



Received: 20 April 2025

Revised: 2 November 2025

Accepted: 10 November 2025

CHINESE DIRECT INVESTMENT AND MACROECONOMIC DRIVERS OF GROWTH IN LAO PDR

Soukzana LADTAKOUN¹, Somchith SOMPASEUTH^{2*} and Baoming LI³

¹ Economics and Management School, Wuhan University, China;
soukzana.ltk@gmail.com

² Business School, Zhengzhou University, China; Faculty of Economics & Business
Management, National University of Laos, Lao PDR.; s.sompaseuth@nuol.edu.la
(Corresponding Author)

³ Business School, Zhengzhou University, China; MIC International Business School,
Haikou University of Economics, China; lbmzz@163.com

Handling Editor:

Professor Dr. Phouphet KYOPHILAVONG

National University of Laos, Lao PDR.

(This article belongs to Theme 1: Business & Economics in Industry 5.0)

Reviewers:

1) Assistant Professor Dr. Chuleerat KONGRUANG Walailak University, Thailand

2) Dr. Lobsang Yeshe ARTSA

Nirmal Niranjana, India

3) Dr. Manoj Kumar VANDANAPU

Forbes Finance Council, USA.

Abstract

This study empirically investigates the macroeconomic determinants of economic growth in Lao PDR, focusing specifically on the impact of Chinese Direct Investment (CDI) alongside other key economic indicators. Utilizing the Autoregressive Distributed Lag (ARDL) model on annual data from 1996 to 2022, the research evaluates both short-run and long-run dynamics. The empirical findings demonstrate that CDI serves as a robust catalyst for economic expansion, consistently contributing to GDP growth through targeted capital inflows, the development of vital infrastructure, and substantial job creation, particularly in the hydropower and agricultural sectors. Furthermore, trade openness, workforce participation, and tourism emerge as significant positive drivers of sustained economic output. Conversely, general Foreign Direct Investment (FDI) exhibits inconsistent and occasionally negative impacts, underscoring critical vulnerabilities in institutional governance and absorptive capacity. While moderate inflation supports economic activity, excessive levels prove highly detrimental. To ensure long-term, sustainable, and highly resilient economic growth, policymakers must strategically diversify international trade partnerships, aggressively upskill the domestic workforce, effectively manage inflationary pressures, and systematically strengthen institutional governance to maximize future benefits from foreign investment.

Keywords: Chinese Direct Investment, Economic Growth, Autoregressive Distributed Lag, Trade Openness, Lao PDR

Citation Information: Ladtakoun, S., Sompaseuth, S., & Li, B. (2026). Chinese Direct Investment and Macroeconomic Drivers of Growth in Lao PDR. *Asian Administration and Management Review*, 9(1), Article 3. <https://doi.org/10.14456/aamr.2026.3>

Introduction

International investment in business, or FDI, has consistently been regarded as a potential source of growth and development, given its effectiveness in developing countries' economies. It leads to investments in critical areas such as infrastructure, manufacturing, and services, which in turn drive economic growth and employment opportunities (Shrestha & Kyophilavong, 2021). Countries have in the past tried to shift their focus towards attracting FDI as a way of protecting their resources, developing their infrastructure, and markets. A more recent example of this trend is China's Belt and Road Initiative (BRI), introduced in 2013, which seeks to enhance global links and cooperation through large infrastructure projects. It includes Two Movements: the "Silk Road Economic Belt," which is land-based, and the "21st Century Maritime Silk Road," which is sea-based, having the main aim of encouraging trade, investment, and regional integration (Yang et al., 2020).

It should be noted that the Lao People's Democratic Republic, or Lao PDR, is a landlocked country in South-East Asia that has increasingly benefited from China's BRI. Laos is strategically located, serving as a transit hub for Southeast Asian nations from China, making the BRI a good investment for the country (Tantanawat, 2018). The construction of the China-Laos railway, one of the most important BRI railways, also demonstrates China's endeavor to link Laos with Yunnan province of China. Furthermore, Laos has been able to attract Chinese Direct Investments (CDIs) in many sectors, including hydropower, mining, agriculture, and manufacturing, which are key to the country's economic growth. The abundant water resources in Laos made the region highly favorable for attracting CDI in hydropower, which can generate electricity for local consumption and for export to neighboring countries (Faye et al., 2004).

