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## THE RELATIONSHIP BETWEEN DOMESTIC INVESTMENT AND QUALITY ECONOMIC GROWTH IN THAILAND

**Abstract:** *The purpose of the following paper was to investigate the interrelation between domestic investment and economic growth of Thailand and for this purpose data for GDP, domestic investment, imports and exports have been collected from 1975 to 2018. Statistical and econometric tests of ADF, Johansen Cointegration, granger causality and vector error correction model (VECM) model were used. The findings of the study suggest the presence of long-run cointegration of the domestic investment, imports and exports with economic growth, but no short-run relation could be found in the study. In addition, the VECM model suggests that domestic investment has an insignificant effect on economic growth, but imports have a positive and significant effect on economic growth. Furthermore, exports have a negative significant effect. The paper also provides recommendations for policymaking and decision making.*

**Keywords:** *Domestic investment; Quality Economic Growth; Thailand*

### 1. Introduction

Domestic investment has a critical role in the economic development of the countries since without domestic investment economic development cannot be achieved. Domestic investment is also a paramount variable that has been used to influence the foreign direct investment since expenditure of the government is a source of contribution to productive capacity (Abu & Karim, 2016). The growth of the economy depends on the economic capacity to boost the income of the society and growth in the economy is also a reflection of the increased production and consumption of the goods and services in the country (Ahmed Adekunle et al., 2018).

Hence, the country at full potential has been on full employment where the fundamental economic performance is only measured in terms of gross in gross domestic products.

Similarly, the domestic investment either it is private or public increases economic activity within the country, or this economic activity can be translated into economic growth.

In order to influence the economic activity in the country, macroeconomic indicators are modified to influence consumption behaviour rather than saving behaviour in an economy. In this regard, governments through central banks lower the interest rate in the country that increases the consumption patterns and makes loans and financing easier for the businesses in the market (Albiman & Suleiman 2016). Similarly, increased economic activity and low inflationary pressure tend to accelerate economic growth within the country. Thus, this remains an open investigation from an empirical point of view that either domestic investment improves the economic situation in Thailand or not. Previous studies have pointed out the

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domestic investment by government or private sector has been influencing the exports of the country and this reflects improved competitive position of the country in the international market (Alfa & Garba, 2012). Hence, the national income level and productivity are significantly important for economic development whereas the imports have also been associated with economic development negatively.

The aim of this paper is to investigate the interrelation between domestic investment and economic growth of Thailand and in this regard no previous study has been undertaken except the ones that have used very low sample sizes are also older than five years.

Hence, empirical investigations conducted five years back cannot be used in contemporary economic conditions to describe the economic growth of the country. Thus, in this paper, we propose to focus on the domestic investment comprehensively that either it affects the economic growth in Thailand or not, and that under the same condition what role has been played by imports and exports of the country.

## 2. Literature Review

The association between economic growth and domestic investment has been extensively discussed in different studies, however, due to the high inconsistencies in the existing literature, the topic of DI and economic growth has received huge attention in the recent literature of macro-economics. As per the study of Bakari (2017), the economic growth of any economy is highly dependent on its dynamic capacity to increase the national income level of the society. In this regard, the rate of investment has often been recognised as an important determinant of economic growth to investigate the economic performance of any nation. According to Mohamed et al. (2017), the types of investment in any economy fall under two categories, which includes domestic investment (DI), and foreign direct investment (FDI). The concept of domestic

investment, as opposed to the view of FDI, is referred to making an investment in those products and companies that belongs to own country, instead of making an investment in those of foreign countries (Abu & Karim, 2016).

