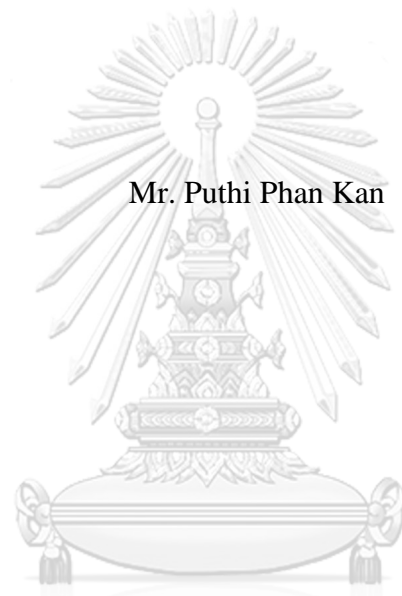


DETERMINANTS OF INWARD FOREIGN DIRECT INVESTMENT FROM  
CHINA, SOUTH KOREA AND JAPAN AND ITS CONTRIBUTION TO  
ECONOMIC GROWTH IN CAMBODIA



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จุฬาลงกรณ์มหาวิทยาลัย

บทคัดย่อและแฟ้มข้อมูลฉบับเต็มของวิทยานิพนธ์ตั้งแต่ปีการศึกษา 2554 ที่ให้บริการในคลังปัญญาจุฬาฯ (CUIR)  
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ปัจจัยกำหนดการลงทุนจากต่างประเทศจากประเทศจีน เกาหลีใต้ และญี่ปุ่น และผลกระทบต่อการ  
ขยายตัวทางเศรษฐกิจของประเทศกัมพูชา



วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรมหาบัณฑิต  
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การลงทุนโดยตรงจากต่างประเทศ (FDI) ได้เพิ่มขึ้นทั่วโลกตั้งแต่ช่วงปลายทศวรรษ 1980 และเพิ่มขึ้นอย่างรวดเร็วในกัมพูชาในช่วงสองทศวรรษที่ผ่านมา งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาปัจจัยกำหนด FDI ที่เข้ามาจากจีน เกาหลีใต้ และญี่ปุ่นรวมทั้งผลกระทบต่อ การเติบโตทางเศรษฐกิจของประเทศกัมพูชาระหว่างปี พ.ศ. 2537-2557 การศึกษาใช้วิธีประมาณการอนุกรมเวลารายประเทศผู้ลงทุนและวิเคราะห์แบบ Panel Data Analysis ผลจากการประมาณการสมการ ปัจจัยกำหนดการลงทุนจากต่างประเทศในประเทศกัมพูชาแสดงให้เห็นว่าผลิตภัณฑ์มวลรวม ภายในประเทศที่แท้จริง การค้าทวิภาคีระหว่างประเทศ อัตราแลกเปลี่ยน อัตราเงินเฟ้อ และผลิต ภาพแรงงานโดยเปรียบเทียบมีผลกระทบในเชิงบวกอย่างมีนัยยะสำคัญทางสถิติต่อการลงทุน โดยตรงจากต่างประเทศทั้งสามประเทศ ผลจากการประมาณการสมการวัดผลกระทบของการ ลงทุนจากต่างประเทศต่อเศรษฐกิจของประเทศกัมพูชาพบว่าการลงทุนจากต่างประเทศของแต่ละ ประเทศที่ศึกษาส่งผลกระทบในเชิงบวกต่อการเติบโตทางเศรษฐกิจของประเทศกัมพูชา รวมไปถึง ปัจจัยแรงงาน การลงทุนภายในประเทศ ทุนมนุษย์ โครงสร้างพื้นฐานตลอดจนการเปิดเสรีทางการ ค้าระหว่างประเทศต่างเป็นปัจจัยสำคัญที่นำไปสู่การเติบโตทางเศรษฐกิจ อย่างไรก็ตามผลกระทบที่ เป็นบวกต่อการเติบโตทางเศรษฐกิจของกัมพูชาจะเป็นไปได้มากขึ้นหากประเทศมีความสามารถในการ ดูดซับเทคโนโลยีขั้นสูงจากการลงทุนจากต่างประเทศ นอกจากนี้ผู้กำหนดนโยบายของประเทศ กัมพูชาควรมุ่งเน้นนโยบายที่เป็นมิตรและสามารถดึงดูดการลงทุนโดยตรงจากต่างประเทศ อีกทั้ง รัฐบาลควรส่งเสริมให้เกิดสภาพแวดล้อมที่เอื้ออำนวยต่อการค้าและการลงทุนแก่นักลงทุนใน ประเทศและต่างประเทศด้วยการลดข้อจำกัดต่อการลงทุนโดยตรงพร้อมกับพัฒนาโครงสร้าง พื้นฐานทางกายภาพ ในที่สุดผู้กำหนดนโยบายไม่ควรลืมการพัฒนาทุนมนุษย์เพราะเป็นตัวแปรที่ แสดงถึงความสามารถในการดูดซับผลประโยชน์จากการลงทุนจากต่างประเทศต่อเศรษฐกิจของ ประเทศกัมพูชา

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PUTHI PHAN KAN: DETERMINANTS OF INWARD FOREIGN DIRECT INVESTMENT FROM CHINA, SOUTH KOREA AND JAPAN AND ITS CONTRIBUTION TO ECONOMIC GROWTH IN CAMBODIA.  
ADVISOR: PROF.PAITOON WIBOONCHUTIKULA, Ph.D., 63 pp.

Foreign direct investment (FDI) has increased globally since the late 1980s. It increased rapidly in Cambodia in the past two decades. This paper aims to examine the determinants of inward FDI from China, South Korea and Japan and its contribution to economic growth in Cambodia during 1994-2014, using both time series analysis by country and the panel data analysis. The results on the determinants of FDI show that real GDP, bilateral trade between the countries, exchange rate, inflation rate, and relative labor productivity are statistically significant and have positive impact on inward FDI flows into Cambodia, and inward FDI from those three investing countries contribute to Cambodia's economic growth respectively. The findings from the study on the impact of FDI indicate that there are positive relationships between inward FDI from China, South Korea and Japan and Cambodia's economic growth. Labor force, domestic investment, human capital, infrastructure and trade openness are the important factors leading to economic growth in Cambodia when receiving inward FDI from those three investing countries. However, the positive effect on the Cambodia's economic growth could have been greater if the country had greater capability to absorb advanced technology from the FDI. Besides, Cambodian policy makers should focus more on the policies that are friendly and attractive to inward FDI. Moreover, to attract more inward FDI, the government should promote encouraging environment for trade and investment for both local and foreign investors, remove restrictions against FDI and develop physical infrastructure. Finally, policy makers should not forget the development of human capital because the variable represents the absorption capacity from which the Cambodian economy could benefit from the FDI.

Field of Study: International Economics Student's Signature .....  
and Finance Advisor's Signature .....

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# Chapter I

## Introduction

### *1.1 Background of the study*

After recovering from decades of war and international isolation, Cambodia has become one of the developing countries in region due to her high growth rate with new market opportunities and high potential for local economic development which attract investors to invest in the main sectors such as Agriculture, Industry, Services and Tourism. Since the liberalization of trade and investment in the 1990s, inflow of Foreign Direct Investment (FDI) has played an important role in forging trade flows, integration into the regional and international markets and economic development for a transition economy. Cambodia has become a free market economy and welcomed FDI since 1989, and the country passed a new law on investment after her first-ever general elections in 1993. The newly formed Royal Government of Cambodia (the Government) began formulating comprehensive macroeconomic and structural reforms and achieved some significant successes in stabilizing the economy. During the first half of the 1990s and 2000s, the economy expanded rapidly while the inflation was dramatically reduced. This investment law was modified in 2003 in order to further facilitate the investment incentive and serve interest for both foreign and local investors (Chap, 2005).

Furthermore, Cambodia is one of the favored recipient counties for official development assistance (ODA) due to her promising reforms and acute need for

postwar development. Recently, Cambodia has also received ODA from many multilateral and bilateral donors, mostly from China, South Korea and Japan which are the proper way to the increase in trade volume and inflow of FDI and significantly contributed to economic development and poverty reduction in the country.

The main objective of this research is to collect and compile information on economic relationships between Cambodia and China, South Korea and Japan with special focuses on inflow FDI from home countries and economic growth of the recipient country. According to Cambodia Investment Guidebook 2013<sup>1</sup> by the Council for the Development of Cambodia (CDC), in terms of the cumulative FDIs by country approved in the period of around 19 years ending in September 2012, the largest amount of 9.1 billion US dollars came from China. The second biggest FDI provider is South Korea followed by Malaysia. The other major sources of FDI are UK, USA, Vietnam, Taiwan and Thailand. The amount of FDI inflow from Japan is quite low compared to other major countries from 1994 to September 2012, yet it also indicates that the amount of investment from Japan is in the first rank in manufacturing sector and in the fourth rank in the QIP<sup>2</sup>s in Cambodian SEZ<sup>3</sup>s from 2005 to December 2012. Tables<sup>4</sup> 9 and 10 show the investment records of overall QIP and Manufacturing QIP in Cambodian SEZs by Country from 2005 to December 2012.

This research expects to promote awareness and understanding of economic relations between the countries of China, South Korea, Japan and Cambodia through an international comparison on FDI and economic cooperation by seeing the leading

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<sup>1</sup> (Guidebook, 2013)

<sup>2</sup> Those projects are called “Qualified Investment Projects (QIPs)” under the Law on Amendment to the law on Investment of 2003.

<sup>3</sup> SEZs is Special Economic Zones

<sup>4</sup> **Table 9 and 10** will be shown in **Chapter 2**, Overview of Economic and FDI characteristics in Cambodia

amount of their investments into Cambodia. It will also propose measures for enhancing competitiveness and increasing business opportunities of the home countries and strengthen collaboration among China, South Korea and Japan for economic development toward Cambodia.

*Table 1 Cambodia basic indicators<sup>5</sup>*

Land Area (square Km)	181,035
Population (thousands, 2013)	15,135
GDP (million current US\$, 2013)	15,250
GDP (million current PPP US\$, 2013)	46,039
Current account balance (million US\$, 2012)	- 1,208
Trade per capita (US\$, 2011-2013)	1,212
Trade to GDP ratio (2011-2013)	128.3

Source: World Trade Organization

The analysis of an economic growth of a country is complicated as its determinant is the combination of many involved variables according to their contribution to the growth rate of Gross Domestic Product (GDP). However, the study of the main variable can be very important to the policy makers in order to promote further growth from that one variable. Many works so far study about the significant determinants which identified to explain the economic growth. FDI has become one of the important components in this rising trend of globalization and integration in this world economy although the question asked to how, and to what extent, FDI affects the economic growth is relatively conflicted from one study to another. Furthermore, in emerging

<sup>5</sup> Based on <http://www.stat.wto.org/CountryProfile/WSDBCountryPFView.aspx?Language=S&Country=KH>

economies, FDI is often seen as a main contributor to economic growth, and some development economists have debated that countries pursuing outward-oriented development strategies are more likely to gain higher rates of economic growth rather than those that are internally focused (Sethi & Sucharita, 2009).

FDI also has indirect positive impacts as well which contribute to the long term development of the recipient countries such as technology transferring, training, skills, employment and etc. In addition, the outstanding increase in FDI inflows demand the analysis for their relationship because the positive relationship between FDI inflows and economic growth cannot be globally agreed and the certainty whether FDI causes economic growth can be various, yet the critical importance of FDI inflows to one economy such as Cambodia cannot be deny.

There are research studies investigating factors affecting FDI and the impact of FDI on economic growth in Cambodia. According to the findings of Vichea (2005), he studies key factors affecting the inflows of FDI in Cambodia. He explores the problems faced by foreign investors and identifies determinants of FDI in Cambodia. The author finds that there are many key factors affect the performance of FDI in Cambodia such as domestic market, export market, transportation cost, political instability and risk, government incentive and economic policy have positive relationship with the performance of FDI in Cambodia. Regarding to the problems of doing business in Cambodia, the author finds that legal system/bureaucracy and tax regime are the most problems for the foreign investors in Cambodia. Insufficient of investment incentive, local infrastructure, economic situation, clarity and validity of information on investment, political and social situation, lower labor skill, small local market, country image and exchange rate are the high problems for doing business in Cambodia.

Behavior of local worker, local transportation, development local banking, competition, linkage of business network, expiry of GSP (Generalized System of Preferences) and firm's financial restriction indicate medium problem. Regarding to the performance of FDI in Cambodia, he finds that in term of sale growth from 2000 to 2004, most of companies performed well by increasing their sale from 1% to over 27%, except the sale of 12 firms had been decreased and only 1 firm had been stable (Vichea, 2005).

Moreover, the findings of Cuyvers et al. (2011) studying about "Determinants of FDI in Cambodia" show that home country's economic growth rate, the exchange rate and bilateral trade are determinants of FDI flows into Cambodia, showing a significant positive effect, while geographic distance as a determinant has a significant negative impact. They also claim that China's WTO membership and the Asian Crisis have both adversely affected Cambodia's ability to attract FDI inflows. Other variables such as the relative lending interest rate and inflation rate are not significantly different from zero at any conventional significant level, which suggests that these are not FDI determinants in the country (Cuyvers, Soeng, Plasmans, & Van Den Bulcke, 2011).

Regarding the relationship between FDI and economic growth, Sothan (2017) conducts a study about "Causality between FDI and Economic Growth in Cambodia as well. He examines the causal link between two variables over the period 1980 to 2014 by using Granger causality test based on the Vector Error Correction Model. Based on his empirical results provide a strong evidence on the causal impact on FDI on Cambodia's economic growth (GDP). However, his study does not confirm the causality to run from GDP to FDI, and he just concludes that the growth impact of FDI is sufficiently supported in Cambodia (Sothan, 2017). Besides that Guech Heang and Moolio (2013) study about "The Relationship between GDP and FDI: The Case of

Cambodia” over the period of 1993 to 2011. They use simple regression analysis, Augmented Dickey-Fuller test, Durbin-Watson test, Breusch-Godfrey Serial Correlation LM test, Breusch-Pagan-Godfrey test, and Jarque-Bera test. They find that there is a positive relationship between FDI and GDP in the long in Cambodia, which also supported by qualitative studies that is based on the collection of existing studies from recognized domestic and international institutions, people in senior positions and researchers. They claim that FDI positively affects GDP, and most significant to the employment opportunities generated for local people, and in the long run help unemployment and poverty reduction in Cambodia (GuechHeang & Moolio, 2013).

Clearly, the interest on analyzing the FDI in Cambodia is increasing and we want to learn more about the topic by using the more recent data and separation the FDI from different investing countries. We are going to study the determinants of inward FDI and to find out whether inward FDI can significantly promote country economic growth in Cambodia. In this research paper, we analyze the FDI from different countries namely, China, South Korea and Japan. These three home countries also have had a strong and good relationship with Cambodia. One cannot deny the fact that China has become a dominant world economic power, and also that South Korea and Japan are technologically advanced countries in Asia deserving the utmost attention in our study.

### ***1.2 Objectives of the Study***

There are four main objectives of this research paper in order to collect and compile information of economic relationships between Cambodia and investor home countries (China, South Korea and Japan) within special focus on inflow FDI from the home countries and economic growth in Cambodia.

- 1.2.1 To explore the determinants of inward FDI in Cambodia from China, South Korea and Japan.
- 1.2.2 To investigate the impact of inward FDI from China, South Korea and Japan on economic growth in Cambodia.
- 1.2.3 To compare both the determinants and the impacts of inward FDI from different home countries.
- 1.2.4 To contribute the policies for attracting FDI to Cambodia and allowing FDI to promote economic growth.

### ***1.3 Scope***

Cambodia has been receiving FDI since the mid-1950s, yet her official data of FDI inflows became only available after August 1994 (Chap, 2005). Moreover, the beginning year of inward FDI flows into Cambodia are provided differently. For instance, the available data of United Nations Conference on Trade and Development (UNCTAD) starts from 1992, the Council for Development of Cambodia (CDC) starts from 1994, while the World Bank starts from 1995 and so on. Because we will use quarterly and yearly data for this research study, so we need to collect quarterly and yearly data of the studied variables as much as we can.

This research paper will cover quarterly and yearly data together from 1994 to 2014 of Cambodia inward FDI flows from three major home countries which are China, South Korea and Japan, and basically depends on secondary data source form CEIC, UNCTAD, World Development Indicators and World Bank, and local secondary data which are from the CDC and Ministry of Economy and Finance (MEF) of Cambodia.



Essentially, this study attempts to examine the determinants and impact of inward FDI in Cambodia using the best of the available data.

There are reasons why we select only these three investing countries (China, South Korea and Japan) to study, and the details will be summarized as follows:

1. We want our study to be different from previous studies by mainly focusing on the investment from only three main investor countries as mentioned above.
2. The three investing countries have had a long and good relationship with Cambodia for decades already, and more details about the relationship to each country will be discussed in the next chapter (Chapter 2).
3. As we know that, China is one of the world dominant countries which is a big part of the world's economy recently, South Korea and Japan are the most developing in technologically advanced among the countries in Asia, so it is encouraged us enough to study on them with Cambodia.
4. Cambodia is one of the countries in ASEAN community, and China, South Korea and Japan are the important partners with ASEAN (ASEAN PLUS 3) in Asia, so we want to understand how they can affect to Cambodia in term of their investments.
5. Furthermore, the most important point is because China, South Korea and Japan are the main donors which contribute to Cambodia's economic development. More details about the relationship between Cambodia and each of the selected countries will be discussed in Chapter 2.

#### ***1.4 Uniqueness, Contribution and Limitation***

There have also been many previous studies specifically discussing about the determinants of FDI in Cambodia but there is not enough depth to study more about its contribution to economic growth in Cambodia which specifies only 3 major home countries which are China, South Korea and Japan like this research study does. This research is trying to wrap up and focusing the idea to observe the determinants of inward FDI and its contribution to economic growth in Cambodia. Analysis by each country will also be included to know how much inward FDI from which country is more sensitive to economic growth in Cambodia's economy. Analysis used is not only descriptive, but also econometric to show which country is the most affecting country from its FDI inflow and to show which sector and commodity group is more affected to promote economic growth in Cambodia.

It is assumed that foreign investors make investment decisions after comparing the factors affecting their locational decisions between the home country and the potential recipient countries. Thus, relative data is used rather than absolute data. This paper differs from other studies because in the empirical analysis, both host and home country characteristics are taken into account as determinants of FDI location. The second part of this empirical analysis which differs from other studies is that in this study, disaggregated FDI data is used.

This study makes a contribution to current research in various ways. It is the first comprehensive study of FDI in Cambodia, linking the analysis of FDI determinants and the impact of FDI on the economic growth from only 3 specific home countries and the different effects by each home country. More importantly, the outcomes of this study

will help policymakers to evaluate the policies and regulations that affect the performance of the foreign investment directly. Furthermore, the findings can provide some options for policymakers to maximize the benefits of FDI in Cambodia by improving FDI policies and to target preferred types of FDI in specific industries effectively in order to accelerate economic growth.

This paper applies secondary and descriptive statistical data from various national and international sources. Although the modern empirical methodologies and econometric techniques have high accuracy for the analysis of FDI, this paper faced some limitations in data availability beyond the control and scope of the research. The small size and short time period of the sample also pose limitations of this research.

Due to the vast amount of 90 percent of total foreign direct investments come from Asia into Cambodia, so this research study is mainly focused the investment flow from Asian countries rather than from somewhere else in the world, such as US or EU countries. Supplementary details and explanations of the foreign direct investment flows into Cambodia from Asian countries especially from China, South Korea and Japan will be discussed in chapter 2, and information is mostly based on the Council for the Development of Cambodia.

### ***1.5 Organizational Structure***

To find the determinants of inward FDI from China, South Korea and Japan and its contribution to economic growth in Cambodia, and this study is organized as follows: The first chapter introduces statement of the problem and discusses the objectives, scope, uniqueness, contributions and limitation, as well as organization of this study. The second chapter presents a brief overview of economic and FDI

characteristics in Cambodia. The third chapter reviews the relevant literatures, conceptual frameworks and hypothesis on the determinants of FDI and the causal link between inward FDI and economic growth. Chapter four introduces the estimation models and data sources. The fifth chapter reports the empirical results of the study, while chapter six concludes and contributes some policy implications and suggestions for further study. The references, appendixes and vita will be included in the following section.



## Chapter II

### Overview of Economic and FDI characteristics in Cambodia

#### *2.1 Economic Development in Cambodia<sup>6</sup>*

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

According to the statistics and updated information of the Council for the Development of Cambodia (CDC), we can notice that Cambodian economy enjoyed rapid growth with an average of 7.6 percent per annum from 1993 to 2003, and continued to reach the high growth of over 10 percent per annum in between 2004 and 2007. Due to the global financial crisis of 2009, the trends went down from 6.7 percent in 2008 to 0.1 percent in 2009. However, the trend managed to return in 2010 with a 5.9 percent to the robust growth of 7.1 percent per annum again until 2014. Moreover, understanding from the source that in October 2014, the World Bank named Cambodia to join the Olympians of Growth in its economic update and claimed “Cambodia has grown at a yearly average growth rate of 7.7 percent for two decades now making it the sixth fastest growing country in the world over that time period”. The Asian Development Bank (ADB) has been projecting for Cambodia to enjoy healthy growth at 7.3 percent in 2015 and 7.5 percent in 2016, while maintain the stable trade deficit per GDP at around 13.7 percent in 2015 and manage the inflation for 2016 and 2017 to be within the range of 3 to 5 percent. As envisaged in its Industrial Development Policy

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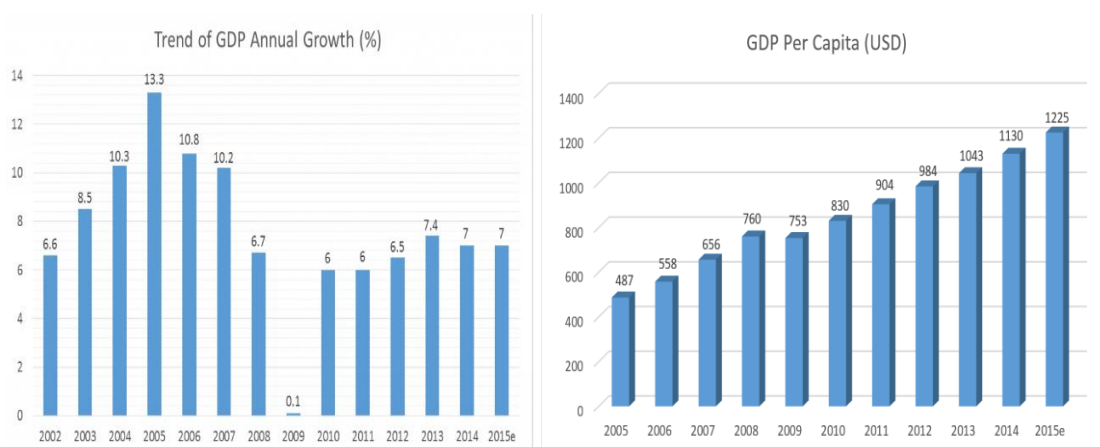
<sup>6</sup> Based on <http://www.cambodiainvestment.gov.kh/why-invest-in-cambodia/investment-environment/economic-trend.html>

2015-2025, Cambodia has committed to maintain its momentum of growth until 2018 and beyond at the targeted rate, at least 7 percent per annum (see Figure 1).

### 2.1.2. Trend of GDP Annual Growth

Based on the source of the CDC, we can see the Ministry of Economy and Finance pointed out that “the real GDP growth is estimated at 7.4% in 2013 and 7% in 2014. It is projecting for a stable growth of real GDP at 7% in 2015. Nominal GDP at current value has been steadily grown with 61,414 billion Riels in 2013 (approximately US\$15.35 billion) and 67,643 billion Riels in 2014 (approximately US\$16.91 billion) and is projected to be 74,444 billion Riel in 2015 (approximately US\$ 18.61 billion). Furthermore, GDP per capita has also steadily increased from US\$1,043 in 2013 to more than US\$1,130 in 2014 and continue to increase in medium term in which per capita GDP is projecting to reach US\$1,225 in 2015. Inflation is manageable between 3% and 3.5% from 2013 to 2015, while maintaining the exchange rate at 4,050 Riels per US\$ 1 in 2015” (see Figure 2). Note: “e” stands for “Estimate”.

*Figure 1 Trend of GDP Annual Growth*      *Figure 2 GDP Per Capita (USD)*



Source: Ministry of Economy and Finance (MEF) of Cambodia

### 2.1.3 GDP contribution by industrial sector

In accordance with the statistics and updated information of the Council for the Development of Cambodia (CDC), we can notice that the composition of GDP by industrial sectors is reflecting the characteristics of changes took place in between 2012 and 2015 that the ratio of industry increased from 22.9% to 26.2%, while the ratio of Agriculture, Forestry and Fisheries decreased from 33.5% to 29%. As for “Agriculture”, the crops’ Gross Value Added (GVA) dropped to 17.1% in 2015, although it grew at the highest record of 27.6% in 2005. The growth ratio of “Fisheries” gradually dropped from 7.2% in 2012 to 6.9% in 2015.

