ASEAN-China Transport Co-operation: A Pathway to Enhance Export Trade and Mutual Benefits

Haokang Zhang^{1,a,*}

¹University of St Andrews, Fife, UK a. hz51@st-andrews.ac.uk *corresponding author

Abstract: Against the backdrop of global economic integration, economic cooperation between China and ASEAN has become increasingly close. As an economic organisation in Southeast Asia, ASEAN has enhanced the economic strength and international influence of the entire region by promoting economic integration among its member countries. This study examines the interaction between China and ASEAN countries in the area of transport cooperation and the potential impact of these cooperation projects on bilateral trade volumes through case studies of the China-Laos Railway (CLR) and the Kunming-Bangkok Expressway (KBA). The study uses annual import and export statistics provided by the National Bureau of Statistics (NBS) to reveal the direct and indirect impacts of transport infrastructure improvements on trade flows by comparing the growth rates of China's imports and exports of goods with the partner countries before and after the co-operation with the growth rates with ASEAN countries. The results show a significant trade-boosting effect of transport infrastructure cooperation between China and ASEAN countries. The opening of the CLR and the KBA not only improved the efficiency and quality of goods transport, but also promoted the economic development of the countries along the routes. Through these transport infrastructure projects, the trade volume between China and ASEAN countries has increased significantly, the trade structure has been optimised, logistics efficiency has been improved, industrial complementarity has been enhanced, and substantial economic benefits have been brought to both sides.

Keywords: China, ASEAN, trade, infrastructure, transport.

1. Introduction

The Association of Southeast Asian Nations (ASEAN) occupies an important position in the global economy. As the sixth largest economy in the world, ASEAN has a huge market of 650 million people, rich natural resources and labor resources, which make it occupy an important position in the global economy. Transport between China and ASEAN has always been an important tool for trade between the two sides. Since the signing of the China-ASEAN Framework Agreement on Comprehensive Economic Co-operation in 2002, and especially since the opening of the Belt and Road, the economic ties between the two sides have deepened, and since 2020, China and ASEAN have been each other's most substantial trading partners. From the existing studies, although China and ASEAN are closely linked in terms of transport, there is a lack of research on the economic and trade impacts of transport facilities connectivity between China and ASEAN countries. Earlier studies focused more on the

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construction of the China-ASEAN FTA and analyzed the impact of tariff reductions in trade in goods between China and ASEAN on economic growth, trade and investment, given ASEAN's close economic relationship with China. However, none of the above studies have considered how the improvement of transport infrastructure between China and ASEAN affects the international trade of different countries, this paper will examine how China and ASEAN can enhance their export trade by strengthening their transport cooperation with each other and analyze the benefits of such cooperation for both sides.

Currently, China and ASEAN are engaged in co-operation projects in the field of transport infrastructure with the main aim of improving connectivity between countries in the region, thereby enhancing economic exchanges and facilitating the deepening of the regional integration process. These projects cover a wide range of areas such as high-speed railways, highway construction, bridge construction, and the construction of ports and logistics centers.

2. Methods

This paper aims to explore the interactive relationship between China and ASEAN countries in the field of transportation cooperation, and the potential impact of these cooperation projects on bilateral trade volume. In order to achieve this goal, this study will use the annual import and export statistics provided by the National Bureau of Statistics (NBS) to make a detailed analysis of China-Laos Railway (CLR) and Kunming-Bangkok Expressway (KBA). The purpose of this study is to compare and analyze the data changes before and after the growth rate of goods import and export between China and ASEAN countries, to explore the deep-seated reasons of cooperation projects between China and partner countries and the mechanism of their potential impact on bilateral trade relations, and to explore their impact on bilateral trade relations.

This methodology enables a more in-depth analysis of the direct and indirect impacts of China-ASEAN co-operation projects in the field of transport infrastructure on the volume of trade. This not only provides an accurate insight into the trend of the evolution of economic relations between the two sides, but also provides substantial guidance and reference for subsequent cooperation, and provides strong theoretical support and practical reference for future cooperation between the two sides in this area.

2.1. China-Laos Railway

The CLR, since its official opening on 3 December 2021, has become an important transport link between China and Southeast Asian countries. The 414-kilometre-long railway, which connects China's Yunnan Province's Mohan Port with Vientiane, the capital of Laos, is the first international railway constructed with Chinese investment, and is also a key component of the 'Hard Link', which extends southwards to closely connect China with Thailand, Singapore, Malaysia and other countries, forming a cross-border transport network.

The opening of the CLR has not only changed the traditional mode of transport between China and Laos but has also had a far-reaching impact on the medium- and long-distance freight transport market with its advantages of high efficiency and economy. The efficiency and stability of railway transport enables goods to cross the border at a faster speed and lower cost, which greatly promotes the economic development of the regions along the route [1].

