MIGRATION POLICY, REMITTANCE INFLOWS AND ECONOMIC GROWTH IN CAMBODIA

BY

MR. VIRAK KHIEV

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ECONOMICS (INTERNATIONAL PROGRAM)

FACULTY OF ECONOMICS

THAMMASAT UNIVERSITY

ACADEMIC YEAR 2017

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THESIS

BY

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ENTITLED

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the degree of Master of Economics (International Program)
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ABSTRACT

Labor migration is a recent phenomenon, yet due to globalization, it has become a big issue. Therefore, it requires proper policy for harnessing labor migration and remittances to enhance economic development. With significant amount of remittances has been sent into the country, the effect of remittance inflows could not be overlooked. Therefore, our main objectives of the study are to provide brief overview of migration policy in Cambodia and Thailand and to investigate the effect of remittance and migration policy of Cambodia on economic growth in Cambodia. Employing simple regression model with data covering from 1993 to 2016, the models show that remittances and migration policy of Cambodia have positive significant impact on economic growth. The outcomes from the models indicate that remittances have contributed 0.118% to the Cambodia’s economic growth. Moreover, using migration policy in 2010 as a dummy variable, the model found that economic growth for post-policy is 0.39% higher than the pre-policy. Remittances are found to have positive significant effect on economic growth due to high increase in remittance inflows and because of the increase in uses of remitted money in productive activities such as enterprises, agriculture and healthcare in recent years. Our study is of great interest for labor economic policy makers and a good
contribution to literature of migration in the case of developing countries where labor migration and remittances become an interesting topic.

**Key Words:** Migration, Remittances, Economic Growth
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Mr. Virak Khiev
TABLE OF CONTENTS

ABSTRACT

ACKNOWLEDGMENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATION

CHAPTER 1 INTRODUCTION

1.1 Statement of Problem

1.2 Background

1.3 Objective of the Study

1.4 Scope and Limitation

1.5 Organization of the Study

CHAPTER 2 MIGRATION POLICY IN CAMBODIA AND THAILAND

2.1 Cambodia’s Labor Migration Policy

2.1.1 Labor Migration Governance and International Instruments

2.1.2 Promoting Labor Migration, Flows and Uses of Remittances

2.1.3 Right Protection for Migrant Workers

2.1.4 Domestic Workers in Destination Countries

2.1.5 Regulation on Private Recruitment Agencies

2.2 Thailand’s Migration Policy for Foreign Workers

2.2.1 Regulations and International Instruments on Labor Migration

2.2.2 Legalization under MOUs and NV Process

Page

(1)

(2)

(7)

(8)

(9)

1

3

9

10

10

11

11

15

19

20

22

23

23

26
2.2.3 Social Protection for Migrant Workers 28
2.2.4 Admission and Employment Restrictions for Skilled and Low-Skilled Workers 29
2.2.5 Fishing Sector in Thailand 31
2.3 Conclusion 32

CHAPTER 3 REVIEW OF LITERATURE 33

3.1 Theoretical Studies 33
  3.1.1 Neoclassical Theories 33
  3.1.2 Structuralist Views on Migration 34
  3.1.3 Pluralist Perspectives 35
  3.1.4 Theories of Remittances 35
3.2 Empirical Studies 36
  3.2.1 Research Gap 40

CHAPTER 4 METHODOLOGY 41

4.1 Theoretical Framework 41
4.2 Data and Descriptive Statistics 42
4.3 Empirical Framework 44
  4.3.1 OLS Estimation 45
  4.3.2 OLS Estimation with Dummy Variable 45
4.4 Unit Root Test – ADF 46
4.5 Diagnostic Tests 48

CHAPTER 5 EMPIRICAL RESULTS 49

5.1 Unit Root Test 49
5.2 Empirical Results and Diagnostic Tests 50
  5.2.1 Estimation with OLS 50
5.2.2 OLS Estimation with Dummy Variable

CHAPTER 6 CONCLUSION AND RECOMMENDATIONS

REFERENCES

APPENDICES
### LIST OF TABLES

<table>
<thead>
<tr>
<th>Table Number</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Share and Number of Migration Workers in Thailand, 2015</td>
<td>4</td>
</tr>
<tr>
<td>2.1</td>
<td>Total Cost of Migration to Thailand for Cambodian Workers (US$)</td>
<td>17</td>
</tr>
<tr>
<td>2.2</td>
<td>Number of migrant workers recruited through MOU and completed NV Process in Thailand</td>
<td>28</td>
</tr>
<tr>
<td>4.1</td>
<td>Descriptive Statistics and Correlation Analysis</td>
<td>43</td>
</tr>
<tr>
<td>5.1</td>
<td>Results of Unit Root Test</td>
<td>50</td>
</tr>
<tr>
<td>5.2</td>
<td>OLS Estimates</td>
<td>51</td>
</tr>
<tr>
<td>5.3</td>
<td>OLS Estimates with Dummy Variable</td>
<td>53</td>
</tr>
</tbody>
</table>
### LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figures</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Cambodia and World Remittance Inflows 1992-2016</td>
<td>2</td>
</tr>
<tr>
<td>1.2 Cambodia’s GDP growth and GDP per capita (1997-2016)</td>
<td>3</td>
</tr>
<tr>
<td>1.3 Shares of Cambodian Migrant Workers by Sector in Thailand in Jan 2018</td>
<td>5</td>
</tr>
<tr>
<td>1.4 Monthly Minimum Wages in Cambodia and 3 Major Corridors, 2016 (USD)</td>
<td>6</td>
</tr>
<tr>
<td>1.5 Median ages in 3 major migration corridors in 2016</td>
<td>7</td>
</tr>
<tr>
<td>1.6 Remittance inflows as a share of GDP (%) in 2015</td>
<td>8</td>
</tr>
<tr>
<td>1.7 Remittances, FDI and ODA as a share of GDP (1993-2016)</td>
<td>9</td>
</tr>
<tr>
<td>2.1 Institutions Involved in Labor Migration Management</td>
<td>13</td>
</tr>
<tr>
<td>2.2 Evolution of Cambodia’s Labor Migration Governance, 1990-2018</td>
<td>16</td>
</tr>
<tr>
<td>2.3 Evolution of Thailand’s Labor Migration Legislation</td>
<td>25</td>
</tr>
<tr>
<td>2.4 No of migrant workers insured under Social Security Fund as of Sep-15 and Jul-16</td>
<td>29</td>
</tr>
</tbody>
</table>
# LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Symbols/Abbreviations</th>
<th>Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARDL</td>
<td>Autoregressive Distributed Lag</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
</tr>
<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
</tr>
<tr>
<td>VECM</td>
<td>Vector Error Correction Model</td>
</tr>
<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>NELM</td>
<td>New Economics of Labor Migration</td>
</tr>
<tr>
<td>ODA</td>
<td>Official Development Assistant</td>
</tr>
<tr>
<td>OECD</td>
<td>Organization for Economic Co-operation and Development</td>
</tr>
<tr>
<td>OLS</td>
<td>Ordinary Least square</td>
</tr>
<tr>
<td>HRW</td>
<td>Human Right Watch</td>
</tr>
</tbody>
</table>
CHAPTER 1
INTRODUCTION

1.1 Statement of Problem

Remittances, which define as private income sent to the remaining family unit in the home countries from one or more family member living and working abroad constitute the crucial source of foreign currency which is important for current and future economic development and poverty reduction in remittance-receiving countries. Evidence from around the world reveals that remittances have positive effect on economic and social development and poverty reduction.

The effect of remittances on economic growth depends on recipient households. If remittances are used for human capital investment such as education, healthcare, and acquisition of investment goods abroad, it might affect positively on economic growth. Remittances help promote the economic growth through enhancing entrepreneurship activities, improving labor productivity and triggering consumption and investment (Chantha & Pheara, 2017). Also, households that receive remittances have higher income and tend to consume more and have lower incidence of extreme poverty compared to household do not receive remittance (Ratha, 2013).

The nexus between remittance and economic growth and social development has become an interesting topic for researchers due to its significant flow of remittances into developing countries around the world. As shown in Figure 1.1, at global level, remittances sent home by international migrant from developing counties have risen significantly from USD 29 billion in 1990 to USD 441 billion in 2016 due to the increase in global migration, and expected to continue to increase in the future. The contribution to the expansion in global migration includes income inequality between origin and destination countries, low travel costs and a rise in
South-South migration (Marita, 2015). In addition to the increase in global migration, advancement of technology along with the increased competitiveness among financial institutions that provides money transfer service is believed to have dwarfed the cost of remittance transfer service.

![Figure 1.1](image)

**Cambodia and World Remittance Inflows 1992-2016**

Source: World Bank

In Cambodia, it is estimated that roughly one million migrants have been migrating to higher income countries such as Thailand, South Korea, and Malaysia, etc. While working abroad, they have sent huge amount of remittances back to their home country, which is a third source of external flow of foreign currency after foreign direct investment (FDI) and Official Development Aid (ODA) and is important for country’s development and poverty reduction.

Figure 1.1 shows similar trend of remittance inflows in Cambodia and the world over 25-year period. It is worth to notice that remittances inflows decrease slightly in 2009 despite global financial crisis, indicating resiliency of remittances to crisis. Also, there is a sharp increase in remittance inflow in 2014 from USD 175 million in 2013 to around USD 400 million in 2015. The dramatic increase is likely caused by an increase in number of registered Cambodian undocumented workers in...
Thailand, which enable them to be confident in sending remittances through formal channels. The number of migrants registered at Once Stop Service Center from 26 June to 31 October 2014 was 738,947 (IOM, 2014). Also, this might be caused by the effectiveness of the government migration policy, specifically the regulation on recruitment agencies, which required all recruitment agencies to open bank accounts for migrant workers.

1.2 Background

Cambodia, one of the developing counties in Southeast Asia, has enjoyed its economic growth of around 7 percent on average and lifted its millions of people out of poverty during the last 2 decades (See figure 1.2). Constructions, textiles and agricultural sector have been the main driving forces and contributors to the growth and poverty reduction. However, this impressive growth does not reflect sufficient jobs for its local people. Surplus of labor and households’ financial debt in the country encourage its people to migrate to higher income countries such as Thailand, South Korea, Malaysia etc., and work in various sectors such as agriculture, construction, industry and domestic work.

Figure 1.2

Cambodia’s GDP growth, per capita and Remittance (1994-2016)

Source: World Development Indicators (World Bank)
Thailand is the main destination country for Cambodian migrant workers, which accounts for 90% of all Cambodian migrants. Compared with other migrant workers in Thailand, Cambodia stands in the third place with the highest number of migrant workers working in Thailand, following Myanmar and Lao PDR, accounting for 21% of total migrant workers in 2015 (see Table 1.1).