The attraction of CDI investments to the Lao PDR has yielded various economic gains. It resulted in employment generation, technology acquisition, and enhancement in the development of energy, agriculture, and industrial sectors (Shrestha & Kyophilavong, 2021). For instance, CDIs in the agriculture sector focused more on rubber and banana plantations in Laos, which helped Laos diversify its agricultural products and export potential (Wang et al., 2019). Plus, CDIs in manufacturing are also devoted to establishing Special Economic Zones (SEZs) and other industrial parks, creating jobs for locals and aiding technology transfer (Jeong-Soo & Kyophilavong, 2013). Major Projects, such as the China-Laos Railway and the import of other roads and bridges, have considerably increased Laos' regional connectivity and boosted its participation in regional trade.

However, CDI offers challenges to the Lao PDR as well. Several critics claim that while increasing a country's electricity generation capacity, hydropower projects exacerbate the impoverishment of local people and the destruction of ecosystems (Akyüz, 2012), since communities are often forcibly relocated. These projects have raised concerns about the potential long-term ecological impacts of dam construction on the Mekong River (Xiao et al., 2024) especially regarding fishery resources and water supplies for downstream countries. Also, the more Laos becomes dependent on CDI, the greater the concern about dependency, or economic overreliance, in which external factors would rather shock the country than aid in developing policies, making the country quite different (Andersson et al., 2009). The economic impact of CDI and the region's environmental preservation are very much at odds with the Lao government's policy.

Despite a wealth of literature on the impact of FDI on economic growth, there is a distinct lack of attention to the short- and long-term impacts of CDI on Lao PDR, especially within the BRI framework. More often than not, researchers either focus on the broader impacts of FDI or on other developing countries, thereby overlooking the Lao PDR's unique CDI challenges, especially regarding its impact on employment, trade liberalization, and environmental sustainability. Additionally, Lao CDI's other economic impacts, such as productivity, inflation, and tourism, are understudied. To fill these gaps, the present study analyzes the impacts of CDI

on Lao PDR's economic growth employing the ARDL model for the period 1996-2022. The study's objectives are: (1) to analyze the short and long-term impacts of CDI on Lao PDR's economic growth; (2) to examine the role of trade openness, workforce, inflation, and tourism as supporting factors of growth; and (3) to formulate sound policy instruments for constructive economic change for Lao PDR.

Research and innovation have a decisive influence on the competitiveness and economic growth of nations, especially developing ones. This is the capacity to produce, modify, or implement a new idea, technology, process, or way of doing things that improves a product or service or enhances the organization's functioning. In terms of entrepreneurship, this emphasizes increasing the degree of innovativeness in establishing new business processes, business models, and solutions that address market gaps and inefficiencies. In developing countries such as the Lao PDR, policy-makers must cultivate an environment conducive to industry innovation and diversification to drive sustainable economic growth. Innovating in sectors other than agriculture and resource management that shape how the economy functions is a key component of building a more robust economy. Entrepreneurship and FDI can create new industries and leverage innovative sectors to integrate the country into the global economy. However, there are also many barriers to encouraging innovation, and they include things like education, access to capital and resources, infrastructure, as well as policies that promote innovation and R&D (Acs et al., 2023). Therefore, it is imperative to understand the mechanisms and phenomena of innovation to support sustainable and equitable economic development.

Literature Review

Lao PDR has long acknowledged the importance of foreign investment for the economy. This can be seen in the seventh phase of the National Socio-Economic Development Plan for the period 2016-2020, which sets targets to attract foreign direct investment, especially in the natural resources sector (Ministry of Planning and Investment, 2016). With large coal, timber, and gold and gemstone reserves, and a large hydropower potential, the country attracted foreign direct investment and was called 'the Battery of Southeast Asia'. China is one of the largest investors in the country and has had normalized relations with Laos since 1989, enabling investment. In the last 10 years, the country has attracted FDI in the hydropower, mining, agriculture, and construction sectors, which have helped drive economic growth in Laos (Tantanawat, 2018). About 25% of the contracting work in Laos has been done by Chinese companies, as they have been quite active in the Lao market (Shrestha & Kyophilavong, 2021). Between 2014 and 2022, Chinese investment flows fluctuated significantly, peaking in 2020 at \$1,545.3 million but falling to just \$253.43 million in 2022, largely due to shifts in China's investment goals and offshore factors.

FDI, especially through the Chinese Belt and Road Initiative, boosts economic development in developing countries by easing investment constraints and stimulating infrastructure, manufacturing, and agricultural development. It helps economic growth through technology transfer and job creation that alter the export profile, such as mechanized agriculture in Southeast Asia, which modernized plantations in the region, and increases GDP by 1-2% through economic spillovers and regional integration created by rail and dam infrastructure (León-Gómez et al., 2021). The effects of trade openness (TOP) are even greater. It increases competition in the market, which has been important for the 15% annual trade growth between ASEAN countries and the BRI. However, the economy's nonlinear dynamics pose a risk of deindustrialization over the 60-80% GDP threshold (Foo et al., 2020). The demographic dividend and investment in human capital have contributed 0.5-1% to economic growth through the workforce, which will need upskilling due to the aging population and gender inequity. Moderate inflation in the 3-7% range supports economic growth by easing the debt

burden and sustaining demand. However, excessively high inflation will require monetary stabilization, as it will lose significant attention and confidence (Miao et al., 2020).

