THE IMPACT OF MERGER ON THE BANK'S STOCK PERFORMANCE

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DECLARATION

We hereby declare that:

(1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) Equal contribution has been made by each group member in completing the research project.

(4) The word count of this research report is 13, 466 words.

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DEDICATION

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LIST OF ABBREVIATIONS

AAR	Average Abnormal Return
AMBank	Arab Malaysia Bank
AR	Abnormal Return
ATM	Automated Teller's Machine
BHC	Bank Holding Companies
CAAR	Cumulative Average Abnormal Return
CEO	Chief Executive Officer
DEA	Data Envelopment Analysis
DMUs	Decision Making Units
DPS	Dividend per Share
EON	Edaran Otomobil National
EPS	Earning per Share
FDI	Foreign Direct Investment
FTSE	Financial Times Stock Exchange
GDP	Gross Domestic Product
IBFT	Interbank Funds Transfer
IBG	Interbank Giro
KLCI	Kuala Lumpur Composite Index
M&A	Mergers and Acquisitions

LIST OF ABBREVIATIONS

MAR	Marginal Abnormal Return
MEPS	Malaysian Electronic Payment System
MIMB	Malaysia International Merchant Bankers Bhd
MUI	Malayan United Industries
RHB	Rashid Hussain Bhd
ROA	Return on Asset
ROE	Return on Equity
SMEs	Small and Medium-sized Enterprises
TPG	Texas Pacific Group
UBG	Utama Banking Group Bhd

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PREFACE

The topic of this final year project is "The Impact of Merger on the Bank's Stock Performance". Bank merger is occurrences that more than one bank consolidate together and provide a strong business line in the market. Bank mergers are unique and they are reviewed simultaneously by the banking sectors in the country because bank mergers deserve to be considered in their value.

The purpose of this research is to provide a straight forward approach to understanding and realize the prime significance of the bank mergers to the country. Indeed, the bank mergers bring a lot of advantages to the banking sector and economy in the country.

The factor to lead the bank mergers issue in the market is the bearish market condition that causing share price to drop. This is because the banks may face financial shrink in a bearish market. Smaller banks, for example, are expected to merger if there is loss incurred. A bad balance sheet which leads to a drain of capital is another factor of bank merger. Besides that, another factor is the emergence of international economic crises such as the Third World debts, global recession and increment in evasion cases in world banks, encouraging some of them towards mergers to develop or improve their financial situations. This paper is to uncover the influence of the bank mergers to the bank's stock performance in the market. Hence, we hope that our findings will be helpful in the future research or policy that related to this topic.

ABSTRACT

It is common that this merger and acquisitions can take place in most of the company and banks but it questions whether the merger brings impacts to the stock behavior and stock performance of bank. In this research paper, the changes of the stock performance of acquiring bank from merger between Hong Leong Bank and EON Bank Group in Malaysia have been evaluated. This research paper focuses and tracks the changes of the stock performance of banks within the pre and post announcement periods to evaluate the effects of the merger and acquisition on the changes of stock performance within the research period. Through the event study, the stock performance of Hong Leong Bank after the merger are being analyzed to test whether there would be abnormal return and cumulative abnormal happen 60 days before and after the merger. For this paper, the data will be sought from the *DataStream*, Library of University Tunku Abdul Rahman (Perak Campus), *Bursa Malaysia* website, and *Yahoo Finance* website. This paper track and evaluate the secondary data collected from 6th April 2011, which is 60-day before the merger until 29th September 2011, which is 60-day after the completion of Hong Leong-EON bank to track the changes of the stock performance of banks effect from merger and acquisition of Hong Leong Bank and EON Bank Group.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

This chapter explains the scope and idea of the study via the research background and problem statement. This comprises the objective of the study, research questions, and hypothesis of the study in this paper to facilitate the flow of the research. Besides that, Chapter 1 in this study also provides the significance of the research on the impact of the merger between Hong Leong Bank and EON Bank Group to the Hong Leong Bank's stock performance. The contents of Chapter 1 are therefore being classified into nine sections which are Introduction, Company Background, Problem Statement, Research Objectives, Research Questions, Hypothesis of the Study, Significance of the Study, Chapter Layout and Conclusion.