In a generally accepted view, the component of investment is viewed as an important factor for boosting economic growth in both developing and developed countries. However, the type of investment that should be promoted by the country is still viewed as one of the major areas of concern for policymakers or economist in developing countries (Güngör & Ringim, 2017). As mentioned in the study of Bakari and Sofien (2019), overemphasis on FDI to increase economic growth is always likely to shrink the size of DI of the host country. This concern is originated from the fact that FDI is often lead towards declining employment, output, and deterioration of the balance of payment of the host country. In this context, domestic investment is regarded as an essential factor for increasing economic growth, as DI creates more opportunities for employment than FDI. Therefore, the country's emphasise on domestic investment has increased with the main rationale for strengthening the competitiveness of the local market.

As per Oyedokun and Ajose (2018), DI, is associated with the changes in capital to enhance the country's economic growth. While stressing on the importance of domestic investment, the same study has mentioned that these type of investments plays a decisive role in the creation of services and goods, which are utilised to produce other goods. Similarly, in accordance with the study of Ahmed Adekunle et al. (2018), investment in private and public sector of the country increases its economic activity to develop new mediums of products and service productions in order to rouse the economic growth. On the other hand, the study carried out by Alfa and Garba (2012), provides an empirical evidence from different economies, which implies that domestic

investment makes a significant contribution towards the economic growth of both developing and developed countries. As mentioned in the same study, the contribution of domestic investment in the GDP of Chile is 21%, whereas in Nigeria, the domestic investment is accounted for contributing 53.1% on country's GDP.

The study conducted by Ibrahim and Dahie (2016), examined the association between domestic investment and economic growth. The outcomes of the study have identified that domestic investment in different public infrastructures like electricity, roads, health, communication projects, and educations plays a key role in enhancing the production of goods and services. The leads towards powering the economic position of the country. As per the study of Bakari and Mabrouki (2017), the level of domestic investment relies on different policies, which revolves around import, export, openness, corporate tax rates, labour market arrangements and infrastructure. In contrast, some of the non-policy determinants that can affect the level of DI are distance, market size, economic and political stability, the effectiveness of a legal system, and transparency of economic activities. According to Dobbins and Jacob (2016), corporate tax rates is an important determinant of domestic investment, which also influences the allocation of resources amongst the informal and formal sector. Therefore, to ensure the sustainable DI in a country, it is vital for economist and policymakers of the country to ensure the right level of the corporate tax rate. In this regard, the imposition of the corporate tax rate is likely to discourage investors to make an investment on different companies and projects within a country, whereas a low level of corporate tax rates can promote domestic investment.

Other than the corporate tax rate, the components of imports and exports are also regarded as important determinants of domestic investment. According to Albiman and Suleiman (2016), import refers to the

buying of foreign products and services by government, businesses and citizens of a country, whereas export is defined as the selling of goods and services from home country to other countries. The study conducted by Bakari (2017), found a positive association between import and DI, whereas the outcomes suggest the negative effect of exports on DI. Thus, these results imply that the level of domestic investment is determined by import and export, because of which it is important for countries to strike the right balance between their import and export to achieve desire results.

The significance of the domestic investment for improving economic growth is well recognized in different studies. As stated in the study of Bakari et al. (2019), domestic investment in different sectors of the country is considered as an important factor that accelerates and advances economic growth. In addition, domestic investment plays a decisive role in reducing the unemployment rate and improving the well-being of society. Moreover, as per the study of Ali and Mna (2019) DI positively influence the productivity ratio, which eventually leads towards the attainment of self-sufficiency in the country. The study conducted by Ridzuan et al. (2018), provide empirical evidence from ASEAN 5 countries to identify the association between DI and economic growth. The findings of the study reveal the positive influence of Dion the economic growth of all ASEAN 5 countries including, Malaysia, Philippines, Indonesia, Singapore and Thailand.

### 3. Theoretical Framework

Neoclassical theory of investment is recognized as one of the most prominent theories, which is often viewed by researchers to comprehend the different dynamics of investments. This theory was formed in the 19<sup>th</sup> and 20<sup>th</sup> century, which is recognised as the period of industrialisation. The theory was introduced to explain the association between economic growth and DI (Girardi, 2017).