### Table 1.1

<table>
<thead>
<tr>
<th>Origin</th>
<th>Migrants in Thailand</th>
<th>Share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myanmar</td>
<td>1,978,348</td>
<td>53</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>969,267</td>
<td>26</td>
</tr>
<tr>
<td>Cambodia</td>
<td>805,272</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>3,752,887</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: UN 2015

*Note: Figures denote stocks of migrants, not annual flows*

According to a survey by Ministry of Labor of Thailand in January 2018, over 80% of registered Cambodian migrant workers in Thailand are working in three main sectors such as manufacturing 35%, while 24% and 22% are working in service and construction sector respectively (see figure 1.3).
The numbers of migrant workers increased dramatically from 350,000 in 2010 to more than 800,000 in 2015 with majority of them were unskilled workers. The reasons behind this significant increase in number of migrant workers can be explained by Push-Pull factor. For Push factor, there are three main reasons, such as inadequate jobs, low wages and household financial debt in the country that encourage people to migrate to other countries. According to a survey conducted by Dickson and Koenig, 2016, 70% of respondents claimed they left their country because of no job, while 65% and 40% wanted better jobs/higher income and because of financial debt respectively.
As for pull factor, Cambodian people decide to migrate due to inadequate supply of labor in destination countries such as Thailand, Malaysia and South Korea. Currently, Thailand is having aging population issue, making less supply of labor, and creating employment opportunity for people from countries with younger population. In 2015, the median age of Thailand are higher than the median ages of countries which Thailand receive migrants from (Testaverde et al., 2017) (see Figure 1.4). In Malaysia, after receiving report of abuse on Indonesian domestic workers in 2009, Indonesian government immediately imposed official ban on sending domestic workers to Malaysia, making shortage supply of domestic workers in the country. As for South Korea, because of its low unemployment rate in early 1990s, the local people become less willing to do unskilled works (Young-Bum, 2004). These reasons lead to higher demand for foreign workers, including migrant workers from Cambodia.
Although it was estimated that 800,000 migrants were working abroad, observers believe that the figure is more than a million if including undocumented workers. Among the top destination countries, majority of Cambodian undocumented workers are working in Thailand. It is estimated that there were roughly 500,000 undocumented workers in Thailand in 2014; of these, 223,000 have registered so far (Leonie, 2017). In Malaysia, about 1 percent or less of its undocumented workers was from Cambodia (Mauro, et. al., 2017). Expensive, complicated and lengthy migration procedures could be possibly the reasons that encourage people to migrate through illegal channels. In 2010, a migrant needed to spend USD 700 to migrate to Thailand for work through legal channel and to Malaysia from US$840 to US$1,200, whereas through illegal channel, a migrant would pay only US$100 to smuggle into Thailand (Tunon & Rim, 2013).

The government of Cambodia has demonstrated its effort to taking care of its migrants after acknowledging the impact of migration on poverty reduction and because of repetitive abusive treatment on them. In 2010, Ministry of Labor (MoLMV) adopted Labour Migration Policy in order to promote better governance of labour migration, protect and empower migrants’ right. In addition to this policy, Cambodia has demonstrate its effort to liberalize the flow of migration through reducing the
cost of migration, lifting the ban on sending migrant workers, signing MOUs with more destination countries to create procedure for legal migration and legalization of irregular workers, implementing other regulations and taking legal actions to protect and promote migrant workers’ right.

Even though, migrant workers have encountered a lot of issues including abuse and mistreatment while working abroad, they have sent huge amount of remittances back home. The amount of remittances sent home increased significantly from USD 152 million to USD 366 million, which accounted for about 3% of its GDP in 2015, according to official statistics of WDI. Compared with other countries in the region, Cambodia stands in the fourth place with the highest amount of remittance as share of GDP, following the Philippines, Vietnam and Myanmar (see Figure 1.5).

![Figure 1.6](source: World Development Indicators (World Bank))

During the last 25 years, remittance and FDI as a share of GDP has increased moderately, accounting for 3% and 9.4% of GDP in 2015 respectively, while ODA decreased dramatically from more than 16% to around 4%. In comparison to FDI and ODA, remittance as a share of GDP is lower, but the flows of remittances appeared to be more stable. The graph shows that remittances are more resilient to
the crisis because migrants tend to send more remittances although the country was affected by the economic downturns and natural disasters.

Figure 1.7
Remittances, FDI and ODA as a share of GDP (1993-2016)

![Graph showing remittances, FDI, and ODA as a share of GDP from 1993 to 2016]

Source: World Development Indicators (World Bank)

Remittances sent to Cambodia are estimated to be more than three hundred million USD in 2016. However, the actual figures should be greater because migrant workers prefer sending their money through informal channels as the cost of transfer is high. Sophal (2012) conducted a survey of over 500 households and found that 85 percent of migrants working in Thailand remitted their money to their family members via informal agents (Sophal, 2012). Lack of branches of banks or money-transfer businesses in rural area still remain a challenge for workers to send their remittances back home, making remittance cost high. Therefore, informal channels still remain a popular and convenient way for transferring money from abroad.

1.3 Objective of the Study

With significant increase in number of Cambodian people migrating to other countries for better jobs and great influx of remittances from those destination countries every year, migrant workers as well as remittances play important roles in Cambodia’s economy, and they cannot be overlooked. The objective of this study, therefore, is to examine the effect of remittance and Cambodian migration policy on
economic growth in Cambodia. Also, the second objective of this paper is to provide brief overview and assessment of labour migration policy in Cambodia and Thailand, where majority of Cambodian migrant workers are residing and working. In this study, remittances are defined as personal transfers\(^1\) and compensation of employees\(^2\), which are sent by Cambodian migrant workers from all parts of the world. The study will contribute to literature of migration in the case of developing countries by providing a suitable framework of how remittances have impact on economic growth with latest data set in response to the lack and gaps of studies in the context of Cambodia.

1.4 Scope and Limitation

There are some constraints imposed on our research, making our thesis to be less comprehensive and analytical. One of them is financial constraint that makes it difficult to obtain some primary data which is important for our analysis. Also, because of the shortage of observation, the study will only cover from 1993 to 2016 with 4 independent variables namely remittance, official development assistant, domestic to private sector and gross capital formation and GDP as a dependent variable. And due to the unavailability of some data in our currency Khmer Riel, we decide to apply foreign currency US dollar to all variables.

1.5 Organization of the Study

The structure of this paper is organized as follows. Chapter 1 is the introduction, which contains problem statement, objective, and the scope of study. Chapter 2 provides a brief overview of labor migration policy in Cambodian and Thailand. In Chapter 3, a number of literatures including theoretical and empirical studies from different countries will be reviewed. In Chapter 4, we are going to take a look at research methodology and data collection. Chapter 5 presents the results from the empirical study. Finally, Chapter 6 gives a summary of the findings and recommendation.
CHAPTER 2
MIGRATION POLICY IN CAMBODIA AND THAILAND

This chapter presents the overview of migration policy of Cambodia and the main destination Thailand, where majority of Cambodian migrant workers are working and residing. The chapter explains what are the regulations and measures have been introduced by Cambodian and Thai government and their effectiveness to protect and promote the rights of migrant workers.

2.1. Cambodia’s Labor Migration Policy

2.1.1 Labor Migration Governance and International Instruments

Since labor migration is a recent phenomenon in the country, migration regulation has been updated to keep up with the development of migration situation. In Cambodia, labor migration was managed through Sub-Decree #57 on “Sending Khmer Migrant Abroad” in 1995 and was supported by Prakas #108 on “Education on HIV/AIDS, Safe Migration and Labour Rights for Cambodian Workers Abroad” in 2006. The Sub-Decree and Prakas were later replaced by Sub-Decree #190 on “The Management of the Sending of Cambodian Migrant Workers through Private Recruitment Agencies” in 2011. The new sub-decree was adopted to govern the sending Cambodian migrant workers, and was supported by eight prakas issued in 2013 with technical assistant from ILO in order to provide clearer roles and responsibility of authorities. In addition to the two Sub-Decree and Parkas, Sub-decree #70 on “The Creation of the Manpower Training and Overseas Sending Board” was specifically created to manage sending Cambodian workers to South Korea.

Because labor migration issue is big and complicated, a number of institutions have been established to involve in the management of labor migration. In Cambodia, General Directorate of Labor under the Ministry of Labor and
Vocational Training (MOLVT) is in charge of managing labor migration. There are five departments under this General Department of Labor (see figure 2.1). Of these, the Department of Employment and Manpower is in charge of supervising labor migration and overseeing the private recruitment agencies. Also, Cambodia has an Inter-Ministerial Working Group, which consists of Ministry of Labour and Vocational Training, Ministry of Interior (MOI), and Ministry of Foreign Affair and International Corporation (MOFA&IC), which have responsibility to discuss with Thai counterpart about progress of implementation of MOUs between the two countries at least once per year. Besides being part of Inter-Ministerial Working Group, MOI, specifically Department of Statistics and Passports play an important role in labor migration management through issuing passports for migrant workers. In addition to the two mentioned ministries, the National Council for Population and Development under the Council of Ministers concerns about migration policy formulating, whereas the MOF&IC is responsible for the management of international labour migration by channeling information through the Cambodian Embassies overseas (Sophal, 2009).

Cambodia also manages its labor migration through establishing formal recruitment procedures, called Memorandum of Understanding (MOUs) and bilateral agreement with destination countries. MOUs or bilateral agreement between the two countries are the legal migration frameworks which usually provide all aspects of migration process ranging from admission, employment and repatriation. Cambodian has signed MOUs and had bilateral agreements with many destination countries in order to open more legal channels for migrant workers to seek for jobs abroad. Cambodia firstly signed MOUs with Thailand on the establishment of formal migration framework in 2003, but became active in 2006. The MOUs between the two countries were signed again in 2015, but not yet operationalized. Also, a labor agreement was made between the government of Cambodian and Republic of Korea for recruiting Cambodian workers in 2006, following a high demand for foreign workers in Republic of Korea. In 2009, an MOU was signed between the government of Cambodia and Malaysian government for sending domestic workers to Malaysia, and it was signed again in 2015 after imposing moratorium on sending workers since
2011. Beside the three main destination countries, Cambodia had bilateral agreement and has signed MOUs with many more countries, including Singapore, Hong Kong, Kuwait, Qatar, Saudi Arabia, and Japan for sending for domestic and general workers. Recent increase in number of agreements is a good move for Cambodia migrant workers to diversify its destination countries.

