

# Leveraging the Bank of Indochina's Archival Records in Researching the Modernization of Transportation Infrastructure in Early Modern Vietnam

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## Abstract:

This paper elucidates the historical value and practical application of the Bank of Indochina's (BIC) archival records in reconstructing the modernization of transportation infrastructure in Vietnam during the late 19th and early 20th centuries. By analyzing annual reports, public loan dossiers, and financial investment portfolios, the research demonstrates that BIC archives provide a multifaceted perspective that extends beyond mere exchange rates to reflect detailed trajectories of the Trans-Indochina railway construction, strategic commercial ports, and maritime-terrestrial networks. The findings confirm that leveraging this specific body of records allows historians to decipher the operational mechanisms of French finance capital in coordinating capital flows to establish colonial technical infrastructure. This archival source serves as a pivotal link between financial history and the history of technology, enabling an objective evaluation of the nature and implications of infrastructure modernization under French rule.

**Keywords:** *Bank of Indochina, archival records, transportation infrastructure, modernization, finance capital.*

## I. INTRODUCTION

The modernization of transportation infrastructure in Vietnam during the early 20th century was not merely a technical revolution but rather the outcome of complex financial strategies designed to facilitate French colonial exploitation. In this context, the Bank of Indochina (BIC) emerged not only as a primary currency-issuing institution but also as the "heart" coordinating capital flows for key infrastructure projects. Duong To Quoc Thai (2021) points out that through specialized financial instruments, the BIC established a stringent economic control system, laying the groundwork for transportation networks that served the interests of metropolitan capital. While the transportation system of this period has been examined from various perspectives, accessing it through BIC's archival records offers fresh and invaluable insights. The bank's archives comprising annual reports and public loan dossiers provide authentic evidence of how French finance capital manipulated and shaped the networks of railways, seaports, and roadways in Vietnam (Duong To Quoc Thai, 2020).

The establishment and expansion of the BIC since 1875 laid the foundation for a specialized credit system, enabling the French colonial administration to mobilize vast resources from the Paris market for infrastructure works in Indochina (State Bank of Vietnam, 1976). Previous studies have emphasized that every fluctuation in monetary policy in Paris had a direct impact on the modernization process in the colony, where the BIC served as the most critical intermediary link (Nguyen Anh Tuan, 1968). However, to fully grasp the essence of "dependent modernization," researchers must "decipher" the funding and capital control mechanisms recorded within the bank's extensive archival treasury. According to Duong To Quoc Thai (2017), leveraging the BIC's investment and credit records is key to identifying the actual role of financial institutions in transforming Vietnam's transportation infrastructure during the early modern period.

## II. LITERATURE REVIEW

Research on the role of the Bank of Indochina (BIC) and the modernization of transportation infrastructure in Vietnam has attracted considerable attention from both domestic and international scholars. Classical studies by Jean-Pierre Aumiphin (1994) and Marc Meuleau (1990) have provided a comprehensive overview of the BIC's foundational history, organizational structure, and the economic privileges granted by the French government. While these works are instrumental in reconstructing the overall picture of the French economic presence, they often remain limited to describing pure financial activities without delving deeply into the organic link between banking capital flows and specific technical infrastructural transformations. From a domestic perspective, the works of Phan Ha Uyen (1987) and Nguyen Anh Tuan (1968) initially analyzed the monetary system and credit mechanisms, elucidating how the BIC regulated currency circulation to facilitate colonial exploitation.

Nevertheless, a significant knowledge gap persists, as existing studies frequently decouple financial history from the history of transportation infrastructure modernization. Duong To Quoc Thai (2020, 2021) made vital contributions by analyzing the impact of French finance capital on the Indochinese economic structure, demonstrating that BIC credits were a key lever for colonial enterprises to expand their production and circulation networks. However, the application of BIC's original archival records to specifically analyze the modernization process of key transportation works such as railways and seaports remains somewhat limited and fragmented. This paper builds upon previous scholarly achievements while focusing on an in-depth exploration of unpublished archival dossiers to clarify the BIC's financial coordination mechanisms in shaping Vietnam's transportation infrastructure during the early modern period.

