CHINA'S BELT AND ROAD INITIATIVE IN AFRICA: BETWEEN INFRASTRUCTURE GAINS AND DEBT RISKS

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ABSTRACT: China's Belt and Road Initiative (BRI), launched in 2013, has become one of the most consequential frameworks shaping Africa's infrastructure and development trajectory. With more than fifty African states participating, the BRI has facilitated large-scale projects in transport, energy, ports, and digital infrastructure, offering opportunities to close Africa's long-standing connectivity gap. Proponents argue that these investments represent a transformative "development promise," stimulating trade, industrialization, and regional integration while providing alternatives to Western aid and financing models. However, growing concerns have emerged regarding debt sustainability, transparency, and strategic dependency. Many BRI projects are financed through Chinese loans, raising the risk of debt distress, as seen in Kenya's Standard Gauge Railway and Ethiopia's rail projects. Critics warn that ambiguous contracts, high repayment burdens, and project underperformance could reinforce structural dependency, limiting African policy autonomy and creating potential avenues for Chinese strategic leverage. At the same time, evidence suggests that outcomes are not uniform: several states have renegotiated loan terms, diversified partnerships, and leveraged BRI projects for local development. This study examines the BRI in Africa as a dual-edged phenomenon, highlighting both its contributions to infrastructure development and its potential to create debt vulnerabilities. This study adopts a qualitative research design that relies on secondary data analysis. The focus is to examine how China's Belt and Road Initiative (BRI) in Africa simultaneously offers development opportunities and creates debt-related vulnerabilities. It argues that the developmental benefits of the BRI will depend largely on the fiscal prudence, transparency, and negotiating capacity of African governments in future cooperation.

Keywords: Belt And Road Initiative, China-Africa Relations, Infrastructure Development, Debt Dependency

INTRODUCTION

Since its launch in 2013, China's Belt and Road Initiative (BRI) has rapidly expanded into Africa and become a central feature of the continent's infrastructure and investment landscape. By the mid-2020s, the initiative encompassed scores of African states and hundreds of projects, ranging from railways and ports to energy and digital infrastructure (Green Finance & Development Center, 2024). The scale of engagement of China in Africa has proved substantial in recent years. According to Choi (2024) Chinese construction contracts and investment flows tied to the BRI have reached tens of billions of dollars annually, contributing to a cumulative stock of infrastructural commitments that runs into the hundreds of billions. Oladeji (2023) argues that BRI has to a large extent addressed the long-standing and critical gap in Africa's infrastructural needs. Big projects such as railways, ports, highways, and power plants can reduce transport costs, facilitate trade, and facilitate industrialisation when effectively integrated with domestic development strategies. For many African governments, Chinese finance and engineering capacity have made it possible for large scale projects that traditional donors or private capital would not have funded at large-scale projects that traditional donors or private capital would not have funded at a comparable speed or scale. This "development promise" is therefore an important part of how African policymakers and people assess the BRI's value (Green Finance & Development Center, 2024).

However, despite the many gains of BRI in the African continent, many analysts also raise significant concerns about fiscal sustainability, transparency, and strategic dependency on China. Empirical studies show that China became, by the late 2010s, among Africa's largest official creditors; many loans were extended as project-tied finance from Chinese policy banks and commercial lenders. By the end of 2020, sub-Saharan Africa's public debt to China was estimated in the tens of billions of dollars, a non-trivial share of the region's external liabilities and public debt stock. These exposures produced political and economic anxieties in capitals and among international creditors about debt sustainability and renegotiation needs (International Monetary Fund, 2022; Chatham House, 2024). Some of the high-profile projects constructed across Africa highlight the mixed outcomes and the source of controversy. For example, Kenya's Standard Gauge Railway (SGR), financed largely with Chinese loans, has become a focal point in debates about commercial viability, sovereign repayment burdens, and economic returns. The railway's high upfront cost and lower-than-planned cargo volumes have intensified concerns over whether the project delivers commensurate long-term development benefits and whether loan terms and repayment risks were adequately managed (World Bank & AidData, 2015). Similar debates on the viability of some of these mega projects in Ethiopia, Nigeria, and beyond, where loan terms, local procurement, and future revenue projections remain contested.

