

# ***An Analysis of Development Opportunities and Challenges for China and ASEAN in the Post-epidemic Era***

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**Abstract:** 2023 is the tenth year since the “One Belt One Road” initiative was proposed, and it is also China’s opening up after three years of the Covid-19 epidemic. Against the backdrop of the Russo-Ukraine War and global “de-dollarization”, ASEAN has begun to gradually reduce its dependence on the US dollar. This research focuses on the challenges and opportunities brought by this situation to the implementation of “One Belt One Road” in ASEAN. This paper first analyzes the macroeconomic advantages of China’s strengthening of cooperation and investment with ASEAN, and then, based on the difference in difference model, it is proved that China’s direct investment in ASEAN countries does not trigger a “debt trap”. Finally, China should increase cooperation with ASEAN in digital technology, green technology, artificial intelligence, and blockchain. At the same time, when China relies on the development of ASEAN to promote the globalization of the RMB, it needs to increase its convertibility and availability.

**Keywords:** The Belt and Road, de-dollarization, ASEAN, Post-epidemic Era

## **1. Introduction**

The One Belt One Road Initiative is one of the major economic endeavors in the world. It involves more than 60 countries, accounting for 45 percent of the world’s population and \$13 trillion in gross domestic product (GDP). The nations of the Association of Southeast Asian Nations (ASEAN), which together make up China’s largest trading partner, are among them [1]. This research analyzes the One Belt One Road development opportunities and challenges focusing on the ASEAN region. Until now, there are many essays on the analysis of debt traps. For example, Jin Gang and Shen Kunrong based on the difference in difference analysis concluded that the “B&R” initiative has significantly increased the investment of Chinese enterprises in the transportation industry of countries along the route, meanwhile has not significantly increased the “problem investment” in transportation [2]. Qiu Yu and Pan Pan combined the empirical tests of the macro-level data of the countries along the route and found that the joint construction of this initiative mainly has a positive effect on reducing the debt risk of the countries along the route by reducing the scale of debt and enhancing fiscal sustainability [3]. Bao Yang, based on the empirical test of 132 countries’ data from 2005 to 2017, shows that after the “One Belt One Road” initiative, the government debts of the countries along the route have been significantly reduced, especially of those countries whose income level and financial development

level is relatively low, but with comparably close diplomatic relations with China. This encourages the expansion of investment, taxation, and employment in the host countries [4].

However, there is almost no research that separately analyzes the debt effect of the One Belt One Road policy on the ASEAN nations. Because this article is aimed at the analysis of ASEAN, it is not convincing to directly adopt the previous conclusions from the research about the countries along the route. Therefore, this paper will focus on China's direct investment in ASEAN and use the difference-in-differences model to analyze the debt effect. The hypothesis put forward is that the One Belt One Road initiative does not lead to an increase in the debt levels of ASEAN countries.

## **2. Development Opportunity**

Since the beginning of 2020, the COVID-19 epidemic has raged and seriously threatened the development of the world economy. Supply bottlenecks have emerged, global inflation has gotten worse, monetary policy has changed, and economic and trade frictions have intensified. The Sino-US trade war has exacerbated the decoupling of the Sino-US economies. The stable and healthy development of the Chinese economy is seriously threatened. Finding new sustainable economic growth points and effectively improving the right to speak in global economic governance is particularly important.

### **2.1. Impact of COVID-19 and the Restructuring of the Global Industrial Chain**

According to the "World Economic Outlook Report" released by the International Monetary Fund (IMF) in October 2021, the global economy contracted by 3.1% year-on-year in 2020 [5]. According to information made public by China's National Bureau of Statistics of China in July 2022, GDP barely increased by 0.4% sequentially in the second quarter of 2022. The GDP of China, in comparison, expanded by 4.8% in the first quarter of 2023 before declining sharply in the following quarter. In addition to the impact of the epidemic on China's economy, the restructuring of the global industrial chain led by developed economies is also an important factor affecting China's economic development. The main strategic changes of developed economies such as the United States, the European Union, Japan, Australia, Canada, and South Korea against China are to reduce their dependence on the Chinese economy in terms of the global industrial chain. Large multinational companies such as Apple, Samsung, Nike, LG, and Microsoft have all scaled back their operations in China. The production of their key information industry components has been transferred from China to Vietnam, India, Thailand, Indonesia, and other Southeast Asian regions, and many manufacturing industries have been transferred to India and Southeast Asian countries to avoid the high tariffs imposed by the United States on China [6].

