

Political Economic Dilemma in Infrastructure Funding: The Impact of The Whoosh Project Debt on State Finances

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ABSTRACT

Purpose: This study analyzes the political economy and fiscal implications of the Jakarta–Bandung High-Speed Rail (Whoosh) project within the framework of China’s Belt and Road Initiative (BRI).

Research Method: This study employs a qualitative explanatory case study approach using document analysis of government regulations, Ministry of Finance reports, KCIC publications, academic journals, and reports from international institutions.

Results and Discussion: The findings show that the project’s financing structure increased fiscal exposure for Indonesian state-owned enterprises, particularly PT KAI, due to cost overruns and debt servicing pressures. The study also indicates that concerns about geopolitical dependency should be interpreted with caution, as domestic governance capacity, financing structures, and institutional risk management strongly influence the project outcomes.

Implications: The study emphasizes the importance of transparent fiscal governance, stronger risk-sharing mechanisms, and comprehensive ex-ante fiscal evaluation for strategic infrastructure projects.

Originality: This study integrates political economy and public financial management perspectives to explain the fiscal consequences of debt-financed infrastructure projects in developing countries.

Keywords: whoosh project; infrastructure financing; political economy; contingent liabilities; fiscal sustainability.

1. Introduction

Infrastructure development has long been the backbone of economic development strategies in developing countries. Indonesia, as Southeast Asia’s largest economy, faces a significant infrastructure deficit that has hampered national competitiveness and economic growth for decades (Ray & Ing, 2016). In response to these structural challenges, the Indonesian government has prioritized strategic infrastructure expansion as part of its long-term national development agenda to improve connectivity, logistics efficiency, and regional economic integration. It is in this context that the Jakarta-Bandung High-Speed Rail (KCJB) project, later commercially known as Whoosh, emerged as a symbol of Indonesia’s development ambitions and a reflection of the complexities of contemporary geopolitical relations. Beyond its role as a transportation project, the Whoosh project is also a major infrastructure megaproject involving complex financing arrangements, cross-country economic cooperation, and substantial participation by state-owned enterprises.



The Whoosh project officially began operations in October 2023, making it the first high-speed train in Southeast Asia (Setiawan *et al.*, 2024). However, behind this technological achievement, the project harbors a series of unresolved political and economic issues. From a financial perspective, the total construction cost has ballooned from an initial estimate of USD 6.07 billion to more than USD 7.3 billion (Putri & Mahani, 2024). The increase in project costs necessitated additional financing mechanisms. It raised broader concerns about fiscal sustainability, debt-servicing capacity, and the allocation of financial responsibilities among the entities involved in the project. This additional burden not only weighs on PT Kereta Cepat Indonesia-China (KCIC) as the operator but also has the potential to affect the state's financial balance through government contingent liabilities. Furthermore, PT Kereta Api Indonesia (KAI)'s involvement in covering a substantial portion of the cost overrun raises concerns about the fiscal exposure of state-owned enterprises and the potential for indirect pressure on public finances.

The project's financing scheme involves a loan from the China Development Bank (CDB), one of the main instruments of China's Belt and Road Initiative (BRI) (Soemardi & Chan, 2022). This has sparked academic debate over whether China's involvement in Indonesian infrastructure projects constitutes debt-trap diplomacy or simply mutually beneficial bilateral economic cooperation (Afifah & Badaruddin, 2024; Noor & Yiming, 2024). Nevertheless, the empirical evidence on the extent to which the Whoosh project may create long-term geopolitical dependency or reduce Indonesia's policy autonomy remains inconclusive and is debated in the literature. Meanwhile, from a domestic perspective, the involvement of state-owned enterprises, particularly PT Kereta Api Indonesia (KAI), which must bear the majority of the cost overrun, adds a dimension of fiscal risk that requires serious scrutiny. This condition illustrates how infrastructure megaprojects financed through external debt arrangements may generate interconnected risks involving public finance, institutional governance, and political economy considerations.

Recent studies have increasingly discussed the relationship between infrastructure financing, state-owned enterprise exposure, and fiscal sustainability in developing countries. Anguelov (2023) explained that transportation infrastructure projects in Jakarta relied heavily on state-owned enterprise financing arrangements and public-private partnership mechanisms. Dappe *et al.*, (2022) further found that government support for infrastructure-related state-owned enterprises often creates recurring fiscal obligations that are not always immediately reflected in sovereign debt statistics. Similarly, Lei (2023) demonstrated that politically connected infrastructure projects tend to lead to higher levels of public debt. These studies indicate that infrastructure megaprojects financed through debt arrangements may create measurable fiscal vulnerabilities, particularly when cost overruns and contingent liabilities emerge simultaneously.