China's establishment of its first overseas military base in Djibouti (2017) and expanded port and logistics investments have prompted debate about whether infrastructure finance can translate into strategic leverage. Roberts (2023) argues that heavy infrastructure lending, ambiguous contracting, and security partnerships could create "debt-dependency" issues in which host states face constrained policy space or strategic obligations that they would not otherwise accept. On the other hand, Okeke (2024) urges caution against simplistic "debt-trap" narratives, noting renegotiations, debt relief episodes, and African agency in shaping deals. The empirical reality appears complex: the BRI can and has delivered rapid infrastructure gains, but without clear transparency, prudent fiscal management, and diversified partnerships, these gains risk producing unsustainable liabilities and strategic vulnerabilities for some African states (Congressional Research Service, 2023; Chatham House, 2024). This study therefore, examines the BRI in Africa as a dual-edged phenomenon: a source of urgently needed infrastructure and economic opportunity on one hand, and a potential avenue for mounting external obligations and political dependency on the other. By combining quantitative data on Chinese finance with country-level case studies and document analysis of loans/contracts and outcomes, the study aims to move beyond polarized narratives and provide a balanced assessment of when and how BRI projects contribute to sustainable development versus when they create debt-related risks.

Statement of the Problem

Africa faces a significant infrastructure gap that has long constrained its economic growth. Estimates by the African Development Bank suggest that the continent requires between US$130-170 billion annually in infrastructure financing, with a financing gap of US$68-108 billion (AfDB, 2018). Against this backdrop, China's Belt and Road Initiative (BRI), launched in 2013, has emerged as an alternative framework for mobilizing capital, technology, and expertise to address these deficits. Through the BRI, China has financed and constructed railways, highways, ports, power plants, and digital infrastructure across Africa, raising hopes for the continent's development. However, the growing scale of Chinese loans has sparked concerns about debt sustainability, transparency, and sovereignty. Many African countries, such as Kenya, Ethiopia, and Djibouti, have accumulated significant debt linked to BRI projects, often under ambiguous terms that complicate parliamentary oversight and public accountability. High-profile cases, such as the Kenya Standard Gauge Railway, illustrate the challenges of financing projects whose economic returns fall short of expectations. Critics argue that this dynamic risks locking African states into a cycle of debt dependency, where repayment obligations can be burdensome. The problem, therefore, lies in the paradoxical nature of the BRI in Africa: while it offers an unprecedented opportunity to bridge infrastructure gaps and stimulate economic transformation. On the other hand, exposes participating states to heightened debt vulnerabilities and potential strategic dependency. This tension raises a central question: Does the BRI represent a sustainable development pathway for Africa, or does it create new forms of external dependency that undermine long-term sovereignty and economic resilience?

Objectives of the Study

The main objective of this study is to critically examine the impact of China's Belt and Road Initiative (BRI) on Africa's development trajectory, with particular attention to the balance between infrastructure gains and debt-related vulnerabilities.

The specific objectives are to:

1. Assess the extent to which BRI projects have contributed to infrastructure development and economic growth in Africa.
2. Analyse the debt implications of Chinese-financed BRI projects for African states, including issues of sustainability.
3. Examine the implications of BRI financing for African sovereignty and policy autonomy.
4. Provide policy recommendations for African governments, and development partners on how to leverage the BRI for sustainable development.

Significance of the study

The study contributes to the literature on China-Africa relations, international political economy, and development studies. While much of the existing scholarship presents polarized views of the study adopts a balanced perspective that interrogates both opportunities and risks. Examining multiple country experiences it provides insights into how infrastructure financing interacts with debt sustainability, sovereignty, and African agency. For African policymakers, the study offers evidence-based analysis to inform decisions on engaging with Chinese financing mechanisms. It identifies best practices in contract negotiation, debt management, and policy frameworks that can help maximize developmental benefits while reducing vulnerability to debt dependency. For China, the findings highlight the importance of transparency and partnership-based approaches that safeguard African sovereignty and promote long-term stability in bilateral relations.

Conceptual Clarifications

Belt and Road Initiative (BRI)

The Belt and Road Initiative (BRI), introduced by Chinese President Xi Jinping in 2013, is a comprehensive development and cooperation strategy aimed at strengthening global connectivity through infrastructure investment, trade, and cultural linkages. It is structured around two major components: the Silk Road Economic Belt, which focuses on land-based routes linking China with Central Asia, Europe, and the Middle East, and the 21st Century Maritime Silk Road, which emphasizes sea-based routes connecting China with Southeast Asia, South Asia, Africa, and Europe (Yu, 2017).