In accordance with the neoclassical theory of investment, the overall environment of DI is highly linked with the growth rate of real production. According to Saleem and Zaheer (2018), the neoclassical theory of investment holds the view that the accomplishment of economic prosperity can be assured through promoting DI in a country. The same study has employed the neoclassical theory of investment to examine the association between DI and economic growth. In this regard, the study identifies capital formation and domestic investment as an important determinant of economic growth.

The Keynesian theory of investment highlights the concept of the multiplier, which states that the level of investment increases, as income increases by multiple amounts (Alexiou et al., 2016). As per this theory, the decisions pertaining to investments are made by comparing the marginal efficiency of capital (MEC) with the interest rate.

On the other hand, the accelerator theory of investment introduces the concept of the accelerator, which is not considered in the theory of Keynesian. In accordance with the accelerator theory of investment, when consumption or income increases the rate of investment is likely to increase by multiple amounts (Kazakova & Kuzminykh, 2017). Therefore, when people consumptions and income increases, a significant number of commodities should need to be produced. In this regard, investment is persuaded by the modifications in consumption or income, which is known as induced investment. In this context, the numerical value of accelerator represents the relation between the growths in investment resulting from the increase in income. This theory also holds the view that when there is additional demand, firms can either increase investments to meet the level of demand or increase prices to decrease demand (Ncanywa et al., 2017).

#### **4. The Concept of Quality of Economic Growth (QEG)**

Any economic development reforms or plans focus in general on the improvement of the quality of economic growth and not only on increasing the rate of economic growth. Therefore, and for ensuring the achievement of the quality economic growth, there should be more focus on a few aspects namely the improvement of management, industrial structural optimization, improving the equipment used and the skills of workers and finally the promotion of technology progress.

The QEG can be assessed by various tools or measures and on top of them is the growth and level of productivity, the growth in the GNP level, the time involved in reaching the preferred growth, the structure and economic growth rate, the per capita growth and level of education, the output and input of finance and finally the standard of living (Hong, 1994). The concept of quality financial development (QEG), as a supplement to the speed of financial improvement, is considered one of the key components of the financial development prepare, such as the conveyance of openings, natural maintainability, worldwide chance administration, and administration structure (Thomas et al., 1999) as cited in (Ru et al., 2020). As per (Barro, 2002) the concept was treated as a calculate of social, political, and devout zones, counting the level of instruction, life hope, wellbeing status, the degree of advancement of law and arrange, and the degree of balance in wage dispersion. In addition, Liu (2007) detailed that the QEG lies within the solidness of financial development, the supportability of the financial development mode, the coordination of the financial development structure, and the concordance of financial development impacts.

Additionally, the QEG lies within the steadiness of financial development, the productivity of development, basic optimization, solidness enhancement, welfare dissemination advancement, and

advancement capability (Ren & Li, 2013). According to Chao and Xi (2009) the QEG was characterized as an financial angle closely related to financial development, counting the structure steadiness, welfare alter of financial development, and the conveyance of benefits, as well as asset utilization and biological natural costs.

### 5. Conceptual Framework

The following presented conceptual framework outlines the independent and dependent variable of this study (Figure 1).

The main aim of this research is to investigate the association between DI and economic

growth. Therefore, as highlighted in the conceptual framework, the component of the domestic variable has been taken as an independent variable. In order to quantitatively measure the variable of DI, the incorporation of three control variables has been made, which includes imports, exports and corporate tax rates. All these control variables denote the independent variable of domestic investment, which are used to examine its association with economic growth. On the other hand, economic growth has been taken as the dependent variable of this study, which is examined through the component of the Gross Domestic Product (GDP).



Figure 1. Conceptual framework

Considering the framework, the following equation has been constructed:

$$GDP_t = \alpha + \beta_1 DI_t + \beta_2 Imports_t + \beta_3 Exports_t$$

In the above equation, the alpha is the intercept, betas are the coefficients of the equation while DI is a domestic investment. In addition, 't' is the time period and 'ε' is the error of the model.

