Chapter 5: Conclusion and Recommendation

5.1 Overview of the study

As has been illustrated in the first chapter, the clarification of using two main external hedging strategies (FCD and FDD) by the non-financial corporations in Malaysia during the latest five years (2005-2009) has been the main objective of the research. After finding the exchange rate exposure for all 91 securities including the sample at first (from step 1, Equation 1.1.), and using the absolute value of this amount ($|\beta_{2i}|$) as dependent variable in the next step (step2), the cross-sectional regression equations results (in the step 2) have shown that there are no singnificant relationships between the exploitation of FCD and FDD by the companies for reducing the exposure of foreign exchange rate fluctuations during the specific period of time (latest 5 years) in Malaysia, so the first two null hypotheses have not been rejected during this study. However, the results advocated that the relationship between these two strategies and the aforementioned exposure are contrary; since the signs of the proxies for these two techniques (FCD and FDD) in the equations of step2 (Dummy variables in the cross-sectional regression equations) separatly and together have been negative while the sign of the exchange rate exposure (β_{2i} as independent variable) within the all three equations were positive (because of using the absolute value of them), and this result is consistent with the outcomes of the previous researches as well, so we can conclude that the usages of the FCD and FDD for reducing the risk of the exposure could be applicable generally.

Furthermore, consistent with the result of the main article, the consequence here has shown that the two strategies could be used as complement to each other for the case of Malaysia significantly; as the signs of the two coefficients (FCD and FDD) after running the equations of the step3 have been both positive; hence, the third null hypotheses has been rejected through this research.

5.2 Results Interpretation and Justification

With consideration to the result that have been obtained by running cross-sectional regressions within the step2 (insignificant usages of FCD and FDD) on the one hand, and clarifications of the two graphs of exchange rate (Figure 4.2.1(a) and Figure 4.2.1(b) in chapter 4) on the other hand, the issue of governmental intervention through monetary policies for stabilizing and reducing the fluctuations of exchange rate seems more probable. Moreover, there have been some researches that advocated intervention of some governments and especially central banks within the emerging markets for controlling and stabilizing the value of their currencies that in turn could provide restrictions for foreign exchange rate fluctuations:

Guimaraes and Karacadag (2004), advocated that in the case of Mexico and Turkey the intervention had been effective. In both countries although the intervention has not had so much effect on the exchange rate level, it has reduced the short-term fluctuations of the exchange rates.

Disyatat and Galati's (2007) investigation advocated the existence of a high-frequency- ranging from intradaily to a few days-connection between foreign exchange market intervention and both the level and volatility of exchange

rates for emerging market countries. By analysing the impact of intervention by the Czech National Bank (CNB) on the koruna/euro exchange rate over the years 2001 to 2002, they found that during the selected period the CNB's intervention caused the appreciation of Koruna to accelerate. So, the central bank intervention has been supported by this study as well.

The other study that has been done by Ali Shah, Hyder, and Pervaiz for Pakistan (2009) has shown that the intervention operation by its State Bank has been very effective as it not only effects on the exchange rate levels but also has decreased the exchange rate volatility. It is also found that the short-term interest rate and the size of the foreign exchange reserve held by the State Bank also effect on the exchange rate level and its fluctuations; increasing the mentioned reserve could reduce the volatilities of foreign exchange rates.

Hence, after reviewing the reports of the BNM (Bank Negara Malaysia) as the central bank of the country, the mentioned intervention within the three thecniques and monetary policies have supposed to be more probabale. The techniques and policies are DCI (Direct Currency Intervention), OMO (Open Market Operation) , and SRR (Statutory Reserve Requirement) that could be mentioned as the main reasons for the insignificant usages of the two external hedging strategies (FCD and FDD) by Malaysian non-financial companies during the five years period (2005-2009).

5.2.1 Direct Currency Intervention (DCI)

In the case of Malaysia, when BNM (Bank Negara Malaysia) as the central bank is acting to prevent the appreciation of the Ringgit to the US Dollar

exchange rate, they usually buy dollars from the interbank system by the Ringgit; hence, as the supply of Ringgit is increasing within the interbank, the exchange rate is going to depreciate. International reserves also increase in this situation, while there is a remarkable fall in the foreign exchange rate. When BNM intends to prevent Ringgit depreciation, it increases the cash account, and the international reserves decrease in this case, so the foreign exchange rate will increase noticably.