Some areas of CDI continue to face challenges and pitfalls amid geopolitical biases, which may lead to inefficient “white elephants”. In some cases, debt burdens exceeding 100% of GDP and over-dependence on economies that are susceptible to shocks, such as Beijing policy changes, can lead to the aforementioned challenges (Ferdinand, 2016). Negative impacts on the environment and the leakage of benefits from the constructed dams to elites may compound inequality, as ecosystems are disrupted, and inequality may lead to greater social harms. Tourism can potentially mitigate these negative impacts and provide economic benefits. Under the tourism-led growth hypothesis, tourism can generate jobs and foreign exchange and account for 10-15% of GDP in economically reliant areas; however, overtourism can drain an area's economic resources (Bilen et al., 2017). In the Lao PDR, aligning CDI with TOP and sustainable tourism, reducing inflation, upgrading labor, and strengthening governance reforms are necessary to promote equitable and resilient development (Kyophilavong et al., 2017).

Research Methodology

This research examines how CDI drove the Lao PDR's economic growth from 1996 to 2022. Data was sourced from the World Bank, the Lao PDR's Ministry of Planning and Investment (MPI), the Lao Statistical Bureau, the Belt and Road Portal, and the Bank of Lao PDR. The ARDL model was applied to conduct quantitative analysis of the relationships among CDI, Chinese Trade Openness (CTO), the workforce (WORK), FDI, tourism arrivals (TOA), inflation (INFL), and GDP per capita (GDPP). The ARDL approach is suitable because it allows for both short- and long-run analyses and applies to time-series data with mixed integration orders (Pesaran & Shin, 1998; Pesaran et al., 2001). To avoid spurious regression, unit root tests (ADF and Phillips-Perron) must first establish stationarity (Dickey & Fuller, 1979). The ARDL approach also employs the F-statistic to perform a bounds test for cointegration, which, if sufficiently high, rejects the null of no long-run relationship (Nkoro & Uko, 2016).

The diagnostic tests described confirm the model's reliability under the OLS assumptions: White's test assesses heteroscedasticity (White, 1980), serial correlation is evaluated with the Breusch-Godfrey (Godfrey, 1978). The Jarque-Bera test considers the normality of the residuals for hypothesis testing, and the CUSUM/CUSUMSQ tests evaluate the presence of structural breaks (Brown et al., 1975). For model specification, the ARDL is integrated with the Error Correction Model (ECM), which tracks short-run deviations and the rates at which long-run equilibria are restored. Keller's F-bound test, along with the t-tests, is used to confirm cointegration when results are inconclusive (Pesaran et al., 2001). This permits the dynamic assessment of CDI's impact, along with other variables, on GDPP in Lao PDR.

Research Result

Descriptive statistics for the log-transformed primary variables summarize the 27 observations, which were meant to reduce variance and skewness, and are calculated for more stable analyses. Mean values are calculated, suggesting means and medians in the skewed FDI values, indicating skewness. The standard deviation indicates that Chinese and general foreign investments are highly variable. On trade openness and consumer prices, observed skewness and leptokurtosis distributions are examined, with inflation showing positive skew and normality. The workforce and GDP growth are showing normality, as indicated by the Jarque-Bera Tests ($p > 0.05$) for inflation and ($p < 0.05$) for the workforce and GDP growth, trade openness, and consumer prices. In line with this, Table 2's ADF unit root tests confirm non-stationarity at levels I(0) or I(1); AIC-based optimal lags vary, affirming ARDL suitability,

with a uniform lag of 2 selected for consistency, comparability, and efficiency despite better fits for some variables at lower lags.