Based on the review of previous literature, and the aforementioned conceptual framework, the following hypotheses are developed.

H1: Imports, significantly, affect the relationship between DI and GDP.

H2: Exports, significantly, affect the relationship between DI and GDP.

H3: Domestic investment significantly explains GDP.

### 6. Methods

This study is based on the secondary quantitative data for which the design of the paper was chosen quantitative. The process of the data collection and analysis methods is discussed and justified in the next sections.

#### 6.1. Data collection

There are two sources of the data collection for empirical investigations: primary data collection and secondary data collection. Primary data collection refers to the process of survey and secondary data refers to the already gathered, prepared raw data that

publicly available. The secondary quantitative study is always based on the data that cannot be collected primarily by the researcher since such type of data is being issued or published by a large private or government organization (Bell et al., 2018). These organizations include World Bank, governments of the respective country or the statistics bureau of the respective country and also the publicly listed companies. These are issuers of the quantitative data on the economic and financial indicators and this type of data is known as secondary quantitative data. In contrast, if the data is collected by researcher primarily through survey then this type of data is known as primary data collection.

The objective of the paper is to investigate the interrelation between the domestic investment and economic growth of Thailand. For this purpose, the quantitative data of Thailand was required for the selected variables. The variables of the study include gross domestic product (GDP) in amount, the value of imports and exports in amount and domestic investment in the percentage of GDP. The data of Thailand for these four indicators were extracted from the World Bank for the period from 1975 to 2018. The data of the three variables GDP, imports and exports were in amount and for analysis purpose, it was important to perform log transformation on these variables as suggested by various scholars such as Wang et al. (2018); Schmidt and Finan (2018). These scholars have used log transformation with a purpose to decline the skewness of the data and make it more interpretable and make the patterns of the data visible. In the following paper the amount of the said variables was very high that could have misled in interrelating the data hence transformation was taken as an important step before conducting an empirical investigation.

## 6.2. Data Analysis Method

Empirical investigations are mainly aimed to determine how certain variables are

interrelated or affecting each other either in short or in long-run. To perform the empirical investigation, preliminary analysis for the data itself is conducted in order to select the most appropriate data analysis methods as per the type of data (Osborne, 2017). Empirical studies have various types of data that can be categorically stated as time series data and cross-sectional data or both means time-series cross-sectional data. In either of the data type, data must meet with the assumption of inferential statistics such as normality, stationarity, multicollinearity and autocorrelation. These assumptions are checked before conducting empirical test through ordinary least square (OLS) and vector autoregressive model (VAR) model; and it is prerequisite of these two models that data has to be stationary which means there must not be evidence of unit root in the times series in order to conducted empirical analysis through these two models (Hickey et al., 2019). It has also been suggested by Paparoditis and Politis (2018) that unit root should not be in the time-series data to provide meaningful and appropriate results rather than spurious regression. For detecting the unit root in the time series data, the augmented Dickey-fuller test was used, and the results of the test indicated the presence of unit root in the data. The presence of unit root in the data clearly violated the basic assumption of ordinary least square (OLS) and vector autoregressive (VAR) model; hence these models could be not be used (Ramesh et al., 2018). In this condition, scholars have used the VECM model which is not limited to the assumption and does not require to be stationary. It is one of the attributes of the VECM that it can also process that time-series data with unit root and still provide meaningful results because the error correction model addresses the issue of the unit root (Nasi, 2019). Therefore, the paper has used VECM as a model to estimate the extent to which gross domestic product (GDP) of Thailand is affected by the domestic investment, imports and exports.

## 7. Findings and Analysis

### 7.1. Augmented Dickey-Fuller Test

A time series data with random walk or having systematic pattern with drift is said to have a unit root problem; the core concept behind the unit root is that prediction and forecasting process to estimate the value based on its previous pattern. However, this can be true when there is no random walk with the drift since random walk means the presence of a systematic pattern in the time series data that makes it impossible for the ordinary inferential statistics to estimate the future value based on the past values (Paparoditis & Politis, 2018). It is because there is a systematic pattern and is not known in what direction a change would incur in future and extent to which change will take place in the series. These are primary concerns raised over the time series data when it contains a unit root (Islam et al., 2018).