The BRI's central objective is to create a vast network of trade corridors, industrial zones, and transportation infrastructure to facilitate economic integration and promote cross-border cooperation. China presents the initiative as mutually beneficial, promising job creation, technology transfer, and market expansion for participating countries (Summers, 2016). Beyond trade, the BRI also advances five official cooperation pillars: policy coordination, infrastructure development, unimpeded trade, financial integration, and people-to-people exchanges (National Development and Reform Commission (NDRC, 2015). These pillars highlight the multidimensional nature of the project, extending beyond economic gains to include cultural and institutional collaboration. The BRI has attracted participation from over 150 countries and international organizations, making it one of the largest transnational development initiatives of the 21st century (World Bank, 2019). Supporters emphasize its potential to close infrastructure gaps in developing regions, enhance global supply chains, and accelerate economic growth. However, critics caution that BRI financing may expose vulnerable economies to debt sustainability risks, environmental challenges, and potential erosion of sovereignty due to China's strategic influence (Hurley, Morris, & Portelance, 2018).

From a broader perspective, the BRI serves both economic and geopolitical purposes. Economically, it allows China to export its industrial capacity, secure markets, and access energy resources. Geopolitically, it strengthens China's role in global governance and positions it as a central actor in shaping the international order (Ferdinand, 2016). Thus, while the BRI presents opportunities for development and integration, it also raises debates about dependency, transparency, and the long-term balance of power in global affairs. The Belt and Road Initiative embodies both promise and complexity: it offers transformative infrastructure and growth opportunities, yet it also challenges participating countries to manage associated risks responsibly.

Debt Dependency

Debt dependency refers to a structural condition in which a country relies heavily on external borrowing-often from foreign governments, multilateral institutions, or international financial markets-to finance its development and meet domestic obligations. While borrowing is a common practice in both developed and developing economies, debt dependency emerges when loans become a persistent and primary source of funding, creating vulnerabilities in economic management and policy autonomy (Toussaint, 2019). In many developing countries, debt dependency is linked to limited domestic revenue generation and inadequate capital markets, making external financing necessary for infrastructure projects, social spending, and budget support (Ajayi & Khan, 2000). Over time, however, excessive reliance on debt can generate a cycle of dependency, where debt servicing obligations, interest, and principal repayments consume a significant share of national revenues. This often forces governments to take on new loans to service old debts, thereby perpetuating indebtedness (Omotola & Saliu, 2009). A major implication of debt dependency is the erosion of economic sovereignty. When debt levels become unsustainable, creditors may exert influence over national policies through conditionalities tied to loans, as seen in structural adjustment programs imposed by the International Monetary Fund (IMF) and the World Bank in the 1980s and 1990s (Mohan, 2021). This reduces the borrowing country's ability to pursue social and developmental priorities independently, as fiscal policies must align with debt repayment obligations and creditor demands.

According to Reinhart, and Trebesch, (2016), debt dependency also raises concerns about developmental sustainability. While external borrowing can provide short-term relief and stimulate investment, prolonged reliance on debt undermines domestic capacity to mobilise resources and can trap countries in underdevelopment. In extreme cases, unsustainable debt burdens lead to debt crises, characterized by defaults, economic stagnation, and social hardship. Critics argue that debt dependency is not merely an economic issue but also a manifestation of unequal power relations in the global financial system. Developing countries, particularly in Africa and Latin America, often face higher borrowing costs and weaker bargaining power, which exacerbate their dependency on creditor nations and institutions (Toussaint, 2019). This dynamic underscores the political dimension of debt, linking it to questions of global inequality, sovereignty, and structural dependence. Debt dependency describes more than just borrowing practices; it represents a systemic condition where reliance on external debt undermines economic stability, policy autonomy, and long-term development. To address the situation, it requires strengthening domestic revenue systems, diversifying economies, and promoting fairer global financial arrangements.

LITERATURE REVIEW

The literature on China's Belt and Road Initiative (BRI) is broadly divided into three thematic strands: infrastructure development, debt sustainability, and sovereignty and agency.

Infrastructure Development and Economic Growth

Proponents of the BRI highlight its potential to close Africa's critical infrastructure gap. According to the African Development Bank (2018), the continent requires annual investments of US$130-170 billion to meet infrastructure needs. Chinese-financed projects, such as the Addis Ababa-Djibouti Railway, Kenya's Standard Gauge Railway, and port developments in Tanzania and Nigeria illustrate how the BRI is addressing deficits in transport, energy, and digital connectivity (Brautigam, 2020). Scholars argue that such investments foster trade, industrialization, and regional integration (Sun, 2017). Thus, the BRI is framed as a development promise, offering opportunities that traditional Western donors and institutions have been unable or unwilling to provide to the African continent.

