UNIVERSITI PUTRA MALAYSIA

MONETARY TRANSMISSION MECHANISM OF ASEAN-5 COUNTRIES AGAINST EXTERNAL SHOCKS

FATEMEH RAZMI

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By

FATEMEH RAZMI

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfillment of the Requirement for the Degree of Doctor of Philosophy

October 2015

DEDICATION

To my husband and son
To my parents

For their support and encouragement
With deepest expression of love and appreciation

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the Degree of Doctor of Philosophy

MONETARY TRANSMISSION MECHANISM OF ASEAN-5 COUNTRIES AGAINST EXTERNAL SHOCKS

By

FATEMEH RAZMI

October 2015

Chairman : Professor Azali Mohamed, PhD
Faculty : Economics and Management

This thesis investigates the monetary transmission mechanism against external shocks. Many literatures suggest that the external shocks primarily world oil price and the conditions of US economy had played an important role in creating the economic crisis of 2007-2009. Therefore, this study intends to empirically investigate the effects of external shocks, in particular world oil price and the US output, whether directly or indirectly were transmitted through the channels of the monetary transmission mechanism such as interest rate, exchange rate, domestic credit, and stock price on output and domestic prices.

This study employs the augmented structural VAR of Kim and Roubini (2000) and the estimation period covers the monthly data spanning from 2002 to 2013 for five original members of Association of South East Asian Nations (ASEAN-5) namely Indonesia, Malaysia, Singapore, the Philippines and Thailand.

The results of the study show that before the crisis, there is a significant direct effect of external shocks to all ASEAN-5 countries. However, the indirect impacts of external shocks are insignificant for all countries except for Malaysia. In Malaysia, the effects of US output shock indirectly transmitted to the domestic economy through the channels of transmission mechanism.

After the crisis period, the estimation results indicate that world oil price indirectly affect the ASEAN-5 economies except for Indonesia. For the direct effect, world oil price has significant effects on the economies of all countries while the effect of US output is only significant for Indonesia and Malaysia. The monetary authorities of ASEAN-5 countries can achieve their economic objectives in facing external shocks by influencing domestic credit and stock price. These channels are most effective channels on economies of ASEAN-5.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

MEKANISME TRANSMISI MONETARI KEPADA NEGARA-NEGARA ASEAN-5 SEMASA PRA DAN PASCA KRISIS KEWANGAN GLOBAL

Oleh

FATEMEH RAZMI

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Tesis ini mengkaji mekanisma transmisi kewangan terhadap kejutan luaran. Banyak kajian mencadangkan bahawa kejutan luaran , terutamanya harga minyak dunia dan keadaan ekonomi Amerika Syarikat memainkan peranan yang penting dalam mewujudkan krisis ekonomi antara tahun 2007-2009. Oleh sebab itu, kajian ini bertujuan untuk mengkaji kesan kejutan luaran tersebut.,terutamanya harga minyak dunia dan output Amerika Syarikat, sama ada secara langsung atau tidak langsung melalui saluran mekanisma transmisi kewangan, seperti kadar faedah, kadar pertukaran, kredit domestik, dan harga stok terhadap output dan harga domestik.

Kajian ini menggunakan VAR struktural luasan Kim dan Roubini (2000) dan tempoh jangkaan yang meliputi data bulanan bagi tempoh dari tahun 2002 hingga 2013 untuk lima ahli original Persatuan negara –negara Asia Tenggara (ASEAN-5), iaitu Indonesia, Malaysia, Singapura, Filipina, dan Thailand.

Hasil kajian mendapati bahawa sebelum krisis, terdapat kesan langsung luaran yang signifikan terhadap semua negara ASEAN-5. Walau bagaimanapun, impak tidak langsung kejutan luaran adalah tidak signifikan bagi semua negara, kecuali Malaysia.Di Malaysia,kesan kejutan output Amerika Syarikat secara tidak langsung disebarkan kepada ekonomi domestik melalui saluran mekanisma transmisi.

Selepas tempoh krisis, jangkaan dapatan menunjukkan bahawa harga minyak dunia secara tidak langsung menjejaskan ekonomi negara ASEAN-5,kecuali Indonesia. Bagi kesan langsung, harga minyak dunia mempunyai kesan yang signifikan ke atas ekonomi semua negara ,manakala kesan output Amerika Syarikat hanya signifikan ke atas negara Indonesia dan Malaysia. Pihak berkuasa kewangan negara-negara ASEAN-5 dapat mencapai objektif ekonomi mereka dalam menghadapi kejutan luaran dengan mempengaruhi kredit domestik dan harga stok. Saluran tersebut merupakan saluran yang paling efektif bagi ekonomi negara-negara ASEAN-5.

ACKNOWLEDGEMENTS

I would like to express my sincere thanks to my supervisor, Prof. Dr. Azali Mohamed for his outstanding assistance in supervising me and also for his invaluable comments. I also would like to especially thank Assoc. Prof. Dr. Lee Chin, Prof. Dr. Muzafar Shah Habibullah, Prof. Dr. Mansor bin Ibrahim for their great help and support all these years.

