

Effects of Foreign Direct Investment, Trade Openness, and Human Capital Development on the Economic Growth of Thailand

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ABSTRACT

Since the early 1990s, emerging East Asian countries have increasingly integrated with the global economy. Thailand is regarded as an exemplar of achieving remarkable economic growth owing to the outward-oriented industrialisation strategy. This study examines the effects of Thailand's outward-oriented industrialisation strategy, which comprises foreign direct investment inflows and trade openness on its economic growth. Further, the analysis sheds light on the absorption capacity of the economy by focusing on human capital development in particular. The empirical analysis, which applies the autoregressive distributed lag approach, reveals that, from 2000 to 2017, trade openness and human capital development contributed positively to Thailand's GDP growth in the long run, while FDI inflows contributed negatively.

KEYWORDS

Absorptive Capacity, Autoregressive Distributed Lag Approach, Economic Growth, Global Value Chains, Outward-Oriented Industrialisation Strategy, Regional Integration, Technology Diffusion, Thailand

INTRODUCTION

Since the early 1990s, emerging East Asian countries have increasingly integrated with the global economy. Accordingly, it is important to identify the factors that enable these countries to record successful economic development. The economic growth of these countries is due to a dynamic structural change, namely the shift from an agriculture-based and commodity export-led industrial structure to a more encompassing structure led by the manufacturing sector and the services sector.

The structural transformation is attributable to a set of policy measures, including ensuring macroeconomic stability, promoting regulatory reform conducive to private investment, human capital development with particular emphasis on education, and implementing outward-oriented industrialisation strategies. Outward-oriented industrialisation strategies involve trade and investment liberalisation, development of trade-related infrastructure, and business-friendly regulatory reform measures. These policy measures contribute to improving the quality of inputs and boosting productivity (Kokko, 2006; Stiglitz, 1996; Weiss, 2005).

Foreign direct investment (FDI) and trade are considered essential parts of the outward-oriented industrialisation strategy as highlighted in the context of the East Asian Miracle (Birdsall et al., 1993; Gill & Kharas, 2007; Stiglitz, 1996). In the East Asian region, the importance of FDI and trade

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openness is amplified by increasing participation in global value chains (GVCs), which is associated with economic development. Countries in the region are increasingly integrated into both global and regional value chains. For example, countries in the South-East Asian region source over 40% of their foreign value-added from neighbouring Asian partners. A positive link exists between countries' GVC participation and the capacity of attracting FDI (Carril Caccia & Pavlova, 2018). Participation in GVCs is associated with growing productivity, export sophistication, and export diversification (Kowalski et al., 2015; Lopez Gonzalez, 2016).

Prior to the Asian financial crisis in 1997, Thailand experienced rapid growth, at an annual rate of around 8%. In the aftermath of the crisis, the Thai economy recovered in the early 2000s, owing to several structural reforms and an accelerating global economy. The policy approach by the government included two main strategies. On the one hand, the government promoted exports and FDI, with additional tax breaks to attract foreign investors, eliminating local content requirements and allowing full foreign participation in most manufacturing sectors (Organisation for Economic Co-operation and Development [OECD], 2021). Further, the government strengthened the policy for human capital development to increase the number of skilled workers and thus attract foreign investors. On the other hand, in 1999, the government started a reform programme that provided free tuition fees at the elementary and junior high school levels.

In the early 2010s, Thailand joined the group of upper middle-income countries. The outward-oriented industrialisation strategy is considered an integral part of Thailand's economic development. Till the late 1970s, FDI was predominantly directed to import-substitution industries such as textiles, automobiles, and chemicals. In the mid-1980s, the government moved forward with the next phase of industrial development, that is, manufacturing export-led growth, or the export-oriented development strategy. An increasing share of FDI was directed to more export-oriented activities.

The export-oriented development strategy promotes participation in GVCs. During this phase, Thailand predominantly entered GVCs at the assembly or production stage, and subsequently sought to move towards higher value-added activities. Industries such as parts and components, automobiles, and electrical appliances have exhibited strong growth. This has primarily contributed to the fast growth of the Thai economy, wherein FDI has played an important role as well (ASEAN-Japan Centre, 2019; Kohpaiboon, 2003). Thailand is regarded as an exemplar of achieving remarkable economic growth, owing to the outward-oriented industrialisation strategy (OECD, 2021).

