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THE RELATIONSHIP AMONG TRADE OPENNESS, FOREIGN DIRECT INVESTMENT (FDI), GROSS DOMESTIC INVESTMENT (GDI) AND ECONOMIC GROWTH IN THAILAND: 1970-2008

BY

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A dissertation submitted in fulfilment of the requirement for the degree of Master of Economics

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ABSTRACT

This study investigates the relationship among trade openness, foreign direct investment (FDI), gross domestic investment (GDI), and economic growth in Thailand from 1970-2008. The methodology is based on Johansen technique of Co-integration, Granger causality test based on VECM, and variance decomposition analysis. The cointegration analysis suggests that the variables are cointegrated and there exists a unique long-run relationship among the variables. The results of Granger causality test show that trade openness, foreign direct investment and gross domestic investment Granger caused economic growth unidirectionally except trade openness. The results of variance decomposition analysis indicate that foreign direct investment seems to be the most determinant of Thailand's GDP per capita growth, followed by trade openness and gross domestic investment. The study is very vital, especially to policy makers because it enables them to initiate, develop and manage long term economic strategies to achieve high economic growth.

خلاصة البحث

هذه الدراسة تبحث عن نوعية العلاقة بين الانفتاح التجاري الاستثماري المباشر وكذلك الاستثمار المحلي الإجمالي من جهة، وبين النمو الاقتصادي لتايلندي في الفترة ما بين 1970 و 2007 م . منهجية هذا البحث تعتمد على الصيغة التكاملية (Johansen تنويع فترات التنبو. إن التحليل الدراسي للصيغة الاختبار السبي لغرنغر بالإضافة إلى فرق مناك على الدى الطويل علاقة فريدة من نوعها بين المتغيرات. كذلك فإن نتائج الصيغة الثانية تدل على أن الاستثمار الأجنبي الماشر والاستثمار المحلي الإجمالي يوديان إلى النمو اقتصادي باتجاه واحد ما عدا الانفتاح التجاري. هذا، وإن نتائج فترة تنبو المتغيرات توحي بأن الاستثمار الأجنبي الماشر والاستثمار الحلي الإجمالي يوديان إلى النمو الثانية تدل على أن الاستثمار الأجنبي الماشر والاستثمار الحلي الإجمالي يوديان إلى النمو بأن الاستثمار الأجنبي الماشر يمثل أهم مؤشر ومحدد لنمو الناتج الحلي الإجمالي من نصيب الفرد لتيلندا، بالإضافة إلى الانفتاح التحاري. والاستثمار الحلي الإجمالي من نصيب الفرد لتيلندا، بالإضافة إلى الانفتاح التحادي والاستثمار الحلي الإجمالي من نصيب الدراسة حيوية ومهمة جدا وخاصة لصناعي السياسيات ومهمي التنمية لألما تمكنه من الدراسة حيوية ومومة جدا وخاصة لصناعي السياسيات ومهمي التنمية لألما تمكنهم من الطويل.

APPROVAL PAGE

I certified that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Economics.

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DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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THE RELATIONSHIP AMONG TRADE OPENNESS, FOREIGN DIRECT INVESTMENT (FDI), GROSS DOMESTIC INVESTMENT (GDI) AND ECONOMIC GROWTH IN THAILAND: 1970-2008

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То

My dear and beloved mother, *Kamariyah*, and my father, *Husin*; who provide their tremendously love, care, and support in every steps of my life.

May Allah bless and raise them all rewards plentifully.

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CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

In the decade until 1995 the Thai economy was among the world's fastest growing nation with a rate of 8% to 9% a year. Thailand was also successful in reducing poverty and improving social services. However, Thailand is remarkable growth came to an abrupt end in 1997 with the eruption of Asian financial crisis. Thailand made important progress in social and economic development with an average growth of 5.6% between 2002 and 2007. In 2008 Thailand registered a 6% annual growth rate which was generally considered highly robust for the Thai economy. This stood in sharp contrast to the pre-crisis years when a 5.9% growth rate in 1996 was considered dismal. Certainly, these assessments were based on the prevailing domestic and external environment. Still, they also reflected the perceived growth potentials of the economy which in turn were influenced by growth performance during the preceding years (Chuenchokesan & Nakornthab, 2008).

Thailand is the 5th largest economy in East-Asian countries, registered in real GDP at 195.8 billion US dollar (constant at million 1990 US dollars) in 2008, after Japan, China, Republic of Korea, and Indonesia. These countries registered in real GDP at 3,825.9, 2,370.2, 698.4, and 284.7 billion US dollars in

2008 (see Table 1.1). Furthermore, Thailand is the Southeast Asia's second largest economy (behind Indonesia), and the 4th richest nation, with registered a real per capita GDP of 2,907 US dollar after Singapore, Brunei and Malaysia which registered at 24,516, 12,837, and 4,984 US dollar in 2008 (see Table 1.2). Thailand functions as an anchor economy for the neighboring developing countries like Laos, Burma, and Cambodia.