This thesis submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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LIST OF ABBREVIATIONS

ASEAN	Association of Southeast Asian Nations
ASEAN-5	Malaysia, Indonesia, Thailand, Singapore and the Philippines
BNM	Bank Negara Malaysia
OPR	Overnight policy rate
BI	Bank of Indonesia
FX	Foreign exchange market
VAR	Vector Autoregression
SVAR	Structural Vector Autoregression
ECM	Error correction model
VECM	Vector error correction model
TVAR	Threshold VAR
FAVAR	Factor-Augmented Vector Autoregressive
GMM	Generalized method of moments
GDP	Gross domestic product
US	United States
MAS	Monetary Authority of Singapore
BSP	Banko Sentral ng Philippines
G7	Seven advanced economies: Canada, France, Germany, Italy, Japan, the United Kingdom and the United States
CEE	Central and Eastern Europe
ADL	Auto distributed lag model
VEC	Vector error correction
MCI	Monetary Conditions Index
182-day T-bill	182-days treasury bills
91-day T-bill	91-days treasury bills
SBI	Bank Indonesia Certificates
OECD	Organization for Economic Co-operation and Development

CHAPTER 1

INTRODUCTION

Different monetary policies help the monetary authorities to achieve their economic objectives such as price stability and sustainable growth. For example, monetary targeting policy tries to maintain money growth; inflation targeting policy targets an inflation rate and exchange rate targeting policy keeps the exchange rate in the target range. The monetary authority employs the monetary policy by using some tools as monetary policy stance such as interest rates and money supply. Interest rates and money supply may directly affect output and inflation or influence them through the channels of monetary transmission mechanism. The most well-known channels of monetary transmission mechanism are interest rate, exchange rate, credits, and asset prices.

Although these four variables are factors of monetary policy transmission, monetary policy is not the sole factor influencing these channels. The influence of other factors and inappropriate response to them might distance policy makers from achieving their goals. The oil price as a stressful factor in most economies (Cuñado & Pérez de Gracia, 2003; Hamilton, 1983, 2011) and US economy as an important partner in international trade and the main factor in the recent crisis of 2007-2009, can be two important factors affecting the channels of monetary mechanism. Figure 1.1 shows that the monetary policy stance such as interest rates transmit to output and prices through four channels; interest rate, exchange rate, domestic credit and asset prices.

External shocks such as oil price could directly affect production and prices or indirectly affect them through the impact on four channels of monetary transmission mechanism.

On one hand, this thesis attempts to explore whether the monetary transmission mechanism transmits external shocks to the economy; and on the other hand, considers the effectiveness of monetary transmission mechanism on output and prices in comparison with the external shocks. In an attempt to achieve this purpose, it considers the effectiveness of the monetary transmission mechanism during the pre-and post-crisis of 2007-2009 periods in ASEAN-5 countries.

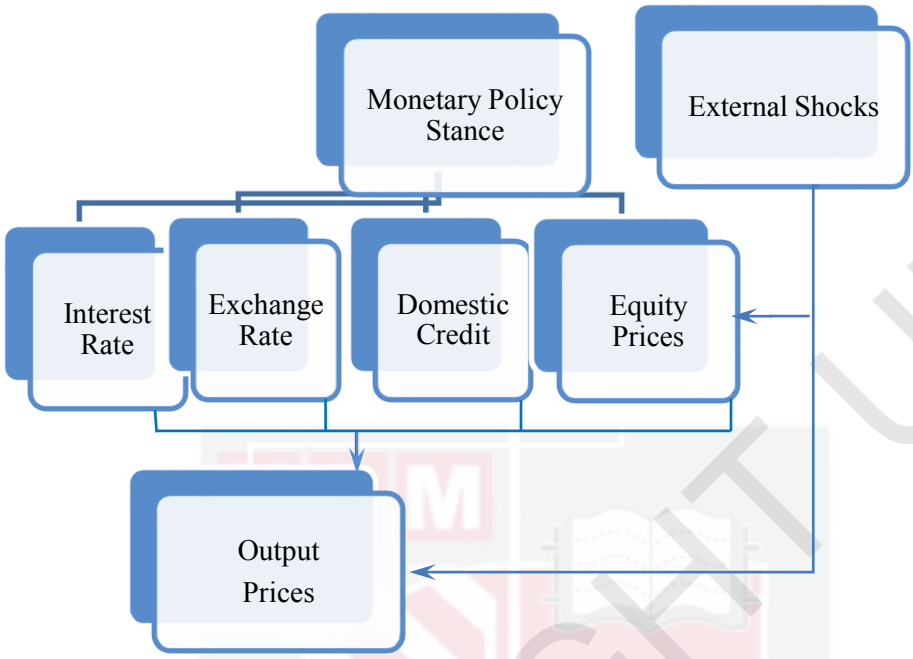

Figure 1.1. Direct And Indirect Effects of External Shocks and Monetary Policy on Economy

The remainder of this thesis is organized as follows. Chapter one deals with background of the study by considering the trend and the movements of macroeconomic variables over time and during the crisis. It also explains the problem statement, objectives of the thesis and contribution of this thesis to other studies about monetary transmission. The theories and literature related to monetary transmission and external shocks is reviewed in chapter two. The third chapter discusses the data and the methodology. The empirical results are discussed in chapter 4 and chapter 5 presents concluding remarks and policy implications.

1.1 Background of the Study

The Association of Southeast Asian Nations (ASEAN) is the name of an organization of ten members, namely, Brunei, Cambodia; Indonesia, Laos; Malaysia, Myanmar; the Philippines, Singapore; Thailand and Vietnam, which was formed in 1967. The stability of the regions and promotions of economical and political collaborations had brought together the authorities of five East Asian countries, namely, Singapore, Malaysia; Indonesia, Thailand and the Philippines, to sign the declaration. The other five countries joined ASEAN over time. The organization of ASEAN encompasses three communities: politics and security, society and culture, and economics. ASEAN aims to speed up the regional economic growth and regional social and cultural developments, and to increase the cooperation and assistance in economy, culture, society; technology, science and administration (Association of Southeast Asian Nations, 2009).