Against this background, this study aims to examine the key drivers of economic growth from 2000 to 2017 by using the latest available data. Numerous theoretical and empirical studies exist on the external and domestic factors that drive the economic growth of the country. The effect of each factor depends on country-specific differences, such as the difference of policy settings and external and domestic circumstances.

From this viewpoint, this study contributes to enriching empirical evidence of country-specific studies by investigating the effects of Thailand's outward-oriented industrialisation strategy, which comprises FDI inflows and trade openness, on its economic growth. The empirical analysis, which applies the autoregressive distributed lag (ARDL) approach, reveals that, from 2000 to 2017, trade openness and human capital development contributed positively to Thailand's increase of gross domestic product (GDP) in the long run. However, the findings herein show that FDI inflows contributed negatively during the same period, which is not in line with the widely perceived view on critical drivers of rapid economic growth in the East Asian region. In light of these findings, this study proposes policy recommendations to maintain the momentum of Thailand's economic growth while considering its aspiration to achieve high-income country status in the next 20 years.

The remainder of this study is structured as follows: The second section provides a review of existing literature related to the effects of determinants of economic growth such as FDI, trade openness, and human capital development; the third section presents the materials and methods the author used in this study; the fourth section reports the results of the analysis; finally, the fifth section concludes the study and provides policy implications.

BACKGROUND

Theoretical Literature

Endogenous growth theory emphasizes the roles of technology progress and human capital development on economic growth in the long-run; these two factors are determined endogenously, rather than exogenously. From the viewpoint of endogenous growth theory, the promotion of investment and trade openness can enhance economic growth by expanding access to advanced capital goods, technology, and skills. FDI and trade are major channels for technology diffusion and knowledge dissemination (Barro & Sala-i-Martin, 1997; Rivera-Batiz & Romer, 1991). Opening domestic markets to foreign competitors and encouraging FDI inflows improve an economy's productivity, which results in higher overall output and more efficient allocation of resources. Bhagwati (1978) posited that the growth effects of FDI might be positive for export-promoting countries, since the export promotion strategy is likely to both attract higher FDI inflows and promote more efficient utilisation of such investments, as compared to an import-substitution strategy (Balasubramanyam et al., 1996; de Mello, 1999; Read, 2008).

FDI has two effects on economic growth: A direct effect through the increase in capital stock by financing capital formation, and an indirect effect through the spillover effect. FDI promotes growth by improving human capital by diffusion of skills, as well as transferring new technologies to the host country. Technology and knowledge spillovers offset the effects of diminishing returns to capital and keep the economy on a long-term growth path (Grossman & Helpman, 1991; Romer, 1986).

However, FDI can exert a negative impact on the host country as well. Foreign firms established by FDI crowd out less productive domestic firms, make the market less competitive or directly relocate part of the acquired firms in another country. Trade openness could be detrimental to growth for countries that specialize in the production of low-quality goods and services. For instance, countries exporting primary products are vulnerable to trade shocks (Aitken & Harrison, 1999; Carril Caccia & Milgram, 2018; Hausmann et al., 2007).

The open trade regime encourages specialization in sectors that have economies of scale, which contribute to efficiency and productivity in the long run (Bhagwati, 1978). For a developing country, an increase in imports of advanced capital goods and technology enables the economy to expand its export capacity. Introducing a new production process can lead to a greater factor accumulation and, thereby, growth. The impact of trade on economic growth is amplified by the technology diffusion and knowledge spillover associated with a new production process.

Given the importance of knowledge spillover, it is argued that a crucial factor in capitalising on FDI inflows and trade openness is the absorptive capacities of the country. The absorptive capacities encompass the capability of macroeconomic stabilisation, progress of financial development, human capital development, labor market reform, and public sector governance. In particular, human capital development is highlighted as one of the most essential elements of the absorptive capacity in a host economy (Grossman & Helpman, 1991; de Mello, 1999). However, it is critical to know whether the absorptive capacity of human capital stock is sufficient for the optimal adoption of imported technologies (Elkomy et al., 2021).

EMPIRICAL LITERATURE

Several empirical studies have examined the effects of FDI inflows and trade openness on economic growth. However, the results of these studies are inconclusive.