Debt Sustainability Concerns

Another school of thought raises concerns about the debt implications of Chinese financing. Studies show that Chinese loans often feature high levels of collateralization, confidentiality clauses, and limited transparency, making debt management difficult (Horn, Reinhart, & Trebesch, 2021). Countries like Djibouti, Zambia, and Kenya have been cited as vulnerable to debt distress, raising the specter of "debt-trap diplomacy" (Kratz, Feng, & Wright, 2019). While some scholars contest the notion of intentional debt entrapment by China (Brautigam, 2020), there is consensus that debt sustainability remains a pressing concern for African states engaging with the BRI.

Sovereignty, Agency, and Strategic Dependency

A third body of literature examines the political and strategic implications of the BRI for African sovereignty. Critics argue that heavy reliance on Chinese financing risks constraining policy autonomy, as states prioritize debt repayment over domestic priorities (Carmody & Kragelund, 2016). There are also concerns that China could use indebtedness as leverage for strategic concessions, such as control over ports or resources. However, counter-arguments stress African agency: governments are not passive recipients but negotiate, renegotiate, and selectively adopt projects to advance national interests (Alden & Large, 2019). Regional bodies such as the African Union also play an emerging role in shaping the terms of engagement with external partners.

The literature reveals a link between the developmental promise and dependency risks associated with the BRI in Africa. While Chinese investments undeniably help bridge infrastructure gaps, questions about debt sustainability, sovereignty, and long-term autonomy remain unresolved. This duality underscores the need for further empirical analysis that captures both opportunities and risks, while foregrounding African perspectives and strategies for agency.

Gap in Literature

The reviewed literature highlights extensive debates around the economic opportunities and risks associated with China's Belt and Road Initiative (BRI) in Africa. Much of the literature has emphasized debt sustainability, sovereignty concerns, and the geopolitical implications of Chinese financing (Brautigam, 2020; Abiad & Pula, 2021). Other scholars have also focused on China's strategic interests, often portraying African states as passive recipients of BRI projects (Carmody, 2020). While these perspectives provide valuable insights, they tend to underplay the agency of African governments in shaping the terms of engagement and renegotiating agreements when challenges emerge. Recent cases of debt restructuring, contract revisions, and diversification of external partnerships suggest that African states are not merely vulnerable actors but are also capable of exercising bargaining power within the BRI framework (Okolo & Umezurike, 2022).

However, the literature has yet to sufficiently capture this evolving dimension of African agency in renegotiating BRI terms, particularly in how states leverage regional institutions, domestic reforms, and alternative partnerships to recalibrate relations with China. This gap limits our understanding of the nuanced dynamics of BRI engagement beyond dependency narratives. This paper addresses this gap by examining how African actors, specifically within the Nigerian context, negotiate, adapt, and sometimes resist Chinese financing arrangements, thereby contributing to a more balanced understanding of Africa-China relations under the BRI.

Theoretical Framework

This study employed dependency theory and neoliberal Institutionalism, which together provide a useful tool for analyzing China's Belt and Road Initiative (BRI) in Africa.

Dependency Theory

The dependency theory is known to originate from the Latin American Structuralist thought in the 1960s (Frank, 1967; Dos Santos, 1970), Dependency theory argues that underdeveloped states are integrated into the global economy in ways that reinforce their subordination to more developed states. Through mechanisms such as unequal trade, resource extraction, and debt, developing countries become structurally dependent on external actors. Applying this framework, Chinese financing under the BRI may be interpreted as a new form of dependency, where African states exchange sovereignty and policy autonomy for infrastructure development, thereby reproducing unequal power relations. The theory helps explain concerns around debt dependency, sovereignty erosion, and limited bargaining power.

Neoliberal Institutionalism

On the other hand, Neoliberal Institutionalism (Keohane, 1984) argues that cooperation between states, facilitated through institutions and agreements, can yield mutual benefits despite asymmetries in power. From this perspective, the BRI is not necessarily a zero-sum game; rather, it provides a platform for African states to mobilize capital, close infrastructure gaps, and integrate into global trade networks. Institutions such as the African Union (AU) and African Development

Bank (AfDB) can play critical roles in shaping collective strategies that enhance bargaining power and ensure debt sustainability. By making use of these two perspectives, the study avoids one-sided conclusions. While dependency theory highlights the risks of unequal relations and debt dependency, neoliberal Institutionalism emphasises the possibilities for mutual benefits, and strategic partnerships. This dual framework thus provides a balanced foundation for examining whether the BRI represents a development promise or a part to dependency in Africa.