After the Asian financial crisis (1997), since there was a sharp appreciation of USD, the government intervened and controlled the forex market completely so that for many years (until 2005) the exchange rate had been fixed; from September 1998, Bank Negara pegged 3.80 Ringgit to a US dollar, and after that the condition became relatively stable; the Ringgit was floated again since July 2005. Although the Malaysia Ringgit has been floated from that time, the intervention has been existed afterwards and sometimes became greater in magnitude as well as became more symmetrical. The forex intervention itself contains the changes in supply of domestic money, and when there is an intervention to weaken the currency, the banking system receives cash that can then be used for domestic lending purposes; the volume of reserve (Malaysia Ringgit) in the banking system increases, which can then be used for lending to borrowers.

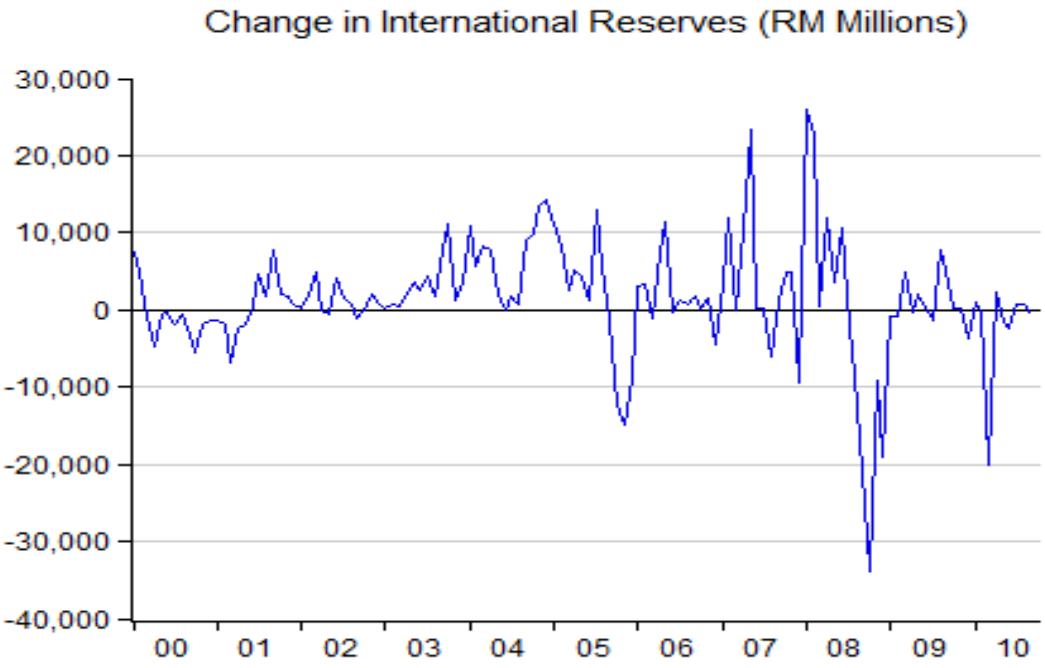

Figure 5.1 : Changes in International Reserves. Source: www.bnm.gov.my

Based on BNM official reports, the Foreign Currency Reserve has been changed during the last decade gradually; this action could be mentioned as the other direct currency intervention by the Central Bank of Malaysia (BNM).

Table 5.1: Bank Negara Foreign Exchange Reserves

Date	Volume
31 July 2004	USD 54 billion
31 December 2004	USD 66 billion
31 July 2005	USD 78 billion
31 March 2007	USD 88 billion
31 July 2007	USD 99 billion
31 December 2007	USD 101 billion
31 March 2008	USD 120 billion

Source: www.bnm.gov.my

Moreover, from the time that the Ringgit started to float again (July 2005) to September 2010, the amount of 210.8 billion Ringgit has been spent for weakening and about 184.2 billion Ringgit used for strengthening the currency, so there is a net increase of about 26.6 billion Ringgit over these five years.

From the other view, although the intervention has increased during the last five years (within the time of floatation), the ratio of this intervention to the volume of foreign exchange market has decreased and this subject could clarify that the impact of the intervention to the forex rate is being reduced gradually.