The first part of the thesis deals with the study of the movements in variables of macro-economy and monetary transmission mechanism during 2000-2012. This section is carried out in two parts: first, movements in monetary policy transmission indicators and second, movements of output and inflation along with two indexes of foreign crisis, oil price and US GDP growth. It should be noted that the figures do not show the actual values of the variables since they are normalized and only show the process of moving over time. Diagrams are drawn upwards or downwards to prevent interactions together. This procedure is used for all graphs and diagrams in background of the study and does not give any impact on the results because the trends and movements of variables are important for discussion about monetary transmission mechanism in this research and not the real values. The data are collected from The World Bank dataset and Thomas DataStream.

1.1.1 Indonesia

Bank of Indonesia initiated the use of inflation targeting in 2005 after a long time of employing monetary base targeting. Bank of Indonesia sets the target of inflation every year with an announcement to the public and introduces a BI rate policy to the economy for reaching the objectives. The BI rate affects inflation and GDP through the channels of monetary transmission. If the economy is in recession, a fall in the BI rate decreases the interest and credit interest rate to give an effect on consumption and investment. This reduction in BI also gives impact on the exchange rate because the lower interest rate for foreigners will lead to the outflow of capital, and thus, the exchange rate will depreciate. Any fall in the interest rate will increase consumption through asset prices (prices of stock and bond) and wealth effect. It affects the inflation expectations of workers and their demand for wages (Bank Indonesia, 2008). Synchronicity between 2000-2001 and 2007-2009 global crisis and rising inflation and falling growth rates in Figure 1.2 reflects that this country has been affected by global financial crisis. The shocks in oil price occur in 2000 and 2008 and the shocks to US output happened in 2001 and 2009. Although changes in the GDP growth of Indonesia and the US, especially in 2001 and 2009 are very similar, such similarities between oil price and inflation are not significant except for the years after 2008. The up and down movements of the Indonesia's growth rate are also very similar to oil price.

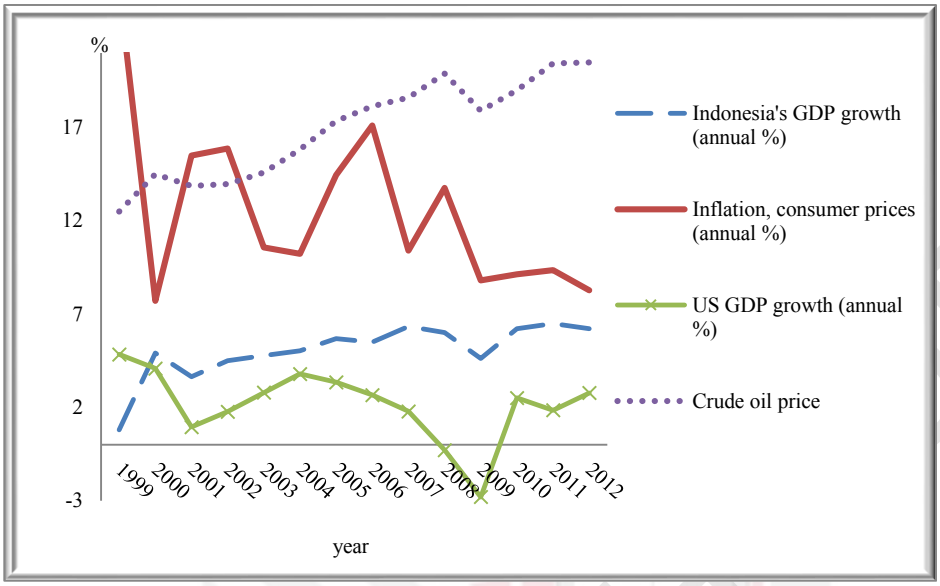

Figure 1.2. GDP Growths, Oil Price and Inflation (Indonesia)

Figure 1.3 shows how monetary transmission indicators changed during the period of 1999-2011. Among the economic variables downturns of stock price during the global crisis in 2001 and 2007-2009 is noteworthy. They also synchronize with US output shocks in 2001 and 2009 in Figure 1.2. There are no significant changes in other variables during the global crisis; however, the decrease of interest rate after 2008 may be due to the effort of reducing the negative impacts of the crisis on the economy.

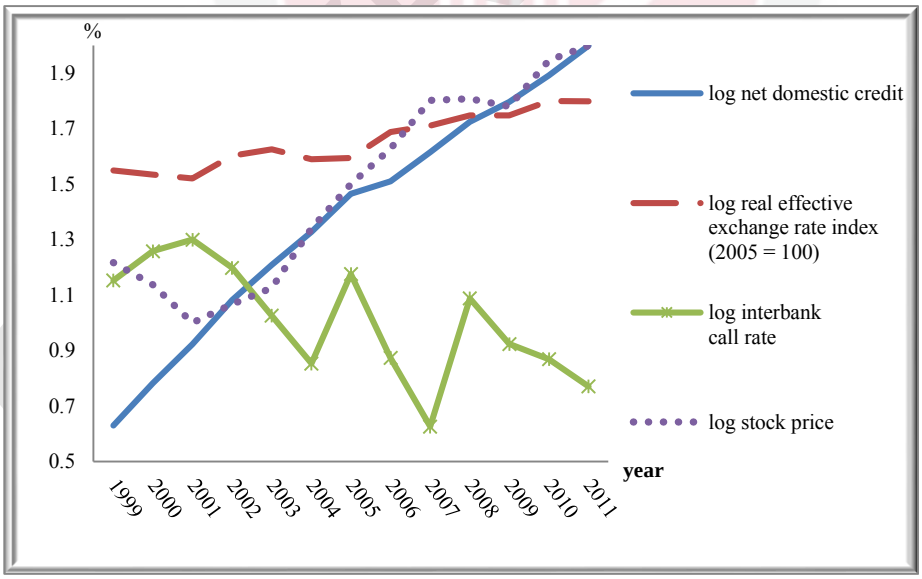

Figure 1.3. Monetary Transmission Indicators (Indonesia)

1.1.2 Malaysia

Bank Negara Malaysia (BNM) implemented monetary policy based on monetary aggregate before the mid 1990s; however, it then reversed to influencing the interest rate (Bank Negara Malaysia, 1999). Overnight policy rate (OPR) is BNM monetary policy stance that is implemented to affect the interest rate (Bank Negara Malaysia, 2011). BNM impact on interest rate when the economy is under high inflation, the monetary authority raises the interest rate to persuade people to increase savings and decrease purchasing and borrowing. This operation affects investment and consumption and will decrease inflation (Bank Negara Malaysia, 2003).

