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# STOCK MARKET AND ECONOMIC GROWTH OF MALAYSIA, THAILAND AND INDONESIA

# HII HIE PING

# DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ECONOMICS

PERPUSTAKAAN UNIVERSITI MALAYSIA SABAH

# FACULTY OF BUSINESS, ECONOMICS AND ACCOUNTANCY

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#### DECLARATION

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Sincerely,

Hii Hie Ping 25 November 2015 ABSTRACT

This study aims to determine the long run and short run relationship between stock market development and economic growth of Malaysia, Thailand and Indonesia. This study was using time series data from 1988 until 2012 for Malaysia and Thailand; 1989 until 2012 for Indonesia. The dependent variable was GDP per capita while the independent variables included stock market development indicators which were market capitalization ratio and value traded ratio to represent the size and liquidity of the stock market, respectively. The variables of discount rate and openness ratio included as control variables. The long run and short run relationship between stock market and economic growth were determined by using Autoregressive Distributed (ARDL) bounds test and Error Correction Model (ECM), respectively. The empirical results have shown that the size of Malaysian stock market has positive long run relationship to economic growth while liquidity of Malaysian stock market boosts economic growth in long run and short run. The size and liquidity of Thailand stock market have positive long run and short run impact to economic growth. For Indonesia, liquidity of Indonesian stock market has an effect on economic growth in long run and short run but the size of Indonesian stock market is not a responsible factor to lead economic growth. The well-functioning and well-developed stock market promotes economic growth. The private sector and government sector can contribute some strategies to improve the economic growth in the future such as internationalize the stock market, use advance technology system, innovate the new products, educate and build confidence of the investors.



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#### ABSTRAK

### PASARAN SAHAM DAN PERTUMBUHAN EKONOMI DI MALAYSIA, THAILAND, DAN INDONESIA

Kajian ini mengkaji hubungan jangka panjang dan jangka pendek di antara pembangunan pasaran saham dan pertumbuhan ekonomi di Malaysia, Thailand dan Indonesia. Kajian ini menggunakan data siri masa merangkumi tahun 1988 hingga 2012 bagi negara Malaysia dan Thailand; 1989 hingga 2012 bagi negara Indonesia. Pembolehubah bersandar ialah Keluaran Dalam Negara Kasar (KDNK) per kapita manakala pembolehubah bebas terdapat nisbah permodalan pasaran dan nisbah diniagakan nilai untuk mewakili saiz dan kecairan pasaran saham masing-masing, Kadar diskaun dan nisbah keterbukaan juga terdapat dalam model sebagai kawalan pembolehubah. Hubungan jangka panjang dan jangka pendek di antara pembangunan pasaran saham dan pertumbuhan ekonomi dikaji dengan Autoregressive Distributed (ARDL) bounds test dan Error Correction Model (ECM) masing-masing. Menurut hasil kajian, saiz pasaran saham bagi Malaysia mempunyai hubungan positif dengan pertumbuhan ekonomi dalam jangka panjang manakala kecairan pasaran saham merangsang pertumbuhan ekonomi dalam jangka panjang dan pendek. Saiz dan kecairan pasaran saham bagi Thailand mempunyai hubungan positif dalam jangka panjang dan pendek dengan pertumbuhan ekonomi. Kecairan pasaran saham bagi Indonesia mempunyai hubungan dengan pertumbuhan ekonomi dalam jangka panjang dan pendek tetapi saiz pasaran saham bukan faktor yang penting untuk merangsang pertumbuhan ekonomi. Pasaran saham yang baik dan maju menggalakkan pertumbuhan ekonomi. Sektor swasta dan sektor awam boleh menyumbangkan strategi untuk pertumbuhan ekonomi depan meningkatkan pada masa seperti mengantarabangsakan pasaran saham, menggunakan sistem teknologi yang canqqih, innovasi produk baru, mendidik dan membina keyakinan pelabur.