Table 1 Descriptive Result

	lnGDPP	lnFDI	lnTOP	lnTOA	lnINF	lnCDI	lnCTO	lnWORK	lnCPI
Mean	6.803	4.927	7.256	7.309	2.129	4.259	10.150	7.813	4.470
Median	6.842	5.706	7.656	7.240	2.061	5.324	11.228	7.797	4.729
Maximum	7.863	7.434	8.175	8.495	4.838	7.284	13.239	8.031	5.175
Minimum	5.497	1.378	1.271	1.271	0.030	0.693	2.567	7.595	1.948
Std. Dev.	0.870	2.057	1.320	1.320	1.082	2.656	3.109	0.129	0.824

Table 2 ADF unit root tests

Variable	ADF Test Statistic				Conclusion
	Level		First Difference		
	Constant	Constant and trend	Constant	Constant and trend	
lnGDPP	-1.172	-1.052	-3.546***	-3.673**	I(1)
lnFDI	-1.435	-1.682	-5.226***	-5.649***	I(1)
lnTOP	-2.584*	-2.573	-4.869***	-4.809***	I(0) or I(1)
lnTOA	-2.212	-1.252	-3.854***	-4.968***	I(1)
lnINF	-1.893	-1.838	-4.320***	-4.629***	I(1)
lnCDI	-2.632*	-0.446	-1.882	-3.104	I(0)
lnCTO	-3.785***	-2.748	-2.817*	-3.612**	I(0) or I(1)
lnWORK	0.119	-2.673	-3.495***	-3.866**	I(1)
lnCPI	-5.374***	-4.944***	-2.412	-2.281	I(1)

Note: *, **, *** represents a significance level of 10%, 5% and 1% respectively

Table 3 provides insights into the long-run implications of eight ARDGDPdels for the intersection of economic variables and GDP per capita in Lao PDR during 1996-2022. CDI constitutes a major growth engine, as shown by positive, statistically significant coefficients in Models 1, 3, 5, and 6, which invest in and spur productivity spillovers to hydropower, mining, and BRI-adjacent infrastructure. CDI may elevate GDPP by 0.2-0.3% for each percentage-point increase in CDI inflow. CTO provides significant complementary support by showing strong positive coefficients in critical models, particularly Model 3, where BRI connections improve bilateral partnerships, market expansion, and economic efficiency, and integrate Lao PDR into regional production. WORK buttresses sustainability, as shown by significant positives in Models 4 and 8, reflecting the compounding returns of human capital investment as agrarian economies evolve. On the other hand, general FDI presents a problematic long-run negative effect, as indicated by Models 2, 7, and 8, which illustrate inefficiencies, particularly enclave-type developments and governance issues, that historically have diminishing returns. TOP and TOA have positively impacted the overall outcome, with gains from allocative efficiency attributed to TOP elasticities and the stimulus from TOA justifying growth from tourism, along with foreign exchange and employment. For INF that was relevant (Models 5, 7), we observe weak positive influences, consistent with threshold theories that appreciate mild inflationary pressures. The low multicollinearity of these relationships highlights the interdependencies of synergies within the CDI, designed for robust growth, and the need for improved policy responses to alleviate the drag on growth from FDI and inflation in an equitable way.

Table 3 The Economic Impact of Chinese Direct Investment on the Economics of Lao PDR.

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
	lnGDPP							
lnCDI	0.214***	0.198**	0.235***	0.071***	0.296**	0.300***	-	-
lnCTO	0.090**	0.083*	0.095***	0.075	0.082*	-	-0.057	-
lnWORK	0.696	-1.574	0.092	2.617**	-0.975	-	-	3.042***
lnFDI	-	0.190**	-	-	-	-0.081	0.340***	0.102**
lnTOP	-	-	-0.072***	-	-	-0.049**	0.024	-0.013
lnTOA	-	-	-	0.260***	-	0.254**	0.578***	0.420***
lnINF	-	-	-	-	-0.055	-0.018	0.210***	0.075**
Cons.	-0.443***	-0.373***	-0.648***	-1.143***	-0.450***	-0.495***	-0.393***	-0.972***

Note: ***, **, and * represent significant reports at 1%, 5%, and 10%, respectively.

Table 4 reports on the short-run effects of CDI on GDP growth in Lao PDR over the period 1996-2022 across 8 different ARDL models, while also incorporating error correction terms, which explain 42-58% of the convergence quarterly towards a long-run equilibrium, indicating economic adaptability while the BRI is in effect. In terms of short-run CDI continues to be a positive short-run catalyst for economic growth, which is evidenced by the statistically significant positive coefficients in models 1, 4, and 6 as it provides short-term liquidity relief through rapid disbursements to infrastructure (rails and hydropower), triggering construction booms, job creation, and a significant increase in GDPP by 0.1-0.2% per percentage point of inflow—critical for a landlocked, commodity-dependent economy, as it helps to cover temporary shocks. CTO further strengthens this, as it is statistically significant and positive in models 2, 3, 5, 7, and 8, since the BRI corridors and tariff relaxations increase export and supply, revealing efficiency, while the lags in models 1 and 4 reveal infrastructure bottlenecks. The WORK provides unrelenting short-run thrust across all models, as it creates jobs in agriculture and services, highlighting the importance of employment for output growth, but also indicating the need for vocational training to capture temporary employment once more. General FDI shows duality, demonstrating positives in Models 1, 3, and 5 and negatives in Models 2, 4, 6, and 8. Absorption frictions due to bureaucratic delays or enclaves are evident, temporarily crowding out domestic efforts. INF exerts a subtle influence: positive in Model 7 and negative in Model 6, suggesting thresholds that surprise: rates below 4% energize and above 4% blunt inflation. Model constants influence variability: negative coefficients in Models 3 and 7 reflect structural drag, such as debt, while positive coefficients from remittances compensate elsewhere. With multicollinearity risks under control, these explanations clarify CDI's short-term flexibility, working with CTO and WORK, in contrast to FDI's uncertainty and variability in INF, outlining the need for situational subsidies and fiscal flexibility to boost equilibrium and integrate Indonesian BRI pathways into Lao PDR's stability.