CDB		Gross D	omestic Pr	oduct (GDP)	Aver	age ann	ual	
GDP		Million (1	990 US dol	lars)		(1990 US dollars)			
growth rate						% per	annum		
Region 00-05 2008	1990	1995	2000	2005	2008	90-95 95		-00	
East and North-Ea	st Asia								
China 9.0	404,494	721,467	1,090,626	1,723,332	2,370,258	12.3	8.6	9.6	
Japan 0.4	3,018,271	3,254,728	3,417,385	3,645,894	3,825,852	1.5	1.0	1.3	
Republic of Korea 2.2	274,976	400,507	496,167	618,034	698,424	7.8	4.4	4.5	
South-East Asia									
Brunei Darussalam -1.5	3,520	4,112	4,393	4,867	5,036	3.2	1.3	2.1	
Cambodia 6.0	1,404	1,920	2,711	4,237	5,485	6.5	7.1	9.3	
Indonesia 6.0	125,720	183,279	190,071	239,450	284,758	7.8	0.7	4.7	
Lao 7.5	866	1,181	1,593	2,164	2,719	6.4	6.2	6.3	
Malaysia 4.5	45,716	71,878	90,829	114,492	134,641	9.5	4.8	4.7	
Myanmar 2.0	5,179	6,878	9,534	13,253	16,067	5.8	6.8	6.8	
Philippines 4.6	44,312	49,325	59,822	74,486	88,052	2.2	3.9	4.5	
Singapore 1.1	36,901	1 56,791	77,443	95,796	113,143	9.0	6.4	4.3	

Table 1.1 Real GDP in East Asian Countries, 1990-2008

Thailand 4.8	85,361	129,105	132,031	169,318	195,876	8.6	0.4	5.1
Timor-Leste	146	237	196	205	246	10.2	-3.7	0.9
Viet Nam 6.2	6,472	9,600	13,477	19,292	24,044	8.2	7.0	7.5

Source: United Nations Statistics Division (UNSD), National Accounts Main Aggregates Database (2009).

CDB		GDP	' per capita			Aver	age ann	ual
GDP		(1990	US dollars)			per ca	pita (199	00 US
dollars)		(,		growth	rate % p	-	
Region 00-05 2008	199	0 1995	2000	200	5 2008	90-9	95 95-	00
East and North-Ea	st Asia							
China 8.4	354	596	861	1,313	1,772	10.9	7.6	8.9
Japan 0.5	24,501	25,947	26,971	28,607	30,055	1.2	0.8	1.2
Republic of Korea	6,397	8,970	10,686	12,993	14,504	6.7	3.5	4.0
South-East Asia								
Brunei Darussalam -3.4	13,698	13,940	13,173	13,152	12,837	0.3	-1.1	-0.2
Cambodia 7.4 4.3	145	169	212	306	377		4.9	
Indonesia 3.3 4.8	709	957	926	1,092	1,253	6.2	-0.7	
Lao 5.5	206	246	295	368	438	3.4	3.7	4.5
Malaysia 2.8	2,525	3,490	3,903	4,467	4,984	6.7	2.3	2.7
Myanmar 8.0 1.1	127	157	205	274	324	4.3	6.4	
Philippines	710	705	770	871	975	-0.1	1.8	2.5
2.7 Singapore 3.2 -1.7	12,234	16,318	19,272	22,451	24,516	5.7	3.5	
Thailand 4.1	1,506	2,147	2,118	2,568	2,907	7.3	-0.3	3.9
Timor-Leste 4.0 3.5	197	279	241	207	224			-

Table 1.2Real GDP per capita in East Asian Countries, 1990-2008

Viet Nam	98	132	171	229	276	6.1	5.6
6.1 5.0							

Source: United Nations Statistics Division (UNSD), National Accounts Main Aggregates Database (2009).

The Thai economy is heavily based on agriculture, which contributes around 10% of the GDP and employs almost 40% of the active population. The country is one of the leading producers and exporters of rice and also has rubber, sugar, corn, jute, cotton and tobacco as its major crops. Fishing is an important activity and Thailand is a major exporter of farmed shrimp. However, agriculture's contribution to GDP has relatively declined, while the exports of goods and services have increased. In addition, the manufacturing sector accounts for just under half of the GDP and is well diversified. The main industries are electronics, steel and automotive and Thailand is an assembly hub for international car brands. Electrical components and appliances, computers, cement production, furniture and plastic products are also important sectors. The textile sector employs around 25% of the active population but it is no longer as dynamic as the tourism sector which has become the main source of foreign exchange. The tertiary sector, including tourism and financial services, contributes about half of the GDP (Export Enterprises, 2010).