Within the specific context of the Whoosh project, recent studies have primarily focused on cost escalation, operational performance, and debt sustainability. Farman & Ndapa (2025) reported that the construction cost of the Whoosh project was approximately USD 52 million per kilometer, substantially higher than that of comparable high-speed railway projects in China. Meanwhile, Rahmat (2025) found that the project's initial operational phase was characterized by high leverage, debt service pressure, and a debt service coverage ratio (DSCR) below unity, despite improvements in operational EBITDA performance in 2025. Yanti *et al.*, (2025) also emphasized that infrastructure megaprojects financed through large-scale borrowing arrangements may create long-term fiscal pressures when project revenues fail to offset debt obligations and financing costs in proportion.

Despite the growing literature on infrastructure financing and fiscal risk, several important gaps remain unresolved. First, previous studies generally discuss infrastructure debt and fiscal vulnerability at a macro or comparative level without specifically examining how financing structures, cost overruns, contingent liabilities, and state-owned enterprise obligations interact within the institutional context of the Whoosh project. Second, existing studies tend to discuss fiscal risk, Belt and Road Initiative (BRI) cooperation, and political economy issues separately rather than integrating them into a coherent analytical framework. As a result, limited attention has been given to how foreign debt arrangements, state-owned enterprise financing exposure, and infrastructure policy objectives simultaneously shape Indonesia's fiscal governance and development strategy.

This study seeks to answer the following research question: How does the financing structure of the Whoosh high-speed rail project generate fiscal and political-economic implications for Indonesia's state financial management? Accordingly, this article aims to analyze: (1) the financing structure and implications of the Whoosh project for state finances; (2) the interaction between infrastructure financing and geopolitical economic cooperation within the BRI framework; and (3) the long-term implications of contingent liabilities and state-owned enterprise exposure for fiscal sustainability. The novelty of this study lies in its integration of international political economy and public financial management perspectives to explain how infrastructure financing arrangements may generate interconnected fiscal, institutional, and governance risks within a strategically important megaproject. Unlike previous studies that primarily focus on geopolitical narratives or operational performance, this article specifically examines the interaction between cost overruns, debt financing arrangements, contingent liabilities, and state-owned enterprise exposure within a single analytical framework.

The remainder of this paper is organized as follows. Section 2 provides a literature review and hypothesis development. Section 3 presents the research method and design. Section 4 provides the results and discussion. Section 5 is Concluding Remarks and Recommendations.

2. Literature Review and Hypothesis Development

2.1 Political Economy of Infrastructure Development

Infrastructure development in developing countries is often caught in a dilemma between the urgency of development and fiscal constraints. Ray and Ing (2016) note that Indonesia requires massive infrastructure investment to close the existing gap. However, the limited capacity of the state budget forces the government to seek alternative financing from external sources. From a political economy perspective, infrastructure development is not merely a technical or economic process but also a governance process shaped by interactions among state institutions, financial actors, external creditors, and long-term fiscal obligations. Within the framework of political economy theory, infrastructure investment decisions are not solely technical. However, they are fraught with conflicts of interest among diverse actors, ranging from the central government and state-owned enterprises (SOEs) to foreign creditors. This perspective suggests that infrastructure megaprojects financed through debt arrangements may create interconnected economic, institutional, and political consequences that extend beyond the project's operational objectives.

Ding and Ji (2025) emphasize that risk management in large-scale infrastructure projects requires a comprehensive risk transfer framework. Without this mechanism, financial risks tend to spill

over into public finances through various channels, both directly through subsidies and bailouts, and indirectly through contingent liabilities. In many developing countries, contingent liabilities arising from infrastructure financing arrangements are often underrecognized in the early stages of project development but become increasingly significant when projects experience delays, cost overruns, or revenue underperformance. The Indonesian Ministry of Finance (2025) has also recognized that contingent liabilities from large infrastructure projects, including the KCJB, constitute a fiscal risk that requires prudent management. This condition illustrates how debt-financed infrastructure projects may shift fiscal pressures from explicit sovereign borrowing toward indirect public financial exposure through guarantees, recapitalization, and state-owned enterprise obligations.