Table 4 The Effect of Chinese Direct Investment on the Economy of Lao PDR.

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
	lnGDPP							
lnCDI	0.095***	0.074***	0.081**	0.070***	0.095***	0.156***	-	-
lnCTO	0.144**	0.126**	0.088	0.125***	0.144**	-	0.033**	-
lnWORK	2.793***	2.036**	1.843**	2.436***	2.792***	-	-	0.342
lnFDI	-	0.071**	-	-	-	-0.039**	0.025	0.042**
lnTOP	-	-	-0.028**	-	-	-0.031***	0.010	-0.011*
lnTOA	-	-	-	0.212***	-	0.068	0.181**	0.390**
lnINF	-	-	-	-	0.000	-0.025**	0.083***	-0.033
Cons.	-0.094	11.929**	3.092	-14.377***	-0.043	1.379***	-0.439	-21.023***

Note: ***, **, * represent a significance level of 1%, 5%, and 10%, respectively.

The long-run analysis shows that CDI strongly supports Lao PDR's economic growth, especially in hydropower, mining, and agriculture, by bringing in capital, creating jobs, and building infrastructure, much like general FDI benefits (Wu et al., 2020). TOP also boosts GDP through better markets and BRI ties, but heavy reliance on China calls for diversification to avoid risks (Sakyi et al., 2015). The workforce drives productivity through skills and participation, though it requires greater education and effort to achieve gender equality (Cung & Hung, 2020). Overall, FDI results are mixed due to poor management, stressing the need for stronger institutions (Alfaro et al., 2004). Moderate inflation helps growth up to a point, but stability is key (Aydın et al., 2016). Tourism arrivals add value through foreign exchange and employment, aligning with growth theories, yet sustainable practices are essential to prevent environmental harm (Hakim et al., 2021).

In the short run, CDI positively influences growth nonlinearly via technology and infrastructure, but is limited by political factors, debt burdens, and weak local absorption (Miao et al., 2020). TOP improves BRI access but heightens dependency vulnerabilities (Nguyen & Bui, 2021). The workforce offers quick productivity gains despite demographic challenges, such as an aging population (Huang et al., 2019). Inflation must be balanced to stimulate without destabilizing (Paul et al., 1997). Tourism generates earnings but is sensitive to external shocks, such as economic downturns (Eyuboglu & Eyuboglu, 2020). Together, these highlight growth opportunities in CDI, trade, labor, and tourism, balanced against over-dependence, skill shortages, inflation swings, and volatility—pushing for policies such as diversifying partners, boosting human capital, improving governance, and developing resilient plans (Liu et al., 2022).

Table 5 presents diagnostic tests that assess the assumptions of the econometric models, using the CDI on GDP growth in Lao PDR. These include normality, heteroskedasticity, model functional form, and serial correlation. Most models do not exhibit any blemish related to normality or heteroskedasticity ($p > 0.05$), indicating that the residuals are satisfactorily distributed. Horascenes are observed in models 6 and 7, which raise concerns about normality. About Functional form, all the models have a functional form test which has significant p-values, which seems to contradict the accuracy of the models since it suggests some misspecification in all models, which goes hand in hand with some linear/non-

linearities that might not have been taken account for which is also being discussed in econometrics (Godfrey, 1978; White, 1980). Also, like most of them, they do not show any serial correlation; however, they do show significant serial correlation ($p < 0.05$), which could bring down the precision of the estimates (Brown et al., 1975). In terms of model validation and effective prediction of economic policies, these issues would be significant.