For example, Hsiao and Hsiao (2006) conducted a cross-country study in Asia, analyzed eight developing Asian economies from 1986 to 2014, and found that the effects of FDI and exports on GDP growth were inconclusive. They could not find significant causality relations among FDI, exports, and GDP growth for Korea and Malaysia. Moreover, they found unidirectional causality from GDP growth to FDI for Singapore, Thailand, and Korea. They found causality from FDI to GDP only in

the case of Taiwan, casting doubt on the view that FDI and exports had been drivers of economic growth in these economies.

Results of country-specific studies of Asian countries are inconclusive as well. By employing the generalized method of moments, Thanh et al. (2019) observed that FDI and trade openness contributed to the economic growth of 63 provinces of Vietnam from 2005 to 2017. Sultanuzzaman et al. (2018) found a positive and significant long-run relationship between FDI inflows and GDP growth in Sri Lanka from 1980 to 2016 by implementing the ARDL approach. However, the impacts of exports on GDP growth were negative in the long run, denoting that exports require more time for positive spillover effects. Goh et al. (2017) applied the bootstrap ARDL approach on selected Asian countries over the period 1970-2012. They could not find empirical evidence of long-run dependence of GDP on FDI and export.

Regarding the nexus of the absorptive capacity and economic growth, Borensztein et al. (1998) examined the effects of FDI on economic growth in 69 developing countries from 1970 to 1989. Their study concluded that the effect of FDI on economic growth depended on the level of human capital available in the host country, implying a strong positive interaction between FDI and educational attainment. Li and Tanna (2019) found a robust FDI-induced productivity growth that was dependent on absorptive capacity, such as human capital development and institutional quality, using cross-country data for 51 developing countries from 1984 to 2010.

As specific examples of Asian countries, Kotrajaras (2010) examined the effect of FDIs on the economic growth of 15 East Asian countries from 1990 to 2009. He showed that FDI had a positive relationship with economic growth only in high- and middle-income countries with relevant economic factors, such as a well-educated workforce, investment in infrastructure, and trade openness. Ahmed and Kialashaki (2021) examined FDI spillover effects on labor productivity of selected Asia-Pacific countries over the period 1970-2012. They revealed that most of the selected Asian-Pacific countries' economic growth was highly dependent on absorptive capacity per worker to benefit from the spillover effects of FDI.

MATERIALS AND METHODS

Model Specification and Methodology

This study examines the effects of FDI, trade openness, and human capital development on Thailand's economic growth. The model specification in this paper follows the methodology of preceding literature that applies endogenous growth models to examine the nexus between economic growth and these variables (Borensztein et al., 1998; de Mello, 1997; Grossman & Helpman 1991). Equation (1) shows the model specification for the econometric analysis:

$$\ln GDP_t = c_0 + c_1 \ln FDI_t + c_2 \ln TRADE_t + c_3 \ln HCD_t + e_t \quad (1)$$

where \ln is the natural logarithm of each variable, GDP is the gross domestic product, FDI is gross FDI inflows, $TRADE$ is trade openness, HCD is human capital development, as a proxy of the absorptive capacity, and e is the random error term.

In line with the framework of endogenous growth theory, the analysis hypothesizes that the variables FDI , $Trade$, and HCD , which are endogenously determined, contributed to Thailand's economic growth. Therefore, the coefficient of each variable is expected to be positive.

DATA SOURCES

In this study, the author uses yearly time series data from 2000 to 2017. The sources of each variable are as follows:

- **Economic Growth (GDP):** Data on GDP at the constant price are obtained from APO Productivity Database 2019 Version 2 produced by the Asia Productivity Organization (APO).
- **FDI Inflows (FDI):** To ensure consistency with GDP, data on gross FDI inflows at the FDI at the constant price are used based on UNCTAD STAT database.
- **Trade Openness (TRADE):** Following the conventional practice, the ratio of the sum of exports and imports per GDP at constant price is used as proxy of trade openness. Data on trade intensity are retrieved from APO Productivity Database 2019 Version 2.
- **Human Capital Development (HCD):** Human capital development is measured by the gross enrolment rate of secondary education. The data are retrieved from the World Bank’s World Development Indicators database. As a caveat, data on the educational attainment of the workforces could better measure the state of human capital development. However, due to limited data availability, the enrolment rate of secondary education is used as a proxy. Table 1 reports the data description.

