

## ECONOMIC GROWTH AMONG TIGER CUB COUNTRIES

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### Abstract

*Gross Domestic Product (GDP) is important for the process of economic growth in many developing countries. In the South East Asian region, a magical growth of GDP in 1980s and 1990s for countries known as tiger cub countries has impressed the world. The question is – Will the same sustainable growth appear in the next decade? Therefore, this study is designed to investigate which factor is the most dominant in catalysing the economic growth among these tiger cub countries. Several factors such as government initiative, economic liberalisation and international investment have been analysed. A set of panel data for a 20 year period (1990-2009), which consists of data from Malaysia, Indonesia, Philippines and Thailand was used. Based on the POLS estimation, the results successfully highlighted the dominance of the government initiative. The higher the expenditure, the more improved it will be in the context of economic growth. For future studies, it is proposed to have more emerging South East Asian countries such as Vietnam and Myanmar due to their potential to become the next tiger cub countries.*

**Keywords:** Gross Domestic Product, Economic Growth, Tiger Cub Countries, ASEAN

## **1.0 INTRODUCTION**

Gross Domestic Product (GDP) has played an important role in measuring economic growth performance for a country and really important for the process of economic development in many developing and less developing countries. In the South East Asian region, a magical growth of GDP in 1980s and early 1990s for countries known as tiger cub countries has impressed the world. The countries which include of Malaysia, Indonesia, Philippines and Thailand have achieved steady growth of GDP growth from 7% to 9% during the period. The situation then changed when these countries were affected with the financial crisis 1997/1998. The major question which may rise is what is the most dominant factor in determining the growth for these countries before and after the crisis? Was it driven by the government initiative, economic liberalisation or international investment?

Represented by government expenditure for government initiative, net export for liberalisation policy and foreign direct investment for international investment, this study has two objectives to be fulfilled. Firstly, what are the possible relationships between these three selected macroeconomic variables with the GDP performance? Secondly, which is the most influential factor among these three selected macroeconomic variables? A set of panel data for a 20 year period (1990-2009) which consists of data from Malaysia, Indonesia, Philippines and Thailand was analysed in order to answer these two objectives.

## **2.0 LITERATURE REVIEW**

### **2.1 Dependent variable**

#### **2.1.1 Gross Domestic Product (GDP)**

Economic growth is the most important macroeconomic variable which reflects the overall performance of a society as highlighted by Samimi *et al.* (2010). Eatzaz and Aisha (2009) explain that any investment made especially on tangible asset will give a positive impact on the economic growth. Oura and Allen (2004) emphasise that economic growth cannot stand alone and must also depend on performance of financial system in a country. Although it will lead to frequent crises which happen in a country, it will also give positive impact towards economic growth. Fase and Abma (2003) share the same opinion that financial environment significantly matter for strong economic growth in each country.

### **2.2 Independent variable**

#### **2.2.1 Government Expenditure**

Nurudeen and Usman (2010) explain that the enhancement in economic growth is influenced by the rising of government expenditure towards transportation, communication and health sectors. Saad and Kalakech (2009) describe that when government use the spending on roads, education, health, agriculture and other areas, it will bring benefit to the country from social and economic view. Conversely, several studies including Samimi and Habibian

(2011), Ighodaro and Oriakhi (2010) and Afonso and Furceri (2008) estimate a negative relationship between government expenditure and economic performance. Increased spending in salary and unproductive government spending are reasons that drive to this inverse relation.

### 2.2.2 Net Export

Increase in export will directly increase in GDP due to more employment created in export-led industries. The employment will generate more production which contributes to bigger GDP amount (Samad, 2010). This same positive direction is also shared by Elbeydi *et al.* (2010). From another point of view, Bilquees and Mukhtar (2011) conclude that there is a negative relationship between these two macroeconomics fundamentals in India. It is also stated that export creates instability in production and income, which adversely affects the economic growth. Anh (2008) finds out that only a small percentage or variation of the export may influence the GDP, especially in productivity improvement.

### 2.2.3 Foreign Direct Investment

Campos and Kinoshita (2002) in their study on 25 central and eastern European and former Soviet Union transition countries, for a period of 1990-1998, explain that FDI and economic growth has a significantly positive relationship. The same result was also implied in Samimi *et al.* (2010). They state that FDI inflow and openness are important to GDP growth and propose for improvement in FDI policy in any region and country. Alfaro, *et al.* (2007) however estimate a significantly negative relationship between FDI and economic growth. There are also studies that conclude that there is no relationship between FDI and GDP as stated in Falki (2009), Duasa (2007) and Lyrودي, *et al.* (2004).