However, during the epidemic, trade between China and ASEAN bucked the trend and rose, and ASEAN surpassed the European Union to become China's largest trading partner. The advantages of cross-border e-commerce, which is less affected by the epidemic and has a low degree of physical contact, have further emerged. E-commerce not only effectively hedges the negative impact of the epidemic on tourism and transportation industries but is also reshaping international trade and consumption patterns in the post-epidemic era.

The General Administration of Customs recently revealed data showing an increase in China's imports and exports to important economic partners like ASEAN, the European Union, and the United States. The largest trading partner of China in the first three quarters of 2022 is ASEAN. With a surge of 15.2%, the value of commerce with ASEAN has reached 4.7 trillion yuan, making up 15.1% of all foreign trade in China. Among them, the export to ASEAN increased by 22% to 2.73 trillion yuan; the import from ASEAN increased by 6.9% to 1.97 trillion yuan; and the trade surplus with ASEAN

increased by 93.4% to 753.6 billion yuan. According to statistics, China's cross-border e-commerce exports to ASEAN rose in the first half of 2022 [7].

## 2.2. The Turbulent International Situation

Since March 2022, the Federal Reserve has announced increases in the federal funds rate. The assets of other countries in the world have shrunk, funds have spilled out, and currencies have depreciated. The currencies of ASEAN countries have shown a trend of depreciation as a whole against the US dollar. Under the influence of the Russia-Ukraine conflict, the supply chains of many important commodity markets, including crude oil, natural gas, steel, and various non-ferrous metals, have fallen into chaos. Commodity prices have risen to varying degrees, which in turn has increased the upward pressure on global inflation. Moreover, since the outbreak of the Russia-Ukraine conflict, various countries and regions have begun to re-examine the impact of the dollar-dominated international financial system on their own countries. In 2022, ASEAN countries signed the "Agreement on the Establishment of a Digital System".

At the end of March 2023, ASEAN held an economic-related meeting in Malaysia. The content of the meeting is to abandon the Western currencies such as the US dollar, and then use the new settlement policy of ASEAN or East Asian currencies. For ASEAN countries, they can solve their own economic problems more independently. Because using the currency of the country or region can reduce ASEAN's dependence on the US dollar and effectively guarantee the financial security of ASEAN. The Indonesian authorities even called on all ASEAN member states to immediately stop the US SWIFT payment system and use local or currency swaps for settlement. They believe that abandoning the US payment system can protect financial transactions from the influence of geopolitical marginal security factors, which is based on new revelations from the Russia-Ukraine crisis.

ASEAN countries abandon the US dollar-anchored SWIFT payment system and switch to local currencies for settlement. In addition to the ten ASEAN countries, China may become another winner. For many years, China and ASEAN have been each other's largest trading partners, and the Free Trade Area between China and ASEAN is the most populous free trade area in the world and the largest one consists of developing countries. In addition, when Gao Jinhong held talks with Foreign Minister Qin Gang, he focused on promoting the China-ASEAN Free Trade Area 3.0 negotiations to achieve results and provide new momentum for the economic growth of both sides. China's trade volume with the other two major trading partners, the European Union and the United States is decreasing, and the total trade is also lagging. China-ASEAN economic and trade cooperation has risen against the trend, which proves the closeness of the economic relationship between the two sides. Once the two sides fully implement the local currency settlement policy, it will be another milestone in the internationalization of the RMB.

## 3. Cooperation Challenge

Since 2017, with the continuous advancement of overseas investment projects based on the "One Belt One Road" initiative, relevant countries led by the United States have created a "debt trap theory" against China, claiming that China deliberately provides loans to developing countries with debt risks, letting these countries fall into a debt crisis. So, the "debt trap theory" has become an important public opinion tool to attack China in Southeast Asia. Indian scholar Sachdeva proposed that China's investment in countries under the "Belt and Road" will increase the debt burden of the recipient countries, forcing them to rely on China when they cannot pay [8]. American scholar Jeff Smith et al. pointed out that in the cooperation between China and Sri Lanka under the Belt and Road Initiative, China intentionally burdened Sri Lanka with debts beyond its ability to repay in order to achieve its

own strategic interests [9]. Based on this, he proposed that China arrange a “debt trap” through the One Belt One Road Initiative.