Trade has played a major role in Thailand's economic performance. This is clearly seen by the increase of its contribution to GDP. In 1960, the share of

export and import in GDP was around 30 percent, and it increased approximately to 70 percent in 1990. By the end of 2000, its share jumped to 107.7 percent of GDP (Chuenchokesan & Nakornthab, 2008).

The main engine of growth for the Thai economy is export performance. The export sector in Thailand has performed remarkably well. It has increased rapidly from 19 percent of GDP in 1979 to 52.8 percent in 2002. Thai exports as percentage of total world exports increased from just around 0.24 percent in 1970 to 1.05 percent in 1999 (Tambunlertchai, 2001a). Moreover, the growth rate of exports started low and even negative in the mid of 1980s but was double digit annual growth rate from 1986 to 1985. Then, it suffered a negative growth in 1996 to 1998 due to the effects of the financial crisis and the sluggish world demand. However, it started to grow again in 1999 with 7.4 percent due to the recovery of Thailand's economy and improvement in the global world economy (Bank of Thailand, 1999a). Later, exports decreased once again in 2001 to -7.1 percent due to the slowdown in demand from the major trading partners such as Japan and United States of America (Bank of Thailand, 2001). The exports continually increased from 4.7 percent in 2002 to 18.2 percent in 2007 but decreased slightly in 2008 to 15.8 percent.

Although, exports had grown rapidly, Thailand still faced a trade deficit due to substantial increase in imports. For example, the imports value

increased to 27 percent in 2004, while the exports value expanded to only 21.5 percent, and led Thailand to face a trade deficit. In 2006, Thailand faced a trade surplus as exports expanded more in the value of 16.9 percent while imports value expanded only 7 percent. Moreover, the balance of trade in Thailand had a deficit once in 2008 because the export value expanded only 15.8 percent while the import value expanded 26.4 percent (Bank of Thailand, 2008).

Foreign direct investment (FDI) has also been an important element of Thailand's economic development process. The immense foreign currency influx after Thailand's financial liberalization in 1990, helped to increase the country's competitiveness. In the context of the recession and relatively slow recovery after the 1997 crisis, the FDI's role became even more crucial in helping to re-capitalize failing industries, bringing in new technologies, generating or saving jobs, assisting with policy reforms and playing a role in addressing the poverty and social inequalities challenges. The FDI inflows in Thailand gradually increased from 5,061 million US dollar in 2001 to 11,238 million US dollar in 2007. Thailand was ranked amongst the first destinations for FDI and was the second ASEAN (Association of the Nations of the Southeast Asia) country, after Singapore in 2007, with foreign investment attractiveness. However, in 2008, United Nations World Investment Report mentioned that foreign direct investment (FDI) influx suffered a 10% decline

due to the US financial turmoil and the slowing of the global economy (Export Enterprises, 2010).

1.2 THE PROBLEM STATEMENT

As Thailand moves towards becoming a modern economy, it faces more daunting problem in sustaining its economic growth. Given the uncertainties of the world economic and financial system, it has become increasingly difficult for Thailand to achieve a commendable rate of economic growth. This study focuses on the role of trade openness, FDI, and gross domestic investment (GDI) on Thailand economy. All of these variables have been crucial on the developed and developing countries to their countries' economic growth. Most studies have separately examined between the effects of trade openness on economic growth, the effect of exports on economic growth, and the impact of FDI on economic growth or domestic investment on economic growth. However, there have been only few empirical works, which investigate the relationship among trade openness, FDI and gross domestic investment (GDI) on economic growth and the literature on Thailand's position on this subject matter seems to be insufficient. Therefore, this present study attempts to investigate the relationship among trade openness, FDI, gross domestic investment (GDI)and economic growth as well as the causal relationship

between openness, FDI, gross domestic investment (GDI) and economic growth of Thailand by using the annual data for the period 1970-2008.

1.3 OBJECTIVE OF THE STUDY

The main objective of the study is to investigate the relationship among trade openness, foreign direct investment (FDI), gross domestic investment (GDI) and the economic growth in Thailand. The specific objectives of this study are:

- To determine the relationship among trade openness, foreign direct investment (FDI), gross domestic investment (GDI) and the economic growth in the long-run from year 1970 – 2008.
- ii) To examine the causal relationship among trade openness, foreign direct investment (FDI), gross domestic investment (GDI) and economic growth.
- iii) To suggest policy actions to promote economic growth.