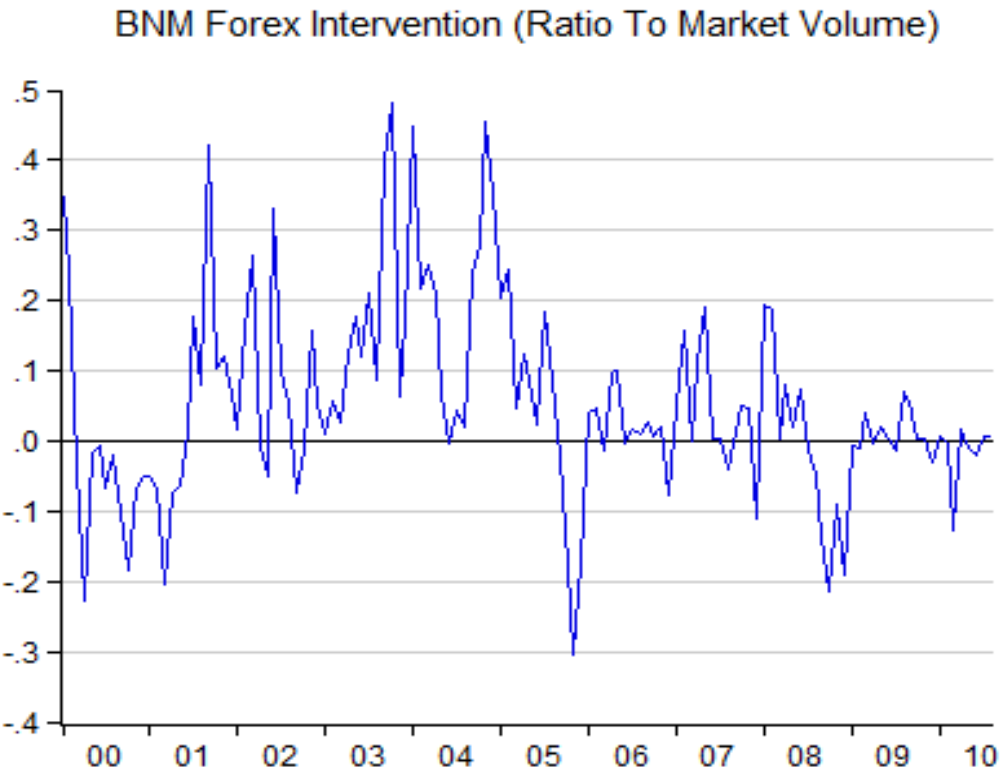

Figure 5.2 : Forex Intervention by BNM (Bank Negara Malaysia)

Source: www.bnm.gov.my

5.2.2 Open Market Operation (OMO)

Central banks ususally implement the policy by transacting the governmental securities such as government bonds, treasury bills, and treasury notes or even the other financial methods like buying and selling foreign currencies or gold in order to meet the demand of the money specified based on the target rate of interest rate, inflation, and exchange rate.

In Malaysia, the specific target rate usually sets for providing the desired monetary conditions and managing the liquidity that can stabilize the price of the local currency as well as ensure the economic growth rate. The OPR (Official Policy Rate) which has been known as KLIBOR (Kuala Lumpur Interbank Offered Rate) and determined by the market (based on supply and demand of the currency) is used by BNM (Bank Negara Malaysia) as aforementioned target rate that in turn is used as a fundamental rate for lending and borrowing within the banking system. Moreover, this rate can be used as a benchmark for the whole market to transact other assets.

BNM usually uses its own bills with alternative maturities from one month to one year for controlling and balancing the supply and demand for money that can lead to stable money price. If the OPR changes from the amount that BNM stated based on the assumpsion of long term stability of prices with high economic growth, the BNM can balance again this rate. When the OPR goes up, the BNM release their own securities (BNM bills with 3 to 6 month maturities more often) through the auction for sucking out the monetary of the banks within the market and in the contrary cases, they release the monetary to the banks and repurchase their bills from the banks, so the equillibrium again can create a situation for coinciding the overnight rate to the OPR, and

at the end of the day the value of domestic money can be protected and become stable via these actions.