### 3.1. Study design

#### 3.1.1. Empirical Model

The policy effect evaluation usually adopts the difference-in-differences model (DID). Assume that ASEAN countries are the treatment group, and countries not along the One Belt and One Road are the control group. By measuring the difference between the treatment group and the control group before and after the adoption of the policy, it is feasible to determine the policy effect of investment under the condition that other potential influencing factors are under control. Since Timor-Leste joined the Belt and Road Policy and ASEAN relatively late, this country is not included in the treatment group. 30 countries are selected as the control group after comparing multiple data sets on national conditions, political systems, income levels, and development potential. First, establish the following standard difference in difference model for testing:

$$y_{ct} = \alpha_0 + \theta didct + \gamma X_{ct} + country_{ct} + time_{ct} + \varepsilon_{ct}$$

The explained variable  $y_{ct}$  is indicators to evaluate the national debt level.  $didct$  is the interaction item of the country dummy variable and the time dummy variable which includes years before and after the implementation of the policy. The country dummy variable of those who have not received the investment of China is set to 0, and others are set to 1. Because the impact of the 2008 financial crisis on the international situation is difficult to measure. Therefore, data from 2010 to 2019 are chosen in this study. Considering that China proposed the “One Belt One Road” initiative in 2013 and the policy may have a lag effect, the time dummy variable before 2014 is set to 0, and others are set to 1.  $\theta$  is the key coefficient that represents the effect of investment under the “One Belt and One Road” initiative on the debt level of ASEAN countries. This coefficient is the ideal factor to judge whether it is a debt trap.

#### 3.1.2. Variable and Data Description

There are many ways to measure debt levels, such as the number of problematic investments [10]. As shown in Table 1, this paper adopts the method of Liu Jie et al., which selects the total debt stock, the external debt stock to GNI(%), the debt service to export, and the proportion of short-term debt in the debt stock [11]. The control variables are the GDP per capita of each country, the country’s population, and the proportion of direct investment by foreign countries in GNI.

Table 1: Descriptive statistic.

Variables	Obs	Mean	Std. Dev.	Min	Max
ldebtstock	398	9.628	1.769	4.331	13.322
debt_gni	398	44.737	43.277	1.8	369.3
debt_sce	398	11.798	12.844	0	129.7
shortdebt	398	12.831	11.482	0	84.4
fdi_gni	398	.034	.048	-.113	.463
lpgdp	398	7.727	.914	5.993	9.59
lpop	398	16.833	1.394	13.52	19.412

The debt data and control variables mainly come from the World Bank database, and the investment amount comes from the “China Global Investment Tracker” database released by the American Enterprise Institute which includes information on the foreign investment from China of more than 100 million yuan [5,12]. It’s not all investments, but it happens to improve the accuracy of the data — large investments are more likely to lead to debt traps. (Table 1 is the descriptive statistics of variables)

### 3.1.3. Analysis of Empirical Results

As shown in Table 2, based on the regression results, it can be found that the estimated coefficients of the key explanatory variables corresponding to the four debt indicators are not statistically significant, indicating that the “One Belt One Road” initiative does not increase the debt level of these four types of debt indicators of countries along the ASEAN route. Overall, investment in the “One Belt One Road” does not trigger a “debt trap” effect. As for the control variables, the population significantly increases the total stock of external debt and the external debt to total income. Moreover, GDP per capita also significantly increases the total stock of debt but significantly reduces the proportion of the stock of debt to GNI and the debt service ratio. This situation is highly likely to occur, as the investment from this initiative may ascend both the total external debt and the gross national income. In this way, investment may have a negative effect on the proportion of external debt to GNI. The percentage of net foreign direct investment to national income has no obvious impact on the debt of ASEAN countries.

Table 2: Baseline regression result.

	(1)	(2)	(3)	(4)
	Debtstock	External debt stocks to GNI%	Debt service to exports %	Short-term debtstocks %
did	-0.041 (0.055)	0.608 (5.624)	-1.339 (2.578)	1.376 (2.154)
lpop	2.834*** (0.343)	120.684*** (34.979)	8.469 (16.565)	-8.546 (13.397)
lpgdp	0.249*** (0.069)	-40.414*** (7.035)	-11.697*** (3.256)	-2.988 (2.695)
fdi_gni	-0.192 (0.244)	-12.506 (24.934)	10.942 (17.024)	-10.857 (9.550)
cons	-39.996*** (5.909)	-1.7e+03** (603.037)	-40.947 (284.891)	180.104 (230.975)
N	396	396	390	396
adj. R <sup>2</sup>	0.990	0.826	0.586	0.637