Anguelov (2024) points out that, in the Indonesian context, the tendency to use state-owned enterprises (SOEs) as the spearhead of infrastructure development under President Joko Widodo is a manifestation of the "new developmentalism," which relies on the state as the primary driver of investment. However, this strategy results in accumulated debt on SOEs' balance sheets, which could ultimately become a fiscal burden on the government. The use of SOEs as infrastructure financing vehicles may initially reduce the visibility of direct sovereign debt; however, financial distress experienced by SOEs often generates implicit government obligations through capital injections, debt restructuring, or fiscal support mechanisms. Consequently, the boundary between corporate debt and sovereign fiscal exposure becomes increasingly blurred in state-led infrastructure development models.

2.2 Belt and Road Initiative and Debt Dynamics

China's Belt and Road Initiative (BRI), launched in 2013, has become one of the most influential geoeconomic initiatives of the 21st century. In a decade of implementation, the BRI has reached more than 150 countries with investment commitments exceeding USD 1 trillion (W. Liu, 2023). Indonesia is one of BRI's strategic partners, with the Jakarta-Bandung High-Speed Rail project as its flagship project (Maryani & Abidin, 2022; Soemardi & Chan, 2022). Beyond infrastructure connectivity, the BRI also represents a broader framework for international economic cooperation, encompassing cross-border financing, strategic investment, and institutional collaboration among participating countries.

Nuraini and Chairullah (2025) analyze China's involvement in the KCJB project as a manifestation of economic statecraft, a strategy of using economic instruments to achieve foreign policy goals. From this perspective, the CDB loan for the Whoosh project is not merely commercial but also carries strategic dimensions related to China's geopolitical interests in Southeast Asia. The concept of economic statecraft suggests that infrastructure financing can serve as both a development instrument and a mechanism for expanding economic influence through long-term financial and institutional relationships. However, the extent to which these relationships produce asymmetrical dependency remains context-specific and requires careful empirical examination.

The debate over debt-trap diplomacy in the context of the Belt and Road Initiative (BRI) has intensified among academics and policymakers. One side argues that China's opaque lending practices, with strict confidentiality clauses, potentially leave debtor countries vulnerable to political and economic pressure (W. Liu, 2023). On the other hand, a number of researchers refute the debt trap narrative, citing a lack of strong empirical evidence for China's takeover of strategic assets (Afifah & Badaruddin, 2024; H. Liu & Lim, 2023). Existing studies, therefore, remain divided over whether BRI financing arrangements primarily constitute strategic geopolitical leverage or pragmatic development cooperation aimed at accelerating infrastructure modernization in developing countries.

Several scholars further argue that the debt-trap diplomacy narrative is frequently oversimplified, as the quality of domestic governance, project feasibility, institutional capacity, and fiscal management practices in recipient countries also shape infrastructure financing outcomes. Consequently, the fiscal and political implications of BRI projects cannot be explained solely by external creditor behavior. However, they must also be understood in terms of the interaction among foreign financing structures, domestic policy choices, and state-owned enterprise governance mechanisms. This perspective is particularly relevant to analyzing the Jakarta–Bandung High-Speed Rail project because it involves complex interactions among external debt financing, infrastructure developmentalism, and public financial exposure in Indonesia.

2.3 State-Owned Enterprises Fiscal Risks and State Financial Sustainability

The involvement of state-owned enterprises (SOEs) in large-scale infrastructure projects poses systemic fiscal risks. The IMF (2024) notes that SOEs are prone to financial weakness due to their involvement in quasi-fiscal activities, executive appointments based on political considerations rather than competence, and weak governance and oversight. SOE failures or weaknesses ultimately become fiscal or government budgetary problems. In many developing countries, SOEs are frequently used as strategic instruments to accelerate infrastructure expansion because they provide governments with greater flexibility to mobilize financing outside direct sovereign borrowing channels. However, this financing model may simultaneously obscure the actual scale of public financial exposure when SOE liabilities implicitly depend on future government support.

From a public financial management perspective, the fiscal risks associated with SOEs arise not only from direct government guarantees but also from implicit obligations that emerge when governments are expected to intervene to prevent strategic SOEs from experiencing financial distress or default. Consequently, infrastructure financing through SOEs may transform corporate liabilities into broader sovereign fiscal exposure through recapitalization programs, debt restructuring, subsidies, or state capital injections. This condition is particularly relevant in infrastructure megaprojects characterized by high leverage, long payback periods, and significant cost overruns.