Table 3 Diagnostic test unit

Model	Diagnostic Test			
	Normality test	Heteroskedasticity	Functional form	Serial Correlation
(GDP CDI, CTO, WORK)	0.21	0.45	9.65	1.063
(GDP CDI, CTO, WORK, FDI)	0.55	0.83	12.41	1.606
(GDP CDI, CTO, WORK, TOP)	1.52	0.03	13.79	2.358
(GDP CDI, CTO, WORK, TOA)	1.69	0.86	33.65	0.639
(GDP CDI, CTO, WORK, INF)	0.13	0.06	8.50	1.796
(GDP CDI,FDI, TOP, TOA, INF, CPI)	5.22	1.14	6.31	9.867
(GDP CTO, FDI, TOP, TOA, INF, CPI)	7.30	1.58	16.6	5.059
(GDP WORK, FDI, TOP, TOA, INF, CPI)	3.86	25.00	2.54	5.228

Figures 1 and 2, which depict the CUSUM and CUSUMSQ graphs, respectively, help reveal aspects of the stability of economic developments during the period under study (Brown et al., 1975). From both graphs, it can be deduced that economic growth was consistent, as their plots generally lie within the 5 percent critical bounds. This shows that the econometric models were stable in most parts of the period under review. However, there are specific periods in Model 7 where stability does not persist. Restricting the scope of this case study to pre-2019 data, they do demonstrate stability, mainly because the TOUR variable was nearly zero in 2020 during the COVID-19 shocks. In this regard, the researcher seeks to emphasize the need for better and more diverse data to strengthen and improve the precision of the models and reduce potential data bias arising from data scarcity.