Standard errors in parentheses

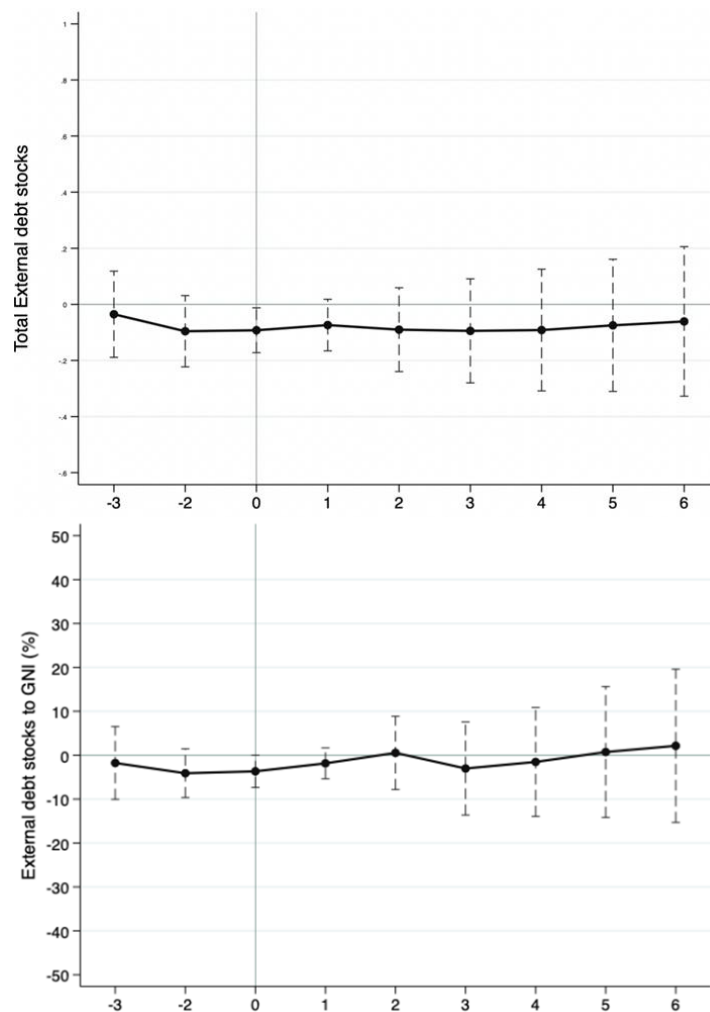
\* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

### 3.1.4. Robust Test

The most important assumption of the difference-in-differences method is that even if there are differences between the experimental group and the control group after the implementation of the OBOR, the time trends of these two groups must be consistent. In this case, it can be considered that the matching of the experimental group and the control group is appropriate. For multi-year panel data, the hypothesis of parallel trends can be tested by regression methods. The empirical test regression equation setting form is as follows:

$$y_{ct} = \alpha_0 + \sum_{k=2014}^{2019} \theta_k did_{ct} + \gamma X_{ct} + country_c + time_t + \varepsilon_{ct}$$

In this part of the model, 3 years before the implementation of the initiative, and 6 years after the initiative are taken to set 9 dummy variables of the year. After that, *did* is the interaction of the policy and year which is set to 1 of the observation year and the other is set to 0. This interaction term represents the “difference between the experimental and control groups in the years before and after the implementation of the initiative”. If the three interaction items before the implementation of the initiative are not significant, it means that there is no significant difference before the initiative between the experimental group and the control group, which satisfies the parallel trend hypothesis. Other variable settings are consistent with the baseline model. As can be seen in Figure 1, before 2014, the estimated parameter of the interactions of all four indicators fell within the 95% confidence interval, statistically meaning not significant, which indicates that the changing trends of ASEAN countries which received the investment from “One belt One Road” and countries, not along the route are consistent. Thus, the sample satisfies the parallel trends assumption required for the difference-in-differences model.