Table 1. Data description

	<i>lnGDP</i>	<i>lnFDI</i>	<i>lnTRADE</i>	<i>lnHCD</i>
Mean	16.260	12.438	4.847	4.412
Maximum	16.559	13.183	4.945	4.793
Minimum	15.889	10.747	4.745	4.132
Std. Dev.	0.207	0.646	0.064	0.225

Source: See the Data Sources section

ECONOMETRIC ANALYSIS

In order to examine the long-run and short-run relationships of the effects of FDI, trade openness, and human capital development on Thailand’s economic growth, this study applies the ARDL bounds testing approach developed by Pesaran et al. (2001). The ARDL approach enables to identify the effects of long-run relationship and short-run dynamics among underlying variables in the model. The ARDL approach has several advantages. First, it can be applied to variables of mixed order of integration at level, I(0) or at the first difference, I(1). Second, this approach can be applied to a model wherein the lag length of variables is different. Lastly, this approach is efficient for a model that uses small and finite samples (Halicioglu, 2007; Kim, 2020; Pesaran et al., 2001).

This study aims to estimate the co-integration relationship between GDP growth as the dependent variable and FDI inflows, trade openness, and human capital development as the explanatory variables. By confirming co-integration or the long-run relationship among the variables, the model is specified as a conditional error-model format. This helps distinguish between the long-run effect and short-run effect of the explanatory variables on GDP growth. If underlying variables are co-integrated, the short-run disequilibrium among the underlying variables converges to the long-run equilibrium through error correction mechanism.

Equation (1) is reformulated to Equation (2) as a model of the ARDL approach, assuming the existence of co-integration as follows:

$$\ln GDP_t = c_0 + c_1 ECM_{t-1}$$

$$+\sum_{i=1}^p \Delta c_2 \ln GDP_{t-i} + \sum_{i=0}^q c_3 \Delta \ln FDI_{t-i} + \sum_{i=0}^r c_4 \Delta \ln TRADE_{t-i} + \sum_{i=0}^s c_5 \Delta \ln HCD_{t-i} + e_t \quad (2)$$

Δ is the first difference operator. The lag order of each variable is denoted as p , q , r , and s , respectively. ECM_t , the error correction term capturing the long-run relationship is defined as:

$$ECM_t = \ln GDP_t - (a_1 \ln FDI_t + a_2 \ln TRADE_t + a_3 \ln HCD_t) \quad (3)$$

The coefficient of the ECM, c_j denotes the speed of adjustment toward the steady state equilibrium.

UNIT ROOT TEST

To start the ARDL approach, the data stationarity is checked by the unit root test. To conduct an ARDL approach, it is necessary that variables in a model be integrated at level, I (0), or at the first difference, I (1). Two types of unit root tests are conducted by using the Augmented Dickey-Fuller (ADF) test (Said & Dickey, 1984) and the Phillips-Perron (PP) test (Philips & Perron, 1987). The tests employ intercepts. Table 2 presents the test results.

Table 2. Results of unit root test

Variables	ADF Test Statistic With Intercept		PP Test Statistic With Intercept	
	Level	First Difference	Level	First Difference
<i>lnGDP</i>	-1.625	-4.562**	-2.488**	-4.560**
<i>lnFDI</i>	-4.477**	-5.673***	-4.477**	-21.668***
<i>lnTRADE</i>	-3.789**	-4.593***	-3.777**	-4.723***
<i>lnHCD</i>	-0.486	-4.759***	-0.065	-5.777***

Note: *** and ** indicate significance at the 1% and 5% levels, respectively.

Source: Author's computation

The results of the unit root test show that, at a 5% significance level, *lnHCD* is integrated of I (1). *lnFDI* and *lnTrade* are I (0). The results for *lnGDP* are conclusive: I (1) by ADF test and I (0) by PP test. Since the variables have a mixed integration of order, it is concluded that the ADRL approach is the best technique for the analysis in this study.

LAG LENGTH

As the next step of the ARDL approach, the optimal lag length should be selected. The lag length is initially set at three, due to a limited number of observations. Table 3 shows that the order of distributed lag on the dependent variables is selected by the Akaike information criterion (AIC), Schwarz's Bayesian criterion (BIC), and Hannan-Quinn information criterion (HQ). It is concluded that the optimal lag order in Equation (2) is set at $(p, q, r, s) = (1, 2, 2, 0)$, since it has the smallest values of AIC, BIC, and HQ.