## III. THEORETICAL FRAMEWORK

The research on leveraging the Bank of Indochina's (BIC) archival records to investigate the modernization of Vietnam's transportation infrastructure is constructed upon three primary theoretical pillars: Finance Capital Theory, Dependency Theory, and the Theory of Colonial Modernization.

*Firstly*, Rudolf Hilferding's (1910) Finance Capital Theory plays a central role. Finance capital is defined as the fusion of banking and industrial capital, creating a force that comprehensively dominates the economy. In the Indochinese context, the BIC was not merely a credit

institution but an entity representing French financial power, coordinating public loan flows to construct railway and seaport systems for extractive purposes (Duong To Quoc Thai, 2021). According to Duong To Quoc Thai (2020), the BIC's financing mechanisms for transportation projects demonstrate how the bank transformed public debt into a tool for metropolitan industrial conglomerates to penetrate and monopolize colonial markets.

*Secondly*, Dependency Theory helps explain the nature of the transportation networks established. According to this theory, infrastructure in colonies was not built for indigenous self-development but to connect raw material regions (the "periphery") with world markets (the "center") through the coordination of imperial financial institutions. Aumiphin (1994) argues that the French financial presence in Indochina was asymmetrical, where transportation infrastructure functioned as an "extended arm" of French colonialism. Exploring BIC's archival records allows us to identify how capital was prioritized for strategic railways and major commercial ports to optimize the transport of resources back to the metropole (Duong To Quoc Thai, 2017).

*Finally*, the Theory of Colonial Modernization provides insights into technical transformation. Modernization in this context was an "externalized" and compulsory process. Nguyen Anh Tuan (1968) emphasizes that this progression was inherently linked to the monetary and exchange policies executed primarily by the BIC. BIC's archives do not merely record numerical transactions but also reflect the imposition of Western technical standards and management processes onto Vietnamese infrastructure (State Bank of Vietnam, 1976). The intersection between banking power and infrastructure formation, according to North (1990), was an effort to minimize transaction costs for French finance capital, regardless of the long-term consequences for the local economic structure (Duong To Quoc Thai, 2018; Robequain, 1939).

## IV. METHODOLOGY

This study employs an interdisciplinary approach, integrating documentary historiography with quantitative analysis to evaluate the role of the Bank of Indochina (BIC) in the modernization of Vietnam's transportation infrastructure. The core of the methodology lies in the extraction and processing of the BIC's extensive primary archival records, including Annual Reports (*Rapports annuels*), credit dossiers, and public loan issuance decrees for railway and seaport projects.

*Firstly*, the historical and logical methods are utilized to reconstruct the context and progression of French colonial infrastructure investment. Cross-referencing regulatory documents from the Governor-General of Indochina funds with internal BIC financial reports allows for the identification of decision-making mechanisms behind key transportation projects (Duong To Quoc Thai, 2021). Notably, the technique of historical criticism is applied to verify the authenticity and discern the politico-economic intentions embedded within the bank's financial data, which were often presented to satisfy shareholders in Paris while reflecting colonial dispossession (Aumiphin, 1994).

*Secondly*, the research applies statistical and systems analysis methods to process quantitative data. Figures regarding investment capital, public loan discount rates, and outstanding credit for railway contracting companies are synthesized to clarify the degree of dominance exercised by French finance capital. This approach transforms the "dry figures" in the BIC's accounting ledgers into empirical evidence of the scale of infrastructure modernization (Duong To Quoc Thai, 2020). Finally, the comparative method is used to contrast the BIC's infrastructure financing model in Vietnam with similar French colonial models elsewhere or with neighboring countries, highlighting the unique characteristics of the "dependent modernization" process coordinated by a monopolistic institution (State Bank of Vietnam, 1976).

## V. FINDINGS

### 5.1. *BIC's Consultation in Researching Railway Network Development*

Research findings from archival sources confirm that the formation and modernization of the railway network in colonial Vietnam were inseparable from the financial coordination role of the Bank of Indochina (BIC). The BIC functioned not merely as a commercial bank but as a strategic consulting center, assisting the Indochinese Federal Government in solving the "capital" puzzle for massive infrastructure projects serving colonial exploitation.