Figure 2.1
Institutions Involve in Labor Migration Management

Source: Sophal, 2009

In 2014, the government of Cambodia with cooperation and consultation with civil societies, international organizations, employers and recruitment agencies, established The Labour Migration Policy for Cambodia 2015-2018 with the overall policy objective to govern labour migration effectively, protect and empower the rights of women and men migrant worker, and enhance the impact of migration on development. The policy was built on the previous labor migration policy (The Labor Migration Policy for Cambodia 2010-2014), which was criticized for not coordinating with other national strategic plans, such as the National Employment Policy, the National Strategic Development Plan 2014–18, and the Rectangular Strategy Phase III 2013–18. In this 2015-2018 policy, 17 policy goals have been outlined to achieve its objectives.
Furthermore, the government of Cambodia has reviewed the international instruments and standard of labor migration in line with the national legal framework, and ratified and implemented labor conventions in a gender-responsive manner. Since Cambodia became a member of ILO in 1969, it has ratified all eight fundamental ILO conventions, and has been a signatory to UN International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families (1990). The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) was also ratified in 1979. However, there are some important ILO conventions that the government has not ratified, especially the convention on fishing and domestic work. ILO Conventions NOT ratified includes:

2. Convention No. 143 on the Migration in Abusive Conditions and the Promotion of Equality of Opportunity and Treatment of Migrant Workers (1975)
5. Convention No. 189 on Domestic Works (2011)

Some positive outcomes from the ratification and implementation of the international labor standard is shown through a significant increase in the number of traffickers have been convicted and the allocation of more funds to the national anti-trafficking committee (TiP, 2017). Still, it is not in line with the minimum standard for the elimination of trafficking.

At regional level, Cambodia and other Association of South East Asian Nations (ASEAN) members have actively participated in regional migration discussion and have adopted a number of ASEAN instruments related to the right and protection of migrant workers in the region. In 2007, ASEAN member states adopted ASEAN Declaration on the Protection and Promotion of the Rights of Migrant Workers, also known as Cebu Declaration, in Cebu, the Philippines. Ten years later,
the ASEAN member states signed the ASEAN Consensus on the Protecting and Promotion of the Rights of Migrant Workers in 2017, which aims to ensure the protection of migrant workers. The ASEAN Consensus mentions the principles, fundamental rights of migrant workers and their family members, obligations and commitments of ASEAN Member States (ASEAN, 2017). In addition to ASEAN Consensus on the Protection and Promotion of the Rights of Migrant Workers, there is another ASEAN instrument called ASEAN Declaration on Strengthening Social Protection which was adopted in 2013 in Brunei.

2.1.2 Promoting Labor Migration, Flows and Uses of Remittances

With the growth of labour force of 300,000 enter the market each year, the government has worked to promote migration in order to reduce unemployment, eradicate poverty and boost its economic growth. Although measures to promote migration remain weak, but the government has demonstrated its effort to reduce the barrier of migration, including the cost of passport and other expense and increasing the number of passport office.

Figure 2.3 shows that the costs for sending migrant workers are too high, making it difficult for Cambodian workers to migrate through legal channels. A migrant worker usually bear different types of costs including the cost of passport, visa, transportation, pre-training, medical check etc., and recruitment agencies play the role to process these documents on behalf of migrant workers. In 2010, the total cost for migrating to Thailand is USD 700, and to Malaysia is from US$840 to US$1,200, while migrating through illegal channel to Thailand cost only USD100 (Tunon & Rim, 2013). The total cost for sending workers to South Korea was around US$ 1,000 in 2006 (Sophal, 2009). Therefore, employers or recruitment agencies usually lend them money, and migrant workers have to pay off the debt through installment from their salary.
Figure 2.2
Evolution of Cambodia's Labor Migration Governance, 1990-2018

MOU1=Thailand; MOU2=Japan; MOU3=Malaysia; MOU4=Kuwait; MOU5=Qatar; MOU6=Saudi Arabia; MOU7=Hong Kong; MOU8=Singapore; BA=Bilateral Agreement with South Korea

(D)=Domestic Workers; (G&D)=General and Domestic Workers; (NO)=Not yet operationalized; Dash line=external factors

Sub-Decree #190 (in effect): The Management of the Sending of Cambodian Migrant Workers through Private Recruitment Agencies, 2013; Sub-Decree #57 (Canceled): Sending Khmer Migrant Abroad, 1995; Sub-Decree #70 (in effect): The Creation of the Manpower Training and Overseas Sending Board, 2006

Source: Author’s compilation

Ref. code: 25605904090080OEC
In 2014, the government introduced a very low cost of passport for migrant workers, following a mass exodus of Cambodian migrant workers and other migrant workers from Laos and Myanmar after receiving a rumor of crackdown made by new Thai junta government on undocumented workers in Thailand. The government of Cambodia, specifically MOLVT responded by announcing a new low cost of US$4 for making passport for migrant workers and students studying abroad. The new cost was reduced from US$ 40, which was considered to be a special grant for migrant workers from the government in 2007. MOLTV also announced the establishment of 4 passport offices in 4 border checkpoint along Cambodia-Thai border. As of July 2018, there are four passport offices opened in two provinces and another two offices in the capital city.

Despite reduced cost of passport and other expense, migrant workers had to deal with complicated and lengthy application processes as demonstrated in appendix C. Recently, during the meeting between the working group from Cambodia and Thailand, both countries agree to establish a new technology for managing migration procedure through MOU in order to shortening the lengthy process.

**Table 2.1**

<table>
<thead>
<tr>
<th>Cost Components</th>
<th>Regular</th>
<th>Irregular</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With documentation</td>
<td>Without documentation</td>
</tr>
<tr>
<td>Brokerage fee</td>
<td>625</td>
<td>33</td>
</tr>
<tr>
<td>Passport</td>
<td>110</td>
<td>4</td>
</tr>
<tr>
<td>Border pass</td>
<td>0</td>
<td>26</td>
</tr>
<tr>
<td>Physical checkup</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>Transportation</td>
<td>2</td>
<td>77</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>747</td>
<td>150</td>
</tr>
</tbody>
</table>

Source: Jalilian and Reyes 2012
As for remittances, since majority of Cambodia migrant were illegal workers and due to high cost of remittances transfer during the last ten years, migrant workers couldn’t have proper access to formal financial services for remittance transfer. Evidence from Sophal 2012 found that majority of Cambodian migrant workers in Thailand preferred to send money through informal channel. The study interviewed over 50 households and found that 85 percent of migrants working in Thailand remitted their money through informal agent. Also, evidence from Linda & Pracha 2010 found that the cost of sending remittance through the banks was higher than that of through informal agent. In response to this issue, Cambodian government and international organization have worked together to promote the flows and uses of remittances in the Kingdom that aim to ensure safe and low-cost of remittance transfer and also promoted productive investment of remittances. However, the response to the promotion of remittances seems to be weak since there is no legal framework for remittances although remittance is specified in the Policy Goal on Labor Migration in Cambodia (2015-18). The Policy Goal mentions the role of government to work with financial institutions in both countries to provide access to safe, efficient and cheaper remittance to migrant workers. In practice, the government has worked to increase access to formal remittances channel by requiring all recruitment agencies to assist workers open personal bank accounts and facilitate the use of formal remittance channels (Testaverde et al., 2017).

Beside the government of Cambodia, International Labor Migration (ILO) has played a role to promote the use of remittances sent by migrant workers. ILO has supported and piloted a training kit on financial literacy for migrant workers and their members. The training kit includes modules on how to send remittances, set up a savings plan, and make productive investments. Also, the promotion of remittances was also mentioned in Multilateral Framework on Labour Migration and in OSCE-IOM-ILO Handbook on Establishing Effective Labour Migration Policies to call for incentives to promote remittances transfer and to suggest measures to increase remittance flows through formal channels.
2.1.3 Right Protection for Migrant Workers

The government of Cambodia has demonstrated its efforts to protect migrant workers from being abuse, trafficking and mistreatment by employers and private recruitment agencies through establishing complaint mechanism to help migrant workers accessing to justice. The complaint mechanism was established via Prakas No. 249 on Complaint Receiving Mechanism for Migrant Workers in 2013, which mentions the establishment of a section at the MOLVT and Provincial Departments of Labour and Vocational Training (PDOLVTs) with responsibility for receiving and supporting complaints from migrant workers (Harkins and Ahlberg, 2017). Furthermore, a Migration Workers Resource Center (MRC) was established in early 2014 in the capital city with primary function to support the resolution and organize training on complaints process with participation from provincial governor, chief of PDOLVT and other relevant stakeholders. The Standard complaint forms and complaint database for case management was also developed by Winrock International to operationalize the Prakas No. 249 (ILO, 2016a). In practice, the dispute can resolved through three resolution mechanisms: administrative process, informal mediation and court. Prior to the establishment of complaint mechanism in 2013, all issues related to abusive treatment are resolved by regular justice system which is difficult for average people to access.

In 2016, ILO revealed the results of its assessment of the complaint mechanism and found desirable outcomes in general. The mechanism resolved more than 500 complaint cases for over 1,500 migrant workers and the victims received nearly US$220,000 in compensation during an 18-month period (ILO, 2016a). Of 501 cases, 335 were resolved by administrative process, and only 16 cases were resolve by court hearing, which can be interpreted as a good result in providing responsive approaches. Moreover, almost 78% of all closed cases were resolved within 3 months. The assessment indicates a successful mechanism to help migrant workers to access to justice.
In the case of abusive treatment on Cambodian workers in destination countries, migrant workers could lodge their complaints to labor attaches (from MOLVT) which are just recently deployed in 3 main destination countries such as Thailand, South Korea and Malaysia (Harkins and Ahlberg, 2017). The labour attaché will basically be responsible for offering legal helps, promoting and protecting migrants’ right and monitoring working condition of migrant workers (Sophal, 2009). In addition to labor attaches, Cambodia has deployed its representatives from PRAs to oversee working and living conditions of migrant workers. Before attaches were deployed in 2017, all assistances were provided by officials working at embassies and consulates in destination countries. Good working relationship with embassies in destination countries has been reported, though the assistance provision and proactiveness from the embassies is limited and low due to inadequate staff, capacity and resources.

### 2.1.4 Domestic Workers in Destination Countries

Domestic works are considered the most vulnerable jobs due to the isolation of workplace and most of domestic workers are female. There were many cases of forced labor and abusive treatment to Cambodian migrant workers such as excessive working hours, no wage payment, food deprivation and physical and sexual abuse have been reported. Cambodia domestic workers have been sent to most of destination countries where they have been subject to high-profile abuse. These countries include Malaysia, Saudi Arabia and Hong Kong.

Among all destination countries, Cambodia has sent the most of its domestic workers to Malaysia. The two countries signed MOUs in 2009 following temporary prohibition of sending workers from Indonesia after receiving many reports of abuses on Indonesian workers. After signing, the number of domestic workers sent to Malaysia increased significantly. The number of visa granted to Cambodian workers increased from 5,304 in 2008 to 12,682 in 2009 and to 20,909, of whom 18,038 (86 percent) were domestic workers between January and August 2011 (HRW, 2011). In 2011, a series of abuses on Cambodian domestic workers has been reported and the
government of Cambodia responded to the issue by imposing moratorium on sending domestic workers to Malaysia in October 2011. After negotiation between the two governments, Cambodia lifted its ban on sending domestic workers in 2015. In spite of lifting the ban, no domestic worker has been sent since the moratorium was imposed in 2011; the first deployment is expected to resume in June 2018 (Kunthear, 2018).