In the case of Indonesia, Pembawa *et al.*, (2024) show that infrastructure development has a significant impact on the economy. However, without proper management, these projects can drain public resources that should be allocated to more pressing social needs. Data from the Indonesian Ministry of Finance shows that by the end of 2023, government debt reached approximately IDR 7,200 trillion, or 37.68 percent of GDP. This remains below the safe limit of 60 percent, but its increasing trend requires caution. Although Indonesia's debt ratio remains within the statutory threshold, the growing reliance on debt-financed infrastructure development and state-owned enterprise obligations has intensified concerns regarding long-term fiscal resilience and contingent fiscal pressures. The accumulation of contingent liabilities associated with infrastructure megaprojects may reduce fiscal flexibility, particularly when project revenues are insufficient to offset operational costs and debt servicing obligations.

Several studies further argue that the fiscal implications of SOE-centered infrastructure financing should not be evaluated solely through explicit sovereign debt indicators. Instead, attention must also be directed toward off-balance-sheet obligations, contingent liabilities, and the potential transfer of financial risk from infrastructure operators to the state budget. In this context, the Jakarta–Bandung High-Speed Rail project represents an important case for examining how state-led

infrastructure financing strategies may simultaneously support economic modernization while increasing institutional and fiscal vulnerabilities.

3. Research Method

This research uses a qualitative approach with an explanatory case study method. This method was chosen based on the characteristics of the problem under study: a complex, multidimensional, contemporary phenomenon that cannot be adequately understood through quantitative analysis alone. The explanatory case study approach was employed because the Jakarta–Bandung High-Speed Rail project involves interconnected dimensions of infrastructure financing, political economy, fiscal governance, and contingent financial risk that require contextual and interpretative analysis. Through this approach, the study seeks to explain how financing arrangements, institutional structures, and state-owned enterprise involvement may generate broader fiscal and governance implications for Indonesia's public financial management system.

The main data sources come from two categories: (1) primary documents, including Presidential Regulation Number 93 of 2021, KCIC financial reports, the contingent liability analysis report of the Indonesian Ministry of Finance (2025), and other policy documents; and (2) secondary sources, including peer-reviewed scientific journals, reports from international institutions such as the IMF and World Bank, and analysis from trusted media. The selection of documents was conducted purposively based on three main criteria: relevance to the financing structure of the Whoosh project, credibility of the issuing institution, and the document's contribution to understanding fiscal exposure, contingent liabilities, and infrastructure financing governance. Official government regulations, Ministry of Finance reports, KCIC publications, and reports from international financial institutions were prioritized because they provide authoritative information regarding debt structures, fiscal policy, and infrastructure financing arrangements.

To strengthen analytical rigor, this study applied document analysis techniques through a systematic process of data classification, thematic coding, interpretation, and cross-source comparison. The coding process focused on several analytical themes, including the structure of infrastructure financing, cost-overrun dynamics, contingent liabilities, state-owned enterprise exposure, debt sustainability, and political economy implications. Data from different sources were subsequently compared and triangulated to identify inconsistencies, contradictions, and potential biases among institutional narratives, financial reports, academic studies, and policy documents.

The data analysis was conducted in three stages: first, mapping the financing structure of the Whoosh project and its cost overrun dynamics; second, analyzing the fiscal implications for state finances, both directly and through contingent liabilities; and third, synthesizing the findings within a broader political economy framework to generate constructive policy implications. In the first stage, the study identified the composition of project financing, including debt arrangements, state-owned enterprise participation, and cost escalation mechanisms. In the second stage, the analysis examined how financing obligations and contingent liabilities may create indirect fiscal exposure for the Indonesian government. In the final stage, the findings were interpreted using an integrated political economy and public financial management perspective to explain the relationship between infrastructure developmentalism, external financing dependence, and fiscal sustainability.

To improve the validity of the analysis, this study employed source triangulation by comparing government reports, institutional publications, academic literature, and independent analyses from international organizations. Contradictory interpretations and competing narratives regarding debt dependency, fiscal risk, and geopolitical implications were critically evaluated rather than accepted uncritically. This approach was intended to reduce interpretative bias and ensure that the findings reflect a balanced, evidence-based analysis of the Whoosh project's financing structure and its broader policy implications.