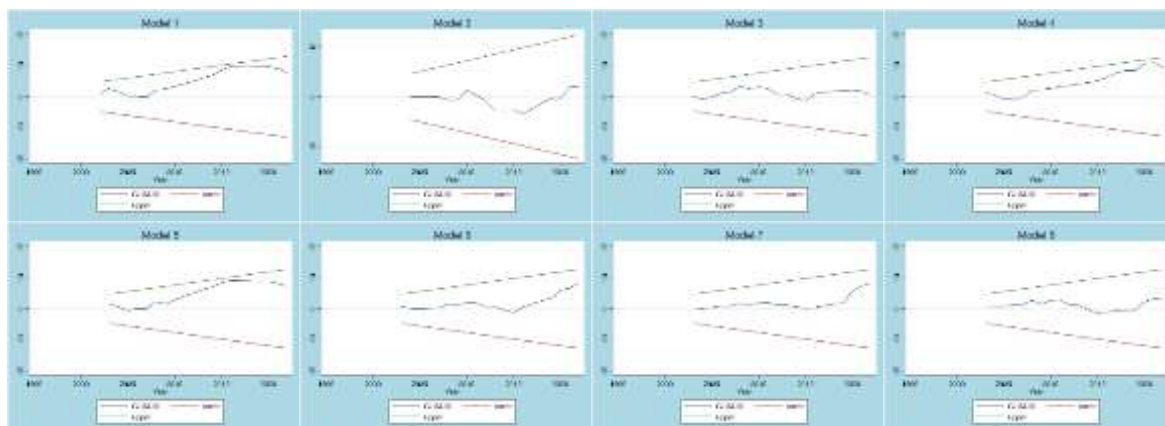


Figure 1 Cumulative sum (CUSUM) test for parameter stability

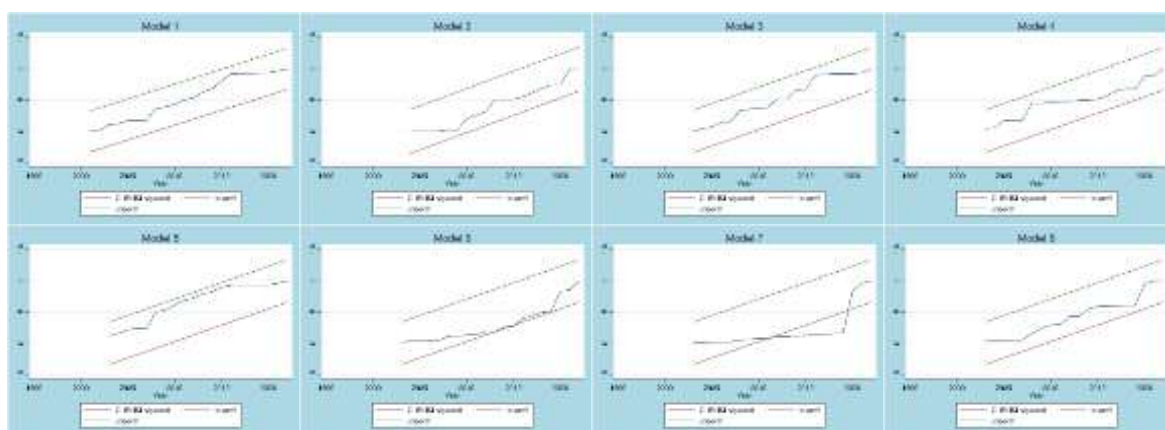


Figure 2 Cumulative sum square (CUSUMSQ) test for parameter stability

Conclusion and Discussion

Last but not least, the evaluation of CDI and other economic aspects in light of Lao PDR's growth and challenges speaks to the opportunities and prospects, and defies. In remittance, more tangible outcomes by CDI, such as capital import, infrastructure development, and individual employment opportunities, can always be expected. This belief emphasizes that FDI is a growth-enhancing factor. The results of this research indicate that CDI is particularly important for investment activities in the Lao PDR economy, particularly in the hydropower, mining, and agricultural sectors. The Eighth National Socio-Economic Tenth Five-Year Plan of Social Economic Development underscores the importance of foreign funding for the country's overall economic expansion. Even though CDI offers clear growth opportunities, it also carries risks, mostly due to over-reliance on China as a sourcing and investment destination. Scholars have long raised risks of trade imbalances and economic dependencies, and the data from this study support such concerns. It suggests that the Lao PDR needs to be proactive in diversifying its trade and investment avenues to avert future economic shocks. Regardless of the available opportunities, there are still ongoing problems. Overreliance on CDI and CTO risks trade imbalances and economic dependency, highlighting the need for diversified trade partnerships to minimize external shocks. The growing inefficiencies in the labor market, gender inequality, and the aging population all hinder workforce growth, requiring educational and more inclusive policy investments. Effective inflation management while still achieving economic stability, alongside sustainable tourism policies that protect the economy from global shocks, remains critical for long-term resiliency.

References

- Acs, Z., Lafuente, E., & Szerb, L. (eds.). (2023). *The Entrepreneurial Ecosystem: A Global Perspective*. Berlin: Springer Nature.
- Akyüz, Y. (2012). Global Economic Prospects: The Recession May Be Over But Where Next?. In *The Financial Crisis and the Global South: A Development Perspective* (pp. 37-62). Nevada: Pluto Press.
- Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2004). FDI and economic growth: the role of local financial markets. *Journal of International Economics*, 64(1), 89-112.
- Andersson, M., Engvall, A., & Kokko, A. (2009). *In the Shadow of China: Trade and Growth in Lao PDR*. (Working Paper 4). Sweden: Stockholm School of Economics.
- Aydın, C., Esen, Ö., & Bayrak, M. (2016). Inflation and Economic Growth: A Dynamic Panel Threshold Analysis for Turkish Republics in Transition Process. *Procedia - Social and Behavioral Sciences*, 229, 196-205.
- Bilen, M., Yilanci, V., & Eryüzlü, H. (2017). Tourism development and economic growth: a panel Granger causality analysis in the frequency domain. *Current Issues in Tourism*, 20(1), 27-32.
- Brown, R., Durbin, J., & Evans, J. (1975). Techniques for Testing the Constancy of Regression Relationships over Time. *Journal of the Royal Statistical Society: Series B (Methodological)*, 37, 149-163.
- Cung, N., & Hung, D. (2020). The Impact of Labor Force on Economic Growth in Vietnam. *International Business Management*, 14(10), 346-352.
- Dickey, D., & Fuller, W. (1979). Distribution of the Estimators for Autoregressive Time Series with a Unit Root. *Journal of the American Statistical Association*, 74(366), 427-431.
- Eyuboglu, S., & Eyuboglu, K. (2020). Tourism development and economic growth: an asymmetric panel causality test. *Current Issues in Tourism*, 23(6), 659-665.
- Faye, M., McArthur, J., Sachs, J., & Snow, T. (2004). The Challenges Facing Landlocked Developing Countries. *Journal of Human Development*, 5(1), 31-68.
- Ferdinand, P. (2016). Westward ho—the China dream and ‘one belt, one road’: Chinese foreign policy under Xi Jinping. *International Affairs*, 92(4), 941-957.
- Foo, N., Lean, H., & Salim, R. (2020). The impact of China’s Belt and Road Initiative on international trade in the ASEAN region. *The North American Journal of Economics and Finance*, 54, 101089.
- Godfrey, L. (1978). Testing for Higher Order Serial Correlation in Regression Equations when the Regressors Include Lagged Dependent Variables. *Econometrica*, 46(6), 1303-1310.
- Hakim, M., Suryantoro, A., & Rahardjo, M. (2021). Analysis of the Influence of Tourism Growth on Economic Growth and Human Development Index in West Java Province 2012-2018. *Budapest International Research and Critics Institute-Journal*, 4(1), 160-169.
- Huang, W., Lin, Y., & Lee, H. (2019). Impact of Population and Workforce Aging on Economic Growth: Case Study of Taiwan. *Sustainability*, 11(22), 6301.
- Jeong-Soo, O., & Kyophilavong, P. (2013). Impact of ASEAN-Korea FTA on poverty: The case study of Laos. *World Applied Sciences Journal*, 28, 114-119.
- Kyophilavong, P., Wong, M., Souksavath, S., & Xiong, B. (2017). Impacts of trade liberalization with China and Chinese FDI on Laos: evidence from the CGE model. *Journal of Chinese Economic and Business Studies*, 15(3), 215-228.
- León-Gómez, A., Ruiz-Palomo, D., Fernández-Gámez, M., & García-Revilla, M. (2021). Sustainable Tourism Development and Economic Growth: Bibliometric Review and Analysis. *Sustainability*, 13(4), 2270.