Despite a series of report of abusive treatment, Cambodian domestic workers have no access to proper protections from Malaysian government due to the gap of The Employment Act of 1955 and no amendment to this law. In the Employment Act of 1955 domestic worker is defined as “domestic servants” and they are excluded from important labor protections, such as working hours, a weekly day off, overtime pay, annual leave, and maternity protections (HRW, 2011). However, Malaysian government created and amended Anti-Trafficking in Persons Act of 2007 (ATIP), which concerned about trafficking labor into prostitution and forced labor and has ratified ILO Convention No. 189 on Domestic Workers (2011).

Beside Malaysia, Cambodia also signed MOUs and had bilateral agreements on sending domestic workers with other countries such as Singapore, Saudi Arabia, and Hong Kong, where abusive treatment on foreign domestic workers has been repeatedly reported. Cambodia sent its first 111 domestic workers to Singapore in 2013 as a part of pilot program followed by another 400 domestic workers in 2015. Another 14 domestic workers were sent to Hong Kong in December 2017 to test for viability in Hong Kong under the bilateral agreement between the two countries. The agreement between the two countries on sending domestic workers raises concern about the viability of migrant workers as a report released in 2016 by Justice Center found that one in six foreign maids in Hong Kong are subject to forced labour. In 2016, Cambodia signed MOUs with Saudi Arabia for sending both domestic and general workers. The country has been criticized for failing to protect domestic workers from abysmal treatment and slave-like conditions.
2.1.5 Regulation on Private Recruitment Agencies

Since Private Recruitment Agencies involve directly with migrant workers, especially in recruitment process, the government has to manage them carefully. Some of PRAs has been reported to have cheated migrant workers by promising to seek job for them, overcharged the fee during recruitment and had physical violent on workers during training. The government of Cambodia adopted a sub-decree concerning about the management of Private Recruitment Agencies in 2011 in order to protect migrant workers from being abuse. The sub-decree specifies the requirements for recruitment agencies to become legal agencies and defines the framework of cooperation between the MOLVT and recruitment agencies. According to the sub-decree, recruitment Agencies can apply for license from MOLVT and can be unlicensed anytime if they violate the regulation. To become a legal private recruitment agency, they must make a security deposit of USD 100,000, reporting its activities regularly and have a representative in any destination country to where they send migrant workers (Testaverde et al., 2017). Moreover, Cambodia has worked to enforce its regulation on recruitment agencies by carrying out a close inspection of private recruitment agencies every two years and imposing sanction on any recruitment agencies that violate the regulation. As of December 2017, there are 85 private recruitment agencies, which increased from 18 in 2008, have received licenses and are operating in the kingdom.

However, it requires more responsibility from the government to supervising private recruitment agencies and needs to improve the weakness of the sub-decree. The weaknesses include no legal restriction on the fees that can be charged by recruitment agencies, neither minimum capital, employer accreditation nor pre-departure orientation are mentioned in the sub-decree, and the government has not ratified the ILO convention No. 181 on Private Employment Agencies (1997).
2.2 Thailand’s Migration Policy for Foreign Workers

2.2.1 Regulation and International Instruments on Labour Migration

Thailand manages its labour migration through sub-decree on Immigration Act 1979 and the new sub-decree on Managing of the Work of Aliens 2017, which replaced the two previous legislations, namely the sub-decree on Bringing Alien to Work in the Kingdom 2016 and the Alien’s Work Act 2008. The announcement of the new employment Act 2017 has surprised tens of thousands of undocumented migrant workers and employers due to heavy punishment, resulted in mass exodus of illegal migrant workers returning home with panics. In addition to regulation on employment policy, Thailand has adopted a number of regulations on social security, such as Social Securities Act 1990 (amended 1994, 1999, 2015), the Labour Protection Act 1998 (Amended 2008), and Workmen’s Compensation Act 1994 in order to provide social security benefit to migrant workers as well as local workers and to protect their rights.

Even though Thailand has legislations to govern its labour migration, the policy decisions are made based on the cabinet resolution, including the registration and legalization of irregular workers. The implementation of the previous legislation on employment has been limited with important elements not applied, such as a foreign worker levy, and committees to review the employment of migrants (Testaverde et al, 2017).

As millions of foreign workers working in Thailand, labor migration becomes a complicated and big issue in the country and needs a better labour migration management. Therefore, it requires active participation from many involved institutions. Ministry of Labor of Thailand is the main institution that involves in managing and formulating labor migration policy. Under this ministry, there are some important departments which work closely with labour migration such as Department of Employment, Department of Labor Protection and Welfare and Office of Social Securities. The Department of Employment is charged of issuing work permit and
overseeing migration registration, whereas Department of Labor Protection and Welfare and Office of Social Security are concerned about labor protection and social security. In addition, the government of Thailand established a new committee called Committee and Subcommittee on Solving Problems of Migrant Workers in 2014 to replace the previous committee, called Illegal Alien Workers Management Committee due to priorities conflict between the ministries, resulted in undermining the effectiveness of committee. The new committee has responsibility to set migration policy related with undocumented workers.

In addition to the legislation and institutional framework, Thailand manages its labor migration through signing MOUs and bilateral agreements with migrant-sending countries. Thailand has signed MOUs, which govern all aspect of migration process from admission to employment and repatriation, with its neighboring countries, Cambodia, Laos and Myanmar to establish legal migration channel for sending migrant workers. Thailand initially signed MOUs with the neighboring countries in 2002 and 2003 and signed again in 2015, but not yet operationalized for the latter MOUs. Because of the lengthy and complicated procedures, there are only 500,000 migrant workers recruited through MOUs since the initial signing, triggering more workers entering the country illegally. Thailand had agreements with Cambodia, Laos and Myanmar in establishing legalization process under the Nationality Verification program for the purpose of regularizing all undocumented migrant workers in the kingdom. The number of migrant workers that went through the NV process increased to more than 1 million migrant workers as of December 2017 (see table 2.3.1).
Figure 2.3
Evolution of Thailand’s Labor Migration Policy 1954-2017

Source: Author’s compilation

(E) denotes ‘in effect’; (C) denotes ‘canceled’; (NO) = Not yet operationalized

Rectangle= Employment Policies; Rounded Rectangle= Social Security Policies; Oval=External factor; Dash line=MOU between Thailand and Cambodia, Laos and Myanmar
Thailand also has signed the ASEAN declaration and consensus and reviewed international conventions and protocols related to labor migration in order to ensure the protection of its labor from being abuse. Since ILO office was opened in Thailand in 1961, the country has ratified 6 out of 8 core ILO conventions. However, there are some technical conventions and protocols that Thailand has not ratified. These include Conventions on Domestic Workers (#189), Work in Fishing (#188), and Private Employment Agencies (#181) and Protocols on Forced Labour (#029) and Labour Inspection (#081). Since Thailand is also a member of ASEAN like Cambodia, Thailand has signed the ASEAN Consensus on The Protection and Promotion of the Rights of Migrant Workers in 2017, and adopted the ASEAN Declaration on the Strengthening Social Securities in 2013.

2.2.2 Legalization under MOUs and NV Process

As a receiving country, Thailand has a big task to deal with its estimated 2 million undocumented workers in the country, mostly from the neighboring countries. Beside MOUs that allow migrant workers to enter into the country legally, NV process was established to legalize the existing undocumented workers.

MOUs between the Thai government and the three governments of Cambodia, Laos and Myanmar govern all aspect of recruitment process from admission, employment to exit. Once the MOUs are signed, Thailand agrees to allow migrant workers from the three countries entering and working in the country legally. According to the process under MOU in Appendix C, the sending countries have responsibility to facilitate the procedure, but in practice, the procedure is handled with the help from recruitment agencies. The additional role of recruitment agencies adds more times and cost for migrant workers to complete the MOU process. This makes the legalization process through MOUs appeared to be less effective due to complicated, numerous, lengthy and expensive, which take a minimum 62 working days for Cambodian, 55 for Lao and 89 for Burmese migrant workers to complete the
process (ILO, 2017; Testaverde et al, 2017). Appendix C shows the recruitment process under MOUs with Cambodia, which is similar to that of Lao and Myanmar.

Because of the long and complicated process, migrant workers prefer migrating through illegal channels, resulted in an increase in the number of migrant workers enter Thailand through illegal channel. According to a survey conducted by ILO and IOM in 2017, informal channel is found to be more convenient, two-third faster than and more than twice as cheap as legal channel (HRW, 2018).

Thai authorities introduced another legalization process called Nationality Verification (NV), which is one of the important steps to receive legal status, following registration, for existing undocumented workers in early 2000s, and in late 2017, which were handled by neighboring countries. Under this NV process, undocumented workers had to apply for formal documents such as work permit, passport or Certificate of Identity (CI), travel card and other legal documents to become legal workers.

The NV program was proved to be more effective than MOU by a significant increase in number of legalized migrant workers since the process was established. As of December 2017, the total number of migrant workers from three neighboring countries recruited through MOU was approximately 582,000, compared to more than 1.2 million migrant workers completed nationality verification process (Table 2.2). However, the NV process which was handled by the neighboring countries has been criticized for being too slow, leaving many undocumented migrant workers remain under process.

According to the regulation, migrant workers must register with Thai authorities before going through the NV process. Once migrant workers obtain formal documents after registration, they are recognized by Thai authorities as temporary legal migrant workers. Migrant workers in Thailand could register at One-Stop-Service
Center which was established in 2014. The number of migrant workers registered through One-Stop service was more than 1.3 million as of December 2017.

**Table 2.2**  
*Number of migrant workers recruited through MOU and completed NV process in Thailand*

<table>
<thead>
<tr>
<th>Countries</th>
<th>Memorandum of Understanding (MOU)</th>
<th>Nationality Verification program</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dec-11</td>
<td>Oct-16</td>
</tr>
<tr>
<td>Cambodia</td>
<td>56,924</td>
<td>146,467</td>
</tr>
<tr>
<td>Laos</td>
<td>15,603</td>
<td>40,467</td>
</tr>
<tr>
<td>Myanmar</td>
<td>18,372</td>
<td>183,780</td>
</tr>
<tr>
<td>Total</td>
<td>90,899</td>
<td>370,714</td>
</tr>
</tbody>
</table>


*Note: Figures denote stocks of migrants, not flows*

**2.2.3 Social and Right Protection for Migrant Workers**

Thailand has established the social security scheme which benefit the local and migrant workers under the 1998 Labour Protection Act (Amended 2008), Social Securities Act 1990 (Amended 1994, 1999, 2015) and Workmen’s Compensation Act 1994. Under the 1998 Labour Protection Act, all migrant workers recruited through MOUs and regularized workers are subject to the same protections as local workers related to work hours, overtime, leave, minimum wage, so on (Paitoonpong 2011; Testaverde et al, 2017). In addition, legal migrant workers are eligible to receive social security benefit and compensations under Social Securities Act 1990. Migrants and employers are required to pay their contribution to the provident fund at the rate of 5 percent of their wages with another 2.75 percent contribution from the government (Lorenz & Partners, 2017). Even though the social...
security schemes are applied equally to migrant workers as well as local workers, migrant workers who work in fishing sector and domestic works are not eligible for the social protections and benefits.

