pattern: an externally oriented economy characterised by inadequate state capacity, foreign control over strategic industries, and minimal connections to broader national development objectives. Indonesia's trajectory, whilst still operating within global capitalist hierarchies, demonstrates the value of the leading sector framework in explaining how state intervention can create areas of relative autonomy (Camba et al., 2022). Through channelling investment towards downstream processing and imposing conditions on resource access, Indonesia has shown that dependency relationships can be partially offset, even if complete transformation remains difficult (Tritto, 2022). Nevertheless, policy transfer to the DRC is incredibly difficult. Weak regulatory frameworks, pervasive corruption, fragmented state authority, and constrained geopolitical leverage limit the viability of adopting Indonesia's policy mechanisms in the immediate future (Rapanyane & Shai, 2020; Anderson, 2023) Social and cultural factors including the prevalence of artisanal mining and widespread scepticism towards centralised governance outline additional implementation challenges (Geenen, 2012; Radley & Geenen, 2021; Gulley, 2023).

Yet pessimism must be tempered. Policy is not static. Institutional and political change can occur, particularly when catalysed by shifting international dynamics. The growing interest of the United States (Baskaran, 2025) and the weakening of DRC-China relations in the cobalt sector (Byamungu, 2022) could become a critical juncture. If approached strategically, this attention could diversify investment sources, improve the DRC's bargaining position, and inject resources into much needed regulatory reform. The global push for secure and ethical supply chains offers a rare opportunity to tie foreign investment to stricter social and environmental governance standards. Moreover, history shows that structural transformation often begins with modest, context-sensitive reforms. Even within a weak institutional environment, targeted programmes such as regulated artisanal mining zones, joint-venture SEZs, or community benefit-sharing frameworks can demonstrate proof of concept and gradually expand policy space. These arrangements are not transformative on their own, but they could hold the potential to generate change in the DRC.

Generalising from the Indonesia-DRC comparison, the broader implication is that state capacity matters deeply, but it can be cultivated over time. In weaker states, policy must incorporate tools for social negotiation and gradual scaling. While this does not mean abandoning national ambition, it does mean recognising the long-term nature of institutional change. Ultimately, the goal is not to impose a development model, but to develop one that understand the harsh realities while taking advantage of global opportunities. Indonesia's experience offers tools and insights, not templates. For the DRC, the path forward lies in leveraging its strategic assets, engaging in large-scale reform, and committing to the safety and development of its people. The road ahead is fraught with uncertainty, yet hope remains.

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