Table 3. Lag length specification of the ARDL model

Specification	AIC	BIC	HQ
(1, 2, 2, 0)	-5.529	-5.084	-5.467
(1, 2, 2, 1)	-5.448	-4.953	-5.379
(1, 3, 2, 0)	-5.430	-4.935	-5.361
(2, 2, 2, 0)	-5.421	-4.926	-5.353
(1, 2, 3, 0)	-5.419	-4.924	-5.350

Source: Author's computation

BOUNDS TEST

As the next step of the ARDL approach, the coefficients of the cointegrated variables, or the long-run relationships as well as associated error correction model (ECM) are examined. To examine the long-run cointegration relationships, the bounds test that applies the calculated F-statistics from the joint significance of lagged levels of variables is employed. Table 4 reports the results of the Wald test (F-Statistic). The null hypothesis of no cointegration is rejected at the 1% level. Therefore, the test results show the existence of a long-run relationship among the variables in the model (i.e., *lnGDP*, *lnFDI*, *lnTRADE*, and *lnHCD*).

Table 4. Results of the cointegration test

F-Bounds Test Statistics	Significance Level	Bound Critical Values	
		I (0)	I (1)
F-statistics: 34.319 k: 3	10%	2.37	3.20
	5%	2.79	3.67
	1%	3.65	4.66

Note: The test is based upon the assumption of unrestricted constant and no trend.

Source: Author's computation

RESULTS OF THE ANALYSIS

LONG-RUN RELATIONSHIP AND SHORT-TERM RELATIONSHIP

Equation (4) and Table 5 present the results of the error correction term (*ECT*) that represents a long-term relationship among variables:

$$ECT_t = \ln GDP_t - (-0.213 \ln FDI_t + 1.426 \ln TRADE_t + 0.334 \ln HCD_t + 10.656) \quad (4)$$

Table 5. Long-run relationship

Variables	Coefficient	t-Statistics	p-Value
$\ln FDI_t$	-0.213	-4.302	0.002***
$\ln TRADE_t$	1.426	5.821	0.000***
$\ln HCD_t$	0.334	2.653	0.026**
Constant	10.656	8.916	0.000***

Note: *** and ** indicate significance at the 1% and 5% levels, respectively.
 Source: Author's computation

TRADE and *HCD* positively contribute to GDP growth at the 5% significant level. However, *FDI* negatively contributes to GDP growth at the 1% significance level, which is not in line with a widely perceived view.

Table 6 presents the short-run relationship. The impact of FDI inflows and trade openness on GDP growth is inconclusive in the short run at the 1% significance level. The coefficient of *ECT* is at -0.266. This value is negative and statistically significant at the 1% level, indicating that there is an adjustment of short-run shocks to the long-run equilibrium through the error correction mechanism. The *ECT*'s coefficient value of -0.266 indicates that the disequilibria from the shock from this period can be adjusted in the next period by 26.6%.

Table 6. Short-run relationship

Variables	Coefficient	t-Statistics	P-Value
$\Delta \ln FDI$	-0.006	-1.592	0.146
$\Delta \ln FDI (-1)$	0.014	3.557	0.006***
$\Delta \ln TRADE$	0.205	5.927	0.000***
$\Delta \ln TRADE(-1)$	-0.274	-7.029	0.000***
ECT_t	-0.266	-15.744	0.000***

Note: *** and ** indicate significance at the 1% and 5% levels, respectively.
 Source: Author's computation

DISCUSSION OF THE RESULTS

On the one hand, the results of the ARDL model analysis indicate that, from 2000 to 2017, trade openness and human capital development contributed positively to GDP growth in the long run. For example, a 1% increase in trade openness and human capital development, measured by the enrolment rate of secondary education, contributed to GDP growth by 1.426% and 0.334%, respectively. The results confirm the theoretical framework of the positive relationship between trade openness and economic growth. This result is in line with preceding literature such as Bhagwati (1978) and Stiglitz (1996). A positive contribution of trade openness to economic growth in this period implies that Thailand's increasing participation in GVCs promoted greater imports of advanced capital goods, and that technology enabled the economy to expand its export capacity. Further, human capital development

contributed positively, which can be interpreted as an improvement of absorptive capacity, as argued by Borenszstein et al. (1998) and Li and Tanna (2019).