Therefore, in order to detect the unit root in the time series variables, ADF was used as a preliminary test to detect the presence of unit root in the data time series data.

Table 1 demonstrates the result of ADF test, and the null hypothesis of the ADF is that there is a unit root in the time series data and the alternate hypothesis of the ADF is that there is no unit root in the time series data. Meanwhile, the t-statistics for the GDP, domestic investment, imports and exports is -1.30 [p=0.62], -2.38 [p=0.15], -1.80 [p=0.37] and -2.57 [p=0.11] respectively. Since, the significance value of all variables is greater than the chosen level of alpha 0.05 or 5% hence there is enough evidence to not reject the null hypothesis that there is a unit root in the time series data (Islam et al., 2018). Therefore, in the presence of unit root ordinary least square (OLS) and vector autoregressive (VAR) model is not applicable since the assumption of stationarity is not met.

**Table 1.** ADF

Augmented Dickey-Fuller test statistic	t-Statistic	Prob.*
LNGDP	-1.30	0.62
DOMESTIC_INVESTMENT	-2.38	0.15
LNIMPORT	-1.80	0.37
LNEXPORT	-2.57	0.11

**Table 2.** Johansen Cointegration

No. of CE(s) Hypothesized	Eigenvalue	Trace Statistic	Critical Value (0.05)	Prob.**
None *	0.48	48.91	47.86	0.04
At most 1	0.20	21.80	29.80	0.31
At most 2	0.19	12.51	15.49	0.13
At most 3	0.09	3.72	3.84	0.05

The eigenvalue for the first hypothesis of none is 0.48, critical value 47.86 and probability of 0.04 that suggests rejecting the null hypothesis that there is no cointegration between the variables. There is sufficient evidence to claim that alternative hypothesis is accepted that there is at least one cointegration vector present within the variables through the distance between the variables could be estimated (Naidu et al.,

2017). The presence of a cointegrating vector indicates that the economic growth of Thailand is cointegrated with the domestic investment, imports and exports. Hence, domestic investment, imports and exports of the country could be used to revert back to the economic growth. Consequently, it can also be claimed that there is a long-run correlation between economic growth, domestic investment, imports and exports.

### 7.3. Granger Causality

Granger causality is a hypothesis statistical technique to assess the usefulness of variables to estimate or predict one variable through another based on the cause-and-effect conception. This concept is mainly drawn from the economics as suggested by Clive Granger that regression commonly uses correlation to estimate future values but in economics, it is causation through which estimation could be undertaken (Appiah, 2018). The basic argument of the Clive Granger is that in economics the effects,

fluctuations and variations are caused by other variables that could be termed as cause-and-effect rather than correlation. Based on this philosophical point, granger causality uses the lagged values of X variables (independent variables) to predict or estimate the Y variable (dependent variable) (Bilen et al., 2017). This means the each of the variable's own lagged values is used as predictors of another variable's future values thus it is called causation. Table 3 demonstrates the results of Granger causality between the variables.