METHODOLOGY

Research Design

This study adopted qualitative research design, relying primarily on secondary data to critically analyse the dual impact of China's Belt and Road Initiative (BRI) in Africa. The qualitative approach is appropriate because it allows for an in-depth exploration of complex issues such as infrastructure development, debt sustainability, and sovereignty within the broader framework of international political economy.

Data Collection

Data is sourced from secondary materials, including peer-reviewed journal articles, academic books, policy briefs, government documents, and publications from international organizations such as the World Bank, IMF, and African Development Bank. In addition, reports from think tanks, credible media outlets, and official statements from Nigerian and Chinese government agencies are included to capture contemporary debates. Digital sources such as websites and databases provide updated information on evolving aspects of the BRI and debt-related issues.

Data Analysis

A thematic analysis method is employed to examine the data. Key themes include: (1) the role of the BRI in closing Africa's infrastructure gap, (2) the debt implications of Chinese loans, and (3) the political and sovereignty-related consequences of BRI engagement. These themes are analysed within the conceptual framework of dependency theory and neoliberal institutionalism, allowing for a balanced assessment of both opportunities and risks.

FINDINGS

Analysis of BRI Projects Contribution to Infrastructure Development and Economic Growth in Africa

China's Belt and Road Initiative (BRI) has become one of the most significant sources of infrastructure financing in Africa over the past decade. The initiative has targeted transportation, energy, and digital infrastructure, which are central to Africa's integration into global value chains and its pursuit of sustainable development. Chen (2018) argues that one of the clearest contributions of the BRI in Africa is in the transport sector, flagship projects such as the Addis Ababa-Djibouti Railway and Kenya's Standard Gauge Railway (SGR) illustrate how Chinese financing has modernized African rail networks. The Addis-Djibouti line, for instance, reduced travel time for goods from two days by road to about twelve hours by rail, significantly lowering transaction costs and boosting regional trade (World Bank, 2019). Similarly, improvements in roads and port facilities in countries like Nigeria, Tanzania, and Angola have enhanced logistical efficiency, encouraging foreign investment and stimulating cross-border commerce. One of the major projects executed lowered logistical costs, and linked landlocked Ethiopia to the Port of Djibouti, its main trade gateway (World Bank, 2019). Kenya's Standard Gauge Railway is another flagship BRI project costing about US$5 billion. The SGR connects Mombasa to Nairobi and Naivasha. It has cut travel time and improved cargo movement, increasing efficiency in East Africa's busiest port corridor. Although debt repayment is a concern, the project has generated thousands of jobs. Ibadan Railways, constructed by the China Civil Engineering Construction Corporation (CCECC), have improved intercity connectivity, reduced road traffic accidents, and enhanced domestic trade (Akanbi, 2021). Parker, and Chefitz, (2018), noted that BRI has played a vital role in addressing Africa's chronic energy deficit. Chinese-financed power plants, hydropower dams, and transmission lines have expanded electricity generation capacity in Ethiopia, Sudan, and Ghana, directly supporting industrialization and job creation. Access to reliable energy is essential for manufacturing, agro-processing, and small-scale enterprises, thereby linking infrastructure investments to broader economic transformation.

Table 1: Selected BRI Projects in Africa and Their Developmental Impact

Country	Project	Sector	Impact on Development
Ethiopia	Addis Ababa-Djibouti Railway	Transport	Reduced travel time for goods; boosted exports; improved regional integration.
Kenya	Standard Gauge Railway (Mombasa-Nairobi-Naivasha)	Transport	Enhanced cargo movement; cut travel time; created jobs; stimulated growth along corridor.
Nigeria	Abuja-Kaduna and Lagos-Ibadan Railways	Transport	Improved intercity connectivity; reduced congestion; stimulated trade and mobility.
Djibouti	Doraleh Multipurpose Port	Ports/Maritime	Positioned Djibouti as logistics hub; increased cargo capacity; enhanced Ethiopia's trade.
Ghana	Bui Hydropower Dam	Energy	Added 400 MW to grid; boosted electricity supply; supported irrigation schemes.
Sudan	Merowe Dam	Energy	Doubled electricity capacity; supported agriculture and modernization.
Nigeria	Abuja-Kaduna and Lagos-Ibadan Railways	Transport	Improved intercity connectivity; reduced congestion; stimulated trade and mobility.
Djibouti	Doraleh Multipurpose Port	Ports/Maritime	Positioned Djibouti as logistics hub; increased cargo capacity; enhanced Ethiopia's trade.