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## CHAPTER 1

# INTRODUCTION

#### **1.1 Introduction**

Economic growth is a very important issue highly concerned by every country. Economic growth refers to the increasing in the total value of the goods and services from every economy sector in a country over time and it is measured by money value (Diffen, 2016). The quality of the resources and technology improved will increase the total output in a country. According to the Investopedia, the economic growth refers to the increasing of the total output of a country in term of the resources, productivity of the inputs and the technological changes over time. The total output refers to the production of goods and services. Meanwhile, a country will experience economic growth when the increasing of total output and improvement of technology in a country.

Economic growth shows increasing in aggregate demand (AD) and aggregate supply (AS). The aggregate demand includes increasing of salary, government spending, export and low income tax. When the incomes of citizens increased, the consumption of the goods and services increased. Means, the expenditure or demand on goods and services in the country increases, the country will experience economic growth. Economic growth appears when the increasing of labor productivity, working population, capital, discovering new resources and improvement of technology (Economics Help, 2016). For example, the discovering of new resources will assist country able to produce or supply more goods and services. When the value production increases, the country experiences economic growth.

Dugger (2016) stated that the economic growth of a country is usually measured by gross domestic product (GDP). GDP is calculated by total final output of a country in money value during a period of time usually in a year. It used to measure economic activity and economic performance of a country. However, GDP and ratio of GDP to population are usually the economic growth indicators of a country based on the idea from Investopedia. Ratio of GDP to population of a country is also known as GDP per capita. GDP per capita is calculated by GDP divided by total population of a country. GDP per capita is used to measure the welfare and living standards of citizens. It is also an indicator to measure economic activity and economic performance of a country (The Economists, 2008). GDP per capita is a useful indicator for comparing the economic performance of a country to another country. This study examines the relationship between stock market and economic growth of Malaysia, Thailand and Indonesia. So, the GDP per capita is an appropriate indicator proxy for economic growth compare to the indicator of GDP.

GDP and GDP per capita, which are the economic growth indicators, can be measured by the nominal term or the real term. Nominal term shows both indicators without adjusted for inflation while the real term shows both indicators that adjusted for inflation. The changes of the nominal value may due to the changes in production quantities and its prices while the changes of the real value are due to the changes in production quantities (Boyes and Melvin, 2014). The GDP per capita will reflect the living standard, wealth, welfare and purchasing power of the individuals with any changes of the price over time. The higher GDP per capita enables consumer to enjoy more goods and services that available in each country where the living standard of the consumer is improved.

Most of the researches done by the researchers were the economic growth theory to determine which indicator was linked and affects the economic growth of a country. According to the Keynes (1936), the sources that affect the economic growth of a country include consumer expenditure, investment, government expenditure and net export with Keynesian theory. Besides that, Schumpeterian growth (Schumpeter, 1912) shows that financial system is one of the factors which affect economic growth. This kind of study can assist the government, policy makers, private sectors and public sectors in implementing the validity ways to promote the economic growth of each country.

According to Solow (1957), the technological change and economic growth are related. The technological changes can improve the quality of the existing products and create the new products. Technological improvement such as machineries assists the producers in producing more products with the limited resources. The quality improvement of the computer and internet will improve the efficiency of the worker in providing the services. Therefore, the technological changes will increase the competitiveness, size and market share of the corporates.

Keynes (1936) stated that the total spending will affect the total output of a country. The total spending includes the consumer expenditure, investment, government expenditure and net export. The higher consumer expenditure, higher demand for the consumption goods and services. The higher investment in capitals will increase labor productivity in producing more products with same working hours. The higher government expenditure in education, nursing, hospitality and infrastructure will increase the spending of the government on goods and services in developing the country. The higher net export refers to the exportation of goods and services or inflow of the currency more than the outflow of the currency which it also promotes the economic growth.

In the earlier of 20<sup>th</sup> century, the Schumpeterian growth has been proposed by Schumpeter (1912) which mentioned that the financial system is related to the economic growth. The financial system includes banking system and stock market. Schumpeter focuses on the banking system which provides the credits to the entrepreneurs in producing the new products. The entrepreneurs will enjoy the temporary monopoly and profits with the new products. In other words, the entrepreneurs need the investment through the financial to implement innovation and economic activity. Thus, the financial development has positive relationship to economic growth and it actively spurs the economic growth which it also known as finance-led growth hypothesis.