Considerable similarities between output growth of Malaysia and the US, inflation and the oil price, two by two, are shown in Figure 1.4. The incidence busts in GDP growth with the US GDP growth and two global crises in 2001 and 2009 indicates inhibitory role of external factors towards achieving monetary goal of sustainable growth. Although both global crises had huge negative impact on the growth rate of GDP, this affect on inflation is limited to the late crisis. It seems inflation of Malaysia to be more a function of the oil price changes after 2002.

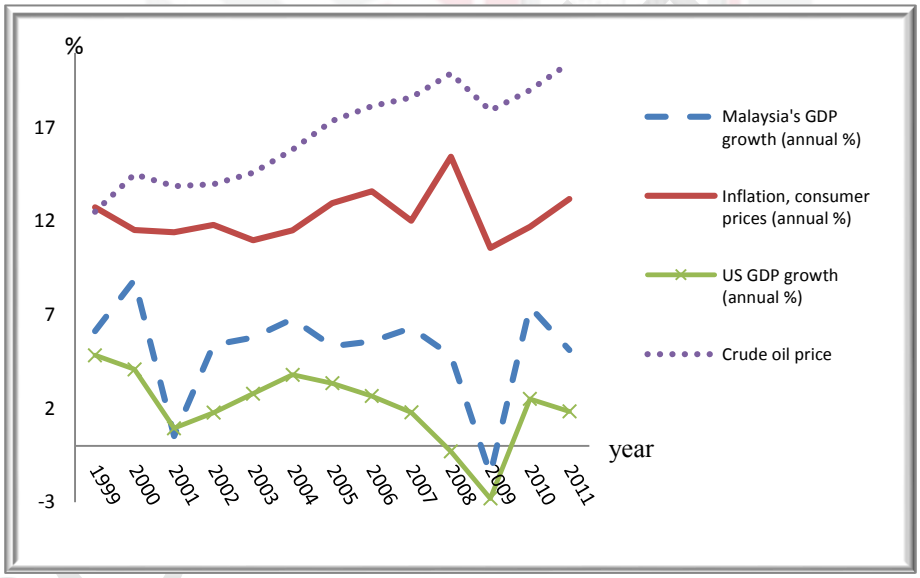

Figure 1.4. GDP Growths, Oil Price and Inflation (Malaysia)

Figure 1.5 demonstrates movements in transmission mechanism indicators and stock price in Malaysia. Reduction in the Malaysian stock price in 2001 and 2009 synchronize with the global crisis of 2000-2001 and 2007-2009 and bust in US GDP growth in 2001 and 2009. The figure also shows the increase of credit occurs at times of oil price shocks in 2008. The minimum point of interest rate in 2009 synchronizes with the lowest point of US GDP growth in Figure 1.4.

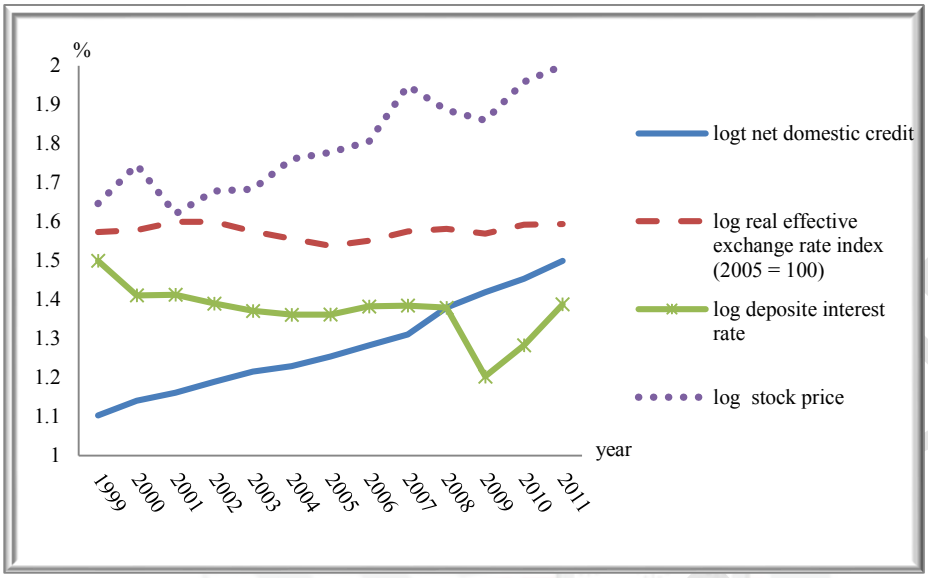

Figure 1.5. Monetary Policy Transmission Indicators (Malaysia)

1.1.3 Singapore

The central bank of Singapore or the Monetary Authority of Singapore (MAS) has been managing the exchange rate since 1980 instead of the interest rate or money for reaching its economic objectives. MAS controls the movements of Singapore dollar's trade-weighted index (S$TWI) every day and intervenes the FX market every time the exchange rate sets off the bands. It intervenes with the FX by selling and buying S$ dollar in the foreign exchange market. Changes in the exchange rate as monetary policy stance is made in accordance with the changes in the inflation rate in Singapore (Monetary Authority of Singapore, 2013).