1.1 Company Background

Hong Leong Bank Berhad has merged completely with EON Bank Group in April 2011. The merger effectively transforms from just a bank into a banking group of more than RM145 billion in assets and an expanded network of 329 branches nationwide. The merger of Hong Leong Bank and EON Bank not only strengthen in the market position, but also develop a stronger position in term of assets, loans, and also deposits. Furthermore, Hong Leong Bank can strengthen its liquidity franchise and increases market share in core deposits by widening and expanding its distribution network by reaching out to the community and customers.

Besides, the merging effects of Hong Leong Bank working capital strengths and EON Bank leading positions in auto loans as well as small and medium-sized enterprises (SMEs) will indirectly provide universal bank coverage and thus, allow the banks to further expand in Islamic Banking as the merger of Hong Leong Bank and EONCap Islamic Bank Berhad can multiplies their total assets and total deposits from customer. (Hong Leong Bank, 2011)

1.1.1 Background of Hong Leong Bank

Since 1968, Hong Leong Bank stood as a member of Hong Leong Group Malaysia in financial services industry. In 1905, Hong Leong Bank started out under the name of Kwong Lee Mortgage and Remittance Company and merged as Kwong Lee Bank Ltd. in 1934 (Hong Leong Bank, 2012).

In 1989, Hong Leong Bank renamed as MUI Bank (Malayan United Industries) and operated in 35 branches all around the world. In October 1994, the birth of Hong Leong Bank after MUI Bank is acquired by Hong Leong Bank Credit Berhad (Hong Leong Financial Group Berhad) and it was listed on the Kuala Lumpur Stock Exchange (Bursa Malaysia).

In 2004, Hong Leong Bank acquired the finance company business of Hong Leong Bank Finance Berhad. In 2008, Hong Leong Bank stands as the first bank in Malaysia that enter into the Chinese banking sector with a 20% strategic shareholding in Bank of Chengdu Co., Ltd. and also the first and only Malaysian and Southeast Asian bank to be granted a license to incorporate and operate a 100% wholly-owned commercial bank in Vietnam.

1.1.2 Background of EON Bank

In 1965, EON Bank is developed as a small bank with the name Kong Ming Bank Berhad in Sibu, Sarawak by Ling family as founder. In 1990, together with two other East Malaysian-based banks, Wah Tat Bank and Hock Hua Bank (Sabah), Kong Ming Bank was one of the smallest banks out of 23 domestic banks Malaysia.

In 1991, the founding of EON Bank was able to tap into financing for Proton vehicles because Edaran Otomobil National (EON) has acquired 5.15 million shares out of RM 94.6 million. EON Bank's shareholding was fragmented as the fell short of acquiring all remaining share since some shareholder refused EON's offer and faced first takeover after the 1997 Asia Financial Crisis parallel with the Bank Negara Malaysia plan to undertake a major evaluation of the local domestic banking landscape by using obligatory consolidation exercise (Yong, 2010).

In December 1999, EON Bank, RHB Bank, Hong Leong Bank and Arab Malaysia Banking Group (Ambank Group) submitted new merger proposals to central bank and included the amendments in the guidelines that allowed financial institutions to choose their own partners. In 2000, EON Bank merged with Oriental Bank, Malaysia International Merchant Bankers Bhd (MIMB), Perkasa Finance and City Finance. The consolidation of the banks indirectly makes EON Bank to become one of the 10 anchor banks in Malaysia.

In 2002, EON Bank faced another takeover risk by Sarawak state-owned Utama Banking Group but it did not turnout as UBG was merged into RHB banking group. In October 2002, EON Bank undertook a reverse takeover of Kedah Cement Holdings Bhd via a share swap exercise, the cement operating and listing status was transfer to EON Capital Bhd (EONCap) and thus, EON Bank becomes a unit of EONCap.