On the other hand, FDI inflows contributed negatively to economic growth in the long run, albeit by a small margin. A 1% increase in FDI inflows reduces GDP growth by 0.213% during the same period. These results are not in line with the theoretical framework put forth by Bhagwati (1978) and the widely perceived view of the East Asian Miracle, notwithstanding Thailand’s progress in trade openness.

Regarding the negative contribution of FDI inflows to economic growth, Dinh et al. (2019) argued that the impact of FDI inflows on economic growth is not always positive, since it depends on the characteristics of investment, such as type, sector, scope, and duration resulting from FDIs. From a Thailand-specific viewpoint, Puapan (2014) found that the impact of FDI on the economic growth of Thailand was heterogeneous by sector. Among nine subsectors, four subsectors comprised of manufacturing, construction, financial services, and wholesale and retail showed a positive impact on the sectoral growth. In contrast, the impact of the other five subsectors was negative for agriculture and transport, or statistically insignificant for electricity, real estate, and hotels and restaurants. Moreover, on the one hand, sectoral FDI data in the mid-2010s shows that FDI in the manufacturing sector is concentrated in more productive sectors, such as motor vehicles, communication equipment, and chemicals. On the other hand, regarding FDI in the service sector, less productive sectors, such as trade and real estate, captured a large share of FDI (OECD, 2021). This may be because large FDI inflows to unproductive service sectors hinder productivity growth, and, consequently, overall economic growth.

DIAGNOSTIC TESTS

The author conducted a series of diagnostic tests to check the reliability of the estimation results; Table 7 presents the relevant results. The results of diagnostic tests confirm the acceptance of the null hypothesis of no autocorrelation, normally distributed residuals, and homoskedasticity. The result of the Ramsey RESET test indicates that the functional form is correct and that the model does not suffer from omitted variables.

Table 7. Results of diagnostic tests

Type of Test	Result
Adjusted R-squared	0.823
Breusch–Godfrey serial correlation LM test	Obs R-squared: 0.453 (Prob = 0.501)
Residual normality test	Jarque–Bera test: 1.322 (Prob = 0.516)
Breusch-Pagan-Godfrey residual heteroskedasticity test Ramsey RESET Test	Obs R-square: 6.641 (Prob = 0.576) F-value: 2.676 (Prob = 0.141)

Source: Author’s computation

STABILITY TEST

To check the stability of the estimation, the author conducted the cumulative sum (CUSUM) of the recursive residuals test and the CUSUM of squares of the recursive residuals test to check parameter

stability; Figure 1 and Figure 2 display the results of these tests. Test statistics of the CUSUM and the CUSUM of squares are within the range of the 5% significance level. Therefore, the estimated results of the ARDL model are stable.

Figure 1. Results of CUSUM test

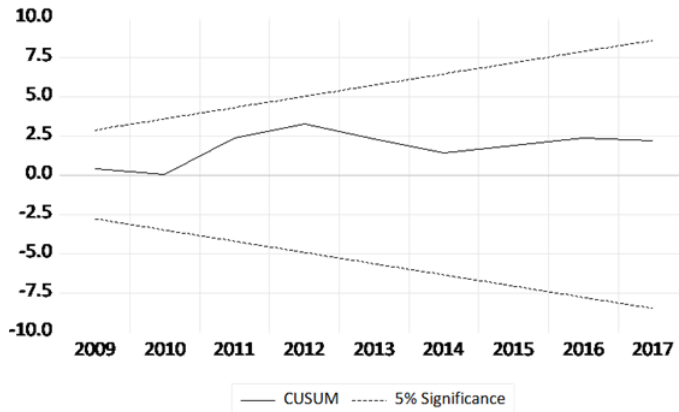
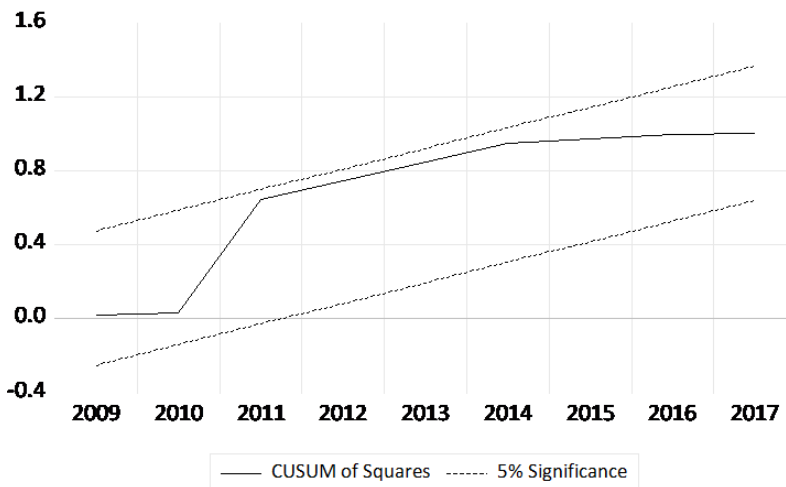