4. Results and Discussion

4.1 Anatomy of the Whoosh Project: From Conception to Operationalization

The Jakarta-Bandung High-Speed Rail project is a national strategic project initiated during President Joko Widodo's administration. Conceptually, the project was designed as a demonstration of public transportation modernization, connecting the two largest cities in West Java with a travel time of only 36-46 minutes, compared to 3-4 hours by regular train (Setiawan *et al.*, 2024). The project involves a consortium of Indonesian and Chinese state-owned enterprises (SOEs) under PT Kereta Cepat Indonesia-China (KCIC), with 60 percent ownership on the Indonesian side (through SOEs) and 40 percent on the Chinese side. This ownership structure reflects a hybrid infrastructure financing arrangement that combines domestic state-led developmentalism with external strategic financing cooperation under the Belt and Road Initiative (BRI) framework. From a political economy perspective, the project illustrates how infrastructure modernization agendas are closely intertwined with international financing arrangements, institutional bargaining processes, and state-owned enterprise participation.

Purba and Purba (2020) documented that the project was plagued by significant technical and administrative challenges from the outset. Land acquisition was one of the biggest obstacles, with thousands of plots requiring clearance along the 142.3-kilometer corridor. Furthermore, complex geological conditions at several points along the route added to construction complexity and costs. These conditions contributed not only to delays in project completion but also to increasing financing pressure due to prolonged construction timelines, additional engineering adjustments, and escalating operational expenditures during the development phase.

Ashadi *et al.*, (2023) noted that the construction of this high-speed train has multiple impacts, on the one hand, encouraging economic growth in the areas surrounding the stations, but on the other hand, generating social and environmental impacts that need to be mitigated sustainably. Sanjaya and Puspitasari (2020) specifically analyze the environmental dimensions of this project through a critical environmentalist perspective, identifying various risks to ecosystems along the construction route. These findings indicate that the Whoosh project cannot be understood solely as a transportation infrastructure initiative but also as a multidimensional development project with simultaneous economic, environmental, fiscal, and governance consequences.

Document analysis conducted in this study further indicates that the project's operationalization process was characterized by complex coordination among ministries, state-owned enterprises, foreign financing institutions, and regulatory authorities. Several policy adjustments, including revisions to financing arrangements and regulatory intervention through Presidential Regulation No. 93 of 2021, demonstrate how the project evolved beyond its initial commercial orientation toward a more state-

supported infrastructure financing model. This condition reflects the increasing role of public financial intervention in maintaining project continuity amid rising construction and financing pressures.

4.2 Cost Overrun Dynamics and Its Implications

One of the most crucial issues in the Whoosh project was cost overruns that far exceeded initial estimates. Putri and Mahani (2024) documented that delays in the construction of this high-speed rail project significantly contributed to the increase in total costs. From an initial budget of USD 6.07 billion, the project cost soared to over USD 7.3 billion, an overrun of more than USD 1.2 billion, or approximately 20 percent of the initial contract value. The escalation of project costs illustrates how infrastructure megaprojects financed through debt arrangements are highly vulnerable to delays, technical adjustments, land acquisition problems, and fluctuating construction expenditures.

Based on document analysis of government regulations, KCIC reports, and Ministry of Finance publications, the project's financing structure primarily relied on a combination of consortium equity participation and loans from the China Development Bank (CDB). The Indonesian consortium, which consisted of several state-owned enterprises led by PT KAI, became increasingly exposed to financial risk as construction costs continued to rise beyond the initial financing assumptions. The findings indicate that the Indonesian side disproportionately bore the financing burden associated with cost overruns due to the structure of the financing agreement and subsequent policy adjustments.

Under the established financing scheme, this cost overrun cannot be passed on to the Chinese party so that the Indonesian consortium will bear all excess costs. More specifically, PT KAI, as the largest state-owned enterprise in the Indonesian consortium, must bear the lion's share of this additional burden. This situation places KAI in a financially disadvantaged position, bearing significant debt and uncertain revenue projections, given the need to improve passenger occupancy rates. From a public financial management perspective, this condition demonstrates how state-owned enterprise financing mechanisms may shift infrastructure risk from explicit sovereign borrowing toward indirect fiscal exposure through contingent liabilities and future government intervention. Although the financing arrangement was initially framed as a business-to-business scheme, the increasing involvement of state support mechanisms indicates that the boundary between corporate debt and public fiscal responsibility became progressively blurred during project implementation.