Among “Industry”, the “Textile, Apparel & Footwear” experienced a slightly dropped to 9.7% in 2013 from 9.8% in 2012 and managed to increase in 2014 and 2015 to 10.1% and 10.5% respectively. “Construction” enjoyed a steadily increase from 6.5% in 2012 to 8.8% in 2015, while maintaining its prospect for growth in coming years. As envisaged in recently adopted Industrial Development Policy, Cambodia is obliged to increase the GDP share of industrial sector to 30% by 2025 with the manufacturing sector growing from 15.5% in 2013 to 20% in 2025, while diversifying the export of goods by increasing the export of non-textile to reach 15% of all exports by 2025 and promoting the export of processed agricultural products to reach 12% of all exports by 2025. The “Services” occupied 39.4% share of GDP in 2015 while trade occupied a relatively increase from 6.2% in 2012 to 8.9% in 2015. Hotel & Restaurant have seen a fluctuate trend that experienced a slightly increase from 5.14% in 2014 to 5.36% in 2015. Likewise, the growth rates of “Real Estate and Business” were also marginally increased from 6.16% in 2014 to 6.26% in 2015.

Table 2 GDP Growth Rate by Economic Activity, 2006-2012

	Growth Rate of GDP (%)						
	2006	2007	2008	2009	2010	2011	2012e
<b>Agriculture, Fisheries &amp; Forestry</b>	<b>5.5</b>	<b>5</b>	<b>5.7</b>	<b>5.4</b>	<b>4</b>	<b>3.1</b>	<b>1.8</b>
Crops	5.3	8.2	6.6	5.8	5.7	4.3	1.8
Livestock & Poultry	8.2	3.7	3.8	5	2.1	0.2	0.1
Fisheries	3.8	0.8	6.5	6	2.4	3.1	3.5
Forestry & Logging	7	1.1	0.9	1.1	0.2	-0.1	-0.8
<b>Industry</b>	<b>18.3</b>	<b>8.4</b>	<b>4</b>	<b>-9.5</b>	<b>13.6</b>	<b>14.5</b>	<b>11.9</b>
Manufacturing	17.4	8.9	3.1	-15.5	29.6	16.2	11.2
Textile, Apparel & Footwear	20.4	10	2.2	-9	18.5	19.9	12.6
Construction	20	6.7	5.8	5	-25.5	7.9	15.6
<b>Services</b>	<b>10.1</b>	<b>10.1</b>	<b>9</b>	<b>2.3</b>	<b>3.3</b>	<b>5</b>	<b>7.5</b>
Trade	7.1	9.5	9.4	4.2	7.5	4.4	7.8
Hotel & Restaurant	13.7	10.2	9.8	1.8	11.2	6.6	9.5
Transport & Communication	2.1	7.2	7.1	3.9	8	5.8	6.1
Real Estate & Business	10.9	10.7	5	-2.5	-15.8	3.9	8.9
Other Services	17.2	12.1	12	2.9	4.2	3.2	4.1
<b>Taxes on Products</b>	<b>7.6</b>	<b>45.7</b>	<b>9.1</b>	<b>6.1</b>	<b>0.1</b>	<b>6.7</b>	<b>5.6</b>
<b>GDP</b>	<b>10.8</b>	<b>10.2</b>	<b>6.7</b>	<b>0.1</b>	<b>6</b>	<b>7.1</b>	<b>7</b>

Note: Figure of 2012 are the estimated value

Source: Ministry of Economy and Finance (MEF) of Cambodia, Cambodia Investment Guidebook 2013



Table 3 Breakdown of Industry in GDP, 2006-2012 (Unit: Billion Riel)

	2006	2007	2008	2009	2010	2011	2012e
<b>Mining</b>	115	135	165	196	279	330	379
<b>Manufacturing</b>	5,541	6,074	6,441	6,208	6,913	7,900	8,758
<i>Food, Beverages &amp; Tobacco</i>	664	757	924	978	1,071	1,163	1,241
<i>Textile, Apparel &amp; Footwear</i>	3,869	4,234	4,315	3,938	4,403	5,192	5,855
<i>Wood, Paper &amp; Publishing</i>	171	203	239	252	273	296	317
<i>Rubber Manufacturing</i>	181	148	153	168	219	243	272
<i>Other Manufacturing</i>	657	732	811	872	947	1,006	1,073
<b>Electricity, Gas &amp; Water</b>	164	195	212	230	252	270	294
<b>Construction</b>	1,995	2,338	2,572	2,694	2,845	3,029	3,300
<b>Total Industry</b>	7,816	8,741	9,389	9,327	10,289	11,529	12,731

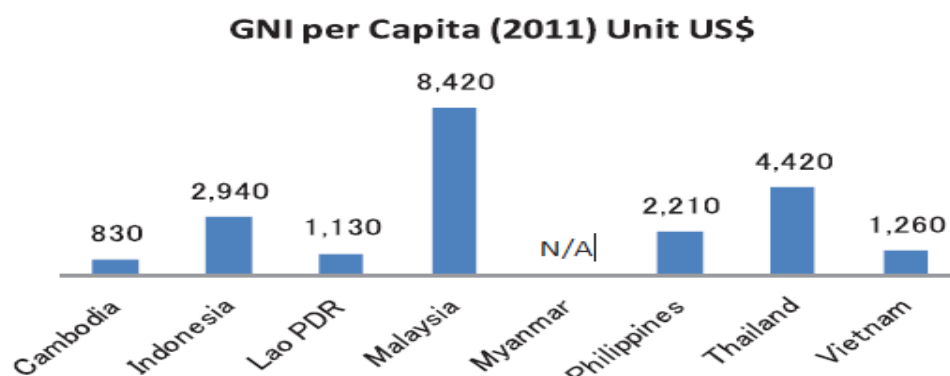
Note: Figure of 2012 are the estimated value

Source: Ministry of Economy and Finance (MEF) of Cambodia, Cambodia Investment Guidebook 2013

#### 2.1.4 Gross National Income per capita (GNI)

Conforming with Asian Development Bank's data (ADB), Cambodia's GNI per capita from 2002 to 2011 had increased by approximately 58 US dollars on annual average and reached 830 US dollars in 2011. Although the figure of Cambodia is still among the lowest in the region (see Figure 3), people with the purchasing power to buy high-end products are now found in Phnom Penh City. Although the size of Cambodian market seems to be still small, investors can have access to the ASEAN integrated market once the ten ASEAN member countries reduce all import tariffs, which are scheduled for implementation by 2015.

Figure 3 GNI per capita of ASEAN in 2011



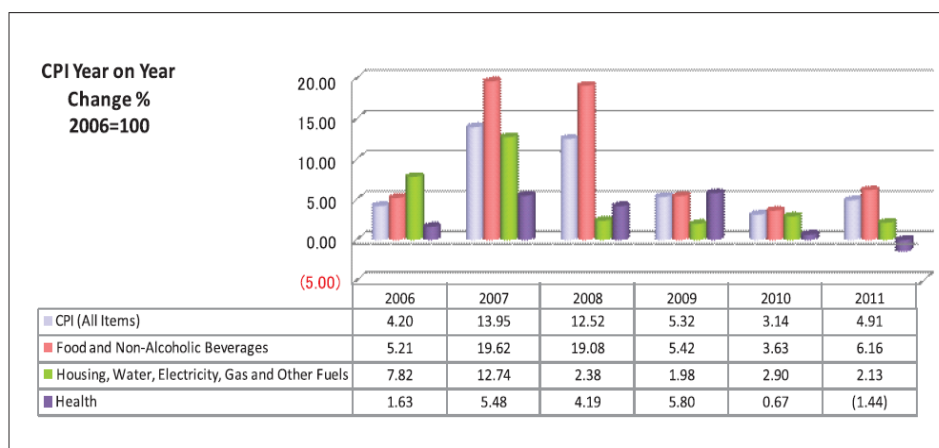
Source: Asian Development Bank (ADB)-Key Indicators 2012, Cambodia Investment Guidebook 2013

### 2.1.5 Consumer Price Index (CPI)

As reported by Cambodia Investment Guidebook in 2013 points out that the Government's policy is that inflation rate should not exceed 5% annually. As shown in Figure 4, although the inflation rate jumped up to 14.0% in 2007 and 12.5% in 2008, it dropped to 5.3% in 2009, 3.1% in 2010, 4.9% in 2011, 2.5% in 2012 and 4.7% 2013. The government claimed that the sudden increase of CPI in 2007 was mostly due to a drastic change in composition of commodity basket for weighing of CPI. In addition, the Government also claimed that the sharp hike of foods prices at the rates of 19.6% in 2007 and 19.1% in 2008 was caused by the escalation in the price of the petroleum products on the world market, which contributed to the rise in transportation costs. "Housing", which increased by 12.7% in 2007, has been showing modest growth and

“Health”, which showed increase of 4-5% between 2007 and 2009, decreased its increasing rate to -1.44% in 2011.

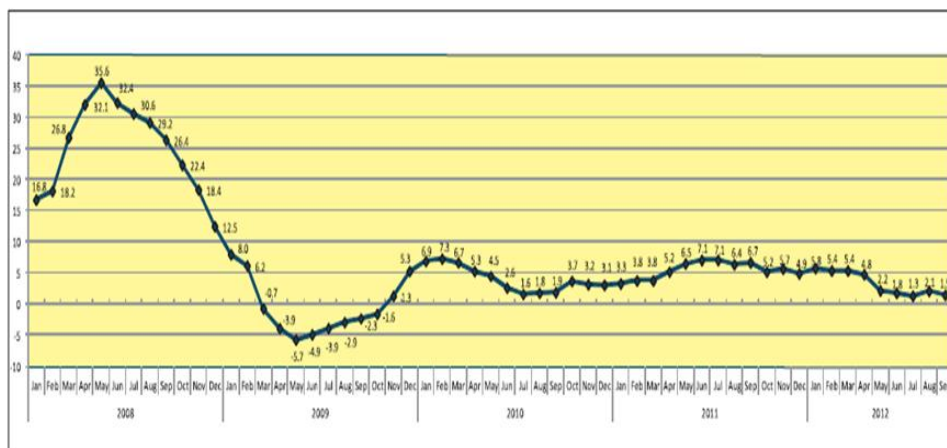
*Figure 4 CPI Year on Year Change*



Source: National Bank of Cambodia, Cambodia Investment Guidebook 2013

Figure 5 shows the inflation rate for all items from 2008 to September 2012. After reaching the highest level at 35.6% in May 2008, the inflation rate turned to decrease and started the deflation from March 2009 finally reaching the lowest level at -5.7% in May 2009. After turning to the inflation in November 2009, the inflation rate has fluctuated between 1.3% and 7.1%. In the second half of 2012, the inflation rate has remained at around 2%. In general, the inflation rate remained stable in the past few years comparing to the sudden and sharp fluctuations occurred in 2008 and 2009.

Figure 5 CPI All Items from 2008 to 2012 (Index: 2006-100)

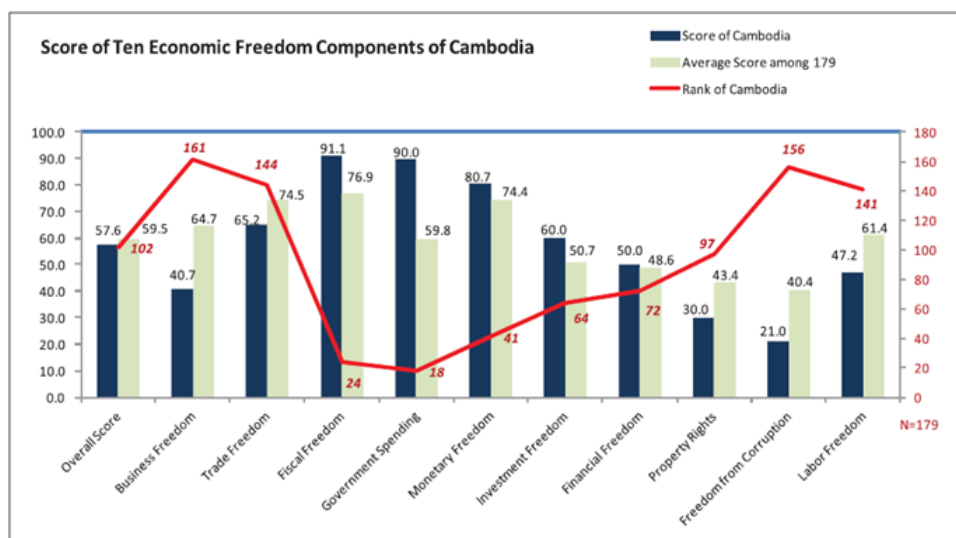


Source: National Institute of Statistics, Cambodia Investment Guidebook 2013

### 2.1.6 Indices of economic freedom

In accordance with “2012 Index of Economic Freedom” by the Heritage Foundation in the US, Cambodia’s overall economic freedom score is 57.6 which is ranked at 102<sup>nd</sup> out of 179 countries and 17<sup>th</sup> out of 41 countries in the Asia-Pacific region. As shown in Figure 6, the country scores noticeably well in fiscal freedom, government spending and monetary freedom. Low rates for income and corporate tax contribute to a low overall tax burden, giving the country a high fiscal freedom score. Other institutional weakness still holds down Cambodia’s overall economic freedom score, however. Cambodia’s business freedom, trade freedom and labor freedom, property rights, and freedom from corruption all receive notably low scores.

Figure 6 Scores of Ten Economic Freedom Components of Cambodia



Note: The larger the number, the freer the business climate in a country

Source: Heritage Foundation, Cambodia Investment Guidebook 2013

## 2.2 Overview FDI Inflows into Cambodia<sup>7</sup>

Cambodia, a country which is located on the Southern tip of Asia between Vietnam and Thailand, has been subject to incredible controversy and strife in the past century. However, in the past two decades the nation has made incredible strides in her efforts to become an attractive option for FDI. The political and economic instability that has plagued most of the history of Cambodia has caused most foreign investors not to consider her as an option for investment. Both the legal and the judicial systems in Cambodia evolved from customary Asian origins infused with French influence due to

<sup>7</sup> Based on <http://www.cambodiainvestment.gov.kh/why-invest-in-cambodia/investment-environment/fdi-trend.html>

their former role of protectorate of the nation. In the 1980s, neighboring communist Vietnam also influenced these systems, but more recently it is the returning expatriates that have had the greatest impression. The world typically accepts and acknowledges the fact that the legal and judicial systems within Cambodia face many challenges and are in need of improvement (Invest in Cambodia).

The first step that Cambodia made in order to make the country more attractive to FDI was the establishment of the Council for Development of Cambodia (CDC) in 1994. This formal institution is responsible for overseeing the development and management of FDI. Policies have been adapted in the last twelve years in order to allow investment in every sector of the economy excluding those relevant to national security. The CDC is able to accept or reject various investment proposals in some specific cases because it is an executive agency of the government. They sanction licenses, tax exemptions and various incentive packages.

Against other geographic competitors for FDI, Cambodia proposes a clear advantage as far as corporate tax is concerned. While Indonesia imposes a tax between 15 and 30%, Malaysia 28%, the Philippines 32%, Singapore 22%, Thailand 30%, and Vietnam upwards of 25%, Cambodia on the other hand imposes only a 20% corporate tax<sup>8</sup>. Yet another pulling factor is the country's recent membership into several accredited international organizations. The most notable memberships are to the World Trade Organization (WTO, 1995), the International Monetary Fund (IMF), and Association of South East Asian Nations (ASEAN, 1999). All of these associations establish more confidence for foreign investors to make more investments and in the

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<sup>8</sup> Based on **Cambodia Investment Guidebook January 2013** by the Council for Development of Cambodia (CDC)

overall stability of the country. Cambodia is a young market with great potential especially with the ASEAN Free Trade Area (AFTA) on her way, but the market needs time to develop and a number of difficulties that increase costs for investors need to be sorted out.

By means of the United Nation's Investment Guide to Cambodia, the three most compelling reasons for investing in Cambodia are its location, open economy and special assets (specifically its growing tourism sector and its labor market). There are still incredibly strong factors that sway investors away from doing business in Cambodia. By its nature as Lesser Developed Country (LDC), the country does not have the stability that financiers seek. There is a lack of infrastructure, a very limited number of managerially skilled workers, and an epidemic of HIV/AIDs that also impacts the workforce.

Current FDI is largest in the textile market, and the greatest involvement is from China, South Korea, Malaysia, the United States and Japan. According to the Investment Information of Cambodia, "In order to attract FDI, the government has strengthened the country's legal framework, bolstered its institutions and liberalized the relevant regulations, in ways that are conducive to private sector investment and business activities in Cambodia". In the past decade the country's overwhelming growth rates have culminated international interest. It was also notable that the country did not feel immediate effects of the international economic crisis. It took months for the global recession to affect the financial sector of her economy, which is something that cannot be said of many other nations, including those much further developed than Cambodia. Many sectors of the economy, both private and public, have become locations of recent investments.

Accordant Cambodia Investment Guidebook (2013), investment projects, which are approved by the Council for the Development of Cambodia (CDC) to be granted investment incentives and guarantee, consist of projects by Cambodian capital and those by foreign capital. Those projects are called “Qualified Investment Projects (QIPs)” under the Law on Amendment to the law on Investment of 2003. In 1995, one year after the enactment of the Law on Investment 1994, the fixed asset investment amount approved by the Cambodian Investment Board (CIB) by CDC totaled 2.3 billion US dollars. From 1994 to 2006, the annual average of twelve years was 932 million US dollars, and during the following five years (2007 to 2011), the average amount became approximately 6.2 times larger as 5.8 billion US dollars. In 2012, the fix asset investment amount approved by the CIB (CDC) reached 1.1 billion US dollars until September. From 1994 to September 2012, the cumulative investment approved by CIB (CDC) is 42.3 billion US dollars. Table 5 shows such overall investment approval trend in Cambodia.



*Table 5 Investment Approved by CDC by Major Countries (Million USD)*

Country	1994-2006		2007	2008	2009	2010	2011	2012.9	1994-2012.9	
	Total	Rank							Total	Rank
Cambodia	4,341	-	1,323	3,932	3,753	391	1,930	261	15,391	-
China	1,581	2	180	4,371	893	694	1,193	230	9,142	1
South Korea	1,361	3	148	1,238	121	1,027	146	150	4,191	2
Malaysia	1,960	1	241	3	7	167	235	0	2,614	3
UK	107	11	26	6	0	0	2,238	25	2,429	4
USA	428	5	3	671	1	36	144	5	1,290	5
Vietnam	81	12	139	21	210	115	631	84	1,281	6
Taiwan	576	4	40	21	27	92	82	78	916	7
Thailand	384	6	108	74	178	2	0	120	866	8
Singapore	271	8	2	52	272	37	14	83	732	9
HKG	248	9	26	0	7	30	331	56	697	10
Russia	279	7	0	102	235	0	0	0	617	11
Israel	0	14	2	300	0	2	0	0	304	12
France	208	10	35	6	50	0	0	3	303	13
Japan	22	13	113	8	5	0	6	2	157	14
Others	269	-	305	84	127	222	393	26	876	-
Total	12,116	-	2,656	10,889	5,859	2,691	7,012	1,123	42,346	-

Source: CIB (CDC), Cambodia Investment Guidebook 2013

Based on the findings of the CDC also showed that the amount of committed investments in Cambodia grew significantly since 2012, a 24% increasing from US \$2.9 Billion in 2012 to US \$3.6 Billion in 2016. Over the five-year period, invested capital by local investors accounted for approximately 54% of total investment. Among

foreign investors, Chinese investors were the most active. Over the years, almost 90% of total foreign investments came from Asia (see Table 6).

We can understand from the source that the investments projects approved by the CDC to grant investment incentives. In 1995, one year after the enactment of the Law on Investment, the investment amount approved by the CDC totaled some 2.3 billion dollars. The investment approval has reached 25.75 billion US dollar. In 2008, approved investment have remarkably been increased to 10.89 billion US dollar in which agriculture sector is attracting upto 106.73 million US dollar, while tourism and services sector are reaching upto 8.77 billion US dollar and 1.29 billion US dollar respectively. Of the cumulative FDI approved in this period, the largest share was from China (23.97 percent), which in the early years was the source of extensive investment in the field of resource development, including rubber, and tourism. China is followed by Korea at 10.68 percent. The other major sources are Malaysia, Taiwan, Hong Kong, and Thailand, whose investment comes mainly from garment industry companies.

During past decade, Malaysia was one of the leading investors who was interestingly to invest in Cambodia, but the amount of the investment from Malaysia has been declined from year to year as you can see in the Table 5 and 6 because of the downturn in economic situation during the global financial crisis period. Besides that, Malaysia is also one of the members of the ASEAN community, and it is in South East Asia the same as Cambodia. These are the reasons why we are not interested in choosing Malaysia to study in our research, and we prefer to choose Japan for instead even though the amount of investment from Japan was not much comparing to Malaysia in the past decade, but now the investment amount from Japan is noticeably growing up year by year mostly in manufacturing sector.

*Table 6 Investment Capital by Country (Billion USD)*

Year	2012		2013		2014		2015		2016	
Total	\$2.9 Billion		\$4.9 Billion		\$3.9 Billion		\$4.6 Billion		\$3.6 Billion	
Rank	Country	%	Country	%	Country	%	Country	%	Country	%
1	Cambodia	42.08	Cambodia	66.80	Cambodia	64.00	Cambodia	69.28	China	29.92
2	China	20.69	China	15.68	China	24.44	China	18.62	Cambodia	27.55
3	Korea	9.89	Vietnam	6.10	Malaysia	2.18	U.K	3.0	Japan	22.78
4	Japan	9.15	Thailand	4.37	Japan	1.72	Singapore	2.18	Thailand	4.61
5	Malaysia	6.04	Korea	1.76	Korea	1.66	Vietnam	1.92	Korea	4.59
6	Thailand	4.53	Japan	1.59	Vietnam	1.26	Malaysia	1.61	U.S.A	3.38
7	Vietnam	2.89	Malaysia	1.04	UK	1.13	Japan	1.28	Singapore	3.03
8	Singapore	2.59	Singapore	1.03	Singapore	0.89	Thailand	1.18	Vietnam	2.45
9	U.K	0.51	U.K	0.43	Thailand	0.88	Korea	0.21	Korea	0.21
10	U.S.A	0.42	France	0.27	Australia	0.51	Canada	0.19	India	0.55
11	Others	1.21	Others	0.93	Others	1.33	Other	0.53	Others	0.54

Source: Ministry of Economy and Finance (MEF), Cambodia

### 2.2.1 Industrial sub-sector

According to the Cambodia Investment Board from the CDC accumulated from 1994 to September 2012, we can notice that the composition by industrial sector, the tourism sector accounts for 47% of the cumulative investment amount, while the amount of investment in the tourism sector has been changing drastically every year owing to the presence or absence of large scale investment projects and high amount approved in 2008 and 2009. Investment in industries has been increasing gradually from 2006 to 2011. Investment amount in the agriculture sector has remained stable except for 2008. Investment in the service sector was dropped in 2009 due to the decrease of

investment in the construction sector damaged by the economic crisis, but recovered in 2010 (see Table 7 and 8).

*Table 7 Investment Approved by CIB by Sector 1994-2012.9 (Million USD)*

SECTOR		Agriculture	Industries	Services	Tourism	Total
1994-2006		849	4,133	3,971	3,163	12,116
	2007	141	568	697	1,250	2,656
	2008	107	714	1,292	8,776	10,889
	2009	590	958	410	3,901	5,859
	2010	554	946	1,059	132	2,691
	2011	725	2,869	658	2,760	7,012
	2012 (1-9)	418	633	21	51	1,123
2006-2012(9)		2,325	6,688	4,137	16,870	30,230
Total (1994-2012.9)		3,384	10,821	8,108	20,033	42,346
Percentage		7.99%	25.55%	19.15%	47.31%	100%

Source: CIB (CDC), Cambodia Investment Guidebook 2013



Table 8 The Investment Amount of Approved QIPs by CIB (Million USD)

SECTOR		2007	2008	2009	2010	2011	2012.9
<b>Agriculture</b>		141	107	590	554	725	418
<b>Industries</b>		586	714	958	946	2,869	633
	Energy	37	494	668	589	-	33
	Food Processing	229	4	12	36	26	9
	Garment/Textile	205	146	93	134	398	376
	Machine/Metal/Electronics	2	-	2	8	9	8
	Mining	31	5	15	92	31	5
	Plastic	5	6	15	92	31	5
	Shoes	26	12	28	48	35	92
	Wood Processing	7	-	16	2	-	5
	Others	26	47	122	31	2,370	85
<b>Services</b>		697	1,292	410	1,059	658	21
	Construction/Infrastructure	606	191	410	1,059	658	21
	Services	91	1,101	-	-	91	-
<b>Toursim</b>		1,250	8,776	3,901	132	2,760	51
	Hotel	3	-	17	4	283	35
	Toursim	1,247	8,776	3,884	128	2,477	16
<b>Total</b>		2,656	10,889	5,859	2,691	7,012	1,123

Source: CIB (CDC), Cambodia Investment Guidebook 2013

In accordance with the statistics and updated information from the Council for the Development of Cambodia (CDC), we can notice that the majority of committed investments were in the industrial and infrastructure sectors which together accounted for 72% of total investments in the last five years.