1.4 SCOPE OF THE STUDY

This study focuses on the relationship between trade openness, FDI, gross domestic investment and economic growth in Thailand, from 1970-2008. The model specification of this study is estimated by using annually time series data ranging from 1970-2008. The data is derived from World Development Indicators (WDI) which is the primary World Bank database.

1.5 SIGNIFICANCE OF THE STUDY

Trade openness, namely the sum of exports and imports to Gross Domestic Product (GDP), has been considered as one of the determinants of economic growth. Export-led growth postulates that exports consist the principal channel through which the liberalization process can affect the output level and eventually the rate of economic growth (Dritsaki, 2004). Export expansion can increase productivity by offering greater economies of scale (Esfahani, 1991). Moreover, Endogenous growth theory emphasizes the role of exports on economic growth and highlight that exports can increase long-run growth by allowing innovation growth in the sectors of research and development (Lucas, 1988). In other words, the endogenous growth theory implies that openness to trade should increase growth by increasing the scale of spillovers or available technology. However, openness and trade may stimulate economic expansion in some countries while reducing growth in others. It is clear that given the tools of endogenous growth theory, almost any policy choice can be shown to have growth effects through its effect on the accumulation or allocation of physical or human capital. This highlights that what is needed is more empirical evidence on the benefit of openness and trade policy (Romer, 1990).

Nevertheless, foreign direct investment has also been one of the factors which leads countries' growth. Thus, there is an increasing agreement both

among developed and developing countries about the types of benefits, which are likely to accrue to the host economy from FDI (OECD, 1991). Furthermore, foreign direct investments can contribute to economic growth because they tend to be more productive than the investments of local firms. But domestic investments have also been important to country's growth. Another mechanism through which foreign direct investments can affect economic growth is the generation of productivity spillovers.

As a consequence, trade openness, FDI, gross domestic investment are conductive to economic growth. This study will examine whether the relationship between openness, FDI and gross domestic investment have affected to economic growth in Thailand. The examination on the relationship of these variables will be useful information to policy makers as it can be a guide in implementing any appropriate policy that helps to sustain the economic growth of Thailand.

1.6 ORGANIZATION OF THE STUDY

This paper is organized into six chapters. It starts with chapter one that discusses the statement of problem, objectives, scope, and organization of the paper. The purpose of this study is to analyze the relationship among trade openness, FDI, gross domestic investment (GDI) and economic growth in Thailand. Chapter two is on the economic background of Thailand, which relates to an overview of economic growth, the country's export as well as foreign direct investment (FDI) and other economic indicators of Thailand.

The review of prominent literatures on the relationship between trade openness, FDI, gross domestic investment and economic growth are described in chapter three. This part is divided into two sections. The first part explains and discusses the theoretical background of openness, FDI, gross domestic investment and economic growth. The second section will review various literatures, both theoretical and empirical, on the issue of the relationship between openness, FDI, gross domestic investment and economic growth.

Chapter four elaborates the model specification, estimation methods, and the source of data variables which have been collected from various sources by using macroeconomic time series data from 1970-2008.

The results of estimation and interpretation of the findings which are estimated by using unit root test, Cointegration and Johansen Tests, and Granger Causality Test based on VECM are discussed in chapter five.

Finally, chapter six provides the conclusion of the study, its implication, and the relevant policy recommendations and suggestions. Areas for further researches are also highlighted in this chapter.

CHAPTER TWO

ECONOMIC BACKGROUND OF THAILAND

2.1 INTRODUCTION

The kingdom of Thailand formally known as Siam, is located in South-East Asia. It borders with Burma, Cambodia, Laos, Malaysia, and the Andaman Sea with the area of 514,000 sq. km. Thailand is divided into four regions namely the mountainous north region, the north-eastern region, the central region, and the south peninsula; comprising 76 provinces. The climate is tropical, hot and humid. The geographical features of the country consist of the central plain, a plateau in the east and mountain elsewhere (Phan, 2004). According to the statistic of the Bank of Thailand (2008) Thailand's population in 2008 was about 63.93 million people with the growth rate of around one percent per year. The ethnicities of Thailand comprise of 75 percent Thais, 14 percent Chinese, and the rest are Laotians, Malay and hill tribes people. Around 95 percent of the population confesses Buddhism, and the remaining are Muslims, Christian, and Hindus. The official language is Thai, while English is also used. The national capital is Bangkok.

To understand the Thailand economic performance, we will briefly discuss the structure of the Thai economy in this chapter by starting with GDP growth, labor markets which include the employment and unemployment rate,