Figure 1.6 shows the deep effects of global economic crises on *GDP* growth of Singapore and relatively similar movements with GDP growth of the US. The close similar diagrams of the oil price and inflation specify a weighty impact of this product on Singapore prices. The incident of critical peak of inflation in 2000 and 2008 with peak points of the oil price and synchronization of extreme points of GDP growth in 2001 and 2009 with US GDP growth could be an indication of the impact of the shocks of these two variables in Singapore's economy.

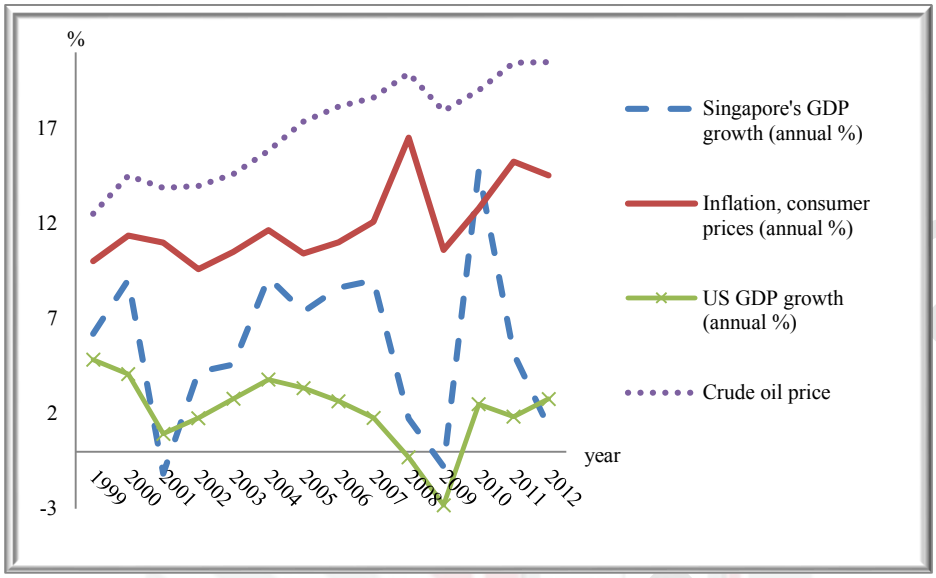

Figure 1.6. GDP Growths, Oil Price and Inflation (Singapore)

Figure 1.7 shows among all variables plotted, stock price has received the greatest impact of global changes since the extreme points in the years 2001 and 2009 where the stock price synchronized with the global financial crisis. These two minimum points also match with the lowest GDP growth of the US in 2001 and 2009. The decline in interest rate during these years has been taken, while there is increase in domestic credit after the crisis.

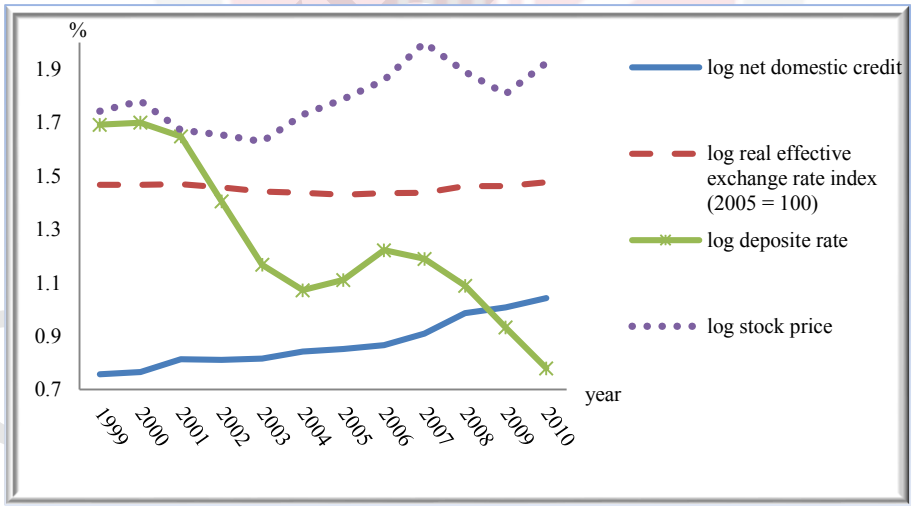

Figure 1.7. Monetary Policy Transmission Indicators (Singapore)

1.1.4 Thailand

Bank of Thailand implemented inflation targeting in May 2000 after experimenting monetary targeting regime for three years. Thailand changed its target from money

supply to inflation because of the variable relationship between money supply and output growth. Bank of Thailand seeks to achieve the objective of economic growth through price stability by targeting core inflation, which ranges between 0 and 3.5; Policy makers should be accountable about any deviation from this range and identify the period needed for returning the inflation within the target range. Bank of Thailand uses "short term money market rate" as a monetary policy instrument for reaching monetary objectives (Bank of Thailand, 2008).

Figure 1.8 shows that the financial recession of 2000-2001 and 2007-2009 had deep effects on *GDP* growth and inflation while the recession of 2001 did not affect Thailand's economy as deeply as other recessions. As the figure confirms the similarities between the oil price and inflation movements, such likeness are also evident in the rates of growths of US and Thailand. The extreme points of inflation and the oil price in 2000 and 2008 occur at the same times. Both Thai's *GDP* growth and US GDP growth reached the minimum point in 2001 and 2009.