*Firstly*, the role of "financial architect" in issuing railway public loans. By exploring annual reports, the research indicates that the BIC advised and directly guaranteed numerous public loan issuances (government bonds) to mobilize capital from the Paris market for constructing vital railway lines. Typical examples include the public loans of 1898 and 1902 for the Trans-Indochina railway, where the BIC served as the appraiser of profitability and the regulator of cash flows. Duong To Quoc Thai (2021)

observes that this financing mechanism transformed infrastructure projects into public debts borne by the indigenous population through the taxation system, while profits from transportation and resource extraction flowed into the pockets of French capitalists.

*Secondly*, the intimate link between banking capital and railway contracting companies. Archival data reveals a specialized overlap of personnel and interests between the BIC's Board of Directors and major industrial firms such as the *Indochina Railway Company* or the *Yunnan Railway Company*. The presence of former French government officials within the BIC's leadership facilitated these enterprises' easy access to preferential credit for modernizing equipment and technical infrastructure. According to Duong To Quoc Thai (2020), the BIC acted as the most critical "intermediary link," connecting monetary policies in Paris with the actual construction progress in Vietnam, thereby ensuring that railway networks were prioritized in resource-rich or strategically military regions.

*Thirdly*, the impact on the structure and technical standards of transportation infrastructure. The BIC's archives do not only contain financial figures but also reflect the imposition of Western technical standards on the Vietnamese transportation system. The BIC's appraisal and financing of the import of locomotives, rolling stock, and railway technology from France created long-term technological dependence. Nguyen Anh Tuan (1968) emphasizes that this progression was inherently linked to the exchange policies implemented by the BIC, keeping modernization costs high due to fluctuations in the Franc. Concurrently, studies by Pham Quang Trung (1997) show that the BIC provided effective support in stabilizing the finances of railway companies during crisis periods, helping maintain the colonial transportation arteries without interruption.

In conclusion, by deciphering the BIC's archival records, it is evident that the bank performed a comprehensive consulting and dominating role in the progression of railway development in Vietnam. This was not merely a process of pure technical infrastructure construction but a strategy of economic monopolization by French finance capital, transforming railways into tools for optimizing colonial exploitation.

### 5.2. *BIC Archival Records and the Formation of Modern Commercial Ports*

In addition to the railway network, the formation and modernization of commercial ports played a pivotal role in connecting the Indochinese economy with the global market. Through an analysis of financial reports and credit dossiers within the Bank of Indochina's (BIC) archives, this study elucidates how this institution

coordinated resources to transform rudimentary river mouths into modern commercial ports such as Saigon and Hai Phong.

*Firstly*, the role of capital financing for port refurbishment works. BIC archival records provide evidence of the bank's role in guaranteeing and advising the colonial government on mobilizing capital for dredging channels and constructing reinforced pier systems. According to Duong To Quoc Thai (2021), the expansion projects of the Saigon and Hai Phong ports in the early 20th century were largely dependent on public loan issuances coordinated by the BIC, effectively turning these infrastructures into strategic collateral for French finance capital. The BIC's participation on the boards of port operating companies allowed the bank to exercise stringent control over profit flows from port duties and warehousing services.

*Secondly*, connecting port infrastructure with regional logistics networks. Data from the BIC's *Rapports annuels* (Annual Reports) reveals a systematic investment strategy aimed at linking seaports with railway and inland waterway networks. The BIC prioritized credit for water and land transport companies operating at the Saigon port to modernize their fleets and warehousing systems. Duong To Quoc Thai (2020) asserts that the BIC's concentration of capital in commercial ports served not only freight transport but also aimed to create currency and credit distribution hubs at trade gateways. According to the State Bank of Vietnam (1976), the Hai Phong port, under BIC funding, rapidly became the region's largest mineral export hub, linking Northern Tonkin's mining areas with international markets.

*Thirdly*, the monopolization of finance capital through port services. Examination of BIC credit records shows that the bank held controlling stakes in major stevedoring and warehousing companies, creating a closed-loop value chain from transportation to finance. Aumiphin (1994) observes that the Indochinese seaport system was a testament to "dependent modernization," where every technical upgrade was designed to optimize the shipment of resources back to France at the lowest cost. The exchange policies implemented by the BIC also exerted pressure on local transport enterprises, making it difficult for them to compete with French conglomerates backed by the bank (Nguyen Anh Tuan, 1968).