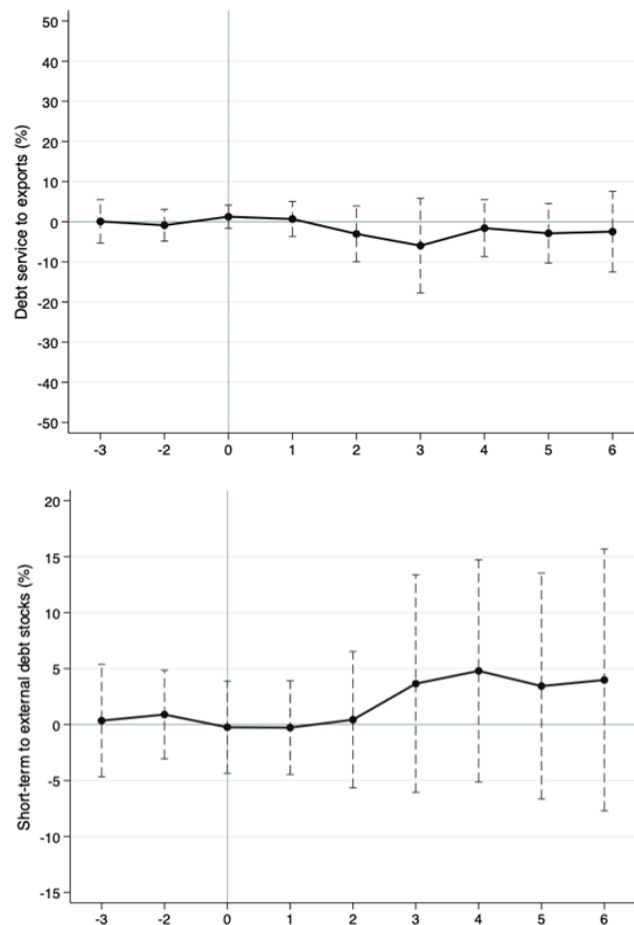


Figure 1: Parallel trend test.

#### 4. Discussion

In the post-epidemic era, it is urgent to promote cooperation with ASEAN. First, COVID-19 has undeniably transformed the structure of global business. And with the advent of the era of digital globalization, China should strengthen cooperation with ASEAN in the fields of digital technology, green technology, artificial intelligence, and blockchain. Meanwhile, in this process, the entrepreneurs should take this opportunity to increase the use of the RMB. Secondly, the two sides have great potential for cooperation in sustainable development and China should make full use of the abundant renewable energy resources of ASEAN countries, such as wind energy, tidal energy, solar energy, etc. Among countries along the One Belt One Road, Southeast Asia has the highest efficiency in green energy utilization. Join hands to promote the green and sustainable development of the regional economy by increasing green infrastructure and cooperating to create more new energy products such as electric vehicles and so on. China should also identify the energy security vulnerabilities of Southeast Asian countries in order to accurately target the distribution of renewable energy and carry out targeted project cooperation. At the same time, both sides should strengthen regional coal and coal power regulation, promote clean energy financing, and the development of supply chains for key raw materials. Thirdly, at present, China has very extensive experience in new business models, such as e-commerce, digital payment, and Internet medical care. Private capital can be introduced to cooperate with the government, such as through the presence of BAT companies. By leveraging the international core technologies of large private enterprises, such as Baidu, Alibaba, and Tencent, as well as the existing international capital operation advantages of leading private

capital, a new model of digital cooperation between government and enterprises can be developed. Many businesses in China have international trading advantages, such as 5G, electric vehicles, the electrical Internet of Things, cloud computing, etc. China and ASEAN can increase cooperation to improve the level of informatization and digitization of both sides. At the same time, the penetration of the digital economy and digital technology can also be deepened in every production process to promote the convenience and intelligence of international trade by incorporating the digital platform into international logistics management [13].

## 5. Conclusion

It has been proven that the “One Belt One Road” Initiative is not a debt trap for ASEAN countries. As mentioned in this paper, the financial crisis in 2008 has a certain impact on the research conclusion, so this year is actively avoided. But the financial crisis itself has awakened the idea of global de-dollarization. In the case of more substantial data, it would be better if the literature could include or analyze 2008 independently. In general, ASEAN members encourage the use of local currencies for cross-border transactions within the region, and most of them have agreed with China to settle in their own currencies. It will assist China and ASEAN in enhancing their collaboration on payment connectivity in order to achieve quicker, less expensive, more transparent, and more inclusive cross-border payment services. Meanwhile, the Western media continues to stigmatize the debt trap. China should face up to public opinion and actively respond with facts and figures. Moreover, China should properly resolve the debt issue. Finally, at this juncture of both opportunities and challenges, China should strengthen trade and investment cooperation with ASEAN countries. Especially in green energy and big data, China should tap the technological and production capacity advantages of different countries, implement differentiated development strategies, and jointly promote win-win results under the One Belt, One Road Initiative.

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