**Table 3.** Granger Causality

Null Hypothesis:	Obs	F-Statistic	Prob.
DOMESTIC_INVESTMENT does not Granger Cause LNGDP	41	1.92446	0.144
<b>LNGDP does not Granger Cause DOMESTIC_INVESTMENT</b>		<b>3.99414</b>	<b>0.015</b>
LNIMPORTS does not Granger Cause LNGDP	41	0.79875	0.503
<b>LNGDP does not Granger Cause LNIMPORTS</b>		<b>5.41033</b>	<b>0.004</b>
LNEXPORTS does not Granger Cause LNGDP	41	2.07269	0.122
LNGDP does not Granger Cause LNEXPORTS		2.66126	0.064
LNIMPORTS does not Granger Cause DOMESTIC_INVESTMENT	41	1.18504	0.33
DOMESTIC_INVESTMENT does not Granger Cause LNIMPORTS		0.96264	0.422
LNEXPORTS does not Granger Cause DOMESTIC_INVESTMENT	41	1.8342	0.16
DOMESTIC_INVESTMENT does not Granger Cause LNEXPORTS		0.35897	0.783
<b>LNEXPORTS does not Granger Cause LNIMPORTS</b>	<b>41</b>	<b>5.09792</b>	<b>0.005</b>
LNIMPORTS does not Granger Cause LNEXPORTS		1.56678	0.215

Three null hypotheses have been rejected which includes GDP does not granger domestic investment, imports and exports do not granger cause imports with f-statistics 3.99 [p=0.015], 5.4 [p=0.00] and 5.09 [p=0.00] respectively. This indicates that GDP granger causes the domestic investment and imports of Thailand which means economic growth of Thailand can be used to predict or estimate the domestic investment and imports. In contrast, the domestic investment and imports cannot estimate the economic growth of the country; hence there is evidence of unidirectional relation of GDP with the domestic investment and imports (Shahbaz et al., 2016). On the other hand, the test also reveals that exports have unidirectional relation with the imports that means levels of exports of the country can be used to predict the levels of imports that

would take place in the future. Lastly, no bi-directional relation within the variables could be found since there were only unidirectional relations.

### 7.4. Vector Error Correction Model (VECM)

Vector error correction model (VECM) is an upgraded version of the vector autoregressive (VAR) model; where VAR model is restricted to process the time series data without unit root but VECM can is not restricted to that limitation and could be used when there is a unit root in the data (Nasi, 2019). This implies that the VECM model is also compatible with the time series data having unit root, and table 4 demonstrates the model specification as follows.

**Table 4.** Model Specification

R-squared	0.455291	0.519666	0.657665	0.468665
Adj. R-squared	0.29715	0.380214	0.558277	0.314406
Sum sq. resids	0.041204	267.343	0.072029	0.046426
S.E. equation	0.036458	2.936659	0.048203	0.038699
F-statistic	2.879013	3.726486	6.617171	3.038175
Log likelihood	83.33056	-93.6132	71.88092	80.88458
Akaike AIC	-3.5771	5.200642	-3.01858	-3.45778
Schwarz SC	-3.15916	5.618587	-2.60064	-3.03984
Mean dependent	0.034319	-0.04564	0.04261	0.046862
S.D. dependent	0.043487	3.730204	0.072527	0.046738

The coefficient of determination (r-squared) of the model is 0.45 indicating that 45% variance of the economic growth can be explained by the domestic investment, imports and exports but residual 65% variance can be explained by other macroeconomic variables that are not included in our model (Nakagawa et al., 2017). Meanwhile, Table 5 demonstrates the effect of each variable on the economic growth.

**Table 5.** Cointegration equation

Cointegrating Eq:	CointEq 1
LNGDP (-1)	1
DOMESTIC_INVESTMENT	0.005421
	-0.00422
	[1.28396]
LNIMPORTS(-1)	-4.11506
	-0.80081
	[-5.13865]
LNEXPORTS(-1)	3.121724
	-0.74333
	[4.19965]
C	-0.5585

The coefficients indicate that if there are one unit of change in the domestic investment, imports, and exports then it could influence a change of 0.005 [ $p > 0.05$ ], -4.11 [ $p < 0.05$ ] and 3.12 [ $p < 0.05$ ] respectively. Therefore, it can be determined that there is no significant effect of domestic investment on the economic growth of Thailand which means domestic investment in the country is not at

such level that could significantly and positively contribute to economic development (Prince, 2017). This can also be an indication of a lack effective spending strategy of the government where the government has been spending on the activities and projects that leaves a less or minimum positive effect on the economic growth. On the other hand, imports have a significant negative effect and this suggests that rising imports levels affects the economic growth of the country based on the fact that imports of goods and services from international market leave no opportunity for the local businesses to fill the gap hence local production level is negatively affected. In addition, exports have a positive and significant effect on the economic development of the country; this implies that Thailand's exports can enhance economic growth.