*Table 9 Investment Approved by CIB by Sector 2012-2016 (Million USD)*

SECTOR	2012	2013	2014	2015	2016	2012-2016
<b>Agriculture</b>	556.60	1,128.80	264.70	482.60	478.30	2,911.00
<b>Industries</b>	1,489.70	1,106.70	2,835.60	919.30	1,186.30	7,537.60
<b>Infrastructure</b>	227.80	2,620.80	353.50	3,129.80	544.30	6,876.20
<b>Tourism</b>	691.50	106.00	479.60	111.90	1,400.80	2,789.80
<b>Total</b>	2,965.60	4,962.30	3,933.40	4,643.60	3,609.70	20,114.60

**Note:** The data only reflects that of qualified investment projects according to the *Law on Investment*, thus, excludes investments that are not eligible for investment incentives in sectors such as Banking, Insurance, and Construction.

Source: Ministry of Economy and Finance (MEF), Cambodia

### 2.2.2 Investment trend in SEZ

Based on the information from Cambodia Investment Guidebook 2013, during 7 years until now since the issuance of “Sub-Decree No.148 ANKr. BK on the Establishment and Management of the Special Economic Zones” dated on December 29, 2005, 138 QIPs have been approved to locate in the SEZs and the approved investment has amounted to 1.6 billion US dollars. Table 9 shows the investment records of QIP in the SEZ from 2005 to December 2012. Among the investment into SEZs, China, Cambodia, Malaysia occupy the top 3 shares but the QIP of those countries include a gigantic investment project in power generation plants. The remaining projects other than 4 projects in power generation are all in the

manufacturing fields. The number of approved QIPs in manufacturing is 134 out of total 138 QIPs and the approved investment amount is 554 million US dollars. In the manufacturing field, Japan occupies the top share both in number of the projects and the approved investment amounts. The share of Japan, Taiwan and China exceeds 70% of the QIP in the manufacturing projects in SEZs.

The major manufacturing projects in the SEZs are production of plastic products, packing materials, garments and footwear. Besides, it is worth pointing out that the production of auxiliary products for the garment has begun in the SEZs and it may lead to build up the widely-based supporting industries which will enable the Cambodia's garment industry to produce more value-added garments. The most important tendency observed in the Cambodia's SEZs is that the production of export products such as small-size motor, wire harness, other electric and electronics products, etc., which are new to Cambodia was started by Japanese firms in the SEZs and it is expected to contribute to diversify the Cambodian industries. The number of manufacturing QIPs and their approved investment amount by country are shown in Table 10.

*Table 9 QIP in Cambodian SEZs by Country (2005-2012.12)*

<b>Rank</b>	<b>Country</b>	<b>No. of QIP</b>	<b>Approved Investment Amount (USD)</b>
1	China	30	625,324,310
2	Cambodia	6	267,077,825
3	Malaysia	7	210,867,583
4	Japan	40	172,600,613
5	Taiwan	26	120,787,783
6	Singapore	6	89,540,846
7	South Korea	2	55,326,462
8	Hong Kong	5	29,830,805
9	Thailand	5	10,624,299
10	Vietnam	4	7,278,194
11	Others	7	18,277,197
<b>Total</b>		<b>138</b>	<b>1,607,535,917</b>

Source: Cambodia Special Economic Zone Board, Cambodia Investment Guidebook  
2013





Table 10 Manufacturing QIPz in SEZs by Country (2005-2012.12)

Rank	Country	No. of QIP	Approved Investment Amount (USD)
1	Japan	40	172,600,613
2	Taiwan	26	120,787,783
3	China	29	82,324,310
4	South Korea	2	55,326,462
5	Singapore	5	35,840,846
6	Hong Kong	5	29,830,805
7	Malaysia	6	15,467,583
8	Thailand	5	10,624,299
9	Vietnam	4	7,278,194
10	Cambodia	5	5,743,782
11	Others	7	18,277,197
<b>Total</b>		<b>134</b>	<b>554,101,874</b>

Source: Cambodia Special Economic Zone Board, Cambodia Investment Guidebook 2013

## 2.3 Cambodia and home countries relationship

### 2.3.1 Cambodia-China Relations

#### 2.3.1.1 Background

Cambodia and China have had diplomatic relations since July 19, 1958. Cambodia is deeply committed and adheres to the *One China Policy* and firmly opposes Taiwan's move toward independence. It recognizes the government of the People's Republic of China (PRC) as the sole legal government of China. Cambodia also considers Taiwan as an inalienable part of Chinese territory and will continue to support China's cause of peaceful reunification (Chap, 2005).

Historic relations between Cambodia and China go back many centuries to ancient times when Chinese diplomat Zhou Daguan under the Temur Khan, Emperor of Chengzong of Yuan Dynasty, visited Angkor of the Khmer Empire from August 1296 to 1297<sup>9</sup>. Cambodia's relations with China have further improved in recent times as Cambodia enjoys a unique and special position in Chinese foreign policy since the late Chinese Premier Zhou Enlai befriended Prince Norodom Sihanouk at the Bandung Conference in Indonesia in 1958<sup>10</sup>. Cambodia's closer relations with China began on July 19, 1958 when the government of Prince Norodom Sihanouk recognized the PRC and established an enduring personal relationship with the late Chinese Premier Zhou Enlai. The Chinese leaders have not forgotten that it was Cambodia that helped break China's isolation in the 1960s by campaigning at the United Nations (UN) for the expulsion of the Republic of China (Taiwan) and the seating at the UN of the PRC.

Bilateral relations between the two countries have grown stronger through the years through frequent exchanges of visits of leaders and government officials, including the Chinese president and Cambodia's king as well as both countries' prime ministers and deputy prime ministers. Political ties between the two countries have strengthened considerably since 1997. In 2000, President Jiang Zemin became the first Chinese head of state to visit Cambodia, and his trip was followed by National People's congress (NPC) Chairman Li Peng in 2001 and Premier Zhu Rongji in 2002. Cambodian Prime Minister Hun Sen has also become a frequent visitor to the PRC since 1997. He has visited China eight times, with his most recent visit taking place on April 06 to 10,

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<sup>9</sup> (Fielding et al., 2011)

<sup>10</sup> (Marks, Zaccaro, & Mathieu, 2000)

2013. He returned from these trips with many bilateral agreements and huge pledges of aid and investment.

### 2.3.1.2 Trade

Trade between Cambodia and China has increased dramatically, especially after Cambodia became a full member of the ASEAN in 1999. In 2007, China-Cambodia trade rose to 639 million US dollars, an increase of 72 times compared to 1992. Both countries are committed to increasing volume of trade, which has resulted in an increase in trade volume of up to 946 million US dollars in 2008 in which Cambodia exported only 12.93 million US dollars to China and imported 933.43 million US dollars from China. China provided tax exemption for 418 items or tariff lines for Cambodian products entering China. However, Cambodia is still unable to maximize the benefits from the cooperation due to its lack of resources, quality products, information on the markets and means. Every year, Cambodia posts a trade deficit with China ranging from -89.1 million US dollars in 2000 up to -2,742.2 million US dollars in 2013. Table 11 shows the trade between Cambodia-China from 2000 to 2013.

*Table 11 Cambodia-China Trade (2000-2013)*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2000-2013
Export	23.78	16.72	8.32	6.53	12.61	14.24	15.50	10.14	12.93	16.36	64.93	154.40	182.86	282.44	821.76
Import	112.88	86.92	123.70	225.03	340.67	423.60	523.85	627.97	933.43	881.36	1184.89	1736.65	2161.74	3024.62	12387.3116081028
Balance	-89.1	-70.2	-115.4	-218.5	-328.1	-409.4	-508.4	-617.8	-920.5	-865.0	-1120.0	-1582.3	-1978.9	-2742.2	-11,565.5469837475

Source: Ministry of Economy and Finance of Cambodia (MEF)

### *2.3.1.3 FDI from China: 1994-September 2012*

China's investment into Cambodia has steadily increased yearly and is distributed among many sectors, including garments, textiles, apparels, hotels and resorts, industrial parks, power plants, petroleum, cement and so on. Most of Chinese companies investing in Cambodia are state-owned enterprises. China started investing in Cambodia since 1994. A large portion of its investments directly contributed to economic development and poverty reduction, especially from 2005 up to present. China is considered one of the biggest investors in Cambodia with a total capital of 9.142 billion US dollars invested from 1994 up to September 2012 (see Table 5). The main projects include infrastructure and energy, textiles, manufacturing, agriculture and food processing.

Besides that, we can understand that Chinese investors are flexible in lobbying and negotiating for investment licenses from Cambodian authorities. They are also familiar with the situation in Cambodia, and many Chinese-Cambodians speak Chinese. Historically, Cambodia's indigenous Chinese were not rice farmers like most Cambodians, but rather buyers to whom the farmers sold their surplus and merchants who sold everything else of use in an agricultural society. They are once again returning to these functions, and their economic capacity is being multiplied by an influx of Chinese investment, both official and private, that would be the envy of any developing country. Therefore, Chinese investors feel at home here.

## 2.3.2 Cambodia-South Korea Relations

### 2.3.2.1 Background

South Korea and the Kingdom of Cambodia have had bilateral relations since 1970. The relations were broken for some years due to political and security reasons in Cambodia. However, the two countries re-established diplomatic relations in 1996, and bilateral relations have normalized since 1997. With the strong political commitment of the two countries' leadership, the bond of friendship between South Korea and Cambodia has grown stronger in all sectors, including political, economic and cultural. This is especially true after both countries' leaders exchanged frequent visits since 2006. The most recent visit was that of South Korean President Lee Myung-Bak's to Cambodia on October 22-23, 2009.

South Korea and Cambodia cooperation is focused on the following eight champion areas: FDI, information communication technology (ICT), tourism, cultural exchange, financial service, air service and vocational training (Chap, 2005).

### 2.3.2.2 Trade

Due to stronger bilateral relations, the volume of trade between Cambodia and South Korea has increased noticeably from only 77 million US dollars in 2000 to 472.76 million US dollars in 2013. In 2013, Cambodia exported only 98.96 million US dollars worth of goods to South Korea while importing 3,373.80 million US dollars from South Korea. Hence, Cambodia has a huge trade deficit of 274.8 million US dollars with Korea (see Table 12). Cambodia imports from South Korea include dyes, worn clothes, cigarettes, parts of combustion engine, and vehicles. Cambodia has sold back to South Korea traditional products such as rubber, cotton, seafood and garment wear (Kun,

2012). Prime Minister Hun Sen also urged South Korea to import more Cambodia's raw materials. Trading relations between Cambodia and South Korea is coordinated by a specialized agency known as SKORTA (South Korea Trade-Investment Promotion Agency), operated under the Commercial Section of the South Korea Embassy. It should also be noted that beside bilateral economic cooperation, Cambodia and South Korea are also partners bound together by South Korea-ASEAN FTA which came into effect in November 2008. Table 12 shows the trade between Cambodia-South Korea from 2000 to 2013.

*Table 12 Cambodia-South Korea Trade (2000-2013)*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2000-2013
Export	0.78	1.01	1.45	1.61	25.04	2.01	3.20	5.77	7.40	9.35	24.46	46.33	78.15	98.96	305.51
Import	76.85	49.62	70.84	80.85	99.43	150.72	146.09	191.69	229.23	209.10	247.84	300.66	404.35	373.80	2631.07
Balance	-76.1	-48.6	-69.4	-79.2	-74.4	-148.7	-142.9	-185.9	-221.8	-199.8	-223.4	-254.3	-326.2	-274.8	-2,325.56

Source: Ministry of Economy and Finance of Cambodia (MEF)

### 2.3.2.3 FDI

From 1994 to September 2012, South Korea invested a total amount of 4.191 billion US dollars spread across investment projects in Cambodia. Now South Korea is the second largest investor, following China, with the accumulative investment of 4.46 billion US dollars in 2014 (Hughes, 2015). South Korea companies are investing mainly in properties, constructions, and manufacturing activities, particularly in garment and electric appliances, the banking sector and tourism. As of March 2013, there were around 700 investment projects being implemented in Cambodia by South Korean investors (Haley, Tan, & Haley, 2013). Major well-known investment projects from South Korea are Camko satellite city, Hyundai Amco Phnom Penh Tower, and Hyundai

assembly plant in Koh Kong province. For example, a project involving the construction of a new town in Phnom Penh cost 988 million US dollars while the construction of an international financial center and shopping complex with high-rise building cost 967 million US dollars. Besides these successful projects, there are also failed investment schemes such as Gold Tower 42, where construction has been put on-hold, and Booyoung Town, those development process has been stalled.

Recently, there is also growing investment in banking and agriculture from South Korea into Cambodia as well. In the area of agriculture, a South Korean group known as MH Bio-Energy Group is operating the first bio-ethanol plant in Kandal province with daily production capacity of 130-300 tons (Ngoun, Stoey, van't Ende, & Kumar, 2012). During sideline meeting with Prime Minister Hun Sen in 2014, South Korea President Park Geun-hye also asked the Cambodian government to provide support for the launching of start-ups by South Korean entrepreneurs. Additionally, they also signed five MOUs to cover education, health care and medical science, intellectual property, the adoption of a retail payment system and cooperation on start-up businesses for youth in order to bolster economic cooperation between the two. South Korean investors are very aggressive in investing in Cambodia for many reasons, one of which is political stability. The top year was 2008 when South Korea invested 1.23 billion US dollars (see Table 5).

### 2.3.3 Cambodia-Japan Relations

#### 2.3.3.1 Background

Historically, Cambodia and Japan have had a long-standing relationship together. Diplomatic relations between the two countries began on January 9, 1953. Both celebrated the 50<sup>th</sup> Anniversary of the Establishment of Diplomatic Relations between Cambodia and Japan in 2003. The bond of friendship has enabled the two countries to develop mutual respect and support in politics, economy, culture, social affairs and religion.

The Royal Government and the people of Japan have provided continuing and significant help and support to Cambodia in all fields and all circumstances, proving that Japan is a genuine and exceptional friend of Cambodia. Japan is not only the biggest donor to Cambodia in economic development and poverty reduction, but Japan also plays an important role in the national reconciliation efforts that have successfully ended the protracted civil wars and brought full peace to the entire nation<sup>11</sup> (Chap, 2005).

#### 2.3.3.2 Trade

Japanese products are famous globally, and it is no different in Cambodia. Cambodia has imported a huge volume of Japanese products, especially vehicles, electronics and machinery. Trade between Cambodia and Japan has steadily increased yearly. In 2000, the volume of trade between the two countries was only 69 million US dollars. In 2013, it reached 177.25 million US dollars when Cambodia exported 336.39 million US dollars to Japan and imported 176.71 million US dollar worth of goods from

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<sup>11</sup> Prime Minister Hun Sen's speech at the ASEAN-Japan Commemorative Summit "Overview of the Japan-ASEAN Relations," on December 11, 2003 in Tokyo



Japan. Cambodia has a trade deficit with Japan of 47.7 million US dollars in 2000, yet Table 13 shows that Cambodia has a huge trade surplus of 159.7 million US dollars in 2013 (see Table 13).

Japan lifted quotas and tariffs for Cambodia for more than 1,000 tariff lines in addition to the other 226 items or tariff lines it had already previously provided. However, with the possible exception of garments and apparels, Cambodia finds it difficult to meet the minimum standard of product quality demanded by Japan; hence, the anticipated difficulty of exporting to this particular market for at least the next ten years. Table 13 shows the trade between Cambodia-Japan from 2000 to 2013.

*Table 13 Cambodia-Japan Trade (2000-2013)*

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2000-2013
Export	10.73	13.30	18.86	21.65	25.05	62.84	34.07	33.62	32.14	79.76	89.45	153.18	199.12	336.39	1,110.16
Import	58.39	19.42	25.52	78.30	83.57	100.23	129.60	141.19	114.13	118.80	156.47	248.10	222.94	176.71	1673.36
Balance	-47.7	-6.1	-6.7	-56.7	-58.5	-37.4	-95.5	-107.6	-82.0	-39.0	-67.0	-94.9	-23.8	159.7	-563.20

Source: Ministry of Economy and Finance of Cambodia (MEF)

### 2.3.3.3 FDI

As we can see that Japanese investors are investing in many countries around the globe, especially in Southeast Asia. However, they are not yet interested in investing in Cambodia. Although Japan is the biggest official development assistance (ODA) donor, its investment in Cambodia is relatively small comparing to its investments in other countries in the region, and relatively small compared to the investment from China and South Korea in Cambodia. The reasons for this will be discussed in the next section.

From 1994 to September 2012, Japan's investment in the form of pledges was only 157 million US dollars, which is very small compared to China's and South Korea's (see Table 5). The top year was 2007 when Japan's investments in Cambodia reached 113 million US dollars.

#### ***2.4 Comparisons***

We notice that Cambodia-China trade is the biggest among the three East Asian nations covered in this study. The rise of China is inevitable. China has promoted trade by arranging many trade exhibitions and fairs in Cambodia's cities, especially Phnom Penh. This has resulted in an increase in trade of about 1 billion from 2004 to 2008. Data on trade and FDI that Cambodia has made and received from China, South Korea and Japan is not yet the main source of FDI in Cambodia due to the number of reasons.

China is the biggest trade partner and source of FDI for Cambodia, but at the same time, is also the main competitor for many export products that Cambodia produces such as household products or consumer products, foods and electronics. South Korea is aggressively investing in the following sectors in Cambodia: banking, ITC, construction, property development and tourism. The motivations for China's and South Korea's investments are discussed in the next section.

*Table 14 Trade between Cambodia and China, South Korea and Japan (2000-2013)*

<b>2000-2013</b>	<b>China</b>	<b>South Korea</b>	<b>Japan</b>
Export	821.764	305.51	1,110.16
Import	12,387.31	2,631.07	1,673.36
<b>Balance</b>	<b>(11,565.54)</b>	<b>(2,325.56)</b>	<b>(563.20)</b>

Source: Ministry of Economy and Finance of Cambodia (MEF)

#### 2.4.1 Motivations for China's, South Korea's and Japan's investments in Cambodia

According to the information and findings from Chap (2005)<sup>12</sup>, he interviews the selected scholars and government officers, the main motivations for investors, especially those from China, South Korea and Japan to invest in Cambodia are as follow:

##### *2.4.1.1 Political Settlement, Peace and Stability*

Political risk is one of the major considerations when making an investment decision in the foreign country. Nobody invests in a country where political strife is likely to happen. Cambodia used to be a high-risk country due to political turmoil. But in recent years, with the will of the government, genuine effort at national reconciliation, and the support of the world community, political settlement in the country was finally achieved. Political settlement means peace and stability for the people and a more secure environment for investors.

This factor has raised investors' trust and confidence in the country enough to make them want to invest in it. For the first time in thirty years, Cambodia has consolidated and strengthened peace, stability and security. The end of Khmer Rouge also brought an end to Cambodia's era of war and conflict. There is now a sense of real peace and happiness in the country. In this respect, Cambodia has entered a new era of peace and development where effort, energy and time can finally be focused on nation building and economic development. This is the way which Cambodia will gain the confidence and trust of foreign investors. An investor said. "Cambodia is a good place to invest in, but Cambodia leaders have to make sure that no more political turmoil will take place.

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<sup>12</sup> (Chap, 2005)

The July 1997 armed clash was bad enough to bring Cambodia back to being one of the high-risk countries.”<sup>13</sup>

#### *2.4.1.2 Cheap Labor*

Cheap labor is a very important determinant for FDI as it contributes to lower cost of production. Investors try to relocate their production bases to countries where cost of production is lower, a fact that is evident in Cambodia’s garment industry. Investors from the United States, Western Europe, Canada, Australia, among others, were attracted to invest in Cambodia because of her cheap labor cost and good quota in the Generalized System of Preference (GSP) and Most Favored Nation (MFN) status from many industrialized countries. Cambodia has a population of more than 15 million people, of which more than 55.81 percent is of working age in 2014 (World Bank). Though the Cambodian people have a low level of education, the labor force is traditionally hard-working and motivated. Evidence of this can be seen in the great Angkor Temple, which represents the hard work and patience of the Khmer people. Cambodia has the strength of a solid, ancient culture and an easily trainable workforce that can build from nothing. On the other hand, the country has also had a hard and difficult time during the Khmer Rouge regime. The cost of labor in Cambodia is low compared with other Asian countries, even compared with China. The minimum wage is only 45 US dollars per month for an unskilled worker.

#### *2.4.1.3 Prospect of a Booming Local Market*

The Cambodia market is expected to boom with positive externalities. The first positive externality is the anticipated economic recovery in the region. More countries

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<sup>13</sup> Chap (2005)

are now recovering or have recovered from the impact of Asian financial crisis of 1997, which adversely affected most economies in the region. As majority of investors in Cambodia are ASEAN member countries, Cambodia can benefit from this positive economic recovery. The second positive externality is Cambodia's accession to the WTO and its becoming a member of the ASEAN. Cambodia's membership in the ASEAN and the WTO can serve as an important promoter for FDI, especially through the ASEAN Investment Area (AIA), tourism promotion and increased export opportunities. At the same time, Cambodia can use the ASEAN strategic window of opportunity for promoting its interests in all fields, especially economic cooperation with the dialogue partners of the ASEAN. The third positive externality is the impact of globalization. To some extent, Cambodia could benefit from globalization. However, Cambodia needs to manage the downside of globalization as this may negatively affect other sectors of society, especially in the social and cultural areas. While it is a latecomer to globalization, Cambodia can use globalization to further propel her economic growth and development (Chap, 2005).

As a member of the ASEAN, Cambodia is actively participating in ASEAN economic initiatives, especially in the ASEAN Free Trade Area (AFTA), ASEAN Industry Cooperation (AICO), ASEAN Investment Area (AIA), and in the services cooperation aimed at liberalizing most of the goods and services sector. Aside from being actively engaged in ASEAN regional initiatives, Cambodia has also been actively anticipating in sub-regional initiatives, such as the development of the Great Mekong Sub-region (GMS). As part of the Great Mekong subregional economic group, Cambodia is an ideal place to take advantage of this area's fast-developing consumer markets. Cambodia's being a member of the ASEAN, a market of about 620 million

people, is expected to facilitate cross-border movement of goods and further boost trade. Cambodia's WTO membership will also help tremendously in broadening its international markets, which will, in turn, make Cambodia itself a booming market. All of these factors will help efforts at liberalization and economic modernization to proceed in conformity with local and international standards. An annual average of 500 million US dollars in foreign aid has already been made, a vote of confidence by the international community in the future. Cambodia is also a member of the International Finance Corporation (IFC), which can provide loans to private companies for their investment in Cambodia.

#### *2.4.1.4 Favorable Investment Policy*

The Cambodian government recognizes that the private sector is a partner, not a competitor. As stated earlier, the promulgation of the new investment law means that Cambodia now offers the best business incentive package in Southeast Asia, making the Kingdom's outward-looking economy a very attractive place to invest. As the establishment by the CDC about the Investment Guarantee, Cambodian investment policy provides protection and guarantee for investors as follows: (1) equal treatment for all investors, (2) no nationalization adversely affecting the property of investors, (3) no price controls on products or services produced by licensed investors, and (4) no limitation on remittance of foreign currencies abroad. On the other hand, Cambodia is a signatory to a number of conventions related to investment guarantees and dispute settlement as well as agreements on investment promotion and protection with many partners, including ASEAN countries and with some bilateral partners such as the United States, the European Union (EU), China, South Korea and Switzerland. The

Royal Government continues to carry out this work with other bilateral and multilateral partners.

#### *2.4.1.5 Status of MFN and GSP as an LDC*

After the Multi-Fiber Agreement ended at the end of 2004, Cambodia, as a least developed country (LDC), had its quota for garment exports to the United States and the European Union lifted. However, China is still under quota restrictions as part of the safeguard measures imposed by the U.S and the EU before China could become a member of the WTO. This is one of the main reasons why Cambodia's exports of garments and textiles continue to thrive even after the lifting of quota restrictions when it expected to face greater competition from other garment-exporting developing countries.

Chinese and South Korean investments in Cambodia cannot be successful without support from the government of both countries. Many groups of investors are usually introduced by the Chinese and Korean governments, and they often meet with top Cambodian officials, including the prime minister, deputy prime ministers, ministers, and other relevant government agencies.

#### *2.4.2 Constraints for Japanese investors*

##### *2.4.2.1 Lack of Public Utilities and Infrastructure*

Physical infrastructure in Cambodia is in poor condition. The transport sector, which provides both the country's lifeline to the outside world and its crucial internal distribution system, has been seriously affected by the years of war and unrest, intentional destruction and subsequent neglect. The result is a badly damaged transport infrastructure, nonexistent in some aspects, which was inherited by operating

authorities with neither the resources nor the technical capability to restore it or to make improvements. Despite this and somewhat surprisingly, considerable progress has been made in the last few years in reviving transport operations using the minimal resources that could be obtained. However, the country still does not have enough roads, electricity, water, and telecommunication facilities compared with other countries in the region.

All of the transport subsectors (roads and bridges, ports and inland waterways, railways, civil aviation and land and water transport) are currently characterized by (1) damaged or missing physical infrastructure, equipment and other facilities; (2) unavailability of sufficient operating and/or maintenance funds; (3) lack of adequate qualified personnel; and (4) institutional conditions that militate against efficient and expeditious operations. The poor quality and insufficiency of physical infrastructure is a bottleneck to the flow of investment in the country. Investors find it costly to invest in a country where infrastructure is poor.