In practice, not all legal migrant workers are insured and the share of social benefit is not distributed equally among all sending countries. As of July 2016, roughly 460,000 migrant workers were insured, accounted for only 36 percent of those having recruited through MOUs and going through the NV process were covered under the Social Security Fund (IOM, 2016). Of 375,000, Myanmar migrant workers received far most benefits from social security scheme with 62%, compared to only 17% and 2% for Cambodian and Lao workers respectively, as of July 2016.

**Figure 2.4**

No of migrant workers insured under Social Security Fund

<table>
<thead>
<tr>
<th></th>
<th>Sep-15</th>
<th>Jul-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myanmar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cambodia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lao PDR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


2.2.4 Admission and Employment Restrictions for Skilled and Low-Skilled Workers

Skilled migrant workers as well as low-skilled workers can enter and work in Thailand legally through MOUs between the two countries and through the nationality verification process, but they are restricted to a certain number of
occupations. According to the new sub-decree on Managing of the Work of Aliens 2017, both skilled and low-skilled migrant workers are allowed to work in any sectors but prohibited to have one of the 39 occupations including engineering, architecture, accounting, and lawyer, which are reserved for local workers. If they are found to violate the law, they could be fined from 2,000-100,000 baht (approximately USD 61 – USD 3,000), and face a jail term up to five years. As for employers, they could be fined from 400,000 to 800,000 baht (approximately USD 12,600 – USD 25,300) per worker. The list of these forbidden occupations was created initially in Foreign Employment Act 1939 and have updated from time to time. However, the determination of reserved occupations has been criticized as it does not satisfactorily serve the national interest because it is not compatible with social development and globalization (Papawadee, 2016).

Some policy of Thailand labor migration seems to favor the low-skilled workers and provide less generous incentive to skilled migrant workers when it comes to the quantity-related restriction. The number of skilled migrant workers is not allowed to be more than one-fourth of the total employees in a company to comply with the requirement of the ratio 1:4, meaning only one foreign worker for four local workers, and they must be paid a certain minimum wage depending on their occupations (Ruhs, 2016). Two programs are operating to recruit skilled workers such as work permit program and The Board of Investment Scheme, which are similar in terms of how they regulate the admission.

In contrast to skilled migrant workers, Thailand has no restriction on the low-skilled workers neither the quantity restrictions on the registration or legalization of irregular migrant workers. The fact that Thailand offers more generous incentives for low-skilled workers and less for skilled worker is likely due to high demand for low-skilled workers. Thailand becomes shortfall in low-skill labor as Thai people become more educated and equip themselves as high-skilled workers (Papawadee, 2016).
Similar to admission restriction, skilled migrant workers are subject to another restriction - employment terms. Unlike low-skilled migrant workers that have no cooling-off period, skilled migrants from neighboring countries having recruited through MOUs and going through the NV process are allowed to work for an initial period of only two years and can extend for another one year. After finishing the one-year extension, migrant workers must return to their home countries for 3 years before going on their works to comply with the requirement of cooling-off period. Recently, Thailand has relaxed the cooling-off requirement which allow them to extend their existing work permits; still they have to return home (Testaverde et al, 2016). Recently, Cambodia, Laos and Myanmar signed a new MOU with Thailand which could provide four-year employment term and only 30-day cooling off, but the MOUs have not been operationalized as the sectors enabled for employment under each MOU are yet to be determined (ILO, 2017).

2.2.5 Fishing Sector in Thailand

Thailand becomes the third largest fish exporter to the global market, making this sector important for the country’s economy and development. However, since the country was hit by natural disaster in 1989, and the increasing level people’s education, the industry has changed. Fishing sector became less attractive for local workers, and resulted in increasing demand for foreign labour to work in this industry. People who work in this sector are similar to those who do the domestic work in the sense that they have to work in a place that is isolated from others. Therefore, migrant workers who work in fishing sector, usually suffer from being forced labor, overworking hour, food deprivation and violence. Serious forced labor, poor working condition and human trafficking on migrant workers including migrant workers from Cambodia and Myanmar has been reported every year. Although Thailand has adopted legislations that are meant to protect migrant workers in all sectors including fishing sector, human trafficking and forced labor, poor employment practices and working conditions in this sector still remain an issue due to weak enforcement regime. According to a survey conducted by (ILO, 2013),
working conditions in fishing sector were found violating Thailand’s labor legislation and regulations, and fail to meet with international standards established in the ILO Work in Fishing Convention, 2007 (No. 188).

Recently, Thailand demonstrated its commitment to address the issues by improving employment practices and working conditions of migrant workers in fishing sector. Also, it has increased its budget to THB 3.6 billion to fight trafficking, taken measures to speed up the legal procedure to prosecute traffickers, and increased the amount of foreign interpreters for labor inspection and interview in response to TiP demotion in 2014; still, the Government of Thailand is not in line the minimum standards for the elimination of trafficking (Wasamon, 2018; TiP, 2017). Despite serious abuse on Cambodian workers in this sector, the government of Cambodia has not taken any formal action or prohibition from working in this sector in Thailand.

2.3 Conclusion

Both Cambodia and Thailand have been continuing to develop its labour migration policy including legislation and institutional framework in order to improve its migration governance by updating its legal framework and introduce more relevant institutions to deal with labor migration issue. Recent policy actions are expected to make significant progress in promoting and protecting the right of migrant workers and enhancing the impact of migration on the country’s development in the future. In Thailand and other country of destinations, their immigration policies have been developed to promote the right of migrant workers as equally as their local workers. In Cambodia, since the Labour Migration Policy was introduced in 2010, more Cambodian migrant workers have been legalized and have received right protection and social protection in both home country and destination countries. However, there are still many more that need to be done by both Cambodia and Thailand, including ratifying the important ILO conventions such as Convention on domestic works and Convention on work in fishing to tackle the prolonged migration issue.
This chapter consists of two sections. The first section will explain some theories related to the topic including theories of migration and remittances. Secondly, we are going to look at a number of empirical studies which will be introduced at the end of this chapter.

3.1 Theoretical Studies

Migration and remittances-related theories are explained by the two distinct schools of thought - optimistic view and pessimistic view. The first theory of migration was neo-classical theory, which started during 1950s and 1960s with optimistic view. Then during 1970s and 1990s, historical-structural theory which concerned about brain drain and integration came with pessimistic view. And finally, the theory with optimistic view came back with New Economic of Labor Migration (NELM) during 1990s in response to neo-classical theory. As for remittance, optimistic claims that remittance is positive to the receiving countries; it could alleviate poverty and promote economic development. In contrast, pessimist views that remittances should not be encouraged as it hurts growth and development of recipient countries, and links to excessive consumption, import dependency or unproductive investment.

3.1.1 Neoclassical Theories

The most basic model of migration theory was developed by Hick (1932), Lewis (1954) and Harris and Todaro (1970). According to neoclassical theory, free movement of labour will eventually lead to higher marginal productivity of labor and increasing wage levels in migrants-sending countries through the increasing scarcity of labor (Hein, 2010). The theory studies the two level of analysis – micro and macro level.
The neo-classical macro-level theory suggested that labor moves because of wage differences. People move from low-wage countries to high-wage countries, whereas capital move in exactly the opposite direction (Hein, 2010). Migrant workers will move towards higher-wage countries because of labor surplus in low-wage countries, while capital flows from high-wage countries to low-wage countries due to surplus of capital in high-wage countries. As the movement goes on, wage will approach to a common level.

Harris –Todaro (1970) also explains same way the convergence of wage with urban-rural migration and a fixed amount of labor. In the model, workers compare wage level in urban and rural sector with adjustment of the chance of getting a job in urban sector before deciding to move. Workers will migrate if their expected income is greater than average wage in rural sector. The movement will continue until their expected income equals average wage in rural sector. Eventually, no further migration occurs due to less incentive to move.

At micro level, the theory explains migration decision based on the probability of employment. Migrant workers decide to migrate with the goal of maximizing their net of return. Therefore, they analyze the cost and benefit of migration with adjustment of probability of getting a job at destination countries. In addition to the probability of employment, other factors can be part of migration decision such as skills, age, marital status, so on (Lucia, 2010).

3.1.2 Structuralist Views on Migration

The optimistic views began to be challenged by the structuralist views in late 1960s, which viewed that migration can contribute little to development, and even worse, it would exacerbate problems of underdevelopment (Hein, 2008). Brain drain which is caused by the migration of skilled people is believed to have a negative effect on development of developing countries as it is perceived to deprive poor countries of necessary and professional labor in which countries have invested many years of education (Adams 1969; Baldwin 1970). In
addition to brain drain phenomenon, the pessimist with structural views also concerned about the negative effects of exodus migration of low skilled people which is called “brawn drain”. The loss of labor force which resulted from brawn drain would lower local production in sending countries.

Structuralists are also pessimistic about the effect of remittances on development of sending countries. They challenged that remittances that are sent by migrants would cause non-productive activities and promote the attitude of remittance-dependent of non-migrant. They argued that remittances would be mainly spent on consumption and “consumptive” investments (such as houses, land, etc.), and rarely invested in productive enterprises. The local economy will be weakened by increasing in consumption of imported goods which developing countries can’t produce. Also, too much consumption on imported goods and on housing would result in poverty and inequality by provoking inflationary pressure, soaring housing price – leading to suffering for poor people.

3.1.3 Pluralist Perspectives

The perspective of pluralists on migration and development is linked with new economics of labor migration (NELM), which came in the 1990s in response to the neo-classical theory. The main idea of the NELM is that the decision of migration is made up by migrant workers and their family members rather individual. Decisions about migration are made to maximize household income, as well as minimize risk and loosen constraints related to market failures (Marita, 2015). Remittances work as an important tool to avoid future risk via insuring family member with different source of income.

3.1.4 Theories of Remittances

Lucas and Stark (1985) provide three types of remittance theory such as pure altruism, pure self-interest, and tempered altruism which motivate migrants to send their remittance. According to the Lucas and Stark (1865), altruism is the act of taking care of the wellbeing of someone by providing financial assistant.
Theory of Pure Altruism states that migrants send remittances simply because they care about the well-being of the family members by providing them with additional income. In a pure altruistic model, remittances tend to increase when the income of migrant workers increases and when income per capita of household member decline. Altruism model assume that a migrant maximize his/her utility with respect to amount remitted. Utility of migrant \( u_m \) is derived from utility of family member \( u \) at home of origin. And consumption per capita is assumed to depend on income per capita \( y \) and number of household \( n \).