Presidential Regulation No. 93 of 2021 concerning the acceleration of infrastructure and facilities for the high-speed train between Jakarta and Bandung serves as the legal basis for changes to the financing scheme, including provisions regarding the use of the state budget under certain conditions. However, in his analysis, Silalahi (2025) found that the Whoosh project faces tensions between its public service mission and suboptimal policy formulation, particularly regarding risk allocation between the public and private sectors. The findings of this study support this argument by showing that risk allocation mechanisms within the project financing structure were unable to fully insulate state-owned enterprises and public finances from the consequences of cost escalation. Consequently, the project illustrates how infrastructure developmentalism financed through complex debt arrangements may generate long-term fiscal vulnerability when institutional risk-sharing mechanisms are not adequately designed.

Furthermore, the findings reveal that the project's financial sustainability remains highly dependent on long-term operational performance, passenger occupancy rates, and the ability of KCIC and PT KAI to manage debt servicing obligations effectively. This condition reinforces concerns that

infrastructure megaprojects with high leverage and extended payback periods may create prolonged fiscal pressure when projected revenues fail to offset financing obligations and operational expenditures in proportion.

4.3 Geopolitical Dimension: Between BRI and the Risk of a Debt Trap

The Whoosh project cannot be separated from the context of China's geopolitical grand strategy through the BRI. Noor and Yiming (2024) analyze that China's involvement in the KCJB project represents economic diplomacy with dual strategic objectives: expanding economic influence in Indonesia while strengthening its geopolitical position in Southeast Asia. This situation is exacerbated by information asymmetry in loan contracts, where confidentiality clauses common in BRI loan agreements limit public transparency. From a political economy perspective, infrastructure financing arrangements under the BRI framework may simultaneously function as instruments of development cooperation and mechanisms for strengthening long-term economic influence through strategic financial relationships.

Afifah and Badaruddin (2024) conducted an in-depth study of the potential Chinese debt trap in the context of the KCJB project. Their findings indicate that while there are no direct indications of an asset takeover, the heavy dependence on Chinese technology, expertise, and financing creates an asymmetric relationship that could limit Indonesia's policy latitude. Nuraini and Chairullah (2025) go further, describing this situation as a manifestation of deliberate Chinese economic statecraft. However, document analysis in this study indicates that claims about debt-trap diplomacy in the Whoosh project remain difficult to verify conclusively due to limited public access to detailed financing contracts and loan negotiation documents. Consequently, interpretations of geopolitical dependency should be approached with caution and supported by evidence-based institutional analysis rather than by normative assumptions alone.

However, it is important to view this debate in a balanced manner. Liu and Lim (2023) argue that Chinese infrastructure financing in Indonesia reflects the dynamics of transnational state capitalism, motivated by both the economic logic of market expansion and geopolitical agendas. From this perspective, the Whoosh project represents a point of intersection between Indonesian national interests and China's strategic interests, which is not necessarily zero-sum. The findings of this study support this more balanced interpretation by showing that Indonesia also actively pursued the project to accelerate infrastructure modernization, attract external investment, and strengthen national connectivity. Therefore, the relationship between Indonesia and China within the Whoosh project should not be interpreted solely as unilateral dependence, but rather as a complex interplay among developmental objectives, financing needs, institutional bargaining, and geopolitical considerations.

At the same time, the findings reveal that reliance on foreign financing and technology in strategic infrastructure projects may increase institutional dependence in operational, technological, and financial dimensions. Nevertheless, this dependence does not automatically indicate a loss of sovereignty or direct geopolitical control. Instead, the degree of vulnerability largely depends on domestic governance capacity, financing arrangements, contractual transparency, and the ability of state institutions to manage long-term fiscal and strategic risks effectively.

4.4 Implications of Contingent Liabilities on State Finances

The most concerning dimension of the Whoosh project from a state financial perspective is its contingent liability implications. The Indonesian Ministry of Finance, in its report analyzing the central government's contingent liabilities, identified that state-owned enterprise infrastructure projects experiencing financial distress have the potential to give rise to claims against the state budget. In the context of the KCJB, if PT KAI, the entity bearing the cost overrun, experiences significant financial difficulties, the government, as the majority shareholder of this state-owned enterprise, implicitly bears the risk of a bailout. This finding demonstrates how infrastructure financing arrangements that initially appear to operate under a business-to-business scheme may ultimately generate indirect sovereign fiscal exposure when strategic state-owned enterprises become financially vulnerable.