According to Banking and Financial Institution's Act, EON is not allowed to hold more than 20% stake in the financial institution therefore EON has to pull down the stake of 52% by distributing the shares to its shareholder in 2004. In the same year, DRB-Hicom Bhd emerged as a substantial shareholder in EONCap. EONCap saw suitors came courting in 2007 and make its first attempt to takeover its biggest rival RHB Capital Bhd.

However, it did not work out as TPG was worried they might end up without management control if hold a large block of share in EONCap. Moreover, EONCap did not win the bid for RHBCap. In February 2008, Primus emerged as EONCap's single largest shareholder in the banking group since Primus was able to acquired DRB-Hicom stake in EONCap.

1.1.3 Merger between Hong Leong and EON Bank

Since April 2011, the merger between EON Bank and Hong Leong Bank in Malaysia was effectively developed. However, they will continue to operate as two different bank's name. Thus, the customers of EON Bank could continue their banking transaction at EON Bank branches like usual even after the merger.

EON Bank and Hong Leong Bank were only merging banks for over one year but it cannot be denied that the merger between EON Bank and Hong Leong Bank in April 2011 had brought a lot of benefits to relevant stakeholders of the banks. The stakeholders from both banks start to enjoy the banking welfare after the merger of the two banks.

Due to the acquirement of the EON capital of RM5.06 billion by Hong Leong Bank, the merger between these two banks made Hong Leong Bank to become a stronger banking group with combined asset of more than RM140 billion as it may increase the capital to operate the business in long term, and it stand out as fourth largest banking group in Malaysia and thus, it enhances the bank capital to invest and meets the evolving needs and demands of the consumers, businesses and public institutions.

Besides, the bank group able to make more investments to earn profit with higher capital compare to before merger. Related to this, the investors can be paid higher dividend and depositors may receive higher interest on their deposits. Moreover, there will be more value creation for all stakeholders of EON Bank and Hong Leong Bank, including investors, partners, customers, employees, market and so on.

The merging of the banks able to further strengthen the performance and of the banks and expand the stakeholders' value creation. The merger between EON Bank and Hong Leong Bank help to support and improve Malaysia's economic growth and transformation and also help in confronting the new economic, financial realities and regulatory of the banking sector in the future.

Malaysia is a developing country among other countries around the world and recently, we are gradually towards globalization. Therefore, the merger of the banks can stabilized the Malaysia banking sector position in the globalization and this may enhance the home currency appreciation against other foreign countries.

Gross Domestic Product (GDP) and economic level in Malaysia are boosting up now and in the future as the merger and acquisition of banks may lead the foreign investors develop interests to invest in Malaysia and it indirectly increased the foreign direct investment (FDI) from other countries to Malaysia.

The merger of EON Bank and Hong Leong Bank develop a wider network to serve and supply the customers as it allowed the customers to perform the banking and financial transaction at all of the 329 branches and also over 1400 Self Service Terminals in Malaysia, such as ATMs, Cash Deposits, and Cheque Deposit.

Customers will also enjoy a host of value-added benefits, such as a waiver of charges for MEPS ATMs, interbank funds transfer (IBFT) and interbank Giro (IBG) transactions between Hong Leong Bank and the EON Bank after the merger between EON Bank and Hong Leong Bank. This will served as good news to all Hong Leong Bank and EON Bank customers to have a free charging of specific banking transactions.

Hong Leong Bank has completed a major integration to allow the customers and community to enjoy an expanded suite of products and services across their delivery channel network, driven by a combined workforce of both bank groups. Besides that, the merger between EON Bank and Hong Leong Bank is help to expand the delivered channels, products and services to the customers.

Besides, customers will now have greater access to an even more comprehensive suite of conventional and Islamic banking products and services to serve their needs. Besides that, this will create the opportunities to the employees to become more effective and efficient in their works due to consolidation of two banks. This merger has asked the employees to show their maximum abilities to conduct business transaction to obtain the customers confidences and supports.