## 3.0 RESEARCH METHODOLOGY

### 3.1 Model

It uses macroeconomics panel data set (1990-2009) which consists of 1 dependent variable and 3 independent variables. The logarithm equation is written as follows;

$$\ln(GDP_{i,t}) = \alpha + \beta_1 \ln(GOV_{i,t}) + \beta_2 \ln(NEXP_{i,t}) + \beta_3 \ln(FDI_{i,t}) + u_{i,t} \quad (\text{Equation 1.0})$$

### 3.2 Data Retrieval

#### 3.2.1 Gross Domestic Product (GDP)

Data has been obtained from World Databank: 2011 Statistical online database. It is valued in total aggregate.

### 3.2.2 Government Expenditure (GOV)

Data was obtained from World Databank: 2011 Statistical online database. It is valued in US dollar (\$).

### 3.2.3 Net Export (NEXP)

Data was obtained from World Databank: 2011 Statistical online database. It is valued in US dollar (\$).

### 3.2.4 Foreign Direct Investment (FDI)

Data was obtained from World Databank: 2011 Statistical online database. It is valued in US dollar (\$).

## 3.3 Data analysis

All the data collected is inserted into the Microsoft Excel on a yearly basis. Before the processing of data using STATA 10.1, the data was converted into natural logarithm. This is important as the coefficient can be used to determine the elasticity of each variable. The log-log model then was regressed using Pooled Ordinary Least Square (POLS) approach. According to Podesta (2002), pooled analysis is the analysis that has the combination between time series for several cross-sections and being characterised by having repeated observations on fixed units.

## 4.0 RESULTS AND DISCUSSION

Based on Table 1.0, only two independent variables which are government expenditure and net export are reported significant at 99% confidence interval. On the other hand, foreign direct investment is not significant at any 99%, 95% or 90% confidence interval.

**Table 1.0:** Estimated Results

| Variable           | Model                  |
|--------------------|------------------------|
| $\ln(\text{GOV})$  | 1.2727***<br>(0.0471)  |
| $\ln(\text{NEXP})$ | -0.1437***<br>(0.0403) |
| $\ln(\text{FDI})$  | -0.0160<br>(0.0206)    |
| Constant           | 2.9239<br>(0.7010)     |

Note: \*\*\* indicates significant at least at 99% confidence interval.

## 4.1 Government Expenditure

The coefficient shows that government expenditure has a positive relationship with GDP and the value of coefficient is the highest among other variables. From the coefficient, it can also be estimated that 1% increase in government expenditure will increase 1.2727% of GDP, *ceteris paribus*. It means that when the government expenditure is higher, it will improve the economic growth rapidly. The same results were obtained in Saad and Kalakech (2009), Ighodaro and Oriakhi (2010), Yuk (2005) and Abdullah (2000).

Normally, government expenditure brings good benefit and impact on the social and economic of the country. For tiger cub countries that practise mixed economy system, the government role is essential because economic framework is prepared by the government and operated by the private sector. Therefore it is strongly suggested that the government for these four countries must sustain their dominance in the economic management with moderate level of liberalisation allowed. The 20 years of data which was used in this study that cover pre and post financial crisis period, is a proof of evidence in supporting this statement.

## 4.2 Net Export

From the coefficient value, it can be seen that there is a negative relationship between net export and GDP since the value is -0.1437. It means that, 1% increase in export will decrease 0.1437% GDP, *ceteris paribus*. This result supports the findings in Bilquees and Mukhtar (2011) and Lee and Huang (2002). The result however, contradicts with the positive sign that was shown in many studies such as Elbeydi *et al.* (2010), Chimobi (2010), Samad (2010) and Dimkpah (2002).

The existence of negative relation between net export and GDP is possible due to increasing demands towards the exportable goods and services as detailed out by Lee and Huang (2002). Even though the production of exported commodities increases, it cannot cater to the export quota since some portions have been requested by the locals, either earlier or concurrently. As a result, the negative relationship occurs between export and GDP through the reduction of export growth. In other words, economic liberalisation which commonly brings profit to an economic, may also contribute for loss due to unsuitable economic environment of the host country.

## 5.0 CONCLUSION AND RECOMMENDATIONS

The results reveal that only two independent variables are statistically significant at 1% significance level, with two different directions. Government expenditure has a positive relationship while net export displays an inverse relationship toward economic growth for tiger cub countries. In addition, government expenditure has played a crucial role in 20 years period of economic development in these four countries. Therefore, there is an important need in maintaining a prudent dominance of public sector with the help from private.

For future studies, it is proposed to have more emerging South East Asian countries such as Vietnam and Myanmar due to their potential to become the next tiger cub countries. More variables could be added in the future, even though this study emphasised the importance of

these three macroeconomics factors. Separate analysis using time series analysis can also be done to explore individual effect on each country. Despite the limitations in this study, the results and findings are still relevant and can contribute significantly towards body of knowledge in this area.

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