The completion and operation of the CLR not only builds a convenient international logistics channel for China and Laos, but also greatly shortens the freight transport time and reduces the logistics cost, so that the cross-border freight transport continues to maintain a strong development trend. The potential of this golden line is continuing to release, and become a 'strong impetus' to promote economic cooperation and win-win shared development between the two countries and the countries along the route. As an important part of the Trans-Asian Railway Central Line, the CLR is not only a landmark project of China-Laos friendship under the Belt and Road Initiative, but also an important support for China to become a radiation center for South and Southeast Asia and to promote domestic and international double circulation. Through the in-depth connection with the 'Belt and Road' network, the CLR will further enhance the attractiveness of Laos as a logistics node in Southeast Asia, and it is expected that the volume of transit trade along the CLR corridor through Laos will increase significantly every year [2].

The CLR not only provides strong support for the trade of countries along the route, but also enables China to achieve win-win cooperation with neighboring countries, promoting synergistic development of the regional economy and enhancing the well-being of the people. This achievement not only reflects the powerful force of international cooperation under the Belt and Road Initiative, but also demonstrates the positive practice of building a community of human destiny. The construction and operation of the CLR undoubtedly provides valuable experience and inspiration for promoting regional economic integration, global connectivity and common development, and is of far-reaching significance for deepening the friendly and cooperative relations between China and Southeast Asian countries, as well as for building a more open, inclusive, balanced and win-win system of regional economic cooperation.

2.1.1. Improved Efficiency of Cargo Transport at Ports

CLR has greatly promoted the prosperity of regional trade, the key to which lies in the improvement of its efficiency in many aspects. In the two years since its opening, the volume of goods sent has surged to 29.1 million tons, the volume of cross-border goods has exceeded 6 million tons, and the types of goods have soared from a dozen at the initial stage to more than 2,900, which has greatly enriched the diversity of traded commodities [3]. For domestic and foreign cargo distributors, the CLR offers faster transport speeds and lower tariff costs than traditional modes, especially the application of cold chain transport technology, which significantly improves the freshness of perishable goods such as fruits and vegetables. For the key agricultural industries in Laos, especially in the fruit trade, the close cooperation between the railway department and the customs department, through the implementation of the 'green channel' and other facilitation measures, has realized the rapid customs clearance of fruits, which meets the requirements of the high standards under the RCEP rules and ensures the smooth flow of agricultural products. In addition, the CLR not only deepens bilateral trade between China and Laos, but also connects with China-Laos-Thailand and China-Laos-Cambodia Railway, extending the trade to Thailand and Cambodia's fragrant rice trade, as well as the export of new energy automobiles through the China-Laos-Thailand-Malaysia freight train, and even facilitating the realization of the freight transport of CLR-Singapore [4]. The realization of 'CLR-Singapore' freight transport has effectively broadened the trade corridor between China and many Southeast Asian countries, and significantly enhanced the efficiency and scale of regional trade in goods.

2.1.2. Improvement of the Quality of Bilateral Trade

CLR has greatly promoted the improvement of the quality of bilateral trade cooperation between China and Laos, which is reflected in multiple dimensions. Firstly, the operation of the railway has given rise to the double-wheel-drive effect of traditional manufacturing trade and service trade, which not only enhances bilateral product trade, but also significantly strengthens China's service trade with Laos, effectively narrows the trade deficit, and provides strong support for the enhancement of competitiveness of Chinese commodities in the Lao market and the realization of foreign exchange earnings from exports [5]. Secondly, in terms of imports, China's massive introduction of agricultural products, minerals, rubber and timber and other resources from Laos has effectively supplemented the shortfall of raw materials such as metal salts and metal ores in the domestic industrial chain, boosted domestic production capacity and output, and in turn promoted the growth of the economy in total.2023 In December 2023, the launching of the Laos grain train of the CLR has significantly shortened the transport time of grain from Laos to China and reduced the transport cost by up to 20 per cent, which greatly enhanced the competitiveness of Chinese commodities [6]. transport costs by as much as 20 per cent, greatly improving transport efficiency, ensuring the stability and costeffectiveness of grain imports, and opening a new path for deeper cooperation between China and Laos in grain trade. Thirdly, According to China's customs data, China's exports to Laos cover a wide range of commodities, more than 3,800 types, which is more than 10 times the number of imports, including electromechanical equipment, electronic Equipment, iron and steel, plastics, rubbers, chemicals, transport equipment, textiles, mining materials, ceramics and glass products, etc. The processed finished products complement the raw materials imported from Laos, for example, the mining materials directly support Laos's mining industry, while the rubber products are derived from the original rubber of Laos. For example, mining materials directly support the Lao mining industry, while rubber products originate from the deep processing of raw rubber in Laos. This trade structure of back and forth strengthens the cooperation and complementarity between the industries of China and Laos and enhances the quality and depth of trade cooperation.