Ghana	Bui Hydropower Dam	Energy	Added 400 MW to grid; boosted electricity supply; supported irrigation schemes.
Sudan	Merowe Dam	Energy	Doubled electricity capacity; supported agriculture and modernization.
Nigeria	Abuja-Kaduna and Lagos-Ibadan Railways	Transport	Improved intercity connectivity; reduced congestion; stimulated trade and mobility.

Source: World Bank

A comparative review of the projects listed in Table 1 highlights important variations in how countries have managed BRI-related borrowing and project outcomes. For instance, Ethiopia's large-scale transport investments, such as the Addis Ababa-Djibouti railway, significantly increased external debt obligations but have struggled to generate immediate revenues due to low freight demand and operational inefficiencies (Brautigam,2020). In contrast, Kenya's diversified approach-which combined transport investments with energy-sector projects-helped mitigate some risks, as energy initiatives provided quicker economic returns and supported domestic industrial activity (World Bank, 2019). Similarly, Morocco leveraged Chinese financing alongside European partnerships, enabling it to spread risks across multiple creditors and manage debt exposure more effectively (Dollar, 2019). These contrasts underscore that the sustainability of BRI projects depends not only on loan size but also on domestic fiscal discipline, institutional capacity, and the ability to align projects with broader development strategies.

Beyond physical infrastructure, BRI-linked projects have advanced digital infrastructure, including fibre-optic cables and telecommunications networks. This has expanded internet penetration, digital services, and e-commerce opportunities across the continent (Sun, 2017). Brautigam, (2020), opines that improved digital connectivity not only enhances service delivery but also opens new avenues for Africa's participation in the global digital economy. The cumulative effect of these investments is visible in improved productivity, expanded trade corridors, and increased foreign direct investment inflows. Brautigam (2020) noted that countries hosting major BRI projects have recorded higher GDP growth rates compared to regional averages, largely due to infrastructure-induced economic activity. By reducing transport costs, improving energy access, and enhancing digital connectivity, BRI projects create an enabling environment for businesses to thrive.

Debt Implications of Chinese-Financed BRI Projects for African States, and Issues of Sustainability

Chinese investment under the Belt and Road Initiative (BRI) has become a major source of infrastructure financing for many African states. While these investments address pressing gaps in transport, energy, and digital infrastructure, they carry significant debt implications. This has raised important questions about fiscal sustainability, debt dependency, and governance.

According to Reinhart, and Trebesch (2019), much of China's lending to developing countries is not recorded in official databases, leading to so-called "hidden debts" that distort external debt and risk assessments. In Africa, several countries rank among the top borrowers from China when debt is measured as a share of GDP (Horn et al., 2019; Brookings Institution, 2019). For example, Zambia's external debt as a percentage of GDP exceeded 100% in 2023, partially reflecting both conventional and hidden borrowing. Focus Economics reports Zambia's external debt at approximately 105.4% of GDP in 2023. The repayment of Chinese loans imposes considerable debt service burdens for many African countries. Debt service often consumes a large portion of government revenues, limiting fiscal space for social spending, infrastructure maintenance, or debt servicing from other creditors. In Kenya, interest payments on external debt have been rising while GDP growth has not always kept pace; this dynamic has raised concerns that external borrowing may be eroding economic growth rather than supporting it (Chepkilot, 2024). Moreover, Kenya's total debt-to-GDP ratio was under approximately 58.1% in 2025, with the government aiming to reduce it to 52.8% by 2027/28 to bring it within desirable fiscal thresholds.

Horn, Parks, Reinhart, and Trebesch, (2023), argue that countries with high exposure to Chinese credit often face challenges where the projected revenues from infrastructure projects fall short of expectations. For example, Kenya's Standard Gauge Railway (SGR) has underperformed in cargo volumes compared to projections, yet the repayment obligations remain. Without sufficient revenues, governments must reallocate scarce financial resources, potentially sacrificing other development priorities or incurring supplementary debt to service existing obligations. Another implication is exposure to exchange rate fluctuations and unfavorable loan terms. Many Chinese loans are denominated in foreign currencies (e.g., USD or Yuan), creating risks when the domestic currency depreciates. According to Chepkilot,(2024),this mismatch increases effective debt burden and complicates service payments. Also, some contracts contain confidentiality clauses that limit public scrutiny, making it harder for parliaments, civil society, or international institutions to monitor terms and enforce accountability (Horn et al., 2019; Horn, Parks, Reinhart, & Trebesch, 2023).