5.2.3 Statutory Reserve Requirement (SRR)

Statutory Reserve Requirement is the other instrument that could be used by the BNM for managing liquidity. All the banks and monetary institutions licensed under the Banking and Financial Institutions Act 1989 and Islamic banks licensed under Section 3(4) of the Islamic Banking Act 1983, are required to balance the specific proportion of their eligible liabilities (consist of ringgit denominated deposit and non-deposit liabilities, net of interbank assets and placements with BNM) to their Statutory Reserve Accounts (SRA) in BNM as the central bank of Malaysia. In fact, the BNM can inject and withdraw the liquidity from the banks when they realize there is a considerable lack or overload of money in the market. When the volume of the money changes within the banking system and in turn in the market, the rate of borrowing and lending changes as well; since in the condition of increasing the volume of the money, the banks can give loans with lower rate and vice versa for the lack of currency. Hence, the BNM can manage and control the value of money through SSR.

Table 5.2: Adjustments to Statutory Reserve Requirement

SSR Rate	Effective Date	Variation	Effective Date
1%	1 March 2009	0.8% - 1.2%	Daily Variations: **+/-** 20% of SRR Rate (1 May 1998)
2%	1 February 2009	1.6% - 2.4%	
3.5%	1 December 1998	2.8% - 4.2%	
4%	16 September 1998	3.2% - 4.8%	
6%	1 September 1998	4.8% - 7.2%	
8%	1 July 1998	6.4% - 9.6%	

Source : www.bnm.gov.my

By creating a major overview of the research, the major findings and their interpretations has discussed within the chapter. Moreover, the limitations and hindrances through the investigation have explained hereafter and finally, further and future studies has recommended in this chapter as well.

5.3 Limitations of the Investigation

The research, however, has had its own limitations. There has been some barriers against finding and gathering the valid data and information for the research. Since there were not more sufficient registered data through the valid resources like Bloomberg network, the maximum period of time that could cover the needed data was the latest five years (From the first of January 2005 to the end of December 2009), and the data for the year 2010 had not completely registered at the time that the reserch commenced, so it

could not be used in the study. As the research needed the data of two strategies (FCD and FDD) usages by Malaysian non-financial companies, the only two Yes/No questions provided and sent to the companies through their e-mail addresses that not replied sufficiently, so after one month we had to contact them one by one and asked them the same questions again. In addition to the time consuming in this stage for finding the related contact number and the right person that could answer the questions, some of the companies refused to answer the questions, and the condition could be predictable in advance. Nevertheless, after finding the right persons (mainly financial controllers, treasurers, or even managers), as they were busy most of the time, we had to contact more and more, so, after multiple telephone conversations, and explaining about the objective of the research, the answer for 91 companies out of 100 could be specified that in turn this amount (91 securities) has been considered as the final sample for the investigation.

5.4 Recommendations for further studies

Considering that the number of companies and the volume of foreign involvement are increasing on the one hand, and the governmental currency intervention for stabilizing the foreign exchange rate is reducing gradually (based on the Figure 5.2) on the other hand, it seems that the usages of the two strategies (FCD and FDD) will be expanded more in future time, so it will be useful to focus on the situation of FCD and FDD exploitations by new and more expanded valid data. Moreover, the same research can be helpful for knowing about the situations in the other prominent countries of ASEAN

during the same period of time that in turn the outcomes can be compared with each other effectively.

5.5 Summary of the Chapter

The research has concluded that the usages of two external hedging strategies (FCD and FDD) by Malaysian non-financial firms for reducing the exchange rate exposure, have not been significant for the years 2005 to 2009. Nevertheless, the sign of the related coefficients have shown that the two strategies (FCD and FDD) expected to reduce the exposure generally. Besides, the two strategies could be implemented together and they could complete the effect of each other as long as they have been used together. So, the first and the second null hypotheses have not rejected and the third null hypotheses has rejected through this research.

After scrutinizing the upshot, the governmental intervention for stabilizing the condition has been realized as the justification of the result. In fact, the BNM has managed and controlled the value of the currency (Ringgit) and the exchange rate changes by using these three methods: DCI (Direct Currency Intervention), OMO (Open Market Operation), and SSR (Statutory Reserve Requirement) that have explained in detailes in this chapter.

The limitations mainly were related to the availability and validity of data and information as well as the cooperation of the companies for gathering sufficient data during the time of the research.

The similar studies via expanding the time period for Malaysia and the other countries of the region (in ASEAN group) has recommended as further and future helpful investigations.