## 8. Discussion

The purpose of the following paper was to investigate the relationship between the domestic investment and economic growth of Thailand, and the relation between the variables have been extensively studied in a different time interval and different sample. A study conducted by Bakari (2017) stated that investment within the domestic market is a stimulation for the economic activity that improves the economic prosperity of the country. The domestic investment either from the government or from the private sector has been playing an important role in the

increasing the level of national income of the society. To further distinguish between foreign direct investment (FDI) and domestic investment, Abu and Karim (2016) have defined that domestic investment as opposed to foreign direct investment (FDI). Domestic investment is raised from the within the country and income is also distributed within the society since the source of investment is local country. In contrast, FDI may influence the economic activity within the country but could not be as much as effective as a domestic investment based on the fact that ultimately generated value does not belong to the local country.

Domestic investment either by government or by private business generates greater value for the society and economy as a whole for a long period of time. Meanwhile, Bakari and Sofien (2019) have critically evaluated characteristics of the FID and DI and have deduced that domestic investment creates more employment opportunities and value for the host country than FDI. Hence, domestic investment positively influences the economic growth followed by the exports of the products to foreign countries. It is because the exported products and services are produced locally which improves the balance of payment, increases employment opportunities, influences local producers to compete international companies and ultimately value for the economic generated in a longer period of time. Therefore, it has been argued that domestic investment and exports positively influence the economic growth of the country. Meanwhile, the empirical investigations suggest the presence of long-run cointegration of the domestic investment, imports and exports with the economic growth, but no short-run relation could be found in the study. In addition, VECM model suggests that domestic investment does not significantly affect economic growth, but imports have a positive and significant effect on economic growth, but exports have a negative significant effect.

## 9. Conclusion

The purpose of the paper was to investigate the relationship between domestic investment and economic growth of Thailand on which it has been found that there is a long-run relationship between the economic growths, domestic investment, imports and exports. There is at least one Cointegrating equation or cointegrating vector through which estimation of economic growth could be undertaken with help other cointegrated variables. Hence, this suggests that there is long-run relationship between the variables, but granger causality provides evidence of no short-run relationship between the variables. This indicates that imports, exports and domestic investment do not affect economic growth in short run. Similarly, the VECM model's results have suggested that domestic investment has no effect on the economic growth since effect has been negative and insignificant at 0.05. On the other hand, it has also been found that imports have a positive and significant effect on economic growth, but exports have a negative significant effect. Therefore, it can be concluded that if Thailand focuses on improving its exports and reduce the level of imports then it could achieve a significant positive economic growth in long-run. Since, higher exports stimulate economic activity in the country, provide an opportunity to local producers to compete with foreign companies in the international market, hence would bring economic benefit in long-run and would help the country in the balance of payment matter as well.

## 10. Recommendations and Limitations

It is suggested for the policymakers and government that it should focus on improving the exports of the country. The government should spend a greater amount of expenditures on areas that could help the exporters to increase production, achieve cost-effectiveness and easier facilities of

loans and other financings. These actions would increase the interest of producers to enhance the quality of their products to exports and compete with foreign companies. In addition to this, the government should also help the local producers that are producing products similar to those imported; for instances, local producers should be relaxed in taxation, subsidies in utilities and providing all facilities that could help them to improve the quality of the products for instances supporting technological

advancement through financing on easy terms.

Besides the research is limited to the evaluation of Thailand, therefore, in future studies, other countries can also be explored. In furtherance, limited number of factors have been considered for the analysis. Hence, in future, the researchers can include more factors or can conduct a comparative analysis between Thailand, and another developing or developed country.

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