Though the financial development with banking system is vital in developing countries, stock market has gradually becomes more important in some of the developing countries (Khan and Senhadji, 2000). This shows the stock market cannot be ignored when the researchers carry out the study on the

financial development and economic growth. In the seminal work of Schumpeter (1912), the stock market development provides positive impact to the economic growth. This is due to the stock market assists in risk sharing, allocates the resources efficiently for productive activity, reduces the transaction cost, provides liquidity, provides benefits and gives ownership to the investors (Ibrahim, 2011).

Stock market is the biggest auction in the world where people buy and sell the shares with pieces of paper (Sincere, 2004). It is a market where the listed company issuing the shares of their corporations to raise the money. This is done by selling the shares to the investors, those who buy the shares. The buyers will buy the shares at the price which they are willing to purchase or maximum bid price while the sellers will sell the shares at the price which they are willing to sell or minimum ask price.

The stock market consists of two important sections which are primary market and secondary market. The primary market shows the firms issue and sell the shares to the investors at the market where the trading is occur among the firms and investors while the secondary market shows stock trading among the investors. The investor is also a shareholder who owns a small piece of the invested company. Therefore, buying and selling the shares are same as buying and selling the ownership of the invested company.

In the earlier study, Levine (1991), Beneivenga, Smith and Starr (1995) have found that the liquidity of the stock market can boost the productivity growth. Levine and Zervos (1998) stated that the larger size and liquidity of the stock market lead the economic growth. The larger size of stock market reflects the consisting of new corporates or existing corporates in implementing more productive activity and economic activity in term of innovate the new products into the markets which it will lead the economic growth. The liquidity represents the investors can change the shares into the cash easily and quickly in the trading which encourage the investors willing to do the investment in stock market. Then, the corporates can easily implement the economic activity by selling the shares to the investors. Thus, the larger size and liquidity of the stock market will promote the economic growth.

Hailemariam and Guotai (2014) stated that the stock market also assists in transferring the funds for economic growth. The firms or related agencies would like to enable the businesses and economies by using available resources to produce the optimal products, allocation and mobilization of the funds. According to the FitzGerald (2006), the stock market development is important due to the role of the financial intermediation in supporting the process of investment and foreign savings for investment by mobilizing household and firms respectively. The corporates will ensure that these capitals are allocated efficiently by spending the funds in productive ways. When a firm operates the productive activity with available funds, the stock market will generate investment opportunity, lead economic activity, mobilize domestic savings and share the risks (Mishkin, 2001).

Besides that, Ngare, Nyamongo and Misati (2014) mentioned that the stock market will reduce investment risk. The stock market assists investors in risk diversification by allocating the investments into different financial instruments. The investors can own more than one share in different corporates to reduce the risk and maintain the high return. Other than that, the role of stock market is important in term of generating the information for investment and the efficiency of the capital allocation, sharing the risk, guiding the firms in managing the corporations and promoting the liquidity (Wang and Ajit, 2013).

#### **1.2 Background of Study**

The former Prime Minister Yang Bahagia Tun Dr Mahathir bin Mohamad has given a speech on May 15, 2004 at Mutiara Hotel, Kuala Lumpur where market capitalization has increased from 55 billion ringgit to around 700 billion ringgit for the period of 1981 to 2004. Dr Mahathir would like to create strategic for improve the role of the Malaysian capital market in the future to generate the wealth and economy effectively (Securities Commission Malaysia, 2004). On April 23, 2015, Prime Minister Datuk Seri Mohd Najib Tun Razak has given a speech at Invest Malaysia where Malaysian capital market has reached 2.82 trillion ringgit at that period. This shows that the capital market has strong growth where equity market has reached 1.74 trillion ringgit and bond market has reached 1.08 trillion ringgit (The Star Online, 2015). On 13 January 1998, International Monetary Funds (IMF) stated that IMF will help Indonesia to stabilize the currency and stock markets due to the President Suharto, Indonesian leader want to utilize economic reforms (Los Angeles Times, 1998). The President Suharto would like to create confidence and prosperity for Indonesia through the stabilization of stock market because it can boost the economy. The controlling of General Prayuth Chan-ocha on Thailand has improved the benchmark stock market index Thai SET up to 25.27% from 2014 to February 2015 while Indonesia's Jakarta Stock Exchange Composite Index has increased 19.79%. From the stock market performances shown, the leaders or governments form each country had paid attention on the role of the stock market to promote the economic growth in the future through creating the strategic.