In its Indonesia country assessment report, the IMF highlighted that although Indonesia's public debt-to-GDP ratio remains stable at around 39 percent, well below the 60 percent threshold, hidden fiscal liabilities on state-owned enterprise (SOE) balance sheets pose a risk that warrants closer attention. This analytical framework is relevant to understanding the latent risks of the Whoosh project: assigning cost overruns to KAI effectively shifts risk from KCIC's balance sheet to domestic SOEs' balance sheets, ultimately leading to potential government liabilities. From a public financial management perspective, this mechanism illustrates how contingent liabilities may accumulate gradually outside formal sovereign debt calculations, yet still pose long-term fiscal risks to the state budget.

From an infrastructure risk management perspective, Ding and Ji (2025) emphasized the importance of a clear and accountable risk-transfer framework for large infrastructure projects. The absence of this mechanism in the Whoosh project has been shown to create ambiguity in risk, affecting state-owned enterprise finances and, indirectly, the country's fiscal space. Document analysis conducted in this study indicates that ambiguities in risk allocation and financing responsibilities contributed to increased institutional uncertainty about which entities should ultimately absorb the financial consequences of project delays and cost escalation. As a result, the project demonstrates how weak risk-sharing arrangements in debt-financed infrastructure megaprojects may create broader fiscal vulnerability extending beyond the infrastructure operator itself.

Furthermore, the findings suggest that contingent liabilities associated with strategic infrastructure projects should be evaluated not only on current debt ratios but also on the government's potential future obligations arising from state-owned enterprise exposure, debt restructuring requirements, and possible recapitalization measures. This condition reinforces concerns that hidden fiscal pressures stemming from SOE-centered infrastructure financing may reduce long-term fiscal flexibility, particularly when project revenues are insufficient to offset debt-servicing obligations and operational expenditures.

4.5 Policy Implications and the Role of Danantara in Infrastructure Investment Management

The findings of this study indicate that the Whoosh project has broader policy implications for infrastructure financing governance, fiscal risk management, and the institutional capacity of the Indonesian state to manage large-scale strategic projects. The combination of cost overruns, contingent liabilities, exposure to state-owned enterprises, and dependence on external financing underscores the need for a more integrated and transparent infrastructure governance framework that balances developmental objectives with long-term fiscal sustainability.

From a public financial management perspective, the findings reveal that infrastructure megaprojects financed through complex debt arrangements require stronger ex-ante fiscal evaluation mechanisms before project approval. Comprehensive assessments of financing structures, contingent liabilities, debt-servicing capacity, cost-overrun scenarios, and long-term fiscal exposure should be integrated into infrastructure planning and transparently disclosed to reduce hidden fiscal risks. This finding supports the argument that infrastructure developmentalism without adequate fiscal risk governance may increase long-term public financial vulnerability.

The analysis of the Whoosh project reveals several urgent policy implications that require attention. First, there is a fundamental need to strengthen the ex-ante fiscal evaluation framework for large-scale infrastructure projects. The principle of prudent fiscality requires that, before a project is approved, a comprehensive financial risk analysis, including cost-overrun scenarios and contingent liabilities, be conducted transparently and publicly disclosed. The findings of this study indicate that weaknesses in early-stage fiscal evaluation contributed to increased uncertainty regarding financing responsibilities and the allocation of institutional risk during project implementation.

Second, Indonesia needs to build a stronger negotiating capacity when dealing with foreign creditors, particularly within the BRI framework. Transparency in contract clauses, fair dispute resolution mechanisms, and restrictions on the use of foreign labor must be prioritized in any future infrastructure financing agreements. This is not merely a matter of geopolitical posture but also of protecting Indonesia's long-term fiscal interests. Document analysis further suggests that limited transparency in financing arrangements and contractual obligations may increase institutional asymmetry between domestic actors and foreign financing institutions, particularly in projects involving strategic external debt financing.

Third, the governance of state-owned enterprises (SOEs) involved in large infrastructure projects needs strengthening. A clear separation of public service and commercial SOE missions strengthened oversight by the Ministry of SOEs and the Ministry of Finance, and the implementation of transparent financial reporting standards is a minimal prerequisite for preventing uncontrolled accumulation of SOE debt. This finding is particularly important because the Whoosh project demonstrates how SOE-centered infrastructure financing mechanisms may shift fiscal pressures from formal sovereign debt toward contingent liabilities and implicit government obligations.

Fourth, the social and environmental impact dimensions of infrastructure projects should not be reduced to mere administrative formalities. Sanjaya and Puspitasari's findings (2020) remind us that the negative impacts of the Whoosh project on the ecosystem and local communities have long-term economic consequences that need to be incorporated into the project's cost-benefit calculations. The findings of this study reinforce this argument by showing that infrastructure financing assessments that focus solely on commercial feasibility may underestimate broader socio-environmental costs that ultimately influence the sustainability of long-term development.