A major handicap affecting FDI is the high cost of power supply compared to neighboring countries, which have access to cheap hydroelectricity. In Phnom Penh<sup>14</sup> and other provinces, electricity cost is very high. Therefore, investors depend completely on diesel power and individual electric generators of all sizes, which raise both investment costs and operating costs in electricity provision. Different rates are charged for electricity. The higher the amount of electricity consumed, the higher will the rate be charged, especially for industrial and commercial purposes. Electricity in suburban areas is also more expensive than in the urban center because the network

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<sup>14</sup> Phnom Penh is a capital city of Cambodia



faces difficulty in connecting and maintenance. It means that the rural poor have to pay a higher price for electricity than the urban rich.

#### *2.4.2.2 The Market Is Still Not Mature*

Japanese investors are perceived by many studies to be careful and slow in decision making. They have to study the market to determine whether it is mature enough to invest in the low risk. Unlike Chinese and South Korean investors, Japanese investors are still undecided on whether to invest in Cambodia or not due to limited domestic demand and poor related investment and support businesses. Therefore, in order to attract Japanese investment, Cambodia has to demonstrate that many investors, especially Japanese ones, are successful and taken care of not only in the process of applying but also after the licenses are granted with full guarantees and protection of investors' interests.

## Chapter III

### Review of the Literature, Conceptual Framework and Hypothesis

#### *3.1 Literature Review*

##### 3.1.1 Literature on the determinants of FDI inflows

What are the specific determinants of a host country that attract FDI? Understanding the motives of foreign investors in undertaking investment projects is crucial to answer the question along with the particular characteristic of each firm and determinants governing their decisions. Different theoretical frameworks analysis the motivations, characteristics and determinants of FDI inflows and numerous theories have developed to investigate the existence and the growth of the international operations of multinational corporations via FDI. Such theories include international product life-cycle theory (Vernon, 1966), substitute theory of FDI for trade (Mundell, 1968), industrial organization theory (Hymer, 1976), complement theory of FDI for trade (Kojima & Kakinuma, 1987), OLI or eclectic theory of the new investment development (Dunning & McQueen, 1981), vertical and horizontal investment theory of FDI (Markusen, 2000) and so on. These theories attempt to analyze the determinants of inward FDI under different assumptions and frameworks. Dunning (1981) introduces the OLI theory or the Eclectic paradigm, which is a comprehensive framework explaining FDI behavior by integrating the advantages of ownership, location and internalization. It is one of the first rigorous and integrative efforts to identify the

determinants drive firms from a specific source country to invest in foreign countries and had become widely applied.

According to the Eclectic Theory, Dunning (1981, 1988 and 1998) states that production abroad can be explained with reference to ownership, internalization and location advantages. Thus, a firm will engage in FDI subject to the following three conditions: (1) it possesses ownership advantages that mostly comprise the possession of intangible assets specific to the firm. Moreover, such firm-specific advantages must be greater than the offsetting disadvantages that they may face in competition with local firms; (2) there is a location advantage in a foreign country rather than at home and it should be able to utilize its advantages in conjunction with some factor endowments of the host country and (3) there must be an advantage to internalize FDI activities rather than using the market, for example by selling abroad or by licensing or by contracting to foreign firms. The Eclectic Theory is the best framework to examine the effect of location characteristics on the choice of FDI even though the diversities of determinants have been criticized in this approach as tautological (Tahir & Larimo, 2004).

Itaki (1991)<sup>15</sup> critically argues with the Eclectic Theory on the grounds that the ownership advantage comprises the firm's internal economies of integration, market power, minimized transaction costs and internalized external economies. Therefore, he states that the Eclectic Theory confuses the ownership advantage in engineering terms and ownership advantage is influenced by and inseparable from location factors. He also suggests that the theory should distinguish between real terms and nominal terms. However, Agarwal and Ramaswami (1992)<sup>16</sup> examine the effect of interrelationships

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<sup>15</sup> (Itaki, 1991)

<sup>16</sup> (Agarwal & Ramaswami, 1992)

among ownership, location and internalization advantages of the firm on its alternative modes of entry, namely exporting, licensing, joint venture, and sole venture in foreign markets. They find that direct investment is a preferable mode for firms to establish a market presence in foreign countries as the effect of those interrelationships. However, the abilities of the firms are limited by their size and multinational experience. So investment modes will be applied only in high potential markets.

Based on the Eclectic paradigm, FDI flows are also classified into three types. First, market-seeking FDI refers to FDI that aims to serve local and regional markets. Second, resource-seeking FDI is the FDI that tries to obtain resources which are not available in the home country. Such resources consist of natural resources, raw materials, or low-cost inputs such as a labor force. Particularly in the manufacturing sector, factor cost is taken into account when multinationals directly invest in order to export. Third, efficiency-seeking FDI is the type of FDI that takes place when foreign investment can benefit from common governance of geographically dispersed activities, especially in the presence of economies of scale and scope (UNCTAD, 2006) and (Dunning & Lundan, 2008). However, different factors have an influence on the motivations of these categories of FDI. For instance, market-seeking versus export-oriented FDI will be influenced to different degrees by the host country market. Market-oriented FDI may be more concerned with the market size than export-oriented FDI because the former produces for the host country market while the later produces for the foreign market. Additionally, efficiency-seeking and resource-seeking FDI may be encouraged by low-cost developing countries and resource availability respectively while asset-creating FDI is more likely to go to rich developed economies (Loree & Guisinger, 1995).

Onyeiwu (2003)<sup>17</sup> studies about “Analysis of FDI Flows to Developing Countries: Is MENA Region Different?” by using fixed and random effects regression with a data set from 51 developing countries, 10 of which are from the MENA region (the Middle East and North Africa) for the period from 1957 to 1999. The author uses variables for his study such as: FDI flows to developing countries, rate of return on investment (RRI), Openness (OPEN), political right (POLR), infrastructure (INFRA), natural resource availability (NATR), corruption and bureaucratic red tape (CBRT), human capital (HCAP), inflation (INFLA), real GDP growth rate (GDPG), tax rate (TAXR) and external debt (EXTD). Moreover, he finds that some of the variables that affect FDI flows into developing countries are not important for MENA countries. These variables include the rate of return on investment (RRI), infrastructures (INFRA), economic growth and inflation (INFLA). While trade openness (OPEN) increases FDI flows to MENA region, corruption/bureaucratic red tape (CBRT) are found to reduce flows to the region. Finally, he also finds that trade liberalization and privatization are important preconditions for FDI flows into the MENA region.

Beside the findings of determinants of FDI inflows in other countries, there are also previous studies about the determinants of FDI flows in Cambodia as well. According to Cuyvers et al., (2008)<sup>18</sup>, they explore about the “Determinants of Foreign Direct Investment in Cambodia: country-specific factor differentials”, and they use annual data of approved and realized FDI from 1995 to 2005 of 17 countries. They mainly use the panel data set analysis, and they use three estimation procedures: pooled OLS, fixed-effects (FE) or random effects (RE) to investigate the factors affecting FDI

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<sup>17</sup> (Onyeiwu, 2003)

<sup>18</sup> (Cuyvers, Plasmans, Soeng, & Van den Bulcke, 2008)

in Cambodia. They determine variables and find out as follows. The home country's GDP growth rate, its bilateral trade with host country, and the exchange rate have positive impact on inward FDI flows into Cambodia. The Asian Financial Crisis and China's WTO membership variables are found to have significant negative impact on Cambodia's ability to attract FDI. Moreover, International Trade is shown to have a significant impact on FDI inflows into the country. Therefore, a further liberalization of Cambodia's international trade will attract more inward FDI, which in turn is expected to generate some positive externalities in the economy. Finally, they also note that some determinants which are not significant at all in their study are Interest Rate, Inflation, GDP, Labor Productivity and Political Risk.

According to the findings of Vichea (2005), he studies key factors affecting the inflows of FDI in Cambodia. He explores the problems faced by foreign investors and identifies determinants of FDI in Cambodia. The author finds that there are many key factors affect the performance of FDI in Cambodia such as domestic market, export market, transportation cost, political instability and risk, government incentive and economic policy have positive relationship with the performance of FDI in Cambodia. Regarding to the problems of doing business in Cambodia, the author finds that legal system/bureaucracy and tax regime are the most problems for the foreign investors in Cambodia. Insufficient of investment incentive, local infrastructure, economic situation, clarity and validity of information on investment, political and social situation, lower labor skill, small local market, country image and exchange rate are the high problems for doing business in Cambodia. Behavior of local worker, local transportation, development local banking, competition, linkage of business network, expiry of GSP and firm's financial restriction indicate medium problem. Regarding to

the performance of FDI in Cambodia, he finds that in term of sale growth from 2000 to 2004, most of companies performed well by increasing their sale from 1% to over 27%, except the sale of 12 firms had been decreased and only 1 firm had been stable (Vichea, 2005).

This paper focuses on the following factors determining FDI: market size, exchange rate, trade openness, inflation, labor cost and the crises. These variables have been widely applied and tested in empirical studies for both developed and developing counties (Zeng & Singh, 1996); (Liu, Song, Wei, & Romilly, 1997); (Wei & Liu, 2001) (Asiedu, 2002); (Tahir & Larimo, 2004; Zhao, Kim, & Du, 2003); (Gao, 2005; Quazi, 2007) and (Jayachandran & Seilan, 2010). Hypothesis formulations are described in the following section.

### 3.1.2 Literature on the relationship of FDI toward Cambodia's economic growth

Besides investigating the important determinants of inward FDI flows into Cambodia, we also review the impact of FDI on Cambodia's economic growth. In order to explore the impact of FDI on Cambodia's economic growth, some control variables and its interaction terms with FDI are also important to list down in the equation and regression in order to estimate for the results as well.

In order to set up and select the control variables beside FDI to stimulate economic growth, we follow the study of Kotrajaras et al. (2011)<sup>19</sup>. They study about the impacts of FDI in groups of 15 East Asian countries from 1990 to 2009 classified by level of economic development, using panel data analysis together with co-integration methods. Domestic capital stock/domestic investment (K), labor (L), foreign direct investment

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<sup>19</sup> (Kotrajaras, Tubtintong, & Wiboonchutikula, 2011)

(FDI), level of human capital (HK), level of infrastructure (IF), trade openness (TRADE), financial development index (M2/GDP) (FD), corruption perceptions index (COR) are the variables presenting in the regressions in order to find out the effect of those variables on economy of the host countries. The interaction terms of some variables and FDI (HK\*FDI, IF\*FDI, TRADE\*FDI, FD\*FDI and COR\*FDI) are also included. The results show that the favorable impacts of FDI on East Asian countries depend on complementary factors, particularly each host country's economic conditions such as level of financial market development, institutional development, better governance and appropriate macroeconomic policies. The results in their study show that FDI has a positive relationship with economic growth in high-income countries (Hong Kong, Japan, South Korea, Singapore and Taiwan) and also in the middle-income countries (China, India, Indonesia, Malaysia, the Philippines and Thailand), yet the high-income countries will benefit more than the middle-income countries. The low-income countries (Cambodia, Laos, Myanmar and Vietnam) tend to benefit less from FDI because low-income countries do not have appropriate facilities from government spending on investment, low degree of trade openness, low level of public investment on education, low level of financial development and high level of corruption. Finally, they conclude that the low-income economies are not capable of absorbing the benefit from FDI.

Besides that, Guechheang Lim and Moolio Pahlaj (2013)<sup>20</sup> conduct a study about “The Relationship between Gross Domestic Product and Foreign Direct Investment: The Case of Cambodia” in long run over the period from 1993 to 2011 by using

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<sup>20</sup> (GuechHeang & Moolio, 2013)



qualitative approach and quantitative approach (OLS). Augmented Dickey-Fuller test, Durbin-Watson test, Breusch-Godfrey Serial Correlation LM test, Breusch-Pagan Godfrey test, and Jarque-Bera test are used to test in their analysis. In addition, they use only two variables in their study which are FDI and GDP, and the result from regression finds that there is a positive relationship between FDI and GDP in the long run in Cambodia, which is also supported by their qualitative findings that are based on the collection of existing studies from recognized domestic and international institutions, people in senior positions and researchers. All of qualitative studies presenting in their paper show that FDI positively affects GDP, and most significantly to the employment opportunities generate for local people in long run which helps to reduce unemployment and poverty in Cambodia.

Hoang et al. (2010)<sup>21</sup> examines the effect of FDI inflow on economic growth in Vietnam by using panel data of sixty-one provinces over the period from 1995 to 2006. They also include the degree of trade openness, the level of human capital and the domestic investment in Vietnam, the interaction term between FDI with trade, human capital and domestic investment. In their study, the result of significant and positive coefficient of FDI suggested that FDI has a positive effect on Vietnamese economic growth. The result further presents that all regions of Vietnam have positive effects on the economic growth of the country. The authors believe that the more FDI inflows in the regions, the better the economic growth in Vietnam.

Based on studies on “The impact of Foreign Direct Investment on Economic Growth: A Case Study of South Korea” using annual time series data from 1980 to

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<sup>21</sup> (Hoang, Wiboonchutikula, & Tubtintong, 2010)

2009 which applies endogenous growth model for the study. The author uses variables such as GDP growth rate (G), domestic capital investment (I), foreign direct investment (FDI), employment (L), export (X) and human capital (H) to be the determinants of the study. The author finds that there is strong and positive impact of FDI on South Korea's economic growth. Determinants of human capital, employment and export are positive and significant. FDI to human capital and export indicates that the transfer of high technology and knowledge has adverse impact on economic growth in South Korea while domestic investment is not significant at all (Koojaroenprasit, 2012).

In the middle of the 20<sup>th</sup> century, the question of the impact of FDI on different sectors of economic growth was raised. Hirschman (1958)<sup>22</sup> is one of the first economists who attempts to investigate and answer the question whether inward FDI has the same impact on all sectors of the economy. He finds that foreign investment influx and technology in all industries do not react in the same way and he claims that for agriculture and mining there is no significant impact of FDI on their economic growth. There are several theories and models that have been applied to investigate the impact of FDI on economic growth. Generally, FDI is considered as a combined bundle of inward FDI capital, knowledge and technology transfer (Balasubramanyam, Salisu, & Sapsford, 1996). Modernization theories point out that inward FDI can promote economic growth under the principle that growth requires capital investment (Adams, 2009).

The effect of FDI on growth is diverse; particularly Greenfield FDI possibly might complement local investment leading to an increase in production capability of the host

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<sup>22</sup> (Hirschman, 1958)

country. Thus, FDI can promote growth through productivity gains as a consequence of spillovers to local firms. However, the growth rates of the less developed countries depend on their capability to adopt and employ high technology used in developed countries in their own lands (De Mello Jr, 1997). Moreover, it might have spillover of managerial expertise and knowledge about the international market for local companies in host countries inducing enlarged growth by relaxing the constraints of human capital and strengthening the export sector competitiveness (Borensztein, De Gregorio, & Lee, 1998). Similarly, FDI flow also plays two main roles, contributing to capital accumulation and increasing total factor productivity (Nath, 2009).

De Mello (1999)<sup>23</sup> affirms that there is a positive impact of FDI on economic growth in both developed and developing countries. He also finds that the spillover of knowledge and technology from the home countries to the host countries is the determinant of the long run growth in the host countries. The study by Zhang (2001)<sup>24</sup> shows that in host countries, where the infrastructure is well developed and policies of FDI and trade are more liberal, inward FDI promotes economic growth. In addition, Bengoa et al., (2003)<sup>25</sup> study the connection between FDI and economic growth for 18 Latin America countries applying panel data from 1970 to 1999. The study finds that FDI does have an effect on growth in the host countries.

Based on these mixed theoretical observations, several empirical analyses regarding the linkage between FDI and economic growth have been conducted by many scholars including Borensztein et al., (1998), De Mello (1999), Zhang (2001), (Campos

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<sup>23</sup> (De Mello, 1999)

<sup>24</sup> (Zhang, 2001)

<sup>25</sup> (Bengoa & Sanchez-Robles, 2003)

& Kinoshita, 2002) and (Makki & Somwaru, 2004). Among others, Bulasubramanyam et al., (1996) analyze the causal link between FDI and growth in the context of differing trade policy regimes (i.e. export promotion and import substitution) by applying cross section data to examine 46 developing countries during the period 1970-1985. The results are in line with the hypothesis of Bhagwati (1969)<sup>26</sup> that growth enhancing effects of FDI is stronger in countries where the workers are highly educated and in countries that adopt and export promotion policy.

Additionally, using annual data for the ASEAN 5 founding member countries from 1970 to 1996 to perform a cross-country study, the author finds evidence that FDI is positively linked to GDP growth in Malaysia, Indonesia and the Philippines, but has a negative effect in Thailand and Singapore (Bende-Nabende, Ford, & Slater, 2001). However, Kohpaiboon (2003)<sup>27</sup> applies annual macroeconomic data of Thailand from 1970-1999 and includes export openness, then his result indicates that FDI has a positive effect on growth.

Furthermore, Marwah and Tavakoli (2004)<sup>28</sup> conduct a study for four countries (Indonesia, Malaysia, the Philippines, and Thailand) individually and the finding shows that for all four countries FDI is positively correlated with GDP growth. Choong et al., (2005)<sup>29</sup> also support the hypothesis and conclude that FDI has a strongly positive impact on growth for Malaysia. However, Chowdhury and Mavrotas (2006)<sup>30</sup> and

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<sup>26</sup>(Bhagwati, 1969)

<sup>27</sup> (Kohpaiboon, 2003)

<sup>28</sup> (Marwah & Tavakoli, 2004)

<sup>29</sup> (Choong, Yusop, & Soo, 2005)

<sup>30</sup> (Chowdhury & Mavrotas, 2006)

Damooei and Tavakoli (2006)<sup>31</sup> find contradictory results for these South East Asian nations.

One author applies a panel VAR model to examine the relationship between FDI and economic growth in 80 countries from 1971 to 1995. The finding indicates that there is evidence of a bidirectional link between FDI and economic growth but the effects running from growth to FDI are stronger rather than the opposite (Choe, 2003), which is in line with the study by Agosin and Mayer (2000)<sup>32</sup>. Another author also concludes that FDI has a strongly positive impact on growth across host countries (Musirin, Rahman, & Khawa, 2005). Blonigen and Wang (2004)<sup>33</sup> find the same results for developing countries. In addition, a finding examines the endogenous link between FDI and economic growth for 84 countries over the period 1970-1999 by using single equation and simultaneous equation system methods. The result shows that FDI has a positive effect on growth via its relationship with human capital in developing countries, but has a negative impact on economic growth through its relationship with the technology gap (Li & Liu, 2005).

There is a study investigating the industry-specific FDI flows over the period 1985-2002 for China and during the period 1990-2002 for Vietnam by applying an augmented production function measurement and regression methodology. The results show that FDI positively and directly impacts economic growth and its impacts on labor productivity also affect growth indirectly. In industry specific FDI analysis, they find that the impact varies across sectors and the manufacturing sector appears to have

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<sup>31</sup> (Damooei & Tavakoli, 2006)

<sup>32</sup> (Agosin & Mayer, 2000)

<sup>33</sup> (Blonigen & Wang, 2004)

gained more than other sectors (Kaartemo, 2007). Moreover, the study of the impact of FDI on growth applying sectoral data from 22 OECD countries from 1990 to 2001 for 19 sectors is examined. They find that aggregated FDI has an ambiguous effect on growth. FDI in the primary sector has a negative effect on growth, while investment in the manufacturing sector has a positive one. Evidence from the services sector is ambiguous (Alfaro, Kalemli-Ozcan, & Volosovych, 2008).

Noticeably, in recent studies, the empirical results from surveys of the cross-country evidence mostly support the hypothesis and theoretical expectations that FDI promotes growth (Lim, 2001); (Lipsey, 2004) and (OECD, 2002). However, some studies find an insignificant impact of FDI on growth (Akinlo, 2004) and (Ayanwale, 2007). Chakraborty and Basu (2002)<sup>34</sup> report that inward FDI does not promote GDP growth in India and the causality is likely running from GDP growth to FDI with trade liberalization weakly attracting the FDI flows. Similarly, there is an argument that the positive relationship between FDI flow and GDP growth is biased due to the estimation method used. Therefore, they employ the Arellano Bond GMM technique for a large cross-country data set over the period 1960-1995 and find that FDI neither impacts domestic growth directly nor through its effect on human capital (Carkovic & Levine, 2005).

Moreover, there is evidence that FDI has a significant negative impact on economic growth in the host country (Kraemer, Fry, Ratames, & French, 1995); (Agosin & Mayer, 2000); (Hermes & Lensink, 2003) and (Sylwester, 2005). The finding is obtained from Khaliq and Noy (2007)<sup>35</sup>, who examine the influence of inward FDI on

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<sup>34</sup> (Chakraborty & Basu, 2002)

<sup>35</sup> (Khaliq & Noy, 2007)

the economic growth in Indonesia applying annual data for 12 industries over the period 1997-2006, indicates that FDI has a positive impact on growth at the aggregated level. However, while looking at each sector in particular, very few sectors are positively correlated with growth and FDI in the mining and quarrying sector even turn out to have a negative impact growth. Furthermore, an influence of FDI on the primary and manufacturing sectors is analogous, but interestingly FDI in the services sector has a negative effect on growth (Aykut, Sayek, Piscitello, & Santangelo, 2007). The results studied by Vu and Noy (2008)<sup>36</sup> show evidence of a negative linkage between FDI and growth in the primary sector and there is a positive influence in the manufacturing sector and the impact on the services sector is ambiguous, which is in line with the study by Alfaro (2003).

Blonigen and Wang (2005) argue that combining rich and poor countries in empirical FDI analysis is improper because the factors affecting inward FDI seem to be different across them. In addition, they find that only developing countries gain benefits from FDI inflows but not for developed countries, where there is a crowding out effect of FDI on local firms in the higher income countries. Additionally, the direction of a causal link between FDI and economic growth is still debated (Carkovic and Levine, 2005). Chowdhury and Mavrotas (2006) confirm that the causal link between FDI and growth is distinguished by a considerable degree of heterogeneity, which is in line with the previous studies of Nair-Reichert and Weinhold (2001)<sup>37</sup>.

Based on the World Investment Report (UNCTAD, 2001), theoretically, the influence of FDI on each sector of the economy varies because it depends on where the

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<sup>36</sup> (Vu, Gangnes, & Noy, 2008)

<sup>37</sup> (Nair-Reichert & Weinhold, 2001)

sector is directed, and each sector also has its own characteristics. That FDI is positively correlated with economic growth is situated in growth theory, which stresses that FDI plays an important role in improving technology, effectiveness and productivity leading to the promotion of growth (Lim, 2001). Moreover, the potential contribution of FDI to growth depends strictly on the host countries' conditions, which are necessary to facilitate the spillover effects.

Although the finding for the relationship between FDI and economic growth is a controversial issue, there seems to be some consensus that FDI is the main determinant of growth. Two main hypotheses on the impact of FDI on economic growth have been identified: the modernization hypothesis and the dependency hypothesis. The hypothesis of the modernization theory proposes that FDI stimulates economic growth by supplying external capital and spreading the benefits all over the economy leading to the promotion of growth. Recently, for developing countries, FDI seems to be the “engine of growth”. On the other hand, the dependency theory argues that there is a harmful effect of FDI inflow on growth in the long run. In the short run, an increase in FDI inflow enables higher investment and consumption activities that lead to economic growth directly and indirectly. However, as foreign capital accumulates and investment projects are established, there will be adverse effects on the rest of the economy leading to reduction of economic growth. This is because of the intervening mechanisms of dependency, especially “de-capitalization” and “disarticulation” (O'Hearn, 1990).

The hypotheses for this analysis are based on the assumption that the causal link between FDI and GDP growth can run either direction. On the other hand, based on the “FDI-led growth hypothesis”, inward FDI can have an influence on GDP by raising



capital stock, job creation and transfer knowledge and technology (De Mello, 1997; Borensztein, 1998 and De Gregorio, 2003).

Therefore, this paper hypothesizes that FDI inflows stimulate growth in Cambodia. On the other hand, rapid economic growth in the host country providing new investment opportunities can also attract a higher amount of FDI inflows according to the “market size hypothesis” (Mah, 2010). Thus, the hypothesis of this analysis is GDP growth has an influence on FDI inflows into Cambodia. Moreover, some of the previous studies confirm FDI has positive effects on economic growth, but FDI can also has negative impact on output growth since it crowds out local investment, boots external dependence and vulnerability (Aitken & Harrison, 1999)<sup>38</sup> and (Lipsey, 2004). Hence, it is also probable that the causal link between FDI and GDP growth does not occur in Cambodia, which is in line with the “neutrality hypothesis”.

### **3.2 Conceptual Framework**

#### **3.2.1 Determinants of Foreign Direct Investment**

Over the past two decades, there was a main shift in the degree of FDI by many Multinational Companies (MNCs) into East Asian countries, and there is a number of studies that have been investigated on those main attractions pull factors of recipient countries which attract the investors becoming the theories behind to be profound more on that for the next researchers. There is one hypothesis is raised up in each part of the relationship between FDI and control variables in order to find and compare its cause and effect on each other.