If it is assumed that a migrant cares about their family, it can be predicted that differentiation of remitted money with respect to wage would be greater than zero \( (\partial r/\partial w>0) \) and differentiation of remitted money with respect to income per capita would be less than zero \( (\partial r/\partial y<0) \).

The second theory of remittances is self-interest theory. Theory states that there are three reasons for migrants to remit and their decision depends on purely selfish motivation. The first reason is a migrant would send money home to increase their visibility so that they become eligible for inheritance, esteem or other resources in their home of origin. This means that the more remittances sent the higher eligibility for inheritance. Secondly, migrants send remittances because they want to invest in some asset such as housing, land or animals and require maintenance from family members on behalf of them.

The last theory of remittances is called tempered altruism, which view remittances as a part of mutually contractual arrangement between migrant and family members (Marita, 2015). Investment and risk may cause the arrangement.

3.2 Empirical Studies

There is a number of studies have been conducted related to this topic by using difference econometrics tools, namely ARDL, Granger Causality test, VECM, OLS, Cointegration etc., The results from those researches appear to be controversial. Some studies found positive significant impact, and some found weak and no impact.
of remittances on economic growth. Sayantan (2017) claimed that remittances seem to promote growth in open countries and the counties with better financial institutions and financial markets which could transform them into productive investments and then promote growth. It is also worth to notice that the more recent studies tend to show positive impact. This is likely due to the increase in globalization and the introduction of financial literacy program to migration workers and their family members in sending countries during the last 10 years. Such activities promote economic growth in the long term.

However, regardless of how good are the financial sector and the level of openness of the countries, many evidences found positive significant impact on economic growth in many countries, especially in Asia where huge amount of remittances have been sent from all part of the world.

Several studies have been conducted in South Asian countries namely Bangladesh, India, Pakistan, Nepal and Sri Lanka. Salahuddin and Gow (2015) employed panel cointegration techniques to examine the long run relationship between variables. Siddique et al. (2012) researched using a Vector Auto-regression with time series over 25 years, but Jawaid and Raza (2016) employed the series data from 1975 to 2009. Waqas (2013) examined the effect of remittances on economic growth in Pakistan by employing time series data of twenty two years from 1991 to 2012 and simple regression model.

The results from empirical studies of Salahuddin and Gow (2015), Siddique et al. (2012) and Jawaid and Raza (2016) found long run relationship between remittances and economic growth in the country of Bangladesh, but they showed mixed results in other countries. In India, Salahuddin and Gow (2015) and Jawaid and Raza (2016) suggests significant positive relationship between remittances and economic growth. In contrast, Siddique et al. (2012) found no significant outcomes and therefore no causal relationship between the two variables in India. Positive significant impact of remittances is also found by Siddique et al. (2012) and Jawaid and Raza (2016) in Sri Lanka. In Pakistan, Salahuddin and Gow (2015) showed
positive long run relationship between remittances and economic growth, and the outcome is consistent with the study of Waqas (2013). However, it contrasts with the study of Jawaid and Raza (2016) that found negative significant results in Pakistan. Different technique and number of observations could be the reasons behind mixed results in India and Pakistan. However, the results from Bangladesh still remain consistent regardless of different techniques and number of observation because remittances become the largest source of foreign exchange transfers in the country (Puja, 2013). This shows the significance of remittances to support the economy of Bangladesh.

In ASEAN, Marita (2014) found positive significant impact of remittances on economic growth of ASEAN countries. Individually, the study found positive impact on Cambodian and the Philippines’ economy, but not on other countries. The study used panel data for the time period 1980-2012 and Ordinary Least Squares (OLS) method and Instrumental Variable Two-Stage Least Squares (IV 2sls) to estimate the effect. Similarly, Ying-Yin and Chee-Keong (2013) also found significant effect of remittances on economic growth by using autoregressive distributed lag (ARDL) model and Granger Causality test in the time period between 1975 and 2009 in Malaysia.

In addition to the findings from Asian countries, positive results are also found in Latin America and Caribbean countries by Nwaogu and Ryan (2015). The study shows that foreign aid and remittances affect the economic growth of 53 African and 34 Latin American and Caribbean countries. Remittances are also proved to have significant impact on Tunisia’s economy by Mohamed (2016). Using dynamic panel approach (GMM) and data over the period 1987-2012, the study suggested that remittances have significantly contribution to economic growth. In Guyana, Ronal (2013) shows positive effect of remittances on growth in both short and long run over period 1982-2010, while aid has a negative effect in the long run and financial deepening is not statistically significant. Similarly, Dietmar and Adela (2017) observe the effect of remittances on economic growth in six high remittances-receiving
European countries such as Albania, Bulgaria, Macedonia, Moldova, Romania and Bosnia Herzegovina. Employing panel dataset during period 1999-2013, the results suggest that remittances have positive impact on economic growth. The study of Kashmeer (2017) also confirms negative impact of imports, but positive impact of remittances and foreign direct investment on economic growth in Fiji Islands using time series quantitative technique and annual data from 1980 to 2015.

In contrast, some studies found weak and no impact on economic growth. Barajas et al. (2009) examines whether remittances promote long-run economic growth. Using panel regression for 84 countries during period 1970-2004, the results from the study shows that remittances have no significant impact on economic growth. Similarly, Rao and Hassan (2009) found no direct impact of remittances on growth. Moreover, Lim and Simmons (2015) also found no significant relationship between remittances and economic growth in the long run by employing panel cointegration tests. In Tunisia, Jouini (2015) suggested that there is no impact of remittances on economic growth in the long run over the period 1970–2010 through financial development and investment. Also, Jongwanich (2007) found strong evidence that remittances have significant impact on poverty reduction in South Asia, but only a small effect on growth.

While many studies have paid attention to the effect of remittances on economic growth, some studies attempt to study the relationship between remittances and other areas such as corruption, inequality, natural resources and financial development. Using panel data for 111 countries over the period of 1986-2010, Aziz et al., (2013) found that the level of corruption rises when remittances increase in non-OECD countries. Vincent (2017) found that remittances have long-run positive relationship with financial development in a number of emerging and developing countries over the period 1974-2014 by using a Pooled Mean Group (PMG) approach. Using an unbalanced panel data, Gazi et al., (2017) shows that remittances significantly reduce poverty in 37 countries. More interestingly, Chistian and Jean-Louis (2013) studied the impact of natural disaster through remittances on
the volatility of real output per capita growth of output in developing counties. The study used a large size of developing counties and found diminishing macroeconomic destabilizing consequences of natural disaster as remittances inflows rise.

3.2.1 Research Gap

After reviewing the literatures, we notice that there are abundant studies investigated relationship between remittances and economic growth in many countries in the world. However, this topic appears to be less attractive to Cambodian researchers as there is very few research has been conducted about this topic in the context of Cambodia’s economy while migration is one of sensitive issues for economists and politicians in political debate. Marita (2014) studied the in ASEAN countries and found positive significant effect of remittance on economic growth in Cambodia, but the study didn’t give detail explanation of how it is significant. This research is important to fulfill the gaps.
CHAPTER 4
RESEARCH METHODOLOGY

Even though there has been a number of research with the same topic has been conducted, but very few (at least among the studies there is a study conducted in the case of ASEAN countries) have studied the impact of remittances on Cambodia’s economies. Most of the studies either focus on Sub-Saharan Africa, Latin America or South Asia (Nepal, Bangladesh, India, Sri Lanka and Pakistan among others).

4.1 Theoretical Framework

The theoretical framework is constructed based on Rao and Hassan (2011), which is the extension of the basic Solow growth model (1956). In the model, the neoclassical Cobb-Douglas Production function can be modified to capture the permanent growth effects of variables like remittances on Steady-State Growth Rate (SSGR) through the total factor productivity (TFP) with assumptions of constant returns and Hicks-neutral technical progress. Cobb-Douglas production function is defined as:

\[ y_t = A_t k_t^\alpha \quad \alpha \in (0,1) \]

Where \( y \) = per worker output, \( A \) = stock of technology and \( k \) = capital per worker. It is also assumed by Solow model that the evolution of technology can be written as:

\[ A_t = A_0 e^{gT} \]

Where \( A_0 \) = the initial stock of knowledge and \( T \) is time. Therefore, the steady state growth of output per worker equals \( g \).

It is also plausible to assume that:

\[ A_t = f(T, Z_t) \]
Where Z is a vector of TFP improving variables like remittances and control variables such as net official development aid, financial developments etc.

The effect of remittances and other variables on TFP can be captured by incorporating Z vector into equation (4.3) and (4.2) and then substitute into production function as follows:

\[ y_t = A_0 e^{(g_1 + g_2 Z_t)T_k^T} \]  

(4.4)

The alternative specification implies that SSGR is:

\[ \Delta \ln y^* = SSGR = g_1 + g_2 Z \]  

(4.5)

Where \( g_1 \) can be interpreted as capturing the growth effects of other trended and excluded variables and \( g_2 \) captures the growth effects of the variables in the Z vector.

4.2 Data and Descriptive Statistics

The main research question of this thesis is to find the impact of remittances on economic growth in Cambodia. In order to study the effect, annual time series data such as GDP, Remittances, Net Official Development Assistant and Domestic Credit to Private Sector will be collected from the website of World Development Indicators (WDI) with total number of 24 observations covering from 1993 to 2016. After collecting data, all variables will be converted into log form. Nominal GDP will be used as dependent variables while the remaining is used as independent variables. Since Cambodia is a highly dollarized economy where foreign currencies, especially US dollar, are widely used, all data are measured in US dollar rather than local currency.

Table 4.1 shows statistical information of data. GDP and ODAN are expressed in US$ billion and US$ million respectively, whereas REMP and DCP are expressed as percentage of GDP. Mean and median shows the average point of data, while standard deviations and the values of maximum and minimum measure the
variation and dispersion of data. For example, on average, REM is 1.758 with 0.911 of standard deviation. The maximum value of REM is 2.871, while the lowest number is 0.33. Correlation analysis is also given in order to understand the relationship among variables, but not the explanation of causality. In the table, the correlations among independent variables appear to be low, except for correlation between LODAN and LDCP. The lowest is 0.265 (correlation between LREMP and LODAN), whereas the highest is 0.864 (correlation between LODAN and LDCP).