Figure 2. Results of CUSUM-squares test



CONCLUSION

In this study, the author examined the effects of FDI, trade openness, and human capital development on Thailand's economic growth in the long run and short run. The empirical analysis, which applies the ARDL approach, revealed that, from 2000 to 2017, trade openness and human capital development contributed positively to GDP growth in the long run. These results are in line with the existing theoretical framework of the positive impact of trade openness and the improvement of absorptive capacity. On the other hand, FDI inflows contributed negatively to Thailand's economic growth, which is not in line with the theoretical framework of the benefits of FDI on Thailand's economic growth.

One possible explanation for this result could be attributable to large FDI inflows to unproductive service sectors, such as trade and real estate, that hindered productivity growth and, consequently, overall economic growth.

These findings suggest Thailand adopts holistic policy measures, in particular, to attract productivity-inducing FDI inflows to enhance the benefit of the globalising economy.

Thailand has an official plan to graduate from an upper middle-income to a high-income country by 2037, as outlined in the 20-year national strategy (2018-37). In this strategy, the outward-oriented industrialisation strategy, including the promotion of FDI inflows and the participation in GVCs, remains a crucial driver of economic growth and upgrading the industrial structure. Thailand no longer benefits from shifts of labor from agriculture to more productive activities in the manufacturing and services sectors. Competitiveness in the global market of labor-intensive manufacturing sectors, such as textile and garments, developed by FDI inflows at an early stage of development, is constrained by rising labor costs (Nidhiprabha, 2017).

Against this backdrop, the strategy adopts a selective approach to FDI inflows by providing incentives to the targeted sectors, such as technology-intensive manufacturing sectors including new-generation automobiles, smart electronics, manufacturing robots, and biochemicals. These sectors are expected to fuel a new engine of economic growth by creating a productivity-driven economy.

To spur FDI inflows to these targeted sectors, the government offers generous incentives to foreign investors in the form of tax breaks and reductions, access to long-term land leases, and visa exemption to foreign experts. However, it is unclear whether these incentives would be effective. Foreign investors often adopt a “wait-and-see” attitude despite investment incentives. This view is supported by the fact that an increase of FDI inflows to Thailand from 2016 to 2018 was largely driven by mergers and acquisitions, whereas greenfield FDI inflows remained stagnant (Kohpaiboon, 2020). Therefore, this result implies the necessity to investigate the impact of FDI inflows by the sectoral base.

Additionally, utilising the outward-oriented industrialisation strategy as a vehicle to upgrade the industrial structure towards a more productivity-driven direction, the absorptive capacity, notably, the level of human capital development, plays a crucial role. The results of the econometric analysis in this study reveal that improvement of absorptive capacity measured by human capital development contributes to economic growth. Further efforts are required to maintain the growth momentum by enhancing absorptive capacity to make the most of benefits of the outward industrialisation policy. Rising labor costs have not been matched with improvements in workers’ skills and the capability of firms to engage in higher value-added activities in manufacturing and services. To achieve its aspiration to move to higher-value activities, Thailand must promote and increase the availability of vocational and science, technology, engineering, and mathematics skills (OECD, 2020).

As to future research, a more in-depth analysis of the sectoral impact of FDI inflows would add detailed insights to account for Thailand’s economic growth. Further, sectoral impacts of FDI inflows on growth would be worth examining.

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