*Furthermore*, the archives reflect the BIC's role in stabilizing seaport finances during periods of economic volatility. According to Pham Quang Trung (1997), during the Great Depression (1929-1933), the BIC acted as the "lender of last resort" to sustain the operations of the Saigon port the main artery for Indochina's rice

exports. This intervention, following Hilferding's (1910) theory, represents the pinnacle of finance capital where the bank holds the power to determine the survival of production and circulation infrastructures. This modernization, according to Meuleau (1990) and Robequain (1939), while leaving a significant physical infrastructure legacy, came at the cost of the Vietnamese economy's complete dependence on the Paris financial orbit (Phan Ha Uyen, 1973; North, 1990).

### **5.3. Archival Records on New Modes of Transport (Maritime and Aviation)**

In the modernization of Vietnam's transportation infrastructure during the early modern period, alongside railways and seaports, the development of new modes of transport modern maritime and civil aviation marked a turning point in bridging the distance between the colony and the metropole. The Bank of Indochina's (BIC) archival records serve as a "key" to deciphering the financial investment strategies and the formation of these breakthrough transportation networks.

BIC's archival system records a significant shift from rudimentary transport fleets to the modern steamship fleets of large transport conglomerates such as the *Messageries Maritimes* and the *Indochina Water Transport Company*. The BIC was not only a credit provider for these enterprises but also acted as the payment and insurance agent for transoceanic shipments. According to Duong To Quoc Thai (2021), the BIC's implementation of preferential exchange policies for French maritime companies directly facilitated the dominance of metropolitan maritime transport on the arterial sea routes connecting Saigon and Hai Phong with Marseille.

Furthermore, BIC archival records on foreign exchange operations reflect the close connection between maritime trade and the stability of the Indochinese piastre. Aumiphin (1994) argues that modern maritime transport was the "bloodstream" through which French finance capital transferred exploited colonial resources back to the metropole. Records from the State Bank of Vietnam (1976) show that during periods of monetary crisis, the BIC consistently prioritized maintaining capital flows for maritime payment operations to ensure the supply chain between the colony and the metropole remained uninterrupted.

Most notably in BIC's archives following World War I is the emergence of investments in aviation infrastructure. Although aviation was a nascent mode of transport, the acumen of French finance capital quickly recognized its strategic potential. Archival dossiers record BIC's financing of the first experimental flights connecting Paris and Saigon in the late 1920s. According to Duong

To Quoc Thai (2020), the establishment of the first airfields at Gia Lâm (Hanoi) and Tân Sơn Nhất (Saigon) was significantly contributed to by long-term loans guaranteed by the BIC for the federal government.

The application of aviation was not limited to passenger transport but also served as the fastest method for transporting the BIC's financial mail and bills of exchange. Nguyen Anh Tuan (1968) emphasizes that the speed of aviation enabled the BIC to respond more swiftly to fluctuations in the global gold and silver markets. According to Meuleau (1990), the formation of *Air Orient* (the precursor to Air France) with financial backing from institutions like the BIC marked the beginning of the era of ultra-fast connectivity in Indochina.

In conclusion, through the lens of BIC archival records, a comprehensive transportation modernization roadmap becomes evident. If railways and seaports provided the skeleton for internal extraction, then maritime and aviation were the wings that allowed French colonialism to extend its economic reach. The intersection of banking power and these new modes of transport, according to North (1990) and Robequain (1939), completed the structure of a modern colonial economy that was strictly dependent on the Paris financial system (Phan Ha Uyen, 1973; Duong To Quoc Thai, 2017).

## VI. DISCUSSION

### 6.1. Objectivity and Limitations of Archival Sources

Leveraging the Bank of Indochina's (BIC) archival records to research transportation infrastructure necessitates a rigorous assessment of objectivity. The BIC's *Rapports annuels* (Annual Reports) and operational dossiers were not merely neutral financial records but tools to consolidate the confidence of shareholders in Paris and the colonial administration.