Table 4.1
Descriptive Statistics and Correlation Analysis (24 Observations)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Median</th>
<th>S.D</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>REMP</td>
<td>1.758</td>
<td>2.001</td>
<td>0.911</td>
<td>0.33</td>
<td>2.871</td>
</tr>
<tr>
<td>DCP</td>
<td>19.991</td>
<td>9</td>
<td>20.157</td>
<td>2.371</td>
<td>69.658</td>
</tr>
<tr>
<td>GDP (US$ Billion)</td>
<td>8.497</td>
<td>7.662</td>
<td>4.317</td>
<td>3.15</td>
<td>17</td>
</tr>
<tr>
<td>GCN (US$ Billion)</td>
<td>1.581</td>
<td>1.049</td>
<td>1.251</td>
<td>0.301</td>
<td>4.544</td>
</tr>
<tr>
<td>ODN (US$ Million)</td>
<td>558.46</td>
<td>534.985</td>
<td>183.35</td>
<td>277.45</td>
<td>808.21</td>
</tr>
<tr>
<td>LREMP</td>
<td>0.15</td>
<td>0.3</td>
<td>0.337</td>
<td>-0.48</td>
<td>0.458</td>
</tr>
<tr>
<td>LDCP</td>
<td>1.09</td>
<td>0.954</td>
<td>0.44</td>
<td>0.375</td>
<td>1.842</td>
</tr>
<tr>
<td>LGCN</td>
<td>9.061</td>
<td>9.018</td>
<td>0.362</td>
<td>8.478</td>
<td>9.657</td>
</tr>
<tr>
<td>LODAN</td>
<td>8.722</td>
<td>8.728</td>
<td>0.153</td>
<td>8.443</td>
<td>8.097</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Correlation</th>
<th>LREMP</th>
<th>LDCP</th>
<th>LGDP</th>
<th>LGCN</th>
<th>LODAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>LREMP</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LDCP</td>
<td>0.364</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LGDP</td>
<td>0.49</td>
<td>0.975</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LGCN</td>
<td>0.414</td>
<td>0.975</td>
<td>0.988</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>LODAN</td>
<td>0.265</td>
<td>0.864</td>
<td>0.892</td>
<td>0.902</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Author’s calculation
4.3 Empirical Framework

The nexus between remittances and economic growth firstly is estimated by adopting the empirical framework used by Marita (2014), which used only REMP as independent variables. We extend the empirical model by adding three controlled variables such as official development assistant, credit to private sector and capital formation, to check how the outcomes would change. We decide to add these three variables to confirm the outcomes with the study of Ronald, R. K., (2013), which include the same controlled variables. Ronald, R. K, (2013) study the effect of remittances on economic growth in Guyana, and apply ARDL model, which we can’t use in our model due to insufficient observation.

The extended model is defined as follow:

\[ GDP_t = \beta_0 + \beta_1 REMP_t + \beta_2 ODANP_t + \beta_3 DCP_t + \beta_4 GCN_t + \epsilon \]  

(4.6)

Where,

- GDP is the dependent variable for Gross Domestic Product,
- REMP is the independent variable for remittances as a share of GDP
- ODANP is independent variable for Net Official Development Assistant
- DCP is independent variable for Domestic Credit to Private Sector as a share of GDP
- GCN is independent variable for Gross Capital Formation
- \( \beta \) is coefficient
- \( \epsilon \) is error term

All data series are transformed into log. By transforming variables into log, all slope coefficients will be interpreted as elasticity, that is, the percentage change in dependent variable with respect to percentage change in independent variable. An advantage of elasticity is that it could help free the model from the problem of serial correlation.
Thus, equation (4.6) becomes:

\[ LGDP_t = \beta_0 + \beta_1 LREMP_t + \beta_2 LODAN_t + \beta_3 LDCP_t + \beta_4 LGCN_t + \epsilon_t \quad (4.7) \]

**4.3.1 OLS Estimation**

Firstly, we conduct Ordinary Least Square (OLS) regression to see if there is any effect of remittances on GDP. This paper will use the empirical study of Marita (2014) to study the effect of remittances on economic growth. Marita (2014) used REMP merely as independent variable and GDP as dependent variable and other seven ASEAN countries, namely Cambodia, Indonesia, Laos Malaysia, the Philippines, Thailand and Vietnam as dummy variables. Since this study focus on only one country, I don’t include dummy variables. Among all seven ASEAN countries, there are only 2 countries, namely Cambodian and the Philippines that the study found positive significant impact on Economic growth. Therefore, in our study, the coefficient of remittance is expected to be positively significant.

Next, before model (4.7) is estimated, it will estimated with two controlled variables namely ODAN and DCP without GCN as GCN is highly correlated with these two variables.

**4.3.2 OLS Estimation with Dummy Variable**

**4.3.2.1 Cambodian Migration Policy for 2010-2015**

With contribution from stakeholders such as ILO, International organizations, NGOs, recruitment agencies, the government of Cambodia adopted its first Policy on Labour Migration for Cambodia for 2010-2015 in 2010 with three main objectives: (1) governance of labor migration (2) protection and empowerment of migrant workers and (3) harnessing of migration for development. The third objective is considered the most important for economic development and poverty reduction. In the policy, challenges had been outlined including mainstreaming labor migration issue within the national development plan and promoting the productive use of migrant workers’ remittances for development and
so on. Also, in the key policy areas of the third objective, measures had been highlighted in order to ensure full benefit from remittances including reducing the cost of remittance transfer, offering matching resources/fund for community investment, creating special saving schemes, providing access to banking facilities, linking microfinance institutions/saving programs to remittances, and influencing the productive use of remittances. However, results from an assessment of the policy implementation found that only 25% of the policy implementation was on target, while 35.5% was not progressing, and the remaining was progressing.

4.3.2.2 Migration Policy 2010 as Dummy Variable

In this study, 2010 will be chosen for the labor migration policy implementation and to investigate the effect of the policy as well as remittance on economic growth. The dummy variable will be incorporated into the model with value of 1 for post-policy (after 2010), which from 2010 until 2016 and value of 0 for pre-policy (before 2010) which is from 1993 until 2009. The equation will include remittance ($LREMP_t$) and official development aid ($LODAN_t$) and MP2010, which stands for Migration Policy 2010. Therefore, the model is as follow:

$$LGDP_t = \beta_0 + \beta_1 LREMP_t + \beta_2 LODAN_t + \beta_3 MP2010_t + \epsilon_t$$ (4.8)

4.4 Unit Root Test – ADF

Before estimating the models, unit root test is needed to check if the variables are stationary or not to avoid spurious regression results. It requires all variables to be stationary, and they are integrated of same order. In this paper, Augmented Dickey Fuller (ADF) test, which is one of the most popular unit root test will be used to check for stationary.

Augmented Dickey Fuller Test is the extension of Dickey Fuller (DF). DF equation can be written as:
\[ \Delta Y_t = \delta Y_{t-1} - Y_{t-1} + u_t \]  \hspace{1cm} (4.9)

If \( \delta \) is found zero in hypothesis testing, \( \rho \) will become 1 in equation:

\[ Y_t = \rho Y_{t-1} + u_t \]  \hspace{1cm} (4.10)

which is RWM (Random Walk model) because equation (4.10) is obtained from equation (4.9), where \( \delta = \rho - 1 \) by subtracting \( Y_{t-1} \) from both side of equation (4.10). So the series is random walk or nonstationary.

Dickey and Fuller extended this test by adding lagged values of the dependent variable \( \Delta Y_t \) to three equations, such as random walk without drift (equation 4.10), random walk with drift, and random walk with drift around a deterministic trend. It can be defined as:

\[ \Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum_{i=1}^{m} \alpha_i \Delta Y_{t-1} + \varepsilon_t \]  \hspace{1cm} (4.11)

where \( \varepsilon_t \) is pure white noise error term and where \( \Delta Y_{t-1} = (Y_{t-1} - Y_{t-2}) \)
\( \Delta Y_{t-2} = (Y_{t-2} - Y_{t-3}) \), etc.

Similar to DF test, the hypotheses of ADF test are:

1. Null hypothesis: \( H_0: \delta = 0 \) (there is a unit root)
2. Alternative hypothesis: \( H_1: \delta < 0 \) (there is no unit root)

In significance tests, tau value (\( T \)-value) is used instead of \( t \)-value; however they are the same. If the absolute \( T \) value of \( Y \) lag one period lies in the critical region or it is greater than critical \( T \) value, which can be found in \( t \)-table, we reject the null hypothesis. Beside test statistics, P-value also can be used to evaluate the significance of the hypothesis testing. We reject null hypothesis when P-value is less than significant level. In conclusion, the series has unit root if the null hypothesis is not rejected.
4.5 Diagnostic Tests

After estimating the models, diagnostic test will be performed to detect the problems of multicollinearity, serial correlation, heteroscedasticity, and normally distribution to avoid from meaningless outcomes. In this study, Variance Inflation Factor (VIF) will be used to detect multicollinearity, LM test will be employed to check for the problem of serial correlation, while Breusch-Pagan-Godfrey and Jaque-Bera test will be used to detect the problem of heteroscedasticity and normally distribution of error term respectively.
5.1 Unit Root Test

To avoid from spurious regression results, Augmented Dickey Fuller (ADF) test is used to detect unit root in all data series. The number of lags will be selected automatically by choosing Akaike Info Criterion (AIC) rather than Schwarz Info Criterion (SIC) because AIC is more suitable with small sample size. Then if any series are found non-stationary, we need to take first difference and/or second difference to remedy the non-stationary. In this test, the null hypothesis is that the data series are not stationary (have unit root), while alternative hypothesis is that each series are stationary.

The outcomes from Table 5.1 show that, at level, all variables are not statistically significant, meaning that the null hypothesis cannot be rejected that each data series is not stationary or has unit roots. But when they are transformed into first difference, all variables are statistically significant at 10%, 5% and 1% level of significance, meaning that all data series become stationary when they are transformed into the first difference. In other words, all variables are integrated of order 1, I(1).
Table 5.1
Results of Unit Root Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Augmented Dickey Fuller Test</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>At Level</td>
<td>At First difference</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>Constant &amp; Trend</td>
</tr>
<tr>
<td>LGDP</td>
<td>-0.313</td>
<td>-2.285</td>
</tr>
<tr>
<td>LREMP</td>
<td>-2.057</td>
<td>-1.748</td>
</tr>
<tr>
<td>LODAN</td>
<td>-1.522</td>
<td>-2.458</td>
</tr>
<tr>
<td>LDCP</td>
<td>-0.533</td>
<td>-2.086</td>
</tr>
<tr>
<td>LGCN</td>
<td>-0.339</td>
<td>-2.953</td>
</tr>
</tbody>
</table>

* The rejection of null hypothesis at 10% level; ** the rejection at 5% level; *** the rejection at 1% level

Source: Author’s calculation

5.2 Empirical Results and Diagnostic Tests

To examine the effect of remittances and labor migration policy on Cambodian economic growth, simple regression model will be employed. After estimating, all models will be checked for diagnostic problems such as multicollinearity, serial correlations, heteroscedasticity and normality.