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<sup>38</sup> (Aitken & Harrison, 1999)

### 3.2.1.1 FDI and Real GDP (Market Size)

**Hypothesis 1:** *An increasing ratio of GDP of Cambodia relative to the home country's GDP, results in more FDI flowing into Cambodia.*

Market size is typically measured by GDP. Different forms of FDI will be influenced to different degrees by the host market. Market-seeking FDI is more related to market size than export oriented FDI (Bajo-Rubio & Sosvilla-Rivero, 1994) and (Loree & Guisinger, 1995). Other studies also provide strong support for this phenomenon such as Braunerhjelm and Svensson (1966)<sup>39</sup> and Grosse and Trevino (1996)<sup>40</sup> also find the evidence that the recipient country's market size has a positive correlation with the amount of inward FDI. Similarly, the market size hypothesis states that inward FDI is a function of the market size of the host countries.

A larger market size has better prospects for market growth, higher degrees of development, and higher per capita GDP growth are factors taken into account when investors considering to locate in a foreign country. Thus, countries with attractive market opportunities allow MNCs to utilize their ownership advantages and to gain from economies of scale (Wei and Liu, 2001). There are two main reasons for the impact of market size on the locational decisions of MNCs. First, the volume of expected sales has a significant influence on foreign investment decisions. Second, market size can be concerned with economic and strategic motivations behind FDI that occurs primarily in highly concentrated industries. The market size of the host countries is assumed to capture demand and scale effects. For example, there must be adequate domestic demand for final goods in the host country (Davidson, 1980).

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<sup>39</sup> (Braunerhjelm & Svensson, 1996)

<sup>40</sup> (Grosse & Trevino, 1996)

Such assumption is supported by various studies. For example, several empirical studies find a positive relationship between FDI and market size of the host country, which supports the hypothesis arguing that inward FDI is positively related to the host country's market size. Among others, Wei and Liu (2001), Bevan and Estrin (2004)<sup>41</sup>, and Ho (2004)<sup>42</sup> find a positive relationship between inward FDI and the recipient country's GDP, suggesting that a larger market size can increasingly attract FDI inflows. Since market size can be used as a proxy for aggregate demand, the size of the home country's market may be negatively related to the amount of FDI in the host country (Wei and Liu, 2001). For instance, the empirical study done by Pitelis (1996)<sup>43</sup>, which applies an econometric estimation for testing for relationship between aggregate demand and outward investment, finds that effective domestic demand insufficiencies are a driver to outward investment by the home country.

According to this brief summary of the literature in the previous paragraphs, a comparison can be made between the relative change in the market size of the investing partner and the recipient country (Wei and Liu, 2001). If the host country's GDP grows faster than the home country's GDP, the host country is expected to be relatively more attractive than the home country and the home country firm is more likely to invest in the host country. However, if the market size of the host country is very small, the MNCs are likely to make more profit through lower marginal costs of production in that country and then export their products to other markets (Markusen, 1998). Base on the finding of Cuyvers et al. (2011) studying about "Determinant of FDI in Cambodia"

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<sup>41</sup> (Bevan & Estrin, 2004)

<sup>42</sup> (Ho, 2004)

<sup>43</sup> (Pitelis, 1996)

shows that FDI home country's GDP, bilateral trade with the host country and exchange rate have a positive impact on inward FDI flows into Cambodia.

### 3.2.1.2 FDI and Real Exchange Rate

**Hypothesis 2:** *The higher the currency depreciation of Cambodia is relative to the home country's currency, the higher the level of FDI flows into Cambodia is.*

The exchange rate between the host and source country commonly measures the cost of production inputs during a firm's production process. Many research studies have examined this process. One finding is that it is due to the impact of labor costs. Clegg and Scott-Green (1999)<sup>44</sup> and Halicioglu (2001)<sup>45</sup> show that a home country's currency appreciation causes an increase in inward FDI to the host country since it is cheaper to employ a given amount of labor. In contrast, when the exchange rate of the host country appreciates, FDI is deterred.

Aristotelous and Foundas (1996) point out that the real depreciation of the host country's currency makes investment in the host country cheaper for foreign firms and raises the benefits of the foreign firms, leading to an increase in foreign purchases of domestic assets that enlarge FDI flows into the host country. In addition, a real depreciation of currency of the host country would lead to inward FDI as foreign firms may be interested in gaining benefits and taking advantage of lower local labor costs. Thus, the domestic real exchange rate increase or real currency depreciation leads to hiring more labor and should have a positive impact on inward FDI in the host country (Wei and Liu, 2001).

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<sup>44</sup> (Scott-Green & Clegg, 1999)

<sup>45</sup> (Halicioglu, 2001)

A second way in which exchange rates affect production cost is in the price of manufactured goods. Dewenter (1995)<sup>46</sup> and Pan (2003)<sup>47</sup> hypothesize that FDI is impacted by the exchange rate in two different ways. First, the home country currency's appreciation means that the price of its products is relatively higher, as a result of less competitive exports to the host country. Thus, firms of the home country are motivated to transfer the manufacturing to the host country which results in an increase in FDI inflows in the host country (Froot & Stein, 1991). Secondly, the appreciation of the home country's currency against the currency of the host country leads to a rise in investment value when the investment is denominated into the currency of the host country.

In a similar line of argument, the influence of the exchange rate on FDI is often brought up as the "wealth effect". From the perception of the investors of the home country, investment becomes less expensive in the host country, which in turn provides more profits for the foreign subsidiary. A higher return on investment as a result persuades even more FDI inflows into the host country. Furthermore, the wealth of a foreign firm that is denominated by the currency of the host country also rises due to the depreciation of the host country currency. The inputs of the production become cheaper in the currency of the home country for foreign firms, which in turn offers them an incentive to buy more host country assets, as a result of an increase in inward FDI (P. J. Buckley et al., 2007).

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<sup>46</sup> (Dewenter, 1995)

<sup>47</sup> (Pan, 2003)

Several studies confirm that exchange rate has an influence on inward FDI. A similar result is reported by Kiyota and Urata (2004)<sup>48</sup>, who find that host country currency depreciation attracts FDI inflows into Japan by applying a panel data set over the period from 1981 to 2002. The findings of Xing and Wan (2006) indicate that the competition among China and ASEAN 4 (Thailand, Malaysia, Indonesia and the Philippines) for Japanese investment in Asian manufacturing has significantly been influenced by the relative real currency appreciation of those nations to the Japanese yen. Therefore, the depreciation of the Chinese renminbi, which occurred during the 1980s and the early 1990s, attracted more FDI inflows from Japan.

However, despite the positive conclusions discussed above, many studies find that the exchange rate has a negative impact on FDI inflows (Froot and Stein, 1991; Aristotelous and Foundas, 1996; Grosse and Trevino, 1996; and Baek and Okawa, 2001<sup>49</sup>; Wei and Liu, 2001). Other studies do not find clear evidence of the linkage between inward FDI and the exchange rate in the long run (Halicioglu, 2001 and Pain and Welsum, 2003).

### 3.2.1.3 FDI and Trade Openness

**Hypothesis 3:** *The higher the external trade and bilateral trade between Cambodia and the home country are, the higher the FDI flows into Cambodia.*

Asiedu (2002) states that the share of trade to GDP is the most widely applied variable to calculate the degree of openness. Trade volumes assume to have a positive relationship with FDI. Thus, countries that wish to attract more FDI should increase trade volumes. The effect of openness on FDI can have a positive sign in the case of

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<sup>48</sup> (Kiyota & Urata, 2004)

<sup>49</sup> (Baek & Okawa, 2001)

FDI being export-oriented and have a negative sign in the case of FDI being tariff jumping. Generally, firms have different entering modes into a foreign market including setting up production processes via FDI or extending markets by exporting.

UNCTC (1991) and United Nations (1993) illustrate that there are links between FDI and international trade, especially in the cases of market-seeking and resource-seeking FDI. In addition, firms may invest overseas when the international production costs are more than offset by savings coming from avoiding transportation costs, tariff duties and non-tariff impediments (Moore, 1993).

Neary (2009)<sup>50</sup> shows that the influx of FDI is horizontal rather than vertical, with foreign investors seeking to duplicate production facilities in foreign nations in order to access the foreign markets easily rather than breaking down the process of production to benefit from cheaper costs of production. Moreover, the model forecasts that an increase in trade costs such as transport cost and tariff stimulates FDI compared with exports and vice versa. Thus, it is expected that firms are willing to serve their goods to the markets close to their production facilities in the host countries by exporting. This is because they want to escape the fixed costs of setting up production services. In contrast, in order to save the cost of transportation, firms should serve the far away markets by setting up production service units in those host nations. This argument is in accordance with the principle that trade cost and distance between the home and host countries are correlated positively. Based on this statement, it means that international trade and FDI are substitutes since a rise in transaction costs will encourage FDI, whereas a fall in such transaction costs will discourage FDI.

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<sup>50</sup> (Neary, 2009)

However, international trade and FDI are also complementary. The relationship between trade and FDI complementarities explained by the theory of the production life cycle (Vernon, 1966). For example, one finding states that the growing demand in high income nations is the initiative for firms to establish production abroad, while retaining the standardization of the product and lowering production costs in the recipient country relative to the original country of the new product. In a later stage, firms will set up their production processes in the low cost developing countries where a maturing product produced, then exported back to the innovating country. These sorts of FDI called exported oriented. Similarly, firms producing tradable goods are also willing to invest overseas to improve market access and sales services by providing better after-sales services (Barrel, Lansbury, Morgan, & Pain, 1997). Wei and Liu (2001) show that FDI might relate to sales and will become stronger when there are requests for after-sales services. When the exports reach a certain threshold level, firms producing tradable commodities might invest in consumer-oriented service facilities in the host country. Therefore, firms involved in vertical FDI are likely to utilize factor prices by moving production facilities to the places where they can produce components or semi-finished products cheaply.

The formal theoretical study of export-platform FDI that incorporating both horizontal and vertical FDI. The results indicate that vertical or export-platform production activities complement trade, while horizontal affiliate production processes substitute for trade. Vertical FDI happens between parent companies in high-cost countries and partners in low-cost developing countries, whereas horizontal FDI takes place between countries with similar levels of economic development. The empirical results on the linkage between FDI and trade are mixed (Ekholm, Forslid, & Markusen,



2007). Among others, the study by Hejazi and Safarian (2001)<sup>51</sup> and Marchant et al. (2002) support FDI-trade complementarity.

In addition, trade creation takes place in East Asian nations and in the advanced industrialized nations such as Germany, France and UK (Pantulu & Poon, 2003). However, an investigation by Pain and Wakelin (1998)<sup>52</sup> show results supporting FDI-trade substitutability. Thus, in this paper the degree of openness is measured as a percentage of the sum of exports and imports to GDP.

#### 3.2.1.4 FDI and Inflation Rate

**Hypothesis 4:** *The smaller the difference between Cambodia's and the home country's inflation rate is, the more Cambodia will be attractive to inward FDI.*

Inflation rate is a measurement of overall economic stability. A high inflation rate attributes to irresponsible monetary and fiscal policies, which raise the user cost of capital and negatively impact to the firms' profitability in the recipient country (Mello, 1997; Onyeiwu and Shrestha, 2004; Asiedu, 2006; Busse and Hefeker, 2007). Foreign investors will choose to invest in a host country where there has economic stability and a low degree of uncertainty. Therefore, the inflation rate is expecting to have a negative relationship with inward FDI. Many empirical studies support the hypothesis and find that the inflation rate has a negative impact on FDI inflow (Kahai, 2004; Onyeiwu and Shrestha, 2004; Asiedu, 2006). Therefore, to encourage foreign investment, stability of the inflation rate is important.

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<sup>51</sup> (Hejazi & Safarian, 2001)

<sup>52</sup> (Pain & Wakelin, 1998)

### 3.2.1.5 FDI and Labor Cost

**Hypothesis 5:** *the lower the ratio of the real wage rate in Cambodia is to the home country's real wage rate, the higher the inward FDI is in Cambodia.*

Lower wage rate or labor costs make countries with plentiful skilled and/or unskilled labor forces more competitive and attractive, and are likely to encourage efficiency-seeking FDI inflows (Jun and Singh, 1996). Labor cost is a large component of the total costs for the firms that use labor intensively in their production process, thus producing overseas in the cheaper labor cost countries offers them significant cost advantage over potential competitors. Additionally, a cheaper cost of workers in the host country relative to the source country makes it more attractive to inward FDI (Dunning, 1998; Navaretti and Venables, 2004; Dunning and Lundan, 2008).

Several studies indicate that there is convincing evidence for the hypothesis that FDI inflows are negatively associated with higher labor costs in the recipient country (Baek and Okawa, 2001; Wei and Liu, 2001; Bevan and Estrin, 2004). For example, Wei and Liu (2001) apply panel data analysis for the determinants of FDI flows in China and find that wage rates have a strongly negative effect on inward FDI, implying that a cheaper labor is a determinant of FDI inflows in China. However, some researchers do not find strong support for a negative relationship between FDI and labor costs in the host economies (Wezel, 2003).

Cheap wages are not necessarily as vital for inward FDI as other factors including natural resources and a large market size are, which have a more important influence on FDI inflows (Biswas, 2002). Similar to the previous studies, Merlevede and Schoors

(2004)<sup>53</sup> show that relative unit labor costs have the expected negative sign. However, it only becomes significant if labor costs are allowed to rise over time. In addition, according to the results from both survey results and regression estimations, Meyer (1995)<sup>54</sup> argues that low labor costs in either Central or Eastern Europe are not a determinant to attract foreign investors. Similar results are reported by Veugelers (1991)<sup>55</sup>, where the coefficient of the labor cost is insignificant, implying that the labor costs are not a significant determinant for inward FDI.

Although theoretical studies propose that labor costs play an important role for multinational enterprises in location choices for FDI, the empirical results of many studies regarding the effect of wages rate on location choices are not clear (Dunning, 1998). There is no clear verification for the link between labor costs and location choice for FDI inflows. Based on this assumption, if the host country has lower labor costs compared to the home country's labor costs, more FDI inflows are likely into the host country. There is a study shows that labor productivity directly impacts the recipient country's ability to attract FDI flows, based on the cost minimization assumption under perfect competition and Cobb-Douglas production conditions (Ioannatos, 2001).

#### *3.2.1.6 FDI and Dummy Variables*

Additional control variables have been chosen as possible determinants of FDI in Cambodia. Those variables include the impact of the Asian Crisis on the host country (CRISIS<sub>1997-98</sub>), the impact of the Global Financial Crisis on the host country (CRISIS<sub>2008-09</sub>), and after Cambodia becomes a member of ASEAN in 1999.

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<sup>53</sup> (Bruno & Koen, 2004)

<sup>54</sup> (Meyer, 1995)

<sup>55</sup> (Veugelers, 1991)

The Asian financial crisis in mid of 1997 had an impact on structural changes of the Thai economy and many countries in the region. The Asian financial crisis of 1997 to 1998 may also have adversely affected FDI inflows in Cambodia since the major investment inflows came from ASEAN countries such as Malaysia, Vietnam and Thailand. To analyze the influences of the Asian financial crisis on FDI, dummy variables will be applied. The adverse impact of the Asian financial crisis can be explained in accordance with the relative costs of investment in Cambodia and those in the country of origin of the FDI. Hsieh and Hong (2004) find that FDI inflows in the CLMV countries (Cambodia, Laos, Vietnam and Myanmar) were deterred during the Asian financial crisis period. The adverse effect of the Asian financial crisis on inward FDI in these countries indirectly affected by crisis-hit countries clearly demonstrates the significance of attracting appropriate FDI from well diversified sources and destined for diversified industries, to mitigate any possible damage from regional crises.

Global financial crisis (GFC) was triggered by the collapse or failure of large financial institutions, illiquid assets and uncertainty over loan security due to high defaults in the United States (US) financial markets, where loopholes in regulations and slack control over lending resulted in the subprime mortgage crisis. Sochet (2013)<sup>56</sup> states that GFC decelerated the growth momentum that Cambodia had enjoyed for more than a decade. The crisis was detrimental to Cambodia's economy, at least in short run, due to its dependence on external factors such as the US and EU garment markets and FDI inflows for construction, garment and tourism sectors. Moreover, he states that the country's banking and financial sectors were barely affected by the crisis given its

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<sup>56</sup> (Sochet, 2013)

insulation from global financial systems where banks in many mature economies hold toxic assets resultant of the US subprime crisis. Desbordes and Jin Wei (2014)<sup>57</sup> find that firms in developed countries not formally experiencing a banking crisis during the 2007 to 2010 also seem to have faced tighter credit conditions, hindering their ability to invest abroad. Furthermore, they state that the negative effects of the 2007 to 2010 financial crisis on the availability of external finance in developed countries seems to have grown progressively worse over the years. Furthermore, it is also an open gate for Cambodia to attract and make a stronger confidence for the investors to invest their capital when Cambodia becomes one of the members of the regional association such as ASEAN in 1999.

### 3.2.2 Relationship of FDI toward Cambodia's Economic Growth

Moreover, there are also several ways that FDI can facilitate the economic growth in the theories. There is one hypothesis is raised up in each part of the relationship between economic growth in Cambodia and control variables besides FDI in order to find and compare its cause and effect on each other.

#### 3.2.2.1 Economic Growth and FDI

**Hypothesis 1:** *The higher amount of inward FDI flows into Cambodia will bring the higher proportion to stimulate the economic in Cambodia.*

In order to find the relationship between FDI and a host country's economic growth, we look at trends of GDP growth, FDI and other economic conditions. Some empirical studies noted that FDI seems to boost growth only in economies that have appropriate initial conditions, including high levels of human capital, financial sector

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<sup>57</sup> (Desbordes & Wei, 2014)

development and policies that promoted international trade. For instance, Wei et al. (2001) and Bende-Nabende and Ford (1998) reveal that there are empirical evidences indicating that FDI can stimulate economic growth through technology transfer and spillover effects. Alfaro et al. (2004) states that FDI promotes economic growth where financial markets are sufficiently developed. Roy and Berg (2006)<sup>58</sup> study the impact of FDI flows in the United States applying time-series data from 1970 to 2001 to a simultaneous equation model (SEM) that explicitly captured the bi-directional relationship between FDI and US economic growth. FDI had found to have a significant, positive, and economically important impact on US growth.

Moreover, FDI seems to be encouraging growth in the host economy rather than causing economic instability. For example, by applying the Solow-type standard neoclassical growth model, Brem (1970)<sup>59</sup> suggests that FDI increases the capital stock and thus, growth in a host economy by financing capital formation. In the view of threshold effects, Borensztein, De Gregorio, and Lee (1998), and Balasubramanyam (1999) find that FDI has positive impact on economic growth when the country has a highly educated labor force that could exploit the FDI spillovers. The impact of FDI to economic growth depends on a host economy's economic foundation. Countries meeting appropriate conditions such as enough level of financial market development, institution development, better governance, and appropriate macro policies tend to reap better growth and stability benefits, or "collateral benefits, form FDI (Kose, Prasad, Rogoff, & Wei, 2006).

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<sup>58</sup> (Roy & Van den Berg, 2006)

<sup>59</sup> (Brem, 1970)

While some papers report that FDI enhanced GDP growth, some authors also reported that there was no direct evidence of such relationship. Bashir (1999)<sup>60</sup> and Carkovic and Levine (2002) show that there were no impact from FDI to economic growth in seventy-two sample countries, some of which were Asian economies, such as India, Indonesia, Malaysia, the Philippines, and Thailand. They also mentions that the relationship between FDI and economic growth is positive but not statistically significant.

### 3.2.2.2 *Economic Growth and Labor*

**Hypothesis 2:** *the lower of the real wage rate or labor cost in Cambodia comparing to others country, the higher proportion to stimulate economic growth of the country and attracting more investor to invest in.*

Lower wage rates or labor costs make countries with abundant skilled and/or unskilled workers more competitive and attractive, and are likely to encourage efficiency-seeking FDI inflows (Jun and Singh, 1996). Lower labor costs in the FDI recipient country relative to the home country makes it more attractive for FDI to engage in production activities abroad (Dunning, 1998; Navaretti and Venables, 2004; Dunning and Lundan, 2008). Lo (2007)<sup>61</sup> finds that based on a labor-intensive growth path, China was able to achieve both rapid economic growth and rapid employment expansion in the first half of the reform era.

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<sup>60</sup> (Bashir, 1999)

<sup>61</sup> (Lo, 2007)

### 3.2.2.3 Economic Growth and Domestic Investment

**Hypothesis 3:** *the higher domestic investment in Cambodia will tend to increase the economic growth and will attract to the higher inward FDI to invest in.*

Empirical studies by Levin and Raut (1997) and Zhang (2003) indicate that FDI can apply to growth models in two ways, depending on different assumptions. First, FDI can be postulated to cause growth directly or alternatively, hypothesized to affect growth through the spillover effects. Second, in the case that we assume FDI will directly cause growth, the capital stock in the Solow production function is assumed to consist of two components: domestic and foreign owned capital stock. Alfaro et al. (2004) finds that FDI promotes economic growth where financial markets are sufficiently developed. In addition, Romer (1990)<sup>62</sup> states that increasing in physical capital leads to rise in return to scale which can speed up growth. These findings show that a threshold of development is needed for the host country to take advantage from the spillover effects of FDI. However, there is empirical evidence suggesting that the threshold conditions are not important. For example, Carkovic and Levine (2002) do not find evidence of education and financial market development interacting with FDI to have an impact on the economic growth in seventy-two sample countries.

### 3.2.2.4 Economic Growth and Human Capital

**Hypothesis 4:** *the more skilled workers and highly educated employers of Cambodian results in more percentage for Cambodia to have a better economic growth.*

Borensztein et al. (1998) study the impact of FDI on economic growth of sixty-nine developing countries during 1970 to 1989. They divide all countries into nine

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<sup>62</sup> (Romer, 1990)



groups according to the level of FDI and human capital, and they find that FDI promoted economic growth only in countries with a high level of human capital. Blonigen and Wang (2005) show that a sufficient level of human capital was needed to get a positive growth impact from FDI. Levin and Raut (1997) and Roy and Berg (2006) conclude that levels of human capital and infrastructure can increase technology of production. When the interaction term between FDI and the level of human capital is positive and statistically significant, it will indicate that the countries which have high level of human capital would receive higher benefits from FDI in encouraging the economic growth. Based on Romer (1990), Becker et al. (1990)<sup>63</sup> and Barro (1991)<sup>64</sup>, they state that physical investment per GDP is increased by rising in the human capital stock.

A Country which has population in a high level of education can promote economic development in the country. Threshold effects from the point of views from Borensztein, De Gregorio, and Lee (1998), and Balasubramanyam (1999) find that FDI has positive impact on economic growth when the country has a highly education labor force that could exploit the FDI spillovers. Endogenous growth models also imply that FDI can promote long-run growth by augmenting the existing stock of knowledge in the host economy through manpower training and skills acquisition. Alternative management practices and organizational arrangements introduced by FDI also enhance national growth (De Mello, 1997).

These findings show that a threshold of development is needed for the host country to take advantage from the spillover effects of FDI. However, there is empirical

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<sup>63</sup> (Becker, Murphy, & Tamura, 1990)

<sup>64</sup> (Barro, 1991)

evidence suggesting that the threshold conditions are not important. For example, Carkovic and Levine (2002) do not find evidence of education and financial market development interacting with FDI to have an impact on the economic growth in seventy-two sample countries.

### *3.2.2.5 Economic Growth and Infrastructure*

**Hypothesis 5:** *the more accessible from physical infrastructures in Cambodian results in more growth of Cambodia's economy.*

Physical infrastructure is not only an important pillar of economic development, but also impact on the ability of business to operate successfully from a small economy (Wint, 2003). A well-developed domestic infrastructure is expected to improve the production possibilities of the domestic industries, develop greater intersectoral linkages within the economy and provide a platform for the efficient distribution of good and services. Balasubramanyam (1990) also finds that good infrastructure facilities will help FDI to contribute more growth. The results coincide with Kose et al. (2006)<sup>65</sup> who finds that appropriate economic conditions play an important role in enabling FDI to stimulate economic growth. They also find out that capital flows could directly increase GDP growth and reduce consumption volatility in the host economy. However, the growth and stability benefits of financial globalization are also realized through a broad set of positive factors in the host economy such as a well-developed financial market, efficient institution, better governance, and macroeconomic.

Roy and Berg (2006) conclude that level of human capital and infrastructure can increase technology of production. Their studies also show that countries with a high

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<sup>65</sup> (Kose, Prasad, & Terrones, 2006)

degree of trade openness tend to have more ability to absorb technology which comes from FDI. Bengoa and Sanchez-Robles (2003) further argue that in order to benefit from long-term capital flows, the host country requires adequate human capital, sufficient infrastructure, economic stability and liberalized markets.

#### *3.2.2.6 Economic Growth and Trade*

**Hypothesis 6:** *The higher level of local, external and bilateral trade between Cambodia and the home country, the higher rate of economic growth in Cambodia will be.*

Some empirical studies note that FDI seems to boost growth only in economies that have appropriate initial conditions, including high level of human capital, financial sector development and policies that promote international trade. For example, Hoang et al. (2010) tries to examine the effect of FDI inflow on economic growth in Vietnam. They include the degree of trade openness, the level of human capital and the domestic investment in Vietnam, the interaction term between FDI with trade, human capital and domestic investment, and the result of significant and positive coefficient of FDI suggested that FDI has a positive effect on Vietnamese economic growth.