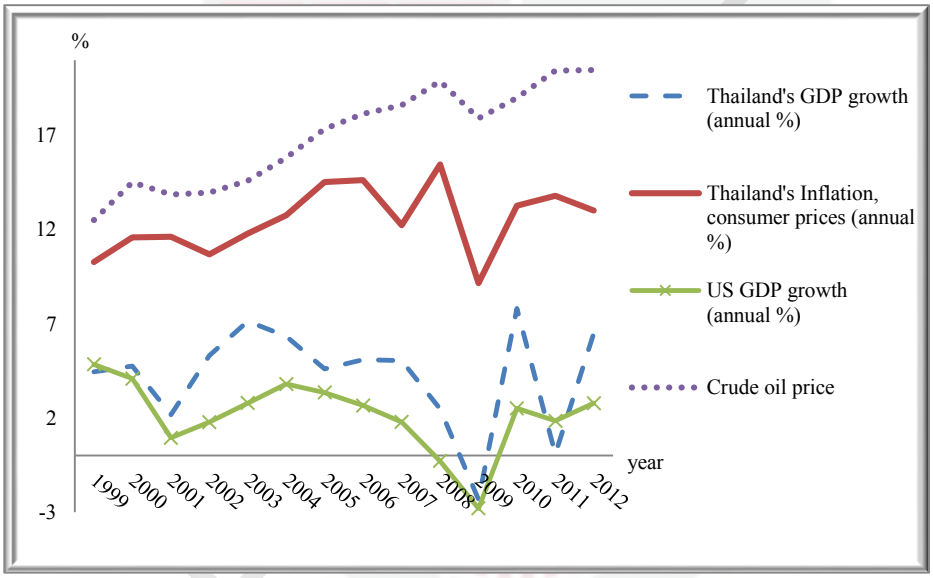

Figure 1.8. GDP Growths, Oil Price and Inflation (Thailand)

Although there are critical points in all variables except the exchange rate in Figure 1.9, there are no match points with the global crisis years except in the stock price. The two critical points of stock price in 2001 and 2009 coincide with the two global crises and minimum points of US *GDP* growth. The fluctuations in interest rate do not match the times of global crisis and may reflect the monetary policy for stabilizing the domestic price and growth.

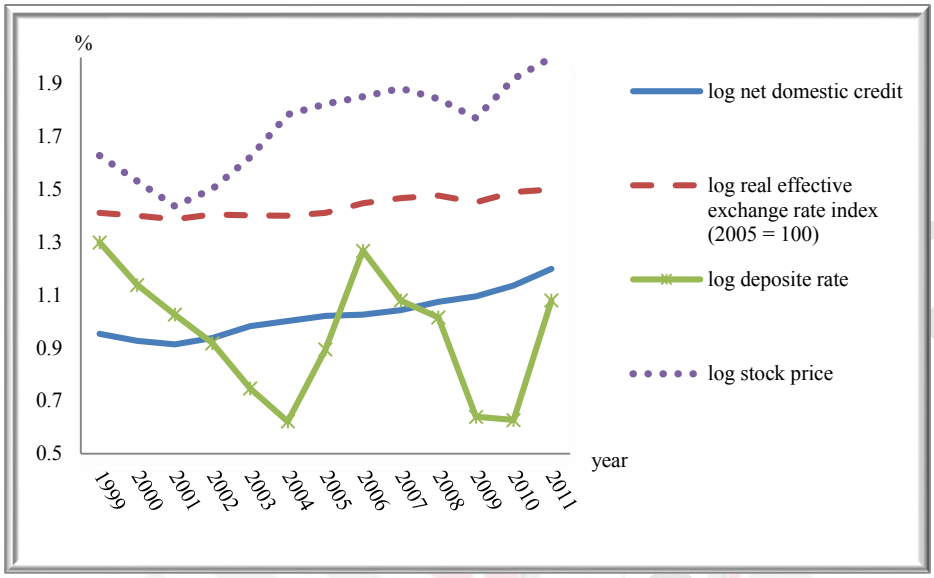

Figure 1.9. Monetary Policy Transmission Indicators (Thailand)

1.1.5 The Philippines

Banko Sentral ng Philippines (BSP), the monetary authority of the Philippines, employs inflation targeting to reach economic objectives; it used to implement monetary targeting before the current inflation targeting. In the year 1995, BSP decided to focus more on price stability, although the policy was monetary targeting. Under this policy, the monetary authority adjusted the level of monetary policy to be consistent with the determined range of inflation rate (Bangko Sentral ng Pilipinas, 2012). In 2002, Banko Sentral ng Philippines moved to inflation targeting to achieve more transparency and accountability and stabilizing macroeconomics in order to enhance its economic growth. (Bangko Sentral ng Pilipinas, 2010-a; 2010-b).

Figure 1.10 indicates that after the recession of 2001 The Philippines experienced another deep recession in 2008-2009 with high inflation and low *GDP* growth that synchronized with global recession. There are some similarities between the diagrams depicted, two by two, that are particularly evident in growth charts. The figure demonstrates that the Philippine's economy is partly influenced by price of oil and highly influenced by the growth of the US. Besides peak points of oil price and inflation in 2008, the minimum points of *GDP* growth of The Philippines and US *GDP* growth in 2001 and 2009 showed a match.