Table 2: Challenges and Risks of Selected BRI Projects in Africa

Country	Project	Sector	Challenges/Risks
Ethiopia	Addis Ababa-Djibouti Railway	Transport	High cost; heavy debt; underutilisation; operational inefficiencies.
Kenya	Standard Gauge Railway (Mombasa-Nairobi-Naivasha)	Transport	Costly; debt strain; revenues below projections; limited extension.
Nigeria	Abuja-Kaduna and Lagos-Ibadan Railways	Transport	Reliance on Chinese loans; security threats; insufficient fare revenues.
Djibouti	Doraleh Multipurpose Port	Ports/Maritime	Debt distress; risk of dependency due to concentration of Chinese loans.
Ghana	Bui Hydropower Dam	Energy	Environmental concerns; repayment tied to cocoa exports.

Sudan	Merowe Dam	Energy	Resettlement issues; debt repayment difficulties; instability.
Tanzania	Bagamoyo Port (proposed)	Ports/Maritime	Stalled due to disagreements; sovereignty and revenue concerns.
Angola	Benguela Railway (rehabilitation)	Transport	High debt; limited returns due to commodity prices; sustainability concerns.
Cameroon	Kribi Deep Sea Port	Ports/Maritime	Debt burden; uneven benefits; local resistance over land acquisition.
Zimbabwe	Kariba South Hydropower Expansion	Energy	Debt challenges amid crisis; limited grid expansion capacity.
Pan-African	Huawei Fiber Optic and ICT Projects	Digital	Cybersecurity concerns; reliance on Chinese technology raises dependency.

Source: World Bank

Table 2, reveals sectorial variations in vulnerability, transport projects, such as railways, ports, and highways, typically involve high upfront capital costs and yield long-term returns, which can exacerbate debt pressures in the short to medium term. For example, Nigeria's rail modernization program has faced delays in achieving cost recovery, raising concerns about fiscal sustainability (Hurley, Morris, & Porte lance, 2018). By contrast, energy-sector projects such as hydropower in Ethiopia or renewable energy investments in Morocco-can generate quicker revenue streams when tied to domestic consumption or industrial use, thereby offsetting debt risks (Corkin, 2021). This distinction suggests that sectoral choices strongly influence whether external borrowing translates into vulnerability or resilience. In addition, political and governance factors shape how countries navigate BRI-related risks. Countries with stronger procurement oversight and renegotiation capacity have demonstrated more resilience than those with opaque financial practices. For example, Zambia's debt distress has been linked to lack of transparency and overreliance on Chinese loans without adequate parliamentary scrutiny, whereas Tanzania renegotiated port development contracts to secure more favorable terms and reduce long-term liabilities (Corkin, 2021). These comparative insights illustrate that BRI-related risks are not uniform; rather, they are mediated by project type, governance quality, and national negotiation strategies.

Zambia offers a vivid example of how BRI-linked borrowing can contribute to unsustainable external debt stress. External debt in Zambia has risen sharply over the past decade, exceeding 100% of the country's GDP. In 2023, Zambia's external debt stood at approximately 105.4% of its GDP, with a significant portion of that indebtedness owed to bilateral and commercial creditors, including Chinese banks. Restructuring efforts have been ongoing. Kenya similarly faces high debt service costs. According to Parks (2023) Kenya spends around one-third of its government revenue on interest payments. The government has sought to reduce its total debt-to-GDP ratio, but has not been successful in doing so.

Implications of BRI Financing for African Sovereignty and Policy Autonomy

China's Belt and Road Initiative (BRI) has expanded Africa's financing options for large infrastructure projects but also raises complex questions about sovereignty and policy autonomy. Sovereignty here refers to a state's ability to set and implement policies without undue external constraint; policy autonomy refers to the practical freedom of governments to choose development programs and allocate fiscal resources. BRI financing can affect both through contractual, financial, strategic, and technological channels.

A major implication clauses is anchored on the contractual opacity and restrictive clauses, which limit domestic oversight and constrain policy choices (AidData 2024). Analyses of Chinese loan contracts reveal confidentiality clauses and contractual features that in most cases, reduce transparency and parliamentary scrutiny, making it difficult for citizens and domestic institutions to assess long-term commitments and contingent liabilities (AidData, 2024; AidData, 2025). When loan terms are undisclosed, legislatures and watchdogs cannot effectively hold executives to account, weakening democratic oversight and narrowing policy decisions. Secondly, debt concentration and fiscal pressure can produce coercive economic effects. According to Horn (2023), when large shares of public debt are owed to a single bilateral creditor, servicing obligations can crowd out public expenditures and reduce room for discretionary policy, such as, in social spending or counter-cyclical fiscal responses (Horn, Parks, Reinhart, & Trebesch, 2023). Heavy debt service to specific creditors may also limit governments' diplomatic maneuverability if restructuring requires concessions or bilateral negotiations.