In this context, the establishment of the Danantara Investment Management Agency may provide an alternative institutional mechanism for supporting infrastructure investment management in Indonesia. Muh Farhan and Trubus (2025) analyze that Danantara, as Indonesia's Sovereign Wealth Fund (SWF), is designed to optimize state investment management while simultaneously serving as a capital mobilization instrument for development. However, this study does not position Danantara as a direct solution to the financing problems of the Whoosh project. Instead, Danantara is viewed as a potential long-term institutional alternative whose effectiveness will depend heavily on the quality of governance,

transparency, accountability, and risk-management capacity. Without strong governance safeguards, sovereign wealth fund mechanisms may also face risks of political intervention and inefficient capital allocation.

5. Concluding Remarks and Recommendation

This study examined the political economy and fiscal implications of the Jakarta–Bandung High-Speed Rail (Whoosh) project within the broader context of debt-financed infrastructure development under China’s Belt and Road Initiative (BRI). Using a qualitative explanatory case study approach based on document analysis of government regulations, Ministry of Finance reports, KCIC publications, academic literature, and international institutional reports, this study analyzed how the financing structure of the Whoosh project generated fiscal, institutional, and geopolitical implications for Indonesia. The Whoosh project illustrates the profound complexity of the dilemmas facing developing countries as they seek to modernize infrastructure amid fiscal constraints and geopolitical pressures. The findings indicate that the project reflects the complex interaction among infrastructure developmentalism, dependence on external financing, exposure to state-owned enterprises, and contingent fiscal liabilities. First, the Whoosh project’s financing scheme, which relies on CDB loans within the BRI framework, demonstrates how infrastructure financing arrangements may create long-term institutional and financial dependence on external financing structures. While empirical evidence supporting the debt trap claim in this case remains contested, the findings suggest that concerns about geopolitical asymmetry should be interpreted with caution, as outcomes are also shaped by domestic governance capacity, financing structures, and institutional risk-management arrangements. Second, project cost overruns imposed on domestic state-owned enterprises have created fiscal contingency liabilities that are not fully reflected in the state’s financial statements. The findings further indicate that the increasing fiscal exposure of PT KAI and other Indonesian state-owned enterprises may generate indirect sovereign fiscal risks through contingent liabilities, debt-restructuring pressures, and potential future government intervention. Without prudent management, this situation has the potential to become a fiscal time bomb that will impact the state budget’s flexibility in the future.

This study contributes theoretically by integrating political economy and public financial management perspectives into the analysis of infrastructure megaproject financing in developing countries. Unlike previous studies that primarily focused on geopolitical narratives or operational performance, this study emphasizes how infrastructure financing arrangements may simultaneously generate developmental opportunities, institutional vulnerabilities, and long-term fiscal consequences. Practically, the findings highlight the importance of strengthening ex-ante fiscal evaluation mechanisms, improving risk-sharing arrangements, enhancing contractual transparency, and reinforcing the governance capacity of state-owned enterprises involved in strategic infrastructure projects.

The broader implications of this study underscore that infrastructure development decisions that impact future generations cannot be left solely to short-term political calculations. It requires the institutionalization of comprehensive fiscal analysis, strengthening of negotiating capacity with foreign partners, and a genuine commitment to public financial transparency as the foundation for sustainable infrastructure development. Despite these contributions, this study has several limitations. First, the analysis relied primarily on publicly accessible documents, institutional reports, academic literature, and secondary data, while detailed financing contracts and confidential loan agreements related to the

Whoosh project were not fully accessible. Consequently, some aspects of the dynamics of contractual negotiation and financing arrangements could not be examined comprehensively. Second, this study focused specifically on the Whoosh project as a single explanatory case study, limiting broader generalization to other infrastructure projects or countries. Future research may expand the analysis through comparative studies of multiple BRI infrastructure projects, incorporate interviews with policymakers and institutional actors, or conduct quantitative assessments of contingent liabilities and debt-sustainability scenarios to complement the qualitative findings presented in this study.

Statement of Use of Generative AI

During the preparation of this work, the author used generative artificial intelligence tools to support the scientific writing process. Grammarly was used to check grammar, refine writing style, and improve clarity in scientific writing. All interpretations, analyses, and conclusions presented in this study are the sole responsibility of the author.

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