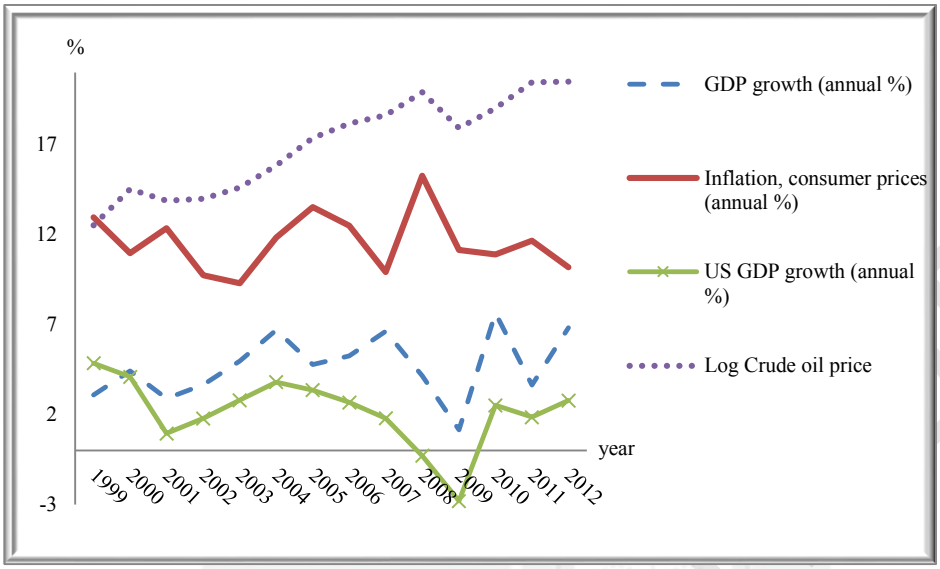

Figure 1.10. GDP Growths, Oil Price and Inflation (The Philippines)

Figure 1.11 illustrates extreme points of the variables does not coincide with crises except the bust in stock price in 2008-2009 that matches the time of global financial crisis. The minimum point of stock price also in 2008 and 2009 happens at the same time with extreme points of the oil price and US *GDP* growth in these years in Figure 1.9. Real effective exchange rate and domestic credit have proceeded in steady trend while the interest rate has dramatically decreased during the period.

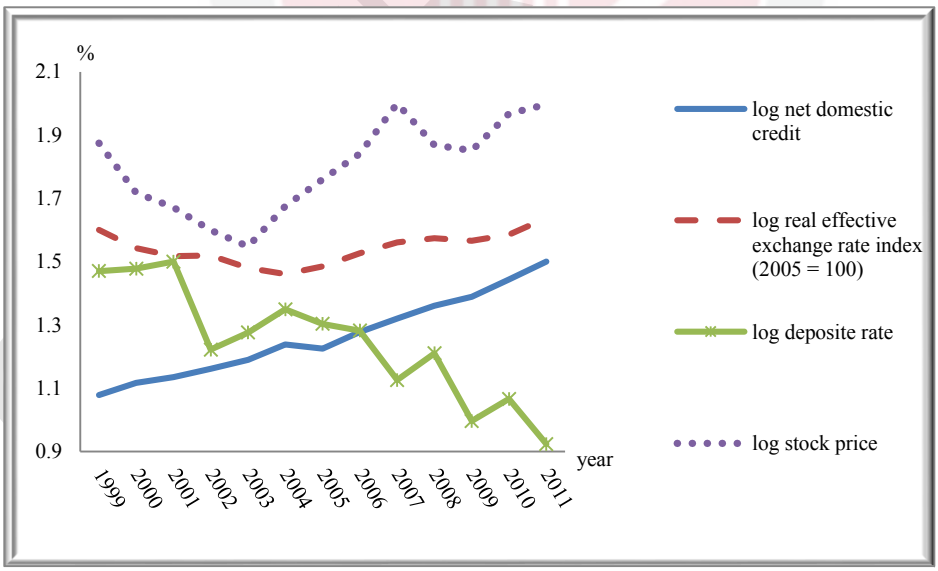

Figure 1.11. Monetary Policy Transmission Indicators (The Philippines)

1.1.6 The effects of External Shocks on Stock Price

Review of the figures in the background of the study (Figures 1.3, 1.5, 1.7, 1.9, 1.11) shows the breakpoints in stock price of all countries during 2007-2009. The synchronization between aforementioned breakpoints and international shocks displays the sensitivity of stock price to global changes. The monetary transmission mechanism can be transmitter of the global changes through stock price.

1.2 Statement of the Problem

The financial crisis of 2007-2009 that began in the US and spread to other economies was accompanied by an oil price shock which deepened the negative impacts of the crisis. After the crisis of 1997-1998, this recession was the most serious recession for ASEAN countries. They experienced a deep decline in growth rates and significant increases in prices during the recent crisis. As expected, developed countries began to lower interest rates to reduce the negative impacts of the crisis. This policy was applied in developed countries during the Mexican crisis of 1994 and the Asian crisis of 1997-1998. ASEAN countries also reduced interest rates to stimulate the economy and eliminate the negative effects of the recent crisis. However, the policy of these countries was to raise interest rates to prevent capital outflow in the earlier crisis of 1997-1998. Therefore, monetary policy is of great importance for ASEAN countries, especially in the face of economic crisis. Confronting external shocks, monetary policy based on interest rates, or aggregate money can easily affect the day-to-day decisions made within the economy. Fiscal policy employing government spending or taxes should target specific industries or investments. However, developing and implementing such policies is time-consuming and would require using non-economic methods to encourage industries.

The channels of monetary transmission (interest rate, exchange rate, credit and asset prices) that transmit monetary policy to the economy are also altered facing external shocks. In addition to interest rate cuts in ASEAN countries, the economic history of ASEAN countries reflects extreme changes in other channels of monetary transmission mechanisms, such as the exchange rate and stock price index, during the recent crisis. In all these countries, the domestic exchange rate against the US dollar depreciated considerably and the stock price index also declined. It should be noted that while all countries in the emerging Asian experienced reduced interest rates, some emerging countries of other regions increased their interest rates. In case of domestic exchange rate, depreciation of domestic currency in emerging Asian countries was less than other emerging European and Latin America countries. Changes in stock price in emerging Asian countries was less than emerging Europe but more than emerging Latin American countries. Among emerging economies, only in emerging Asian countries sharp decrease in domestic credit did not occur during recent crisis that make emerging Asian countries more similar facing external shocks (Goldstein & Xie, 2009; Kohler, 2010). Such changes in the channels of monetary transmission in recession can be effective if they lead the economy to achieve the objectives of higher growth and lower inflation. Therefore, evaluation of the effectiveness of the channels of monetary transmission on economy along with external factors represents to what extent this mechanism is protective against direct effect of external shocks on economy. It can help policymakers to make the correct decisions in the face of external shocks.