Does stock market development have long run and short run linkages to the economic growth of Malaysia, Thailand and Indonesia? The relationship among stock market development and economic growth of Malaysia, Thailand and Indonesia will be emphasized in this study. All these three countries are developing countries and share some similarities in terms of historical, cultural, linguistic ties, geographical proximity and complementarities between each other. In the earlier studies, Harris (1997) found that stock markets and economic growth in developing countries have weak relation while Cooray (2010) found that the stock market development and economic growth in developing countries have strong relation. This shows the confusing of the empirical results and theory. Therefore, this study is focusing on the developing countries and examine whether long run and short run linkages exist among the stock market development and economic growth.

The previous studies from Levine and Zervos (1998), Choong, Yusop, Law and Sen (2003), Enisan and Olufisayo (2009), and Ngare *et al.* (2014) mentioned that the size and liquidity of stock market are important indicators that proxies for stock market development and lead the economic growth. These three countries have experienced top highest GDP per capita, market capitalization and total value of shares traded compare to the other developing countries in Association of Southeast Asian Nations (ASEAN) countries such as Philippines, Vietnam, Cambodia, Laos and Myanmar in 2012. The GDP per capita, market capitalization

and total value of shares traded were 10,440 US dollar, 476 US billion dollars and 124 US billion dollars respectively for Malaysia; 5,480 US dollars, 383 US billion dollars and 229 US billion dollars respectively for Thailand; 3,351 US dollars, 397 US billion dollars and 91 US billion dollars respectively for Indonesia (World Bank, 2015). The formation of the stock exchange and trend chart of those three indicators for Malaysia and Thailand from 1988 to 2012; Indonesia from 1989 until 2012 will be mentioned in the following paragraphs.

Stock Exchange of Malaysia has been officially established in 1964 when Singapore was still a part of Malaysia. However, after the secession of Singapore from Malaysia happened in 1965, Stock Exchange of Malaysia has been renamed to Stock Exchange of Malaysia and Singapore (SEMS) with common stock exchange. Although Malaysia and Singapore have agreed the currency interchangeability between each other, both countries have terminated this agreement in 1973. This has caused SEMS divided into Kuala Lumpur Stock Exchange Berhad (KLSEB) and Stock Exchange of Singapore (SES). KLSEB has been renamed to Kuala Lumpur Stock Exchange (KLSE) in 1994 and renamed again to Bursa Malaysia in 2004. Bursa Malaysia is an exchange holding company with the purposes of improving liquidity of market, efficiency of businesses and achieving economies of scale (Bursa Malaysia, 2015).

The Figure 1.1 is the trend chart of GDP per capita, stock market capitalization of listed companies and total value of shares traded for Malaysia from 1988 to 2012. The GDP per capita is proxy for the economic growth of a country. The market capitalization describes the size of the stock market while total value of shares traded describes the liquidity of the stock market. The line chart of stock market capitalization and total value of shares traded are fluctuated where both indicators declined dramatically when Asian financial crisis and global financial crisis happened in 1997 and 2008 respectively. Although both indicators decline dramatically in financial crisis, the drops in global financial crisis were not as harm as Asian financial crisis. The imposition control of the capital in 1998 had caused both indicators to decline a lot worse than the financial crisis in 2008 (Tse and Tan, 2002). The stock market capitalization and total value of shares traded

were declined from 307 US billion dollars and 174 US billion dollars to 98 US billion dollars and 29 US billion dollars, respectively due to the Asian financial crisis. The stock market capitalization and total value traded were decreased from 326 US billion dollars and 150 US billion dollars to 256 US billion dollars and 73 US billion dollars respectively due to global financial crisis (World Bank, 2015).