Apart from these, the merger of EON Bank and Hong Leong Bank may produce long term benefits to Hong Leong Bank Group. Although there are some short-term earning risks arising from the merger, such as management distraction, attrition of managers and customers, agency problem and so on, the long term benefits able to offset the risks faced by the merger.

The duo effects of Hong Leong Bank's strong deposit franchise and EON Bank's high utilization of funds could lead to top-line synergies with improving net interest margin. In terms of longer term benefits, the residential mortgage, which is Hong Leong Bank’s area of strength, can be also improved and advanced to achieve a higher performance. The merger of the banks helps to put the Hong Leong Bank’s excess liquidity to more efficient use, leading to higher yields for the merger entity.

The merger of EON Bank and Hong Leong Bank brings a number of advantages related to society daily life but it also cannot be denied from the facts that the merger between them has its own disadvantages which can influence the bank group performance in the future. First of all, related to the incident that follows from what happen to the services for the former EON Personal Internet Banking service portal will be terminated. There will be only one online banking system after the merger of the two banks, which is Hong Leong Bank.

Pos Malaysia announced that anything related to payment from EON Bank Berhad has been disabled after the merger of the banks since April 2011, due to their merger with Hong Leong Bank. It means that Pos Malaysia no longer accept or receive the bills payments from EON Bank after the merging process. This situation causes inconvenience to the EON Bank customers whom had been making to Pos Malaysia by using internet banking. Besides that, the EON Bank customers may confuse to use the new online banking portal, which is Hong Leong Bank since they are already get used to EON Bank online banking portal for a long period.

Apart from this, the reputation of the bank group may be influenced after the merger between EON Bank and Hong Leong Bank. People feared that they cannot handle the new style of banking operation immediately once the EON Bank merged with Hong Leong Bank in April 2011. As stated as above, the EON Bank online banking portal will be terminated after the merger between EON Bank and Hong Leong Bank. The EON Bank customers are needed to reactivate the online banking portal through Hong Leong Connect, which is a system to transfer the EON Bank online banking portal to Hong Leong Bank online banking portal.

The perceived risks such as abilities of learning new transaction operation, time to transfer account through Hong Leong Connect may lead to outflow of EON Bank customers to other bank groups in Malaysia, such as Ambank Group, Maybank, Alliance Bank, Public Bank and so on. This condition can create a loss to the EON Bank and Hong Leong Bank at the same time because of the merger. Therefore, this will be one of the disadvantages of the merger of EON Bank and Hong Leong Bank.

In addition, there exists some limitation between the two banks after the merger between EON Bank and Hong Leong Bank. This is because both EON Bank and Hong Leong Bank respectively practices different culture of banking transaction operation and administration management although mostly are the same in banking sector. If there is no centralized policy between the EON Bank and Hong Leong Bank, the employees in both banks may face the different style of management and they do not know which one to follow in their works.

Furthermore, the employees from both EON Bank and Hong Leong Bank will confuse with the banking operation and management. Related to this, the employees from two different banks will lose their motives to work aggressively and efficiently in the banks.

In addition, if the two banks are centralized to follow Hong Leong Bank's banking operation and management, the employees from EON Bank need time and capabilities in getting used to new banking operation and management. They will face incapability to cope with all the Hong Leong Bank's operation in a short period.

In conclusion, the merger between EON Bank and Hong Leong Bank has its own advantages and disadvantages. No matter what are the problems of the merger; they are unable to handle them in a short time. At the same time, the two banks need to implement the same policy for both banks to improve and enhance the banking system in both banks to gain back the customers confidences, no matter in current or in the future.

1.2 Problem Statement

It is common that this merger and acquisitions can take place in most of the company and banks but it questions whether the merger brings impacts to the stock behavior and stock performance of bank. In this research paper, the problem statement is the changes of the stock performance of banks effect from merger and acquisition of Hong Leong Bank and EON Bank Group in Malaysia as the stock performance will be influenced by the investor decisions on the stock market within the merger period.