2.2. Kunming-Bangkok Expressway

The KBA, an international highway spanning China, Laos and Thailand, with a total length of 1,807 kilometers, is not only a key component of the Asian Highway network, but also a landmark project under the framework of the China - ASEAN Free Trade Area (CAFTA) and the Greater Mekong Subregion (GMS) cooperation. It not only connects the three countries geographically, but also builds a bridge between China and Southeast Asian countries in terms of economic, cultural and social interactions.

The KBA starts in Kunming City, Yunnan Province in southwestern China and ends in Bangkok, the capital of Thailand. Its section in China has already made significant progress. The 674 km Chinese section of the KBA from Kunming to Xiaomengyang has been built to a high standard, with special protection measures for the potential Asian elephant migration corridors along the route, demonstrating respect for the ecosystem and protection of the environment. In Laos and Thailand, the 253-kilometre and 890-kilometre sections of the KBA were similarly completely upgraded [7].

The opening of the KBA has had a far-reaching impact on trade, logistics, tourism and investment among the three countries. In recent years, with the deepening of the open-door policy of each country, the interconnection of water transport, air transport, land transport and other infrastructures has been significantly strengthened, and the positive pulling effect of the KBA has led to the rapid development of trade and investment co-operation between Yunnan, Laos and Thailand. The construction of KBA not only deepens the economic ties between China and Southeast Asian countries, but also provides a solid support for China's 'One Belt, One Road' initiative, promotes the process of regional economic integration, and shows a broad prospect of regional cooperation.

The KBA facilitates trade mainly by greatly facilitating overland trade between China, Thailand and Laos, providing easy access to all three countries. Through the KBA, a large amount of Chinese goods can enter other Southeast Asian countries and even South Asian countries through Laos and Thailand. The construction of this highway has not only improved transport conditions along the route, but also significantly reduced transport time. For example, it takes only about 10 hours to travel from Kunming in central Yunnan Province to the southernmost port of Yunnan Province, Mohan, via the KBA, and the transport time from Kunming to Bangkok, the capital of Thailand, has been shortened from more than 40 hours prior to the construction of the road to more than 20 hours after its opening, which is a significant reduction in the cost of transport [8]. This reduction in cost makes the overall cost of goods fall, making goods more price advantage.

In addition, in 2010, Yunnan Province, in view of the complementarity of market demand with Laos and Thailand, put forward the 'vegetables for oil, flowers for fruits, cold fruits for hot fruits,' the optimisation strategy of industrial complementarity, which further promotes the role of the KBA [9]. This strategy further promotes the role of KBA. The implementation of this strategy is not only beneficial to the economic cooperation between Yunnan Province, Laos and Thailand, but also helps to promote the economic development of the regions along the KBA.

3. **Results**

As can be seen from the Figure 1, before CLR was opened to traffic in 2021, the growth rate of export trade between Laos and China was equal to or less than that of China and ASEAN on the whole. However, after the opening of CLR in 2021, despite the influence of COVID-19, the trade volume between China and Laos showed a sharp upward trend, which showed an obvious gap with the obvious decline of trade volume between China and ASEAN.



Figure 1: China- ASEAN, China-Laos rate [10].

Figure 2 shows that after the opening of the KBA in 2008, despite the impact of the economic crisis, the growth rate of trade volume between China and Laos still increased substantially, which was much higher than that of China and ASEAN. Although the growth rate of trade volume in Thailand was very slow due to reasons such as not directly bordering China, it still maintained the growth rate of trade volume.

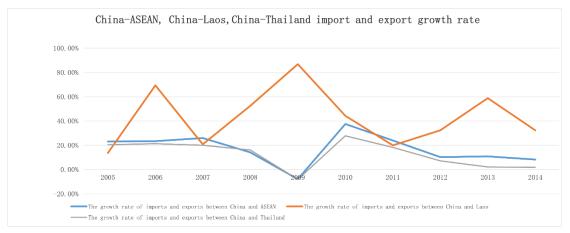


Figure 2: China- ASEAN, China-Laos rate, China- Thailand rate [11].

4. Conclusions

This study finds that, in general, transport cooperation between China and ASEAN countries can greatly benefit trade between the two sides, which not only enhances the effectiveness of cargo transport at the ports and the quality of trade cooperation, but also simultaneously promotes the economic development of the countries along the route based on the complementary nature of goods. As the world's two largest economies, China and ASEAN should continue to strengthen transport infrastructure cooperation to promote their own economic development and regional integration. It should be noted that this study only analyses two cases of road connectivity, the CLR and the KBA, and they are both countries bordering or close to China, without taking into account ASEAN countries such as Malaysia, Singapore, Indonesia and other ASEAN countries that are connected to China by sea.

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