Levin and Raut (1997) investigate and find the result that high degree of trade and education expenditure contributed to economic growth in 30 semi-industrialized developing countries. Furthermore, Adeolu (2007) indicates that FDI has positive impact of growth, and high level of human capital and trade openness will help FDI to contribute more growth. Vernon (1966) develops the production cycle theory to explain international trade and foreign direct investment (FDI) decisions. Roy and Berg (2006) conclude that level of human capital and infrastructure can increase technology of production. Their studies also show that countries with a high degree of trade openness

tend to have more ability to absorb technology which comes from FDI which promotes economic growth. Buckley et al. (2002)<sup>66</sup> observes that countries with high rate of savings, open trade regime and high technological levels would benefit from increasing FDI to their economies.

### *3.2.2.7 Economic Growth and Crises*

Salvatore and Campano (2010)<sup>67</sup> depicts evidence of Asian Crisis and Global Financial Crisis using large drop in economic growth, decline in percent of change in stock price and real exchange rate depreciation. The global financial crisis (GFC) has had its most effect on economic growth of upper middle income countries. The reason should be depreciation of the US dollar, rising oil prices, and uncertainty of private sector over investment. Because of the proper economic infrastructures, developed countries pass the crisis more rapidly rather than developing countries (Rashti, Araghi, & Shayeste, 2014). Based on Hem (2013), he states that GFC was detrimental to Cambodia's economy, at least in short run, due to its dependence on external factors such as the US and EU garment markets and FDI inflows for construction, garment and tourism sectors. Moreover, he states that the country's banking and financial sectors were barely affected by the crisis given its insulation from global financial systems where banks in many mature economies hold toxic assets resultant of the US subprime crisis and for the agricultural sector as a whole, there was no direct adverse impact from the global downturn.

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<sup>66</sup> (Peter J Buckley, Clegg, Wang, & Cross, 2002)

<sup>67</sup> (Salvatore & Campano, 2010)

## Chapter IV

### Estimation Models and Data Sources

This study is a modest attempt to examine the determinants of inward foreign direct investment (FDI) from China, South Korea and Japan and its contribution to economic growth in Cambodia covering quarterly and yearly data together from 1994 to 2014 (over 21 years) based on CEIC database.

Quantitative approach will be carried out by using both time series analysis by country and the panel data analysis within this research study, and it will be separated into two main models – the first model is for the determinants of inward FDI from China, South Korea and Japan to Cambodia, and the second model is for the economic growth which is contributed from FDI. Eviews8 statistical program is the tool that we are going to use for running regression to get results.

#### 4.1 Determinants of FDI (First Model)

The determinants of inward FDI flow from China, South Korea and Japan that will be analyzed are market size, exchange rate, trade relation, inflation rate, labor costs, and other variables. The relationship between FDI and its influencing factors in Cambodia is modelled as follows:

$$FDI = f(RGDP, RER, RTRADE, DINFLA, RLP, ASEAN, CRISIS_{1997-98}, CRISIS_{2008-09})$$

(1)

FDI is the quarterly inflows of real FDI into Cambodia; RGDP is the ratio of real Cambodian GDP to the home country's real GDP; RER is the ratio of real exchange rate of the US\$ to the home country currency; RTRADE is the real Cambodia's trade (exports and imports) to and from the home country; DINFLA is the difference between the inflation rate in Cambodia and the home country; RLP is the ratio of labor productivity in Cambodia to the home country; ASEAN is the dummy for the number of years when Cambodia becomes a member of ASEAN (1999-2014); CRISIS1997-98 and CRISIS2008-09 are the dummies for the number of years during the Asian Crisis and Global Financial Crisis, defined as being equal to 1 for 1997 and 1998 and 2008 and 2009, and zero otherwise.

The relationship between the dependent variable and the explanatory variables in equation (1) can be re-written explicitly in the following log-linear form for multiple regression and panel data regression as the followings.

#### 4.1.1 Multiple regression estimation country by country

$$\ln FDI_t^i = \alpha_1 \ln RGDP_t^i + \alpha_2 \ln RER_t^i + \alpha_3 \ln RTRADE_t^i + \alpha_4 \ln DINFLA_t^i + \alpha_5 \ln RLP_t^i + \alpha_6 ASEAN_{1999-14} + \alpha_7 CRISIS_{1997-98} + \alpha_8 CRISIS_{2008-09} + \varepsilon_t^i \quad (2)$$

$i = 1, 2, 3$  (China, South Korea and Japan) and

$t = 1, 2, \dots, T$  (from 1994Q1 to 2014Q4, inclusive)

The superscript  $i$  and subscript  $t$  refer to the home country and time, respectively.  $\varepsilon_t^i$ , denoting an error term. The model choice in equation (2) is in line with the current theoretical and empirical literatures on the determinants of FDI flows (see e.g. Wei and Liu, 2001; Pan, 2003; Bevan and Estrin, 2004; Gao, 2005).

The estimation of model (2) will be carried out country by country, and it will be computed by using quarterly data because we would like to increase the sample size in order to get the plausible results. Totally, there will be 3 estimated models representing the determinants of the FDI to Cambodia country by country.

#### 4.1.2 Panel Data regression estimation

$$\ln FDI_{it} = \alpha_1 \ln RGDP_{it} + \alpha_2 \ln RER_{it} + \alpha_3 \ln RTRADE_{it} + \alpha_4 \ln DINFLA_{it} + \alpha_5 \ln RLP_{it} + \alpha_6 ASEAN_{1999-14} + \alpha_7 CRISIS_{1997-98} + \alpha_8 CRISIS_{2008-09} + \varepsilon_{it} \quad (3)$$

$i = 1, 2, 3$  (China, South Korea and Japan) and

$t = 1, 2, \dots, T$  (from 1994 to 2014, inclusive)

The subscripts  $i$  and  $t$  refer to the home country and time, respectively.  $\varepsilon_{it}$ , denoting a composite error term, is equal to  $\alpha_i + \varepsilon_{it}$ , where  $\alpha_i$  is host country-specific, accounting for the unobserved heterogeneity among the host countries, and  $\varepsilon_{it}$  is a white noise. The model choice in equation (3) is in line with the current theoretical and empirical literatures on the determinants of FDI flows (see e.g. Wei and Liu, 2001; Pan, 2003; Bevan and Estrin, 2004; Gao, 2005).

The estimation of model (3) will be carried out annual data of 3 countries together, using Fixed effect to estimate the results of panel data analysis on the determinants of FDI. Totally, there will be only 1 estimated model representing the determinants of the FDI to Cambodia from those 3 countries together.

In model (2) and (3), both the dependent variable and the explanatory variables are in logarithms and differences, and are denoted by  $\ln$  and  $D$ , respectively. The use of the variables in logarithms has three advantages. First, it makes it relatively easy to interpret

the slope parameters of the explanatory variables. The coefficients of the logged explanatory variables are the elasticity of the dependent variable with respect to a one percent change in the explanatory variables (except the coefficients of the dummy variables). Secondly, the use of logged values can reduce the problem of outliers. Thirdly, log-transformation of both dependent and independent variables can linearize the non-linear relationship between the variables.

#### ***4.2 FDI Impacts on Economic Growth (Second Model)***

In the second model, the study focuses on finding out the contribution of inward FDI from China, South Korea and Japan on economic growth in Cambodia as a recipient country as mentioned above by using quarterly and yearly data together from 1994 to 2014 based on CEIC database as well.

Therefore, in this study, we postulate that the level of human capital (HK), the level of infrastructure (IF) and international trade policy (TRADE) have an impact on technological capability or total factor productivity as well. The dummy variables may effect on growth are also added in the study. Together with FDI, the variables representing the initial threshold conditions will show in the following form:

$$Y = A \cdot L^{b1} \cdot K^{b2} \tag{1}$$

$$A = B \cdot FDI^{b3} \cdot HK^{b4} \cdot IF^{b5} \cdot TRADE^{b6} \tag{2}$$

Substitute the technology function into the production function and then take the logarithm, the function will be written as following for multiple regression and panel data regression as the followings.



#### 4.2.1 Multiple regression estimation country by country

$$Y_t^i = b_{0i} + b_1 \ln(FDI_t^i) + b_2 \ln(L_t^i) + b_3 \ln(K_t^i) + b_4 \ln(HK_t^i) + b_5 \ln(IF_t^i) + b_6 \ln(TRADE_t^i) + b_7 D97 + b_8 D08 + u_t^i \quad (3)$$

Y is denoted as country's GDP (million USD), FDI as foreign direct investment (million USD), L as labor (thousand person), K as domestic investment (million USD), HK as public expenditure on education (million USD), IF as public investment in infrastructure (million USD). TRADE as trade to and from the investor country, dummy variable (D97) is used to capture the impact of Asian Crisis in 1997 and 1998, dummy variable (D08) is used to capture the impact of Global Financial Crisis in 2008 and 2009, defined as being equal to 1 for 1997 and 1998 and 2008 and 2009, and zero otherwise.

Based on studies mentioned earlier which stressed out that initial threshold conditions and spillover effects from FDI can stimulate economic growth in a country. For example, Kose (2006) points out that the growth benefits also depend on initial threshold conditions such as financial market development, institutional development, better government and macroeconomic discipline and Roy and Berg (2006) conclude that level of human capital and infrastructure can increase technology of production. Their studies also show that countries with a high degree of trade openness tend to have more ability to absorb technology which comes from FDI.

By noticing this relation, we also study how the interaction between FDI and each initial condition variables could affect growth into the model. For instance, if the interaction terms between FDI and the level of human capital, level of infrastructure and international trade are positive and statically significant, it will indicate that the

countries that have high level of human capital, investment on infrastructure and international trade would receive higher benefit from FDI in encouraging the economic growth. The interaction terms between FDI and these variables  $\ln(\text{HK}) * \ln(\text{FDI})$ ,  $\ln(\text{IF}) * \ln(\text{FDI})$  and  $\ln(\text{TRADE}) * \ln(\text{FDI})$  are added in next model, so the model will be:

$$\begin{aligned}
 Y_t^i = & b_{0i} + b_1 \ln(FDI_t^i) + b_2 \ln(L_t^i) + b_3 \ln(K_t^i) + b_4 \ln(HK_t^i) + b_5 \ln(IF_t^i) \\
 & + b_6 \ln(TRADE_t^i) + b_7 D97 + b_8 D08 + b_9 \ln(HK_t^i) * \ln(FDI_t^i) \\
 & + b_{10} \ln(IF_t^i) * \ln(FDI_t^i) + b_{11} \ln(TRADE_t^i) * \ln(FDI_t^i) + u_t^i
 \end{aligned} \tag{4}$$

$i = 1, 2, 3$  (China, South Korea and Japan) and

$t = 1, 2, \dots, T$  (from 1994Q1 to 2014Q4, inclusive)

The superscript  $i$  and subscript  $t$  refer to the home country and time, respectively.  $u_t^i$ , denoting an error term. The estimation of model (4) will be carried out country by country, and it will be computed by using quarterly data because we would like to increase the sample size in order to get the plausible results. Totally, there will be 3 estimated models representing the economic growth in Cambodia when receiving inward FDI from China, South Korea and Japan, country by country.

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#### 4.2.2 Panel Data regression estimation

$$\begin{aligned}
 Y_{it} = & b_{0i} + b_1 \ln(FDI_{it}) + b_2 \ln(L_{it}) + b_3 \ln(K_{it}) + b_4 \ln(HK_{it}) + b_5 \ln(IF_{it}) \\
 & + b_6 \ln(TRADE_{it}) + b_7 D97_{it} + b_8 D08_{it} + u_{it}
 \end{aligned} \tag{5}$$

$Y$  is denoted as country's GDP (million USD), FDI as foreign direct investment (million USD),  $L$  as labor (thousand person),  $K$  as domestic investment (million USD),  $HK$  as public expenditure on education (million USD),  $IF$  as public investment in infrastructure (million USD).  $TRADE$  as trade to and from the investor country, dummy variable ( $D97$ ) is used to capture the impact of Asian Crisis in 1997 and 1998, dummy

variable (D08) is used to capture the impact of Global Financial Crisis in 2008 and 2009, defined as being equal to 1 for 1997 and 1998 and 2008 and 2009, and zero otherwise.

Based on studies mentioned earlier which stressed out that initial threshold conditions and spillover effects from FDI can stimulate economic growth in a country. For example, Kose (2006) points out that the growth benefits also depend on initial threshold conditions such as financial market development, institutional development, better government and macroeconomic discipline and Roy and Berg (2006) conclude that level of human capital and infrastructure can increase technology of production. Their studies also show that countries with a high degree of trade openness tend to have more ability to absorb technology which comes from FDI.

By noticing this relation, we also study how the interaction between FDI and each initial condition variables could affect growth into the equation. For instance, if the interaction terms between FDI and the level of human capital, level of infrastructure and international trade are positive and statically significant, it will indicate that the countries that have high level of human capital, investment on infrastructure and international trade would receive higher benefit from FDI in encouraging the economic growth. The interaction terms between FDI and these variables  $\ln(HK)*\ln(FDI)$ ,  $\ln(IF)*\ln(FDI)$  and  $\ln(TRADE)*\ln(FDI)$  are added in next model, so the model will be:

$$\begin{aligned}
 Y_{it} = & b_{0i} + b_1 \ln(FDI_{it}) + b_2 \ln(L_{it}) + b_3 \ln(K_{it}) + b_4 \ln(HK_{it}) + b_5 \ln(IF_{it}) \\
 & + b_6 \ln(TRADE_{it}) + b_7 D97_{it} + b_8 D08_{it} + b_9 \ln(HK_{it}) * \ln(FDI_{it}) \\
 & + b_{10} \ln(IF_{it}) * \ln(FDI_{it}) + b_{11} \ln(TRADE_{it}) * \ln(FDI_{it}) + u_{it}
 \end{aligned} \tag{6}$$

$i = 1, 2, 3$  (China, South Korea and Japan) and

$t = 1, 2, \dots, T$  (from 1994 to 2014, inclusive)

The subscripts  $i$  and  $t$  refer to the home country and time, respectively.  $u_{it}$ , denoting an error term. The estimation of model (6) will be carried out annual data of 3 countries together, using Fixed effect to estimate the results of panel data analysis on the impact of FDI. Totally, there will be only 1 estimated model representing the economic growth in Cambodia when receiving inward FDI from China, South Korea and Japan together.

In model (4) and (6), the explanatory variables are in logarithms and are denoted by  $\ln$ . The use of the variables in logarithms has three advantages. First, it makes it relatively easy to interpret the slope parameters of the explanatory variables. The coefficients of the logged explanatory variables are the elasticity of the dependent variable with respect to a one percent change in the explanatory variables (except the coefficients of the dummy variables). Secondly, the use of logged values can reduce the problem of outliers. Thirdly, log-transformation of both dependent and independent variables can linearize the non-linear relationship between the variables.

## Chapter V

### Empirical Results

#### *5.1 Multiple regression results (Country by Country)*

##### 5.1.1 Determinants of FDI (First Model)

###### *5.1.1.1 FDI from countries without dummies*

The estimated regression results in tables below show the determinants of inward FDI from China, South Korea and Japan without dummy variables, and how they impact on inward FDI, respectively. As we can notice in Table 15, FDI from China is highly positively related to GDP, trade and inflation rate of Cambodia at 1% level of significance, while real exchange rate and relative labor productivity just have some impacts on FDI from China but not statistically significant.

Not only from China, but also from South Korea in Table 16 shows that GDP, exchange rate, trade and inflation rate also have highly significantly influenced on FDI at 1% level of significance. Besides, relative labor productivity is the only variable that just has positive impacts on FDI from South Korea but not significant.

Not like China and South Korea, based on result in Table 17 shows that only GDP and relative labor productivity are highly positively related to FDI from Japan at 1% level of significance, while real exchange rate, trade and inflation rate have some impacts on FDI from Japan but not statistically significant.

*Table 5 FDI from China to Cambodia without dummies*

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	41.09006	26.80725	1.532797	0.1336
LOG(RGDPCN)	9.480625	3.537638	2.679931	0.0108
LOG(RERCN)	3.748738	2.368313	1.582873	0.1217
LOG(RTRADECN)	2.454263	0.369447	6.643069	0.0000
LOG(DINFLACN)	0.524296	0.086135	6.086917	0.0000
LOG(RLPCN)	3.602804	3.601350	1.000404	0.3234
R-squared	0.850301	Mean dependent var		5.249251
Adjusted R-squared	0.830604	S.D. dependent var		1.815351
S.E. of regression	0.747157	Akaike info criterion		2.381041
Sum squared resid	21.21326	Schwarz criterion		2.624340
Log likelihood	-46.38290	Hannan-Quinn criter.		2.471268
F-statistic	43.16866	Durbin-Watson stat		0.317693
Prob(F-statistic)	0.000000			

Table 16 FDI from South Korea to Cambodia without dummies

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-117.3406	27.39676	-4.283009	0.0001
LOG(RGDPSK)	-19.92305	4.352636	-4.577238	0.0000
LOG(RERSK)	12.70548	2.265849	5.607382	0.0000
LOG(RTRADESK)	10.42055	1.848647	5.636854	0.0000
LOG(DINFLASK)	1.760259	0.419493	4.196161	0.0001
LOG(RLPSK)	-0.416388	6.091052	-0.068361	0.9458
R-squared	0.675418	Mean dependent var		3.891203
Adjusted R-squared	0.640137	S.D. dependent var		2.198640
S.E. of regression	1.318932	Akaike info criterion		3.499689
Sum squared resid	80.02079	Schwarz criterion		3.724833
Log likelihood	-84.99191	Hannan-Quinn criter.		3.586004
F-statistic	19.14414	Durbin-Watson stat		0.627750
Prob(F-statistic)	0.000000			

Table 17 FDI from Japan to Cambodia without dummies

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	115.7120	31.24844	3.702968	0.0004
LOG(RGDPJP)	-27.87059	8.466967	-3.291685	0.0016
LOG(RERJP)	-6.133003	4.597496	-1.333988	0.1868
LOG(RTRADEJP)	-1.259813	1.126704	-1.118139	0.2676
LOG(DINFLAJP)	-0.697834	0.759978	-0.918229	0.3618
LOG(RLPJP)	63.07065	15.10142	4.176471	0.0001
R-squared	0.348085	Mean dependent var		5.698569
Adjusted R-squared	0.298697	S.D. dependent var		3.516943
S.E. of regression	2.945223	Akaike info criterion		5.077901
Sum squared resid	572.5062	Schwarz criterion		5.267623
Log likelihood	-176.8044	Hannan-Quinn criter.		5.153430
F-statistic	7.048027	Durbin-Watson stat		0.735529
Prob(F-statistic)	0.000025			

#### 5.1.1.2 FDI from countries with dummies

Based on the results when we put all dummies (ASEAN, CRISIS97 and CRISIS08) into the estimation regression for each country, we can get the results that inward FDI from home countries get different affects mostly with global financial crisis in 2008.

We find that, China's inward FDI is highly significantly related to all the explanatory variables at level 1% of significance such as GDP, exchange rate, trade, inflation rate and relative labor productivity with dummy CRISIS08. It means that after including all dummy variables into the estimation regression, during the period of



global financial crisis in 2008 was influenced to inflow of FDI from China the most, and all of the determinants are strongly important in order to determine the inflow of FDI from China into Cambodia.

It is not much different from China, South Korea's inward FDI is highly significantly related to all the explanatory variables at 1% level of significance such as GDP, exchange rate, trade, inflation rate and relative labor productivity while including all dummy variables into the estimation regression. It means that after including all dummy variables into the estimation regression, when Cambodia becomes a member of ASEAN and during the crisis periods in 1997 and 2008 were influenced to inflow of FDI from South Korea, and all of the determinants are strongly important in order to determine the inflow of FDI from South Korea into Cambodia.

Including dummy variables into the estimation regression of inward FDI from Japan, we can see that GDP, exchange rate and relative labor productivity are significantly related to inward FDI from Japan at 5% and 10% level of significance, while other variables have positive impacts but not significant. It means that after including all dummy variables into the estimation regression, during the period of global financial crisis in 2008 was influenced to inflow of FDI from Japan the most, and the determinants of GDP, exchange rate and relative labor productivity are strongly important in order to determine the inflow of FDI from Japan into Cambodia.

To sum up, after we tested several set of regressions for each country, we can notice that we can get the best results to estimate when we put only dummy CRISIS08 into the estimation regression. We can see that FDI from China is highly statistically significant impact from all explanatory variables, and FDI from South Korea highly

positively relationship with almost all of control variables except relative labor productivity, while only GDP, exchange rate and relative labor productivity are statistically significant related to inward FDI from Japan into Cambodia (see Table 18, 19 and 20).



Table 18 FDI from China to Cambodia with dummy Crisis08

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	21.37266	14.91855	1.432623	0.1604
LOG(RGDPCN)	5.295215	1.999452	2.648333	0.0118
LOG(RERCN)	4.482279	1.307210	3.428889	0.0015
LOG(RTRADECN)	3.280207	0.221746	14.79265	0.0000
LOG(DINFLACN)	0.158097	0.061425	2.573813	0.0142
LOG(RLPCN)	12.39182	2.193915	5.648269	0.0000
CRISIS08	2.207939	0.235131	9.390262	0.0000
R-squared	0.955752	Mean dependent var		5.249251
Adjusted R-squared	0.948576	S.D. dependent var		1.815351
S.E. of regression	0.411663	Akaike info criterion		1.207685
Sum squared resid	6.270245	Schwarz criterion		1.491533
Log likelihood	-19.56906	Hannan-Quinn criter.		1.312949
F-statistic	133.1989	Durbin-Watson stat		0.331379
Prob(F-statistic)	0.000000			

Table 19 FDI from South Korea to Cambodia with dummies

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	32.90653	18.82160	1.748339	0.0875
LOG(RGDPSK)	16.90506	4.161840	4.061921	0.0002
LOG(RERSK)	17.07261	1.083625	15.75509	0.0000
LOG(RTRADESK)	-4.152695	1.518873	-2.734064	0.0090
LOG(DINFLASK)	-1.504492	0.316943	-4.746879	0.0000
LOG(RLPSK)	-9.942273	3.570553	-2.784519	0.0079
ASEAN	-2.267916	0.587245	-3.861957	0.0004
CRISIS97	4.799941	0.548331	8.753722	0.0000
CRISIS08	5.284563	0.435902	12.12329	0.0000
R-squared	0.938119	Mean dependent var		3.891203
Adjusted R-squared	0.926606	S.D. dependent var		2.198640
S.E. of regression	0.595639	Akaike info criterion		1.957747
Sum squared resid	15.25580	Schwarz criterion		2.295462
Log likelihood	-41.90142	Hannan-Quinn criter.		2.087219
F-statistic	81.48539	Durbin-Watson stat		0.618045
Prob(F-statistic)	0.000000			

Table 20 FDI from Japan to Cambodia with dummy Crisis08

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	95.73774	34.43892	2.779929	0.0071
LOG(RGDPJP)	-19.96473	10.27123	-1.943753	0.0563
LOG(RERJP)	-7.856029	4.746552	-1.655102	0.1027
LOG(RTRADEJP)	0.097380	1.508624	0.064549	0.9487
LOG(DINFLAJP)	-0.631710	0.757001	-0.834490	0.4071
LOG(RLPJP)	45.06699	20.12729	2.239099	0.0286
CRISIS08	2.337545	1.740958	1.342677	0.1840
R-squared	0.365678	Mean dependent var		5.698569
Adjusted R-squared	0.307125	S.D. dependent var		3.516943
S.E. of regression	2.927472	Akaike info criterion		5.078321
Sum squared resid	557.0562	Schwarz criterion		5.299664
Log likelihood	-175.8196	Hannan-Quinn criter.		5.166439
F-statistic	6.245259	Durbin-Watson stat		0.728156
Prob(F-statistic)	0.000032			

### 5.1.2 FDI Impacts on Economic Growth (Second Model)

The estimated regression results by using quarterly data in tables below show the findings of the regression of each country differently, and they indicate that which inward FDI from what country contributes to economic growth in Cambodia the most among these three investor countries.

As we can see the result in Table 21, the economic growth in Cambodia receiving inward FDI from China is highly significantly related to all explanatory variables such as labor, domestic investment, FDI, public expenditure on education, public investment in infrastructure and trade, and they all have statistically positively relationship to economic growth in Cambodia at 1% level of significance. Moreover, all of the interaction terms between inward FDI from China have highly significantly relationship which strongly supported that inward FDI from China stimulate economic growth in Cambodia.

Furthermore, as we can get the result from Table 22, the economic growth in Cambodia receiving inward FDI from South Korea is highly significantly related to some explanatory variables such as labor, domestic investment, public expenditure on education and trade, and they have statistically positively relationship to economic growth in Cambodia at 1% and 5% level of significance respectively, while FDI and public investment in infrastructure have positive impacts on Cambodia economic growth but not significant. Moreover, most interaction terms between inward FDI are positively significant relationship which strongly supported that inward FDI from South Korea to stimulate economic growth in Cambodia, but except the interaction term between public investment in infrastructure and inward FDI from South Korea.