5.2.1 Estimation with OLS

The study will estimate three simple regression models with the same LGDP as dependent variable. First, the model will be estimated with only REMP as independent, and second, it will be estimated with REMP along with other two controlled variables such as LODAN and LDCP. The third model will be estimated with all independent variables in model 2 with another controlled variable LGCN. We decide to add LGCN in last model because the correlations between this variable with other independent variables are quite high, which might lead to meaningless outcomes.
<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>LREMP</td>
<td>0.338 (0.128)**</td>
<td>0.118(0.036)***</td>
<td>0.074(0.019)***</td>
</tr>
<tr>
<td>LODAN</td>
<td>-</td>
<td>0.782(0.106)***</td>
<td>0.167(0.099)</td>
</tr>
<tr>
<td>LDCP</td>
<td>-</td>
<td>0.668(0.108)***</td>
<td>0.154(0.089)</td>
</tr>
<tr>
<td>LGCN</td>
<td>-</td>
<td>-</td>
<td>0.482(0.065)***</td>
</tr>
</tbody>
</table>

No of Observation: 24

Prob>F: 0.015, 0.000, 0.000

R-squared: 0.240, 0.954, 0.9881

Note: ** significant at 5%; *** significant at 1%; Value in parenthesis denotes standard errors

Source: Author’s calculation

The outcomes from Table 5.2 show that remittance as percentage of GDP in all three models has positive significant impact of Cambodian GDP growth. In model 1, the coefficient of LREMP is 0.338, meaning that an increase as percentage in GDP in 1% of remittances will increase economic growth by 0.338%. The outcome is consistent with result of Marita (2014)’s study, which study the effect of remittance on ASEAN countries, including Cambodia. Our studies found same positive and significant coefficient and with almost similar magnitude of 0.307. This is because Marita (2014) used only remittance as independent variable and real GDP as dependent variable, but with only 18 numbers of observations.

However, the study is extended by adding more controlled variables into the model to check how the outcomes would change. The outcomes after adding more variables shows similar results with remittances still remain positive and significant. It is worth notice that the more variables added the lower coefficients of remittance. The coefficient of remittances decreases from 0.33 in model 1 to 0.11 and to 0.7 in model 2 and model 3 respectively. This shows the weakness of Marita (2014)’s study, which overestimate the magnitude/effect of our
target variable remittance on economic growth because it didn’t add more controlled variables.

Moreover, model 3 also seems to be consistent with the study of Ronald (2013), which studies the effect of remittance on Guyana’s economy, using similar characteristics of independent variables (LREMP, LODAN, LGCN and LDCP) and 28 observations from 1982 to 2010, but different method. In contrast to Ronald (2013) that apply Autoregressive Distributed Lag (ARDL) model, my model applies OLS, yet the outcomes are found to be similar. Ronald (2013) found positive significant impact of remittance and capital formation on Guyana’s economy with coefficient of 0.03 and 0.689 respectively, and found negative impact of official development aid and domestic credit to private sector, but not significant at 5 percent significant level. Our studies are similar in the sense that the two variables such as remittances and capital are positively significant, and the other two variables such official development aid and domestic credit to private sector are not significant. The latter two variables are not significant, are likely to be suffered from multicollinearity, which flatter the value of standard error.

Although, the estimations provide desirable outcomes, the models appear not to fully pass the diagnostic test. Among all the three models, Appendix B1 shows that Model 2 seems to be free from all diagnostic problems with p-value more than 5% significant level, meaning it fails to reject the null hypothesis of no serial correlation, constant variance and normally distribution and with VIF less than 2, the model is free from multicollinearity. It is suggested that VIF shouldn’t be more than 2.5 to be free from multicollinearity (Recahrd, 2005). However, Model 1 pass all diagnostic problems, except for serial correlation with p-value less than 5% significant level, while Model 3 is free from all problems, except for multicollinearity with a higher VIF of 7.68. Model 3 suffers from multicollinearity because of higher correlation between LGCN and LODAN and LDCP.

Moreover, among all models, Model 2 is the most acceptable with the right sign of coefficient of remittance and is statistically significant. Also, F-value
of model 2 shows the overall significant impact of independent variables on economic growth, with high value of R-square of 0.954, which means that LGDP can be explained by independent variables LREMP, LODAN and LDCP by 95.4%. Therefore, it can be concluded that remittance has positive and significant impact on Cambodian’s economy; with an increase in 1% of remittance, it is expected to increase economic growth by 0.11%.

Even though, Model 1 and Model 3 have minor diagnostic problems, they can be acceptable. Hence, the three models provide desirable and similar outcomes which are consistent with other empirical studies.

5.2.2 OLS Estimation with Dummy Variable

We now investigate the effect of remittance and migration policy on economic growth with a dummy variable MP2010 for Migration Policy 2010, LREMP and LODAN as independent variables.

Table 5.3

<table>
<thead>
<tr>
<th>OLS Estimates with Dummy Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variables</td>
</tr>
<tr>
<td>LREMP</td>
</tr>
<tr>
<td>LODAN</td>
</tr>
<tr>
<td>MP2010</td>
</tr>
<tr>
<td>Number of Observation</td>
</tr>
<tr>
<td>Prob&gt;F</td>
</tr>
<tr>
<td>R-squared</td>
</tr>
</tbody>
</table>

Note: *** significant at 1%; Value in parenthesis denotes standard errors
Source: Author’s calculation

According to Table 5.3, remittances as a share of GDP and official development aid have positive significant impact on economic growth at 1% significant level. The table shows that coefficient of LREMP is 0.213, meaning that an increase in 1% of LREMP will contribute 0.213% to the economic growth. Also, it also
indicates that growth rate for post-policy is 0.389% higher than pre-policy. The diagnostic tests are also performed to avoid meaningless results. According to Appendix B2, the model is free from all problems with p-values more than 5% significant level, meaning that we can’t reject the null hypothesis of no serial correlation, homoscedasticity, and normal distribution of error term. It clearly shows that economic growth after 2010 is higher than before 2010, and it is contributed by migration policy although the assessment of policy implementation found that 21.5% was on target. Before migration policy was implemented in 2010, a study conducted by Deelen & Pracha, 2010 in Cambodia, Laos and Myanmar found that recipient households in Cambodia were lack of opportunity and capacity to invest their remittances productively. Large sums of remitted money were spent on daily needs rather than in education, agriculture or business which were added up to only 16% of the total remitted money. The study also found that 14% of remittances were spent on health care, while 10% were spent on paying debt.
CHAPTER 6
CONCLUSIONS AND RECOMMENDATIONS

Due to globalization, labor migration becomes a big issue as more and more people migrate from low-wage countries to higher-wage countries; hence, it requires better migration management for both sending and receiving countries. At the meantime, the flow of remittances sent back to their home countries are expected to increase significantly. The main objective of the study, therefore, is to analyze the impact of the flow of remittances on economic growth in Cambodia and the results will be linked with migration policy of Cambodia which might contribute to the findings. Results from multiple regression models suggest that remittances appear to have positive impact on economic growth significantly. Also, the outcomes from dummy variable Migration Policy 2010 show that migration policy for 2010-2015 does significantly contribute to economic growth of Cambodia. The positive effect of remittance is found significant likely due to effectiveness of migration policy which promotes the flow of remittances and encourages people to use remittances to invest in productive activities. In 2014, the government has adopted another Policy on Labor Migration for Cambodia for 2015-2018, which extends the three main objectives of previous policy. However, the implementation of the new policy has not been evaluated yet.

In the new migration policy for 2015-2018, the government has put more emphasis on the third objective, which is important for the country’s development and poverty reduction. However, this study provides some policy recommendations in order to achieve better results for the third objective: (1) mainstreaming labor migration with the national strategic development plan (2) promoting free flow of remittance by reducing the cost of remittances (3) providing financial literacy training to recipient households so that they invest their remitted money on enterprises, agriculture or education, (4) working closely with recruitment agencies to open bank accounts for migrant workers, making sure that they send their money through formal channels, (5) providing training for migrant workers before and after departure.
to ensure that they could acquire skills which could be beneficial for both receiving country and home country after repatriation.
REFERENCES


MMN (Mekong Migration Network) and AMC (Asian Migrant Centre), (2013). Migration in the Greater Mekong Subregion Resource Book: In-depth Study: Border Economic Zones and Migration. Chiang Mai: MMN and AMC.


Tunon, M., Rim, K., (2013). Cross-border labour migration in Cambodia: considerations for the national employment policy; ILO Asia-Pacific working paper series, ISSN 2227-4391; 2227-4405


APPENDICES
APPENDIX A
Appendix A1

No of migrant workers recruited through MOUs


Appendix A2

No of migrant workers has completed NV process

# APPENDIX B

## Appendix B1

### Diagnostic tests

<table>
<thead>
<tr>
<th>Diagnostic tests</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multicollinearity (Mean VIF)</td>
<td>1.00</td>
<td>1.89</td>
<td>7.68</td>
</tr>
<tr>
<td>Serial Correlation</td>
<td>20.57 (0.000)*</td>
<td>0.591 (0.442)</td>
<td>2.385 (0.122)</td>
</tr>
<tr>
<td>Heteroscedasticity</td>
<td>0.68 (0.410)</td>
<td>2.95 (0.085)</td>
<td>2.28 (0.13)</td>
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<tr>
<td>Normality</td>
<td>1.99 (0.369)</td>
<td>0.836</td>
<td>1.22 (0.543)</td>
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</tbody>
</table>

Note: value in parenthesis is p-value; * rejection of null hypothesis at 1% significant level

## Appendix B2

### Diagnostic tests

<table>
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<tr>
<th>Problem</th>
<th>Chi2</th>
<th>Prob&gt;chi2</th>
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</thead>
<tbody>
<tr>
<td>Autocorrelation</td>
<td>0.235</td>
<td>0.509</td>
</tr>
<tr>
<td>Heteroscedasticity</td>
<td>0.16</td>
<td>0.296</td>
</tr>
<tr>
<td>Normality</td>
<td>0.358</td>
<td>0.836</td>
</tr>
</tbody>
</table>

Note Ho: No serial correlation; Ho: Constant variance; Ho: Normality
APPENDIX C
MOU process for workers from Cambodia (as of 2014)

- Employer informs PEO of a vacancy
- PEO submits the vacancy to the MOL (est. 9 days). Thai and Cambodian MOLs discuss an annual quota of workers (est. 5 days).
- Workers contact RA about employment abroad
- RA receives quota and demand letter from MOL
- Workers select workplace (type of job, location and employer); job placement contract between RA and workers is signed (2 days).
- MOLVT issues card for workers to work overseas; name list of migrants to request passport is
- MOL issues passport (20 days)
- Thai MOL approves name list for entry to work in Thailand (15 days)
- MFA&IC approves name list for visa application and issues Embassy assigned letter (4 days)
- Thai Embassy in Cambodia issues non-immigrant LA visa (3 days)
- Worker departs for Thailand
- Worker undergoes health checks in Thailand and submits a work permit application (est. 7 days)
- Worker begins placement on job.

- Card for overseas work: USD 10
- Passport: USD 4
- Work permit from Thai Embassy: USD 20
- Travel cost: USD 10
- Food: USD 5

The process takes an estimated minimum of 62 days.

Source: ILO
BIOGRAPHY

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Scholarship               Thammasat University’s Scholarship