This study investigates the effects of the oil price as a factor lie on most of economic fluctuations (Cuñado & Pérez de Gracia, 2003; Hamilton, 1983, 2011) and US output. US output is used as a proxy of US economy since the recession transmitted from US economy to ASEAN countries by more depth through output (Ruiz & Vargas-Silva, 2010, p. 176; Bagliano & Morana, 2012, p. 9). The negative effects of US output and the oil price on monetary transmission channels may transmit to the economy indirectly through these channels that a monetary authority must be aware of.

Some previous research has focused on investigating efficient channels for a monetary transmission mechanism and the effects of external shocks, especially oil price on these channels. Several gaps continue to exist, however, this thesis fills the gap in literature in two ways. First, it considers the direct effect of the two external shocks, oil price and US economy, in company with the transmission mechanism of monetary policy on economy. Although Studies like Wulandari (2012) or Raghavan and Silvapulle (2008) consider the effectiveness of channels of monetary transmission, comparing the effects of external shocks and channels of monetary transmission mechanism explains how these channels can play a protective role against external shocks. Second, it investigates the indirect effect of oil price and US economy through monetary transmission mechanism. Although some past research has investigated the effects of external shocks on some channels of monetary transmission mechanism (Akram, 2004; Cologni & Manera, 2008; Narayan, Narayan, & Prasad, 2008), the indirect effect of external shock on an economy through monetary transmission mechanism were left unaddressed.

It should be noted there are some reasons for choosing ASEAN-5 countries; the channels of the monetary transmission showed similar responses to external shocks during crisis. Besides, stability of the prices is the main objective of monetary policy in ASEAN-5 countries, they suffered from oil price shocks and the US is the main trade partner of these countries.

1.3 Objective of the Study

The general objective of the research is to study the effectiveness of monetary transmission mechanism in ASEAN-5 countries with regard to global financial crisis of 2007-2009. The specific objectives of this study are as follows:

a) To analyze the effects of external shocks on monetary transmission mechanism during pre-and post-global financial crisis of 2007-2009.
b) To investigate the effects of monetary transmission channels on output and prices as indicators of monetary policy objectives, during pre-and post-global financial crisis of 2007-2009.
c) To examine the effects of external shocks on output and prices during pre-and post-global financial crisis of 2007-2009.

1.4 Significance of the Study

This study takes into consideration the effectiveness of monetary transmission mechanism with regard to global crisis; therefore, the study investigates the effectiveness of monetary transmission face oil price and US output as factors causing the crises. The study of monetary policy transmission under two sub sample; pre-and

post-crisis, help the monetary authority to identify strengths and weaknesses of the monetary transmission mechanism over times. The research can obtain the reaction of the economy and the monetary transmission mechanism against external shocks**.**

The monetary transmission mechanism not only can be affected by monetary policy, but also can be influenced by other factors. The monetary transmission mechanism could be the transmitter of external shocks to the economy as well as monetary policy. The negative effects of US output and oil price on monetary transmission channels may transmit to the economy through these channels that a monetary authority must be aware of.

Finding the effective channels of monetary transmission on output and prices help a monetary authority to focus its attention on that channel and not spread its attention towards different channels. The comparison between the effectiveness of monetary transmission channels and external shocks will show the strength and weakness of monetary transmission mechanism against external shocks.

This study compares to other studies in the monetary transmission mechanism in the studied countries and considers the monetary transmission mechanism through new points of view. The contributions of this study to other studies are described briefly in the following paragraphs:

- Channels of monetary transmission mechanisms that are targeted by the monetary authority for reaching economic goals could be obstacle if they do not respond appropriately in the face of external shocks. They also can also support monetary policy if their responses are in order to reach monetary objectives. So the research distinguishes the appropriate and inappropriate responses of these channels in the face of external shocks. On the one hand, it assesses the direct effect of these two external variables and direct effect of each of the four channels on output and prices; and on the other hand, it investigates the indirect effect of US output and the oil price on domestic output and inflation through monetary transmission mechanism.
- Although analyzing monetary transmission has attracted the attention of many studies, limited numbers of them investigate this mechanism facing external shocks caused the recent crisis. In such a situation, the better the performance of monetary transmission mechanism, the less the effects of external shocks that are beyond the control of monetary policy. This study investigates ASEAN-5 economies that were sensitive to external shocks during crisis of 2007-2009 for pre and post crisis to help the monetary authority for assessing its policies in times of crisis.

1.5 Scope of the Study

This study seeks to investigate the effectiveness of the monetary transmission mechanism and the impact of external shocks on economy taking into account the global crisis in ASEAN countries. Given the high impact of the global financial crisis of 2007-2009 on the selected countries, two sample periods; pre-crisis and post-crisis will be studied.

1.6 Concluding Remarks

This chapter is a review of the monetary policy in ASEAN countries. In this chapter, the effects of two economic crises of 2000-2001 and 2007-2009 on GDP growth, inflation, and monetary transmission indicators from 2000 to 2011 were studied. The co-movements between growth and inflation of each country with US growth and oil price by figures were shown too. This chapter also described the importance of studying the transmission mechanism of monetary policy before and after the global crisis of 2007-2009 in the problem statement. The contribution of the study to the studies in monetary transmission mechanism in ASEAN-5 countries was explained in significance of the study.

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