#### Figure 1.1 : Trend Chart of GDP Per Capita, Market Capitalization and Total Value of Shares Traded for Malaysia. Source

: World Bank

The Thai stock market has been officially established in 1962 and the limited company renamed the company to the Bangkok Stock Exchange Co., Ltd. (BSE) in 1963. However, the operations of BSE has ceased in the early of 1970s because the turnover value and trading volumes were continued to decline and perform poorly between 1968 and 1972. Although the purposes to establish the securities market are supporting the national industrialization and mobilizing capital for economic development, the lack of supporting from government and lack of understanding about stock market from limited investors have caused the BSE stops the operations. Afterward, the finance and securities company have been controlled and regulated by government. The regulation to establish the Securities Exchange of Thailand (SET) has approved in 1964 and public can start trading in



1965. Securities Exchange of Thailand has been renamed to the Stock Exchange of Thailand (SET) in 1991 until recently (Stock Exchange of Thailand, 2015).

# Figure 1.2: Trend Chart of GDP Per Capita, Market Capitalization and<br/>Total Value of Shares Traded for Thailand.Source: World Bank

Figure 1.2 shows the trend chart of GDP per capita, stock market capitalization of listed companies and total value of shares traded for Thailand from 1988 to 2012. The depreciation of the Thai baht has caused the happening of the 1997 Asian financial crisis. In the early of 1990s, the trend for GDP per capita, stock market capitalization and total value of shares traded was in the increasing trend. Unfortunately, the three indicators have declined when facing the issue of Asian financial crisis. The GDP per capita, market capitalization and total value of shares traded were decreased from 3,055 US dollars, 99 US billion dollars and 44 US billion dollars to 1,837 US dollars, 34 US billion dollars and 21 US billion dollars, respectively. Three indicators also declined when the global financial crisis exists, but three indicators started to rise after the financial crisis (World Bank, 2015).

For Indonesia, the first stock exchange in Indonesia has been established in 1912 under Dutch colonial government. Unfortunately, the political issues such as World War I and World War II have caused the stock exchange closed. The Jakarta Stock Exchange (JSX) was re-opened by President Soeharto in 1977 and supervised by Capital Market Supervisory Agency. The December Package 1987 (PAKDES 87) and December Package 1988 (PAKDES 88) were issued by the government to improve the growth of capital market by exposed the listed companies to the public, encourage the foreign investors invest in Indonesia and other regulations which can give positive impacts to the growth of capital market. Therefore, the Surabaya Stock Exchange (SSX) has been established in 1989 to enlarge the trading activity, mobilize the capital market and enhance the economic development. SSX merged into JSX in 2007 and single exchange had created in Indonesia. Then, JSX has been renamed into Indonesia Stock Exchange (IDX) (Indonesia Stock Exchange Bursa Efek Indonesia, 2015).



 

 Figure 1.3
 : Trend Chart of GDP Per Capita, Market Capitalization and Total Value of Shares Traded for Indonesia.

 Source
 : World Bank

Figure 1.3 is the trend chart of GDP per capita, stock market capitalization of listed companies and total value of shares traded for Indonesia from 1988 to 2012. The three indicators were growth slowly until 1996. The GDP per capita, market capitalization and total value of shares traded have declined when the

Asian financial crisis happened in 1997 which declined from 1,153 US dollars, 91 US billion dollars and 32 US billion dollars in 1996 to 470 US dollars, 22 US billion dollars and 10 US billion dollars in 1998 respectively. The trend for three indicators was raised after Asian financial crisis. The market capitalization and total value pf shares traded declined during the global financial crisis in 2008 while increased after the financial crisis (World Bank, 2015).

Malaysia, Thailand and Indonesia have experienced fast growth, low inflation, high saving rates, open economies, macroeconomic stability and excellent in export sectors before the Asian financial crisis in 1997. However, these countries have experienced the most severe crises when facing the issue of financial crisis. The countries with most vulnerable financial sectors and higher financial integration within Asia were experienced the most severe crises especially Malaysia, Thailand, Indonesia and Philippines. However, Singapore did not experience severe crises compared to the four countries due to the well-capitalized financial institution and strong economic.