According to the Table 23, the economic growth in Cambodia receiving inward FDI from Japan is highly significantly related to some explanatory variables such as labor, domestic investment and public investment in infrastructure, and they have highly significantly relation to economic growth in Cambodia at 1% level of significance, while FDI, public expenditure on education and trade have positive impacts on Cambodia economic growth but not significant. Moreover, all of the interaction terms between inward FDI from Japan have highly significantly relationship which strongly supported that inward FDI from Japan stimulate economic growth in Cambodia.

Based on the regression results, we can response to one of the objectives whether FDI from which country can contribute to Cambodia's economic growth the most. We can get the answer that inward FDI form China contributes to the economic growth in Cambodia the most and follows by South Korea and Japan because the results of regression show that China estimation result has the highest Adjusted R-squared and the lowest Akaike info criterion comparing to other two countries.

Table 21 China towards Cambodia's economic growth

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-39068.61	9065.233	-4.309719	0.0001
LOG(L)	3023.450	834.5624	3.622797	0.0005
LOG(K)	556.3190	80.46030	6.914205	0.0000
LOG(FDICN)	2369.915	561.4590	4.220993	0.0001
LOG(HK)	2275.968	397.9755	5.718866	0.0000
LOG(IF)	857.4284	328.2953	2.611760	0.0110
LOG(TRADECN)	-1539.936	592.3540	-2.599689	0.0113
LOG(HK)*LOG(FDICN)	-404.8909	68.49235	-5.911477	0.0000
LOG(IF)*LOG(FDICN)	-203.3768	82.27201	-2.472005	0.0158
LOG(TRADECN)*LOG(FDICN)	753.6546	109.0221	6.912863	0.0000
D97	-185.2575	155.7697	-1.189304	0.2382
D08	626.8908	146.5113	4.278787	0.0001
R-squared	0.995856	Mean dependent var		7992.979
Adjusted R-squared	0.995223	S.D. dependent var		3590.975
S.E. of regression	248.1918	Akaike info criterion		13.99784
Sum squared resid	4435140.	Schwarz criterion		14.34510
Log likelihood	-575.9095	Hannan-Quinn criter.		14.13744
F-statistic	1573.011	Durbin-Watson stat		0.761175
Prob(F-statistic)	0.000000			



Table 22 South Korea towards Cambodia's economic growth

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-56466.14	4104.570	-13.75689	0.0000
LOG(L)	5901.869	533.6865	11.05868	0.0000
LOG(K)	936.4943	149.2147	6.276152	0.0000
LOG(FDISK)	123.3022	179.9468	0.685215	0.4954
LOG(HK)	694.3757	282.6502	2.456661	0.0164
LOG(IF)	162.0637	115.8427	1.398997	0.1661
LOG(TRADESK)	1383.807	359.9379	3.844571	0.0003
LOG(HK)*LOG(FDISK)	-97.43757	45.70862	-2.131711	0.0364
LOG(IF)*LOG(FDISK)	15.77535	43.65065	0.361400	0.7189
LOG(TRADESK)*LOG(FDISK)	315.5588	100.3103	3.145827	0.0024
D97	-425.7290	238.5091	-1.784959	0.0785
D08	221.3695	166.1693	1.332192	0.1870
R-squared	0.992398	Mean dependent var		7992.979
Adjusted R-squared	0.991237	S.D. dependent var		3590.975
S.E. of regression	336.1587	Akaike info criterion		14.60461
Sum squared resid	8136192.	Schwarz criterion		14.95187
Log likelihood	-601.3935	Hannan-Quinn criter.		14.74420
F-statistic	854.4907	Durbin-Watson stat		0.420410
Prob(F-statistic)	0.000000			

Table 23 Japan towards Cambodia's economic growth

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-67370.52	4871.721	-13.82889	0.0000
LOG(L)	7426.980	664.4751	11.17721	0.0000
LOG(K)	734.2674	170.9792	4.294483	0.0001
LOG(FDIJP)	-207.0323	194.8087	-1.062747	0.2914
LOG(HK)	102.7941	217.2418	0.473178	0.6375
LOG(IF)	633.2280	256.3116	2.470539	0.0159
LOG(TRADEJP)	443.5871	397.2842	1.116548	0.2679
LOG(HK)*LOG(FDIJP)	97.94495	39.25512	2.495087	0.0149
LOG(IF)*LOG(FDIJP)	-93.77038	32.94737	-2.846065	0.0058
LOG(TRADEJP)*LOG(FDIJP)	243.0325	84.45019	2.877820	0.0053
D97	354.4129	218.9111	1.618981	0.1098
D08	-301.5864	418.4170	-0.720779	0.4734
R-squared	0.987634	Mean dependent var		7992.979
Adjusted R-squared	0.985745	S.D. dependent var		3590.975
S.E. of regression	428.7494	Akaike info criterion		15.09119
Sum squared resid	13235475	Schwarz criterion		15.43845
Log likelihood	-621.8298	Hannan-Quinn criter.		15.23078
F-statistic	522.7559	Durbin-Watson stat		0.379483
Prob(F-statistic)	0.000000			

## ***5.2 Panel data regression results***

### **5.2.1 Determinants of FDI (First Model)**

When we put three countries together by using annual data with Fixed effect estimation on panel data regression, we can see that only trade between home countries to and from Cambodia is highly significantly related to inward FDI from those 3 investing home countries at level 1% of significant, while GDP, real exchange rate, inflation rate and relative labor productivity just have some impacts on FDI but not statistically significant. Moreover, it indicates that when global financial crisis occurred during 2008 to 2009, trade is the only determinant which affected to inward FDI flow into Cambodia from those three home countries. Comparing to the results from multiple regressions which analyzed country by country, we can see that the results from panel data regressions are much different when we put three countries together because only trade is the most important determinant to attract FDI flow into Cambodia (see Table 24).

Table 24 FDI from three countries to Cambodia with dummies

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-12.01214	35.31612	-0.340132	0.7361
LOG(RGDP)	-14.20247	10.12829	-1.402257	0.1708
LOG(RER)	-3.390036	5.034101	-0.673414	0.5057
LOG(RTRADE)	3.560083	1.325147	2.686557	0.0115
LOG(DINFLA)	0.168764	0.474628	0.355572	0.7246
LOG(RLP)	18.68827	13.06282	1.430646	0.1625
ASEAN	2.964781	2.698836	1.098540	0.2804
CRISIS97	0.378373	1.981004	0.191000	0.8498
CRISIS08	3.475730	1.428280	2.433507	0.0209
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.380150	Mean dependent var	5.021468	
Adjusted R-squared	0.180198	S.D. dependent var	2.888322	
S.E. of regression	2.615171	Akaike info criterion	4.980663	
Sum squared resid	212.0127	Schwarz criterion	5.435767	
Log likelihood	-93.59392	Hannan-Quinn criter.	5.147477	
F-statistic	1.901210	Durbin-Watson stat	2.855371	
Prob(F-statistic)	0.083480			

### 5.2.2 FDI Impacts on Economic Growth (Second Model)

Labor, domestic investment, public expenditure on education and trade are highly significantly related to Cambodia's economic growth at level 1% and 5% respectively when we put three countries together in order to run a panel data regression by using annual data with Fixed effect estimation. Furthermore, labor, domestic investment, public expenditure on education and trade are important which positively affected to economic growth in Cambodia when receiving inward FDI from those three home countries when the global financial crisis occurred during 2008 to 2009. Moreover, we can underline that FDI and public investment in infrastructure have positive relationship with Cambodia's economic growth, and all interaction terms between inward FDI from China, South Korea and Japan have positive relationship to economic growth in Cambodia that support FDI in stimulating the economic growth in the country. Comparing to the results from multiple regressions which analyzed country by country, we can see that the results from panel data regressions are not much different when we put three countries together, and we can get almost the same results (see Table 25).

Table 25 Cambodia's economic growth from three countries

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-52156.97	7763.820	-6.717952	0.0000
LOG(FDI)	-197.4074	268.0176	-0.736546	0.4649
LOG(L)	5253.062	1009.943	5.201344	0.0000
LOG(K)	923.6524	234.6757	3.935867	0.0003
LOG(HK)	800.8743	390.2724	2.052090	0.0455
LOG(IF)	257.5178	225.9101	1.139913	0.2599
LOG(TRADE)	1003.740	425.0877	2.361253	0.0222
LOG(HK)*LOG(FDI)	26.29597	62.23833	0.422504	0.6745
LOG(IF)*LOG(FDI)	7.771309	41.95074	0.185248	0.8538
LOG(TRADE)*LOG(FDI)	-79.63352	65.08976	-1.223442	0.2270
D97	276.7357	317.0301	0.872900	0.3870
D08	-591.6183	349.9912	-1.690381	0.0973
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.978142	Mean dependent var	7992.979	
Adjusted R-squared	0.972344	S.D. dependent var	3598.207	
S.E. of regression	598.3900	Akaike info criterion	15.81949	
Sum squared resid	17545458	Schwarz criterion	16.29574	
Log likelihood	-484.3140	Hannan-Quinn criter.	16.00680	
F-statistic	168.6763	Durbin-Watson stat	1.343346	
Prob(F-statistic)	0.000000			

## Chapter VI

### Conclusion and Policy Implications

#### *6.1 Conclusion*

According to the results of the estimation regressions, we understand that the determinants of inward FDI from China, South Korea and Japan have significantly impact on the inward FDI inflows differently. For the first model of determinants of inward FDI, we can underline that when using quarterly data to analyze into the multiple regressions, GDP, exchange rate, trade, inflation rate and relative labor productivity are all significantly important determinants to attract FDI inflow from China and South Korea into Cambodia. While there are only GDP, exchange rate and relative labor productivity are statistically significant to inward FDI inflow from Japan.

When we put three countries together by using annual data with Fixed effect estimation on panel data regression, we can see that only trade between home countries to and from Cambodia is highly significantly related to inward FDI from those three investing home countries, while GDP, real exchange rate, inflation rate and relative labor productivity just have some impacts on FDI but not statistically significant. Moreover, it indicates that when global financial crisis occurred during 2008 to 2009, trade is the only determinant which affected to inward FDI flow into Cambodia from those three home countries. Comparing to the results from multiple regressions which analyzed country by country, we can see that the results from panel data regressions are much different when we put three countries together because only trade is the most important determinant to attract FDI flow into Cambodia.

For the first model of determinants of FDI inflow, after testing several set of estimation regressions for each country, we can get noticeable results. It means that after including all dummy variables into the estimation regression, during the period of global financial crisis in 2008 was influenced to inflow of FDI from China, South Korea and Japan the most, and all of the determinants are strongly important in order to determine and attract the inflow of FDI from those three investing countries into Cambodia.

For Cambodian's economic growth model (second model) when receiving inward FDI from China, South Korea and Japan, we find that the economic growth of Cambodia has almost similar impact from the explanatory variables when we use quarterly data to analyze into the multiple regression estimations.

For China, all the explanatory variables and including the interaction terms with FDI from China are highly significantly related to economic growth in Cambodia. It shows that Chinese investors mainly focus on those factors before making decision to invest in Cambodia such as labor force, domestic investment, human capital, infrastructure and trade. Moreover, we can also notice from the results of the estimation that the interaction terms between FDI and public expenditure on education, public investment in infrastructure and trade are positive and statistically significant. It indicates that when Cambodia has high human capital, infrastructure and trade, so Cambodia receives higher benefit from China's inward FDI which can stimulate economic growth in Cambodia.

Furthermore, the economic growth in Cambodia receiving inward FDI from South Korea is highly significantly related to some explanatory variables such as labor,



domestic investment, public expenditure on education and trade. While FDI and public investment in infrastructure have positive impacts on Cambodia economic growth but not significant. Moreover, most interaction terms between inward FDI have positively significant relationship which strongly supported that inward FDI from South Korea can stimulate economic growth in Cambodia, but except the interaction term between public investment in infrastructure and inward FDI from South Korea. It indicates that when Cambodia has high human capital and trade, so Cambodia receives higher benefit from South Korea's inward FDI which can stimulate economic growth in Cambodia.

For Japan, some explanatory variables such as labor, domestic investment and public investment in infrastructure and all of the interaction terms with FDI from Japan are highly significantly related to economic growth in Cambodia. It shows that Japanese investors mainly focus on those factors before making decision to invest in Cambodia such as labor force, domestic investment and level of infrastructure. Moreover, we can also notice that the interaction terms between FDI and public expenditure on education, public investment in infrastructure and trade are positive and statistically significant. It indicates that when Cambodia has high human capital, infrastructure and trade, so Cambodia receives higher benefit from Japan's inward FDI which can stimulate economic growth in Cambodia. This suggests that inward FDI would have a positive relationship and stimulate the economic growth in the country when Cambodia has appropriate economic conditions.

When we put three countries together in order to run a panel data regression by using annual data with Fixed effect estimation, we can see that labor, domestic investment, public expenditure on education and trade, are highly significantly related to Cambodia's economic growth when receiving inward FDI from those three home

countries especially during the global financial crisis occurred in 2008. Moreover, we can underline that FDI and public investment in infrastructure have positive relationship with Cambodia's economic growth, and all interaction terms between inward FDI from China, South Korea and Japan have positive relationship to economic growth in Cambodia that support FDI in stimulating the economic growth in the country. Comparing to the results from multiple regressions which analyzed country by country, we can see that the results from panel data regressions are not much different when we put three countries together, and we can get almost the same results.

To sum up, the results on the determinants of FDI show that real GDP, bilateral trade between the countries, exchange rate, inflation rate, and relative labor productivity are statistically significant and have positive impact on inward FDI flows into Cambodia, and inward FDI from those three investing countries contribute to Cambodia's economic growth respectively. The findings from the study on the impact of FDI indicate that there are positive relationships between inward FDI from China, South Korea and Japan and Cambodia's economic growth. Labor force, domestic investment, human capital, infrastructure and trade openness are the important factors leading to economic growth in Cambodia when receiving inward FDI from those three investing countries.

In conclusion, based on the regression results, we can answer to one of the objectives whether FDI from which country contributes to Cambodia's economic growth the most. So we can notice that inward FDI from China contributes to the economic growth in Cambodia the most and follows by South Korea and Japan because the regression of China estimation has the Highest Adjust R-square and lowest and Akaike Info Criterion.

China, South Korea and Japan are the main trade partners and important sources of FDI for Cambodia. Economic relations between Cambodia and these three East Asian economies are very strategic and vital for the future development of the country. Cambodia is looking forward to a new level of relationship for the mutual benefits that all parties (Cambodia, China, South Korea and Japan) can derive through enhancing the growth of tourism, trade and investment, especially to attract the inflow of Japanese FDI into Cambodia.

Lastly, we would like to inform in this conclusion that our computed results are mostly consistent with previous studies in the case of Cambodia (as seen in the introduction and literature review). However, we would like to inform that the results of data regression are just our first attempt in this research study. We acknowledge that some data in Cambodia are not publicly available or not sufficiently updated. We are willing to study more in the nearest future when we can access to richer and more updated data in order to confirm our regression results.

## **6.2 Policy Implications**

In accordance with the findings, it states that international trade is the major factor which impacts on the inward FDI inflows from the recipient countries (China, South Korea and Japan). Therefore, to have good strategies incentive in order to promote and facilitate all kind of liberalization of Cambodia's international trades is the most priority phase that Cambodian Government needs to focus on in order to attract foreign investors especially from China, South Korea and Japan. Moreover, the host country's government also needs to maintain for a better exchange rate and lower inflation rate within the country. These two are also the vital indicators to attract more investors'

consideration to invest in when the country has a good rate to set off their investment and production costs which can promote to economic growth in the country and reduce unemployment and poverty reduction in the developing country like Cambodia. Furthermore, domestic investment is also an important driving force of FDI inflows, thus Cambodian Government needs to conduct many kind of profitable investment incentives to encourage and protect the domestic investors as well.

Besides, Cambodian policy makers should focus more on the policies that are friendly and attractive to inward FDI. Moreover, to attract more inward FDI, the government should promote encouraging environment for trade and investment for both local and foreign investors, remove restrictions against FDI and develop physical infrastructure in the country. Finally, policy makers should not forget to develop human resources within the country by any kind of tactic to improve the labor force from unskilled to skilled workers or from educated to highly educated employers. Since we can understand that the variable represents the absorption capacity of the economy to attract more inward FDI inflows and to stimulate economic growth in Cambodia.

The logo of Chulalongkorn University, featuring a central emblem with a sunburst and a tiered base, surrounded by a decorative border.

Appendix 1

FDI from China to Cambodia without dummies (Yearly Data)

จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY



Appendix 2

FDI from South Korea to Cambodia without dummies (Yearly Data)

จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY



Appendix 3

FDI from Japan to Cambodia without dummies (Yearly Data)

จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY

The logo of Chulalongkorn University, featuring a central emblem with a sunburst and a tiered base, surrounded by a decorative border.

Appendix 4

FDI from China to Cambodia with dummy Crisis08 (Yearly Data)

จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY



The logo of Chulalongkorn University, featuring a central emblem with a sunburst and a tiered base, surrounded by a circular arrangement of rays.

Appendix 5

FDI from South Korea to Cambodia with dummy Crisis08 (Yearly Data)

จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY



Appendix 6

FDI from Japan to Cambodia dummy Crisis08 (Yearly Data)

จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY



Appendix 7

China towards Cambodia's economic growth (Yearly Data with LOG Y)

จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY



Appendix 8

South Korea towards Cambodia's economic growth

(Yearly Data with LOG Y)

จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY



Appendix 9

Japan towards Cambodia's economic growth (Yearly Data with LOG Y)

จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY



Appendix 10

Cambodia's economic growth from three countries (with LOG Y)

จุฬาลงกรณ์มหาวิทยาลัย  
CHULALONGKORN UNIVERSITY

## Appendix 1 FDI from China to Cambodia without dummies (Yearly Data)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	41.09006	73.90248	0.556004	0.6022
LOG(RGDPCN)	9.480625	9.752595	0.972113	0.3756
LOG(RERCN)	3.748738	6.528988	0.574168	0.5907
LOG(RTRADECN)	2.454263	1.018495	2.409694	0.0609
LOG(DINFLACN)	0.524296	0.237457	2.207957	0.0783
LOG(RLPCN)	3.602804	9.928237	0.362885	0.7315
R-squared	0.850301	Mean dependent var		5.249251
Adjusted R-squared	0.700603	S.D. dependent var		1.882196
S.E. of regression	1.029885	Akaike info criterion		3.199223
Sum squared resid	5.303315	Schwarz criterion		3.416257
Log likelihood	-11.59573	Hannan-Quinn criter.		3.062414
F-statistic	5.680086	Durbin-Watson stat		1.815387
Prob(F-statistic)	0.039772			

## Appendix 2 FDI from South Korea to Cambodia without dummies (Yearly Data)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-117.3406	70.23105	-1.670779	0.1387
LOG(RGDPSK)	-19.92305	11.15790	-1.785557	0.1173
LOG(RERSK)	12.70548	5.808459	2.187410	0.0649
LOG(RTRADESK)	10.42055	4.738968	2.198907	0.0638
LOG(DINFLASK)	1.760259	1.075361	1.636900	0.1457
LOG(RLPSK)	-0.416388	15.61429	-0.026667	0.9795
R-squared	0.675418	Mean dependent var		3.891203
Adjusted R-squared	0.443574	S.D. dependent var		2.266306
S.E. of regression	1.690528	Akaike info criterion		4.191997
Sum squared resid	20.00520	Schwarz criterion		4.452743
Log likelihood	-21.24798	Hannan-Quinn criter.		4.138402
F-statistic	2.913238	Durbin-Watson stat		3.075975
Prob(F-statistic)	0.097937			



## Appendix 3 FDI from Japan to Cambodia without dummies (Yearly Data)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	115.7120	73.28409	1.578951	0.1403
LOG(RGDPJP)	-27.87059	19.85680	-1.403579	0.1858
LOG(RERJP)	-6.133003	10.78208	-0.568814	0.5800
LOG(RTRADEJP)	-1.259813	2.642356	-0.476776	0.6421
LOG(DINFLAJP)	-0.697834	1.782306	-0.391534	0.7023
LOG(RLPJP)	63.07065	35.41598	1.780853	0.1002
R-squared	0.348085	Mean dependent var		5.698569
Adjusted R-squared	0.076453	S.D. dependent var		3.593685
S.E. of regression	3.453580	Akaike info criterion		5.577901
Sum squared resid	143.1265	Schwarz criterion		5.874692
Log likelihood	-44.20111	Hannan-Quinn criter.		5.618825
F-statistic	1.281459	Durbin-Watson stat		3.071914
Prob(F-statistic)	0.333879			

## Appendix 4 FDI from China to Cambodia with dummy Crisis08 (Yearly Data)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	21.37266	45.37300	0.471043	0.6622
LOG(RGDPCN)	5.295215	6.081096	0.870767	0.4330
LOG(RERCN)	4.482279	3.975725	1.127412	0.3226
LOG(RTRADECN)	3.280207	0.674413	4.863793	0.0083
LOG(DINFLACN)	0.158097	0.186818	0.846264	0.4451
LOG(RLPCN)	12.39182	6.672532	1.857140	0.1369
CRISIS08	2.207939	0.715122	3.087499	0.0367
R-squared	0.955752	Mean dependent var		5.249251
Adjusted R-squared	0.889380	S.D. dependent var		1.882196
S.E. of regression	0.626011	Akaike info criterion		2.162230
Sum squared resid	1.567561	Schwarz criterion		2.415436
Log likelihood	-4.892266	Hannan-Quinn criter.		2.002619
F-statistic	14.39988	Durbin-Watson stat		1.893592
Prob(F-statistic)	0.011066			

## Appendix 5 FDI from South Korea to Cambodia with dummy Crisis08 (Yearly Data)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-109.0669	60.70571	-1.796649	0.1225
LOG(RGDPSK)	-16.95467	9.751344	-1.738701	0.1327
LOG(RERSK)	13.85580	5.045500	2.746169	0.0335
LOG(RTRADESK)	8.330530	4.238528	1.965430	0.0970
LOG(DINFLASK)	0.808584	1.060236	0.762646	0.4746
LOG(RLPSK)	-2.301940	13.49841	-0.170534	0.8702
CRISIS08	3.548762	1.918882	1.849391	0.1139
R-squared	0.793265	Mean dependent var		3.891203
Adjusted R-squared	0.586530	S.D. dependent var		2.266306
S.E. of regression	1.457271	Akaike info criterion		3.894741
Sum squared resid	12.74183	Schwarz criterion		4.198945
Log likelihood	-18.31582	Hannan-Quinn criter.		3.832214
F-statistic	3.837115	Durbin-Watson stat		3.035614
Prob(F-statistic)	0.063223			

## Appendix 6 FDI from Japan to Cambodia dummy Crisis08 (Yearly Data)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	95.73774	83.71626	1.143598	0.2771
LOG(RGDPJP)	-19.96473	24.96794	-0.799615	0.4409
LOG(RERJP)	-7.856029	11.53821	-0.680870	0.5100
LOG(RTRADEJP)	0.097380	3.667256	0.026554	0.9793
LOG(DINFLAJP)	-0.631710	1.840166	-0.343290	0.7379
LOG(RLPJP)	45.06699	48.92667	0.921113	0.3768
CRISIS08	2.337545	4.232029	0.552346	0.5918
R-squared	0.365678	Mean dependent var		5.698569
Adjusted R-squared	0.019684	S.D. dependent var		3.593685
S.E. of regression	3.558141	Akaike info criterion		5.661655
Sum squared resid	139.2640	Schwarz criterion		6.007911
Log likelihood	-43.95489	Hannan-Quinn criter.		5.709399
F-statistic	1.056890	Durbin-Watson stat		3.041123
Prob(F-statistic)	0.441792			

## Appendix 7 China towards Cambodia's economic growth (Yearly Data with LOG Y)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.449622	2.761814	-0.524880	0.6123
LOG(L)	1.085672	0.254258	4.269963	0.0021
LOG(K)	0.049376	0.024513	2.014294	0.0748
LOG(FDICN)	0.035640	0.171054	0.208352	0.8396
LOG(HK)	0.068742	0.121247	0.566961	0.5846
LOG(IF)	-0.040384	0.100018	-0.403762	0.6958
LOG(TRADECN)	0.106776	0.180467	0.591665	0.5686
LOG(HK)*LOG(FDICN)	-0.019702	0.020867	-0.944187	0.3697
LOG(IF)*LOG(FDICN)	0.014208	0.025065	0.566844	0.5847
LOG(TRADECN)*LOG(FDICN)	0.011390	0.033215	0.342927	0.7395
D97	-0.060064	0.047457	-1.265658	0.2374
D08	0.070611	0.044636	1.581919	0.1481
R-squared	0.997199	Mean dependent var		8.880634
Adjusted R-squared	0.993776	S.D. dependent var		0.479229
S.E. of regression	0.037807	Akaike info criterion		-3.417082
Sum squared resid	0.012864	Schwarz criterion		-2.820212
Log likelihood	47.87937	Hannan-Quinn criter.		-3.287546
F-statistic	291.3124	Durbin-Watson stat		2.961224
Prob(F-statistic)	0.000000			