On one hand, BIC records provide accurate quantitative data on chartered capital, credit balances, and public loan issuances, helping to reconstruct a vivid financial portrait of the modernization process. According to Duong To Quoc Thai (2021), these figures constitute the most objective evidence of the actual scale of French investment in railways and seaports in Vietnam. However, the limitation of this source lies in its Eurocentric perspective. Files often emphasize the "civilizing mission" and economic efficiency for the metropole while ignoring the social consequences or opportunity costs for the indigenous economy. Aumiphin (1994) observes that BIC data was sometimes presented to "beautify" the financial situation to attract investors;

thus, cross-referencing with sources from the Governor-General of Indochina funds or French Finance Inspectorate reports is essential for a multi-dimensional view.

Furthermore, BIC documents rarely reflect directly the responses or the silent contributions of indigenous labor during infrastructure construction. The absence of Vietnamese voices in banking records poses a significant barrier to researching the social history of transportation infrastructure. Therefore, using BIC materials requires the technique of "reading between the lines" to identify political intentions hidden behind commercial transactions.

### 6.2. The Intimate Nexus between Finance Capital and Transportation Infrastructure

The discussion of the nexus between finance and infrastructure reveals a "coercive" economic structure. Transportation infrastructure was not just an investment target but a means for finance capital to monopolize colonial markets. The BIC, as both an issuing and investment bank, created a "closed-loop cycle" where capital flowed from the bank to French contractors, and subsequently, the completed infrastructure optimized resource transport for the bank to recover capital and generate profit.

Following Rudolf Hilferding's (1910) theory, the fusion of banking and industrial capital in Indochina is most clearly manifested in how the BIC financed the railway industry. The bank did not only provide loans but also directly held shares and maintained board representation in transport companies. Nguyen Anh Tuan (1968) emphasizes that the BIC's monetary policies particularly pegging the Indochinese piastre to the French Franc transformed transportation infrastructure into part of the metropole's financial stability strategy, regardless of inflation risks in the colony.

This nexus was further reinforced by the BIC's role as the "architect of public debt." By converting infrastructure investments into federal budget debts coordinated by the BIC, the indigenous population was forced to pay for a modernization process that primarily served colonial interests through the taxation system. North (1990) argues that financial institutions like the BIC established "rules of the game" to minimize transaction costs for French capital, turning transportation into the most effective tool for capital accumulation. In summary, Vietnamese transportation infrastructure in this period was not a product of natural development but the result of a meticulously calculated financial strategy by the BIC.

## VI. CONCLUSION

The study on leveraging the Bank of Indochina's (BIC) archival records to investigate the modernization of transportation infrastructure in early modern Vietnam leads to significant conclusions regarding both historical methodology and economic history.

*Firstly*, in terms of historiography, this research confirms that the BIC's archives constitute an invaluable primary source capable of filling the gaps left by conventional administrative records. Financial reports, public loan dossiers, and investment portfolios are more than dry accounting figures; they serve as vivid evidence of the French colonial "political will" and "economic calculation." Deciphering these records allows historians to perceive the operational mechanisms of finance capital the force truly responsible for mapping out the first railways, seaports, and air routes in Vietnam.

*Secondly*, the research findings indicate that the modernization of Vietnam's transportation infrastructure during this period was inherently a "dependent modernization." Under the coordination of the BIC, the transportation network was not constructed to serve domestic economic development or regional connectivity for the benefit of the indigenous population. On the contrary, it was a system designed with a centripetal and maritime focus, aimed at optimizing resource extraction and transferring surplus back to the metropole. The organic nexus between the BIC and contracting companies created a monopolistic structure where infrastructure became a tool to sustain and expand the power of French finance capital in Indochina.

*Finally*, exploring BIC archives opens a new interdisciplinary approach to early modern Vietnamese history: the intersection of financial history and the history of technology. The study reveals that infrastructure modernization was not merely a process of adopting Western technology but also a process of financializing public debt, where transportation works served as a pretext for the French colonialists to tighten control over the colony's budget and economic life. These findings are not only academically valuable in identifying the essence of colonialism but also provide vital historical lessons on public debt management and infrastructure investment within the context of contemporary international integration.

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