The Asian financial crisis in 1997 and global financial crisis in 2008 have created the issue of stock market crash. Stock market crash refers to the sudden decline of the stock prices which affect the value of the paper decline. Both financial crises have caused the stock price dropped which it reflected the economic recession. After the financial crisis, the stock price increased and it reflected the economic growth in the future. Thus, decreases of the stock price reflect economic recession while increases of the stock price will reflect economic growth.

It is believed that the financial crisis will affect the stock prices while the stock prices change will give impact to the future economic growth (Mun, Siong and Thing, 2008). The Asian financial crisis from 1997 until 1998 happened due to the currency depreciation. The devaluation of the currency caused the higher inflation, reduced import revenues, raised government deficits, devalued stock market and slowed down the economic activity. The investors fear on the destabilization of stock market because the investors unwilling to take risk on additional losses. The investors will sell the stocks or stop loss orders to avoid

continue of losses. The supply of stocks overwhelms the demand of stocks will affect the prices of the underlying stocks begin to decline rapidly. It reflects the declining of the investment from investors where the funds for implementing the economic activity are reduced. Thus, the financial crisis will give impact to the stock market declines and economic of the countries meltdown.

Other than that, changes of the stock price will affect the market capitalization and value traded (Levine and Zervos, 1998). The market capitalization is equal to the share price times the number of shares outstanding while value traded is equal to the total value of trades of domestic shares. The value traded directly related to the trading volume as a share of national output. The changes of market capitalization and value traded also will influence the economic growth.

In addition, Mun *et al.* (2008) stated that the significant relationship is expected between domestic stock market and economic growth. This is because the liquidity of stock market enables the firms obtains the capitals in the short term which can allocate the capitals in productive activity, encourage investment and lead the economic growth (Paudel, 2005). Ngare *et al.* (2014), Marques, Fuinhas and Marques (2013) and Antonios (2010) also found that the stock market development has positive impact to the economic growth. The researchers stated that the bigger size and more liquidity of the stock market will promote economic growth.

However, the debatable issue of the relationship between stock market development and economic growth still haven't been solved. The findings from different researchers were not consistent. Although Wang and Ajit (2013) mentioned that the role of stock market is important to economic growth, the finding shows that China stock market development has negative relationship to economic growth. China is also a developing country and the negative relationship among the stock market and economic growth was due to the interventions of the government in stock market. The government has generate two-tier equity market with different prices which it affects the stock market became illiquidity. Moreover,

the Donwa and Odia (2010) stated that the size and liquidity of the stock market does not have significant relationship to the economic growth of Nigeria.

#### **1.3 Problem Statement**

Malaysia, Thailand and Indonesia are the three countries that share many similarities in term of historical, cultural, linguistic ties, geographical proximity and complementarities. However, there are huge gap in economic performance between these three countries. The GDP per capita was 10,440 US dollars for Malaysia; 5,480 US dollars for Thailand; 3,351 US dollars for Indonesia in 2012 (World Bank, 2015). Thus, the long run and short run relationship between stock market development and economic growth for these three countries will be examined in this study to determine whether the stock market development can be the vital indicators in promoting the economic growth of developing countries. The time frame of the data that utilized in this study is from 1988 until 2012 for Malaysia and Thailand while from 1989 until 2012 for Indonesia. The time frame includes the period of expansion and financial crisis.

Another motivation to do this study is the confusion of the empirical results from the previous studies on the relationship between stock market development and economic growth of Malaysia, Thailand and Indonesia. There are few researchers have study the relationship between stock market development and economic growth for these three developing countries. The examples are show in the following paragraphs.

There are lacks of empirical studies on Thailand and Indonesia. Ibrahim (2011) found that the Thailand stock market has long run relationship to the economic growth from 1993 to 2007. The researcher used the real GDP as dependent variable while market capitalization ratio, investment ratio and GDP deflator as independent variables. The method that used to test the long run relationship among the variables was Johansen cointegration test.

Tang, Habibullah and Pauh (2007) found that the Indonesian stock market did not have long run relationship to economic growth from 1980 to 2004. The researchers used the real GDP as dependent variable while stock index as