- Liu, H., Xiao, Y., Wang, B., & Wu, D. (2022). Effects of tourism development on economic growth: An empirical study of China based on both static and dynamic spatial Durbin models. *Tourism Economics*, 28(7), 1888-1913.
- Miao, M., Lang, Q., Borojo, D., Yushi, J., & Zhang, X. (2020). The Impacts of Chinese FDI and China–Africa Trade on Economic Growth of African Countries: The Role of Institutional Quality. *Economies*, 8(3), 53.
- Ministry of Planning and Investment. (2016). *8th Five-Year National Socio-Economic Development Plan (2016-2020)*. Retrieved from https://rtm.org.la/wp-content/uploads/2017/08/8th_NSEDP_2016-2020.pdf.
- Nguyen, M., & Bui, T. (2021). Trade Openness and Economic Growth: A Study on Asean-6. *Economies*, 9(3), 113.
- Nkoro, E., & Uko, A. (2016). Autoregressive Distributed Lag (ARDL) cointegration technique: application and interpretation. *Journal of Statistical and Econometric Methods*, 5(4), 1-3.
- Paul, S., Kearney, C., & Chowdhury, K. (1997). Inflation and economic growth: a multi-country empirical analysis. *Applied Economics*, 29(10), 1387-1401.
- Pesaran, H., & Shin, Y. (1998). Generalized impulse response analysis in linear multivariate models. *Economics Letters*, 58(1), 17-29.
- Pesaran, M., Shin, Y., & Smith, R. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Economics*, 16(3), 289-326.
- Sakyi, D., Commodore, R., & Opoku, E. (2015). Foreign Direct Investment, Trade Openness and Economic Growth in Ghana: An Empirical Investigation. *Journal of African Business*, 16(1-2), 1-15.
- Shrestha, R., & Kyophilavong, P. (2021). *Trade Facilitation in the Lao PDR and the Results of the ASTFI Baseline Study* (ERIA Research Project Report FY2021 No.08). Indonesia: Economic Research Institute for ASEAN and East Asia.
- Tantanawat, S. (2018). Geographical Location and Internationalization: Small and Medium Enterprise Entry into Cambodia, Laos, Myanmar, and Vietnam. *Catalyst*, 18(8), 88-98.
- Wang, Y., Tsai, J., & Lu, L. (2019). The impact of Chinese monetary policy on co-movements between money and capital markets. *Applied Economics*, 51(45), 4939-4955.
- White, H. (1980). A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity. *Econometrica*, 48(4), 817-838.
- Wu, W., Yuan, L., Wang, X., Cao, X., & Zhou, S. (2020). Does FDI Drive Economic Growth? Evidence from City Data in China. *Emerging Markets Finance and Trade*, 56(11), 2594-2607.
- Xiao, C., Wang, Y., Yan, M., & Chiaka, J. (2024). Impact of cross-border transportation corridors on changes of land use and landscape pattern: A case study of the China-Laos railway. *Landscape and Urban Planning*, 241, 104924.
- Yang, G., Huang, X., Huang, J., & Chen, H. (2020). Assessment Belt and Road Initiative: structure investment under the Belt and Road Initiative. *China Economic Review*, 60, 101418.

Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Conflicts of Interest: The authors declare that the research was conducted without any commercial or financial relationships that could be construed as conflicts of interest.

Publisher’s Note: All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the

editors, and the reviewers. Any product that may be evaluated in this article, or a claim that its manufacturer may make, is not guaranteed or endorsed by the publisher.



Copyright: © 2026 by the authors. This is a fully open-access article distributed under the terms of the Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0).