Parks (2023) noted that technology and digital infrastructure financed under BRI's Digital Silk Road raise a distinct set of sovereignty concerns. For instance, wide adoption of Chinese hardware and software in telecommunications and public administration can create technological lock-in, increase dependence on foreign vendors for cybersecurity and maintenance, and raise questions about data governance and regulatory autonomy (Chatham House, 2021). These dynamics can constrain how states regulate digital spaces or protect sensitive information.

Summary

This study critically examines the impact of China's Belt and Road Initiative (BRI) on Africa, focusing on its dual form as a driver of infrastructure development and a source of debt vulnerability. The background highlights Africa's pressing infrastructure gap and limited access to Western finance, which has made Chinese concessional and commercial loans attractive. Findings show that BRI projects have significantly improved infrastructure across the continent. Major railways, ports, power plants, and digital networks have enhanced connectivity, supported trade, and generated job opportunities. Countries such as Ethiopia, Kenya, Ghana, and Nigeria have benefited from projects that expanded transportation corridors and energy supply, thereby stimulating economic growth. However, the analysis also reveals serious debt and sustainability challenges. Heavy borrowing from China has raised debt-to-GDP ratios in several states, with Zambia, Djibouti, and Kenya facing repayment pressures. Loan contracts often include confidentiality clauses, collateral requirements, and foreign currency risks, which constrain fiscal space and raise concerns over transparency and sovereignty. Some projects underperform economically, leaving governments with high repayment obligations but limited revenues.

Conclusion

This study has examined the Belt and Road Initiative (BRI) with a focus on its economic, political, and sectoral implications for participating states. Rather than viewing the BRI through a singular lens of either benefit or burden, the paper underscores its dual character: it simultaneously offers opportunities for development while presenting risks of dependency and vulnerability. On one hand, the initiative provides much-needed infrastructure financing, enhances regional connectivity, and creates avenues for trade diversification. On the other, the heavy reliance on external borrowing, sectoral imbalances between high-cost transport projects and revenue-generating energy projects, and governance weaknesses in many participating countries expose them to debt distress and potential erosion of sovereignty. By drawing attention to comparative variations across countries and sectors, the study highlights that outcomes are not uniform but contingent on domestic fiscal discipline, negotiation capacity, and strategic alignment of projects with national priorities. Ultimately, the BRI should not be reduced to simplistic narratives of either "debt-trap diplomacy" or "development panacea." Instead, it should be understood as a strategic arena of both promise and peril, where the balance between opportunity and risk depends largely on the agency and policy choices of participating states.

Recommendations

The following recommendations are proposed to maximize the developmental benefits of the BRI while mitigating risks of debt dependency and sovereignty concerns:

1. **Strengthen Debt Management Frameworks:** African governments should enhance institutional capacity for debt sustainability analysis, loan monitoring, and repayment planning. Transparent debt registers and regular parliamentary oversight would help prevent hidden or unaccounted obligations that undermine fiscal stability.
2. **Prioritize Value-for-Money and Project Appraisal:** Before entering financing agreements, states should conduct rigorous feasibility studies to ensure that BRI projects align with national development plans, generate long-term revenue, and avoid the risk of becoming underutilized "white elephant" projects.
3. **Diversify Financing Sources:** To reduce overreliance on Chinese loans, African states should broaden access to alternative financing such as African Development Bank (AfDB) instruments, public-private partnerships (PPPs), Eurobonds, and climate finance facilities. A diversified portfolio reduces vulnerability to unilateral creditor influence.
4. **Enhance Contract Transparency and Accountability:** African leaders must negotiate BRI agreements openly, subjecting them to legislative approval and public scrutiny. Publishing contract terms including interest rates, repayment schedules, and collateral clauses would strengthen democratic accountability and citizen trust.
5. **Leverage Regional and Multilateral Negotiations:** Regional organizations such as the African Union (AU) and African Continental Free Trade Area (AfCFTA) should play a greater role in harmonizing infrastructure priorities and collective bargaining with China.

A united front would strengthen Africa's negotiating position and reduce the asymmetry in bilateral dealings.

6. **Promote Capacity Building and Technology Transfer:** Beyond infrastructure, African states should ensure BRI projects include local content requirements, skills transfer, and training opportunities. Building domestic capacity would reduce dependency and enhance long-term developmental outcomes.

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