Appendix 8 South Korea towards Cambodia's economic growth (Yearly Data with LOG Y)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.003230	1.011906	-4.944361	0.0008
LOG(L)	1.525592	0.131571	11.59523	0.0000
LOG(K)	0.037077	0.036786	1.007904	0.3398
LOG(FDISK)	-0.019950	0.044363	-0.449704	0.6636
LOG(HK)	0.021467	0.069682	0.308074	0.7650
LOG(IF)	-0.002570	0.028559	-0.089998	0.9303
LOG(TRADESK)	0.147535	0.088736	1.662627	0.1308
LOG(HK)*LOG(FDISK)	-0.011770	0.011269	-1.044500	0.3235
LOG(IF)*LOG(FDISK)	0.015259	0.010761	1.417995	0.1899
LOG(TRADESK)*LOG(FDISK)	0.010103	0.024730	0.408527	0.6924
D97	-0.057630	0.058800	-0.980109	0.3526
D08	0.084000	0.040966	2.050477	0.0706
R-squared	0.996636	Mean dependent var		8.880634
Adjusted R-squared	0.992524	S.D. dependent var		0.479229
S.E. of regression	0.041437	Akaike info criterion		-3.233732
Sum squared resid	0.015453	Schwarz criterion		-2.636862
Log likelihood	45.95418	Hannan-Quinn criter.		-3.104196
F-statistic	242.3736	Durbin-Watson stat		1.798966
Prob(F-statistic)	0.000000			

## Appendix 9 Japan towards Cambodia's economic growth (Yearly Data with LOG Y)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.287960	1.186905	-5.297781	0.0005
LOG(L)	1.653447	0.161887	10.21358	0.0000
LOG(K)	0.075542	0.041656	1.813470	0.1032
LOG(FDIJP)	-0.030038	0.047462	-0.632887	0.5426
LOG(HK)	-0.066363	0.052927	-1.253852	0.2415
LOG(IF)	0.082963	0.062446	1.328569	0.2167
LOG(TRADEJP)	0.038899	0.096791	0.401891	0.6971
LOG(HK)*LOG(FDIJP)	0.012176	0.009564	1.273176	0.2349
LOG(IF)*LOG(FDIJP)	-0.008333	0.008027	-1.038172	0.3263
LOG(TRADEJP)*LOG(FDIJP)	0.006081	0.020575	0.295560	0.7743
D97	0.011947	0.053334	0.223996	0.8278
D08	-0.005273	0.101940	-0.051727	0.9599
R-squared	0.994655	Mean dependent var		8.880634
Adjusted R-squared	0.988122	S.D. dependent var		0.479229
S.E. of regression	0.052228	Akaike info criterion		-2.770820
Sum squared resid	0.024550	Schwarz criterion		-2.173950
Log likelihood	41.09361	Hannan-Quinn criter.		-2.641284
F-statistic	152.2585	Durbin-Watson stat		2.246871
Prob(F-statistic)	0.000000			

## Appendix 10 Cambodia's economic growth from three countries (with LOG Y)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.141751	0.619911	-8.294335	0.0000
LOG(FDI)	-0.012613	0.021400	-0.589388	0.5583
LOG(L)	1.501379	0.080640	18.61827	0.0000
LOG(K)	0.075398	0.018738	4.023835	0.0002
LOG(HK)	0.001535	0.031162	0.049272	0.9609
LOG(IF)	0.036192	0.018038	2.006416	0.0503
LOG(TRADE)	0.084005	0.033942	2.474996	0.0168
LOG(HK)*LOG(FDI)	0.001682	0.004969	0.338463	0.7365
LOG(IF)*LOG(FDI)	0.001234	0.003350	0.368527	0.7141
LOG(TRADE)*LOG(FDI)	-0.007453	0.005197	-1.434087	0.1579
D97	-0.009490	0.025314	-0.374890	0.7094
D08	0.026333	0.027945	0.942297	0.3507
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.991882	Mean dependent var	8.880634	
Adjusted R-squared	0.989729	S.D. dependent var	0.471436	
S.E. of regression	0.047779	Akaike info criterion	-3.051325	
Sum squared resid	0.111859	Schwarz criterion	-2.575073	
Log likelihood	110.1167	Hannan-Quinn criter.	-2.864013	
F-statistic	460.5502	Durbin-Watson stat	1.704406	
Prob(F-statistic)	0.000000			



## REFERENCES

- Adams, S. (2009). Can foreign direct investment (FDI) help to promote growth in Africa? *African Journal of Business Management*, 3(5), 178.
- Agarwal, S., & Ramaswami, S. N. (1992). Choice of foreign market entry mode: Impact of ownership, location and internalization factors. *Journal of international business studies*, 23(1), 1-27.
- Agosin, M. R., & Mayer, R. (2000). Foreign direct investment in developing countries. *Does it Crowd in Domestic Investment*.
- Aitken, B. J., & Harrison, A. E. (1999). Do domestic firms benefit from direct foreign investment? Evidence from Venezuela. *American economic review*, 89(3), 605-618.
- Akinlo, A. E. (2004). Foreign direct investment and growth in Nigeria: An empirical investigation. *Journal of Policy modeling*, 26(5), 627-639.
- Alfaro, L., Kalemli-Ozcan, S., & Volosovych, V. (2008). Why doesn't capital flow from rich to poor countries? An empirical investigation. *The Review of Economics and Statistics*, 90(2), 347-368.
- Asiedu, E. (2002). On the determinants of foreign direct investment to developing countries: is Africa different? *World development*, 30(1), 107-119.
- Ayanwale, A. B. (2007). FDI and economic Growth: Evidence from Nigeria.
- Aykut, D., Sayek, S., Piscitello, L., & Santangelo, G. D. (2007). Do Multinationals Feed Local Development and Growth?
- Baek, I.-M., & Okawa, T. (2001). Foreign exchange rates and Japanese foreign direct investment in Asia. *Journal of Economics and Business*, 53(1), 69-84.
- Bajo-Rubio, O., & Sosvilla-Rivero, S. (1994). An econometric analysis of foreign direct investment in Spain, 1964-89. *Southern Economic Journal*, 104-120.
- Balasubramanyam, V. N., Salisu, M., & Sapsford, D. (1996). Foreign direct investment and growth in EP and IS countries. *The economic journal*, 92-105.
- Barrel, R., Lansbury, M., Morgan, J., & Pain, N. (1997). Job creation in the US and Europe compared. *Labour Market Trends*, May, 173-174.
- Barro, R. J. (1991). A cross-country study of growth, saving, and government *National saving and economic performance* (pp. 271-304): University of Chicago Press.
- Bashir, A.-H. M. (1999). Foreign direct investment and economic growth in some

- MENA countries: theory and evidence. *Topics in Middle Eastern and North African Economies, 1*.
- Becker, G. S., Murphy, K. M., & Tamura, R. (1990). Human capital, fertility, and economic growth. *Journal of political economy, 98*(5, Part 2), S12-S37.
- Bende-Nabende, A., Ford, J., & Slater, J. (2001). FDI, regional economic integration and endogenous growth: Some evidence from Southeast Asia. *Pacific economic review, 6*(3), 383-399.
- Bengoia, M., & Sanchez-Robles, B. (2003). Foreign direct investment, economic freedom and growth: new evidence from Latin America. *European journal of political economy, 19*(3), 529-545.
- Bevan, A. A., & Estrin, S. (2004). The determinants of foreign direct investment into European transition economies. *Journal of Comparative Economics, 32*(4), 775-787. doi: 10.1016/j.jce.2004.08.006
- Bhagwati, J. (1969). Trade, Tariffs, and Growth. *MIT Press Books, 1*.
- Biswas, R. (2002). Determinants of foreign direct investment. *Review of development economics, 6*(3), 492-504.
- Blonigen, B. A., & Wang, M. (2004). Inappropriate pooling of wealthy and poor countries in empirical FDI studies: National Bureau of Economic Research.
- Borensztein, E., De Gregorio, J., & Lee, J.-W. (1998). How does foreign direct investment affect economic growth? 1. *Journal of international Economics, 45*(1), 115-135.
- Braunerhjelm, P., & Svensson, R. (1996). Host country characteristics and agglomeration in foreign direct investment. *Applied Economics, 28*(7), 833-840. doi: Doi 10.1080/000368496328272
- Brem, J. (1970). Child abuse control centers: a project for the Academy? *Pediatrics, 45*(5), 894-895.
- Bruno, M., & Koen, S. (2004). Reform, FDI and Economic Growth: Tale of the Tortoise and the Hare. *The University Of Michigan Business School, William Davidson Institute*.
- Buckley, P. J., Clegg, J., Wang, C., & Cross, A. R. (2002). FDI, regional differences and economic growth: panel data evidence from China. *Transnational corporations, 11*(1), 1-28.
- Buckley, P. J., Clegg, L. J., Cross, A. R., Liu, X., Voss, H., & Zheng, P. (2007). The determinants of Chinese outward foreign direct investment. *Journal of international business studies, 38*(4), 499-518. doi: 10.1057/palgrave.jibs.8400277

- Campos, N. F., & Kinoshita, Y. (2002). Foreign direct investment as technology transferred: Some panel evidence from the transition economies. *The Manchester School*, 70(3), 398-419.
- Carkovic, M., & Levine, R. (2005). Does foreign direct investment accelerate economic growth? *Does foreign direct investment promote development*, 195.
- Chakraborty, C., & Basu, P. (2002). Foreign direct investment and growth in India: A cointegration approach. *Applied economics*, 34(9), 1061-1073.
- Chap, S. (2005). Foreign direct investment and technology transfer in Cambodia. *Unpublished PhD Thesis, University of Sydney, Australia*.
- Choe, J. I. (2003). Do foreign direct investment and gross domestic investment promote economic growth? *Review of Development Economics*, 7(1), 44-57.
- Choong, C.-K., Yusop, Z., & Soo, S.-C. (2005). Foreign direct investment and economic growth in Malaysia: The role of domestic financial sector. *The Singapore Economic Review*, 50(02), 245-268.
- Chowdhury, A., & Mavrotas, G. (2006). FDI and growth: What causes what? *The World Economy*, 29(1), 9-19.
- Cuyvers, L., Plasmans, J., Soeng, R., & Van den Bulcke, D. (2008). Determinants of foreign direct investment in Cambodia: country-specific factor differentials.
- Cuyvers, L., Soeng, R., Plasmans, J., & Van Den Bulcke, D. (2011). Determinants of foreign direct investment in Cambodia. *Journal of Asian Economics*, 22(3), 222-234.
- Damooei, J., & Tavakoli, A. (2006). The effects of foreign direct investment and imports on economic growth: A comparative analysis of Thailand and the Philippines (1970-1998). *The Journal of Developing Areas*, 39(2), 79-100.
- Davidson, W. H. (1980). The location of foreign direct investment activity: Country characteristics and experience effects. *Journal of international business studies*, 11(2), 9-22.
- De Mello Jr, L. R. (1997). Foreign direct investment in developing countries and growth: A selective survey. *The journal of development studies*, 34(1), 1-34.
- De Mello, L. R. (1999). Foreign direct investment-led growth: evidence from time series and panel data. *Oxford economic papers*, 51(1), 133-151.
- Desbordes, R., & Wei, S.-J. (2014). Credit conditions and foreign direct investment during the global financial crisis.
- Dewenter, K. L. (1995). Do exchange rate changes drive foreign direct investment? *Journal of Business*, 405-433.

- Dunning, J. H., & Lundan, S. M. (2008). *Multinational enterprises and the global economy*: Edward Elgar Publishing.
- Dunning, J. H., & McQueen, M. (1981). The eclectic theory of international production: a case study of the international hotel industry. *Managerial and decision economics*, 2(4), 197-210.
- Ekholm, K., Forslid, R., & Markusen, J. R. (2007). Export-platform foreign direct investment. *Journal of the European Economic Association*, 5(4), 776-795. doi: Doi 10.1162/Jeea.2007.5.4.776
- Fielding, R. A., Vellas, B., Evans, W. J., Bhasin, S., Morley, J. E., Newman, A. B., . . . Zamboni, M. (2011). Sarcopenia: an undiagnosed condition in older adults. Current consensus definition: prevalence, etiology, and consequences. International working group on sarcopenia. *J Am Med Dir Assoc*, 12(4), 249-256. doi: 10.1016/j.jamda.2011.01.003
- Froot, K. A., & Stein, J. C. (1991). Exchange rates and foreign direct investment: an imperfect capital markets approach. *The Quarterly Journal of Economics*, 106(4), 1191-1217.
- Gao, T. (2005). Foreign direct investment and growth under economic integration. *Journal of international Economics*, 67(1), 157-174.
- Grosse, R., & Trevino, L. J. (1996). Foreign direct investment in the United States: An analysis by country of origin. *Journal of international business studies*, 27(1), 139-155.
- GuechHeang, L., & Moolio, P. (2013). The relationship between gross domestic product and foreign direct investment: The case of Cambodia. *KASBIT Business Journal*, 6, 87-99.
- Guidebook, I. (2013). Council for the Development of Cambodia: Phnom Penh: sn.
- Haley, G., Tan, C. T., & Haley, U. C. (2013). *New Asian Emperors*: Routledge.
- Halicioglu, F. (2001). *An Econometric Analysis of Foreign Direct Investment Flows into Turkey from Major Global Regions: 1975-1999*. Paper presented at the International Conference in Economics V.
- Hejazi, W., & Safarian, A. E. (2001). The complementarity between US foreign direct investment stock and trade. *Atlantic Economic Journal*, 29(4), 420-437.
- Hermes, N., & Lensink, R. (2003). Foreign direct investment, financial development and economic growth. *The Journal of Development Studies*, 40(1), 142-163.
- Hirschman, A. O. (1958). The strategy of economic development.
- Ho, O. C. (2004). *Determinants of foreign direct investment in China: a sectoral*

*analysis*: Department of Economics, University of Western Australia.

- Hoang, T. T., Wiboonchutikula, P., & Tubtintong, B. (2010). Does foreign direct investment promote economic growth in Vietnam? *ASEAN Economic Bulletin*, 27(3), 295-311.
- Hughes, R. (2015). Ordinary theatre and extraordinary law at the Khmer Rouge Tribunal. *Environment and Planning D-Society & Space*, 33(4), 714-731. doi: 10.1177/0263775815598081
- Hymer, S. H. (1976). *International operations of national firms*: MIT press.
- Ioannatos, P. (2001). The demand determinants of FDI: Evidence from nonnested hypotheses. *The research series*.
- Itaki, M. (1991). A critical assessment of the eclectic theory of the multinational enterprise. *Journal of international business studies*, 22(3), 445-460.
- Jayachandran, G., & Seilan, A. (2010). A causal relationship between trade, foreign direct investment and economic growth for India. *International research journal of finance and economics*, 42, 74-88.
- Kaartemo, V. (2007). The motives of Chinese foreign investments in the Baltic Sea region. *Electronic publications of Pan-European Institute*, 7, 2007.
- Khaliq, A., & Noy, I. (2007). Foreign direct investment and economic growth: Empirical evidence from sectoral data in Indonesia. *Journal of Economic Literature*, 45(1), 313-325.
- Kiyota, K., & Urata, S. (2004). Exchange rate, exchange rate volatility and foreign direct investment. *World Economy*, 27(10), 1501-1536. doi: DOI 10.1111/j.1467-9701.2004.00664.x
- Kohpaiboon, A. (2003). Foreign trade regimes and the FDI-growth nexus: A case study of Thailand. *The Journal of Development Studies*, 40(2), 55-69.
- Kojima, M., & Kakinuma, T. (1987). Solar cycle evolution of solar wind speed structure between 1973 and 1985 observed with the interplanetary scintillation method. *Journal of Geophysical Research: Space Physics*, 92(A7), 7269-7279.
- Koojaroenprasit, S. (2012). The impact of foreign direct investment on economic growth: A case study of South Korea. *International Journal of Business and Social Science*, 3(21).
- Kose, M. A., Prasad, E., Rogoff, K. S., & Wei, S.-J. (2006). Financial globalization: a reappraisal: National Bureau of Economic Research.
- Kose, M. A., Prasad, E. S., & Terrones, M. E. (2006). How do trade and financial integration affect the relationship between growth and volatility? *Journal of*

*international Economics*, 69(1), 176-202.

- Kotrajaras, P., Tubtintong, B., & Wiboonchutikula, P. (2011). Does FDI enhance economic growth? New evidence from East Asia. *ASEAN Economic Bulletin*, 183-202.
- Kraemer, W., Fry, A., Ratamess, N., & French, D. (1995). Strength testing: development and evaluation of methodology. *Physiological assessment of human fitness*, 2, 119-150.
- Li, X., & Liu, X. (2005). Foreign direct investment and economic growth: an increasingly endogenous relationship. *World development*, 33(3), 393-407.
- Lim, M. E.-G. (2001). *Determinants of, and the relation between, foreign direct investment and growth: a summary of the recent literature*: International Monetary Fund.
- Lipsey, R. E. (2004). Home-and host-country effects of foreign direct investment *Challenges to globalization: Analyzing the economics* (pp. 333-382): University of Chicago Press.
- Liu, X., Song, H., Wei, Y., & Romilly, P. (1997). Country characteristics and foreign direct investment in China: A panel data analysis. *Review of World Economics*, 133(2), 313-329.
- Lo, D. (2007). China's quest for alternative to neo-liberalism: Market reform, economic growth, and labor. *The Kyoto Economic Review*, 76(2), 193-210.
- Loree, D. W., & Guisinger, S. E. (1995). Policy and non-policy determinants of US equity foreign direct investment. *Journal of international business studies*, 26(2), 281-299.
- Mah, J. S. (2010). Foreign direct investment inflows and economic growth: the case of Korea. *Review of Development Economics*, 14(4), 726-735.
- Makki, S. S., & Somwaru, A. (2004). Impact of foreign direct investment and trade on economic growth: Evidence from developing countries. *American Journal of Agricultural Economics*, 86(3), 795-801.
- Marks, M. A., Zaccaro, S. J., & Mathieu, J. E. (2000). Performance implications of leader briefings and team-interaction training for team adaptation to novel environments. *J Appl Psychol*, 85(6), 971-986.
- Markusen, J. (2000). Foreign direct investment.
- Marwah, K., & Tavakoli, A. (2004). The effect of foreign capital and imports on economic growth: Further evidence from four Asian countries (1970-1998). *Journal of Asian Economics*, 15(2), 399-413.

- Meyer, K. E. (1995). Direct foreign investment in Eastern Europe the role of labor costs. *Comparative Economic Studies*, 37(4), 69-88.
- Moore, M. O. (1993). Determinants of German Manufacturing Direct-Investment - 1980-1988. *Weltwirtschaftliches Archiv-Review of World Economics*, 129(1), 120-138. doi: Doi 10.1007/Bf02707490
- Mundell, R. (1968). International Economics, New York, 1968. *Mundell International Economics 1968*.
- Musirin, I., Rahman, A., & Khawa, T. (2005). Evolutionary programming optimization technique for solving reactive power planning in power system. *WSEAS Transactions on Information Science and Applications*, 2(5), 495-500.
- Nair-Reichert, U., & Weinhold, D. (2001). Causality tests for cross-country panels: a New look at FDI and economic growth in developing countries. *Oxford bulletin of economics and statistics*, 63(2), 153-171.
- Nath, H. K. (2009). Trade, foreign direct investment, and growth: Evidence from transition economies. *Comparative Economic Studies*, 51(1), 20-50.
- Neary, J. P. (2009). Trade costs and foreign direct investment. *International Review of Economics & Finance*, 18(2), 207-218. doi: 10.1016/j.iref.2008.06.004
- Ngoun, C., Stoey, L. S., van't Ende, K., & Kumar, V. (2012). Creating a Cambodia-specific developmental milestone screening tool - A pilot study. *Early Human Development*, 88(6), 379-385. doi: 10.1016/j.earlhumdev.2011.09.014
- O'Hearn, D. (1990). TNCs, intervening mechanisms and economic growth in Ireland: A longitudinal test and extension of the Bornschier model. *World Development*, 18(3), 417-429.
- OECD. (2002). *The Measurement of Scientific and Technological Activities Frascati Manual 2002: Proposed Standard Practice for Surveys on Research and Experimental Development*: Cambridge University Press.
- Onyeiwu, S. (2003). *Analysis of FDI flows to developing countries: Is the MENA region different*. Paper presented at the ERF 10th Annual Conference, December, Marrakech, Morocco.
- Pain, N., & Wakelin, K. (1998). Export performance and the role of foreign direct investment. *Manchester School*, 66(S), 62-88. doi: Doi 10.1111/1467-9957.66.S.4
- Pan, Y. G. (2003). The inflow of foreign direct investment to China: the impact of country-specific factors. *Journal of Business Research*, 56(10), 829-833. doi: 10.1016/S0148-2963(02)00470-8
- Pantulu, J., & Poon, J. P. H. (2003). Foreign direct investment and international trade:

- evidence from the US and Japan. *Journal of Economic Geography*, 3(3), 241-259. doi: Doi 10.1093/Jeg/3.3.241
- Pitelis, C. (1996). EFFECTIVE DEMAND, OUTWARD INVESTMENT AND THE (THEORY OF THE) TRANSNATIONAL CORPORATION: AN EMPIRICAL INVESTIGATION. *Scottish Journal of Political Economy*, 43(2), 192-206.
- Quazi, R. (2007). Economic freedom and foreign direct investment in East Asia. *Journal of the Asia Pacific Economy*, 12(3), 329-344.
- Rashti, N. A., Araghi, E. S., & Shayeste, M. (2014). Relationship between financial development and economic growth, evidence from financial crisis. *Asian Economic and Financial Review*, 4(7), 930.
- Romer, P. M. (1990). Endogenous technological change. *Journal of political economy*, 98(5, Part 2), S71-S102.
- Roy, A. G., & Van den Berg, H. F. (2006). Foreign direct investment and economic growth: a time-series approach. *Global Economy Journal*, 6(1).
- Salvatore, D., & Campano, F. (2010). The Asian Financial Crisis and Warning Indicators-Then and Now. *E. Asia L. Rev.*, 5, 1.
- Scott-Green, S., & Clegg, J. (1999). The determinants of new FDI capital flows into the EC: a statistical comparison of the USA and Japan. *JCMS: Journal of Common Market Studies*, 37(4), 597-616.
- Sethi, N., & Sucharita, S. (2009). Effect of FDI on economic growth in Bangladesh and India: An empirical investigation: Working Paper.
- Socheth, H. (2013). *Impact of the Global Financial Crisis on Cambodian Economy at Macro and Sectoral Levels*: CDRI.
- Sothan, S. (2017). Causality between foreign direct investment and economic growth for Cambodia. *Cogent Economics & Finance*, 5(1), 1277860. doi: Artn 1277860
- 10.1080/23322039.2016.1277860
- Sylwester, K. (2005). Foreign direct investment, growth and income inequality in less developed countries. *International Review of Applied Economics*, 19(3), 289-300.
- Tahir, R., & Larimo, J. (2004). Understanding the location strategies of the European firms in Asian countries. *Journal of American Academy of Business*, 5(1/2), 102-109.
- UNCTAD, G. (2006). World investment report: United Nations Press, New York and



Geneva.

- Vernon, M. D. (1966). *Experiments in visual perception: Selected readings* (Vol. 2): Penguin books.
- Veugelers, R. (1991). Locational determinants and ranking of host countries: an empirical assessment. *Kyklos*, 44(3), 363-382.
- Vichea, S. (2005). *Key Factors Affecting The Performance of Foreign Direct Investment in Cambodia*. (Master of Business Administration), The University of the Thai Chamber of Commerce.
- Vu, T. B., Gangnes, B., & Noy, I. (2008). Is foreign direct investment good for growth? Evidence from sectoral analysis of China and Vietnam. *Journal of the Asia Pacific Economy*, 13(4), 542-562.
- Wei, Y., & Liu, X. (2001). *Foreign direct investment in China: Determinants and impact*: Edward Elgar Publishing.
- Wezel, T. (2003). Determinants of German foreign direct investment in Latin American and Asian emerging markets in the 1990s: Discussion paper Series 1/Volkswirtschaftliches Forschungszentrum der Deutschen Bundesbank.
- Wint, A. G. (2003). *Competitiveness in small developing economies: Insights from the Caribbean*: University of West Indies Press.
- Zeng, X.-J., & Singh, M. G. (1996). Approximation accuracy analysis of fuzzy systems as function approximators. *IEEE Transactions on fuzzy systems*, 4(1), 44-63.
- Zhang, K. H. (2001). Does foreign direct investment promote economic growth? Evidence from East Asia and Latin America. *Contemporary economic policy*, 19(2), 175-185.
- Zhao, J. H., Kim, S. H., & Du, J. (2003). The impact of corruption and transparency on foreign direct investment: An empirical analysis. *MIR: Management International Review*, 41-62.

**APPENDIX**



จุฬาลงกรณ์มหาวิทยาลัย  
**CHULALONGKORN UNIVERSITY**

## VITA

Puthi Phan Kan was born on November 9, 1989 in Boeng Keng Kang III District, Chamkarmorn Quarter, Phnom Penh City, Cambodia.

He holds the degrees of Bachelor of Arts in English (English for Professional Communication) from the Institute of Foreign Languages, Royal University of Phnom Penh, completed in August 8, 2012; Bachelor of Economics (Economic Development) from Royal University of Law and Economics, completed in December 8, 2010; Certificate of Bridging Course from the Institute of Foreign Languages, Royal University of Phnom Penh in 2008, and other certificates of volunteer and short training from oversea.

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