1.3 Research Objectives

The announcement of bank mergers and acquisitions has influenced the stock price behavior and stock performance of bank. Therefore, this research paper focuses and tracks the changes of the stock performance of banks within the pre and post announcement periods to evaluate the effects of the merger and acquisition on the changes of stock performance within the research period. In this research study, the overall stock performance of the banks will be observed and evaluated.

1.3.1 General Objective

This research paper aims to examine the impact of merger and acquisition of bank on stock performance of banks.

1.3.2 Specific Objective

In this study, the specific objective is to examine the impact of merger between the Hong Leong Bank and EON Bank Group to Hong Leong Bank's stock performance.

1.4 Research Questions

- How is the banks merger influence the stock performance of banks?

- How is the changes of stock performance effect from merger and acquisition of banks within the study period?

1.5 Hypothesis of the Study

H_0 : There is no significant impact of the merger between the banks to the bank's stock performance.

H_1 : There is significant impact of the merger between the banks to the bank's stock performance.

1.6 Significance of the Study

This research paper brings significance to the banks in Malaysia because the changing of stock performance will affect the interest rates on deposits, securities. Therefore, the demand and supply of the stock will be influenced by the interest rates changes and it will directly influence the bank when consider the amount of new securities to be issued in primary market or existing securities to be sold in secondary market according to the interest rate changes caused by the stock performance. Thus, this study will also bring significance to the bankers and also policy makers who work in banks due to the change of the bank's stock performance.

Besides that, this study is also important to policy makers and investors as investors who believe the merger of the banks may lead the stock prices to increase will purchase the stock before merger to ensure they gain the profit when the stock prices rise. Reversely, the investors will sell their stocks to avoid heavy loss if they assume the merger of the banks will cause the stock prices to decrease. The bank's stock price before merger and after merger will be determined and compared by the investors.

Apart from this, there is significance of the study to the policy makers. The merger of banks and the change of the bank’s stock performance influenced by the merger may affect the policy maker decisions anytime in order to take the precautions to be more careful in promoting mergers and acquisitions as a way of achieving capital adequacy, liquidity and good banking practices.

1.7 Chapter Layout

Chapter 1 in this study is the introduction which explaining the background of the selected company and followed by Chapter 2 which is literature review on the banks merger & acquisition activities and the stock performance. Next, the Chapter 3 in this paper will discuss the methodology used in this study which including the data, data sources, and model used for data analysis.

The Chapter 4 is discussing about the interpretation of result of the data analysis. Lastly, the Chapter 5 in this study will be a conclusion for the impact of banks merger activities to the bank’s stock performance and the policies or recommendations for the activities will be included.

1.8 Conclusion

In conclusion, Chapter 1 of the research paper aims to explain each scope on the impact of the two banks merger towards the stock performance of bank. Introduction briefly explain the background of banks, problem statement identify the motivation of this research study, research objective is known as the goal of the study, research questions which are generated from the research objective, hypothesis of the study, significance of the study to the influenced parties, and chapter layout. This study expect the present of impact of the bank merger towards the stock performance of bank within the research period.

CHAPTER 2: LITERATURE REVIEW

2.0 Introduction

This chapter is briefly explains on the Review of the Literature, which is the review and effects of the banks' pre- and post-merger from the related journals. The Section 2 of the chapter is the Review of Relevant Theoretical Models and the next section will be the Proposed Theoretical / Conceptual Framework of the Research. In addition, the Hypothesis Development is also included in this chapter. There will be an overall conclusion on summarizing this chapter.

2.1 Review of the Literature

Banking system and financial institutions play a significant role to the country's economy. By mergers and acquisitions (M&A), the banks can comprehend the efficiency cost through the economies of scale, increase in earnings through share market and produce tariff income. Furthermore, the merger of two corporations will modify the stock performance of the acquiring and target firms either the stock price will increase or decline.

This research will be looking into the pre- and post-merger effects on the acquiring bank's stock performance during these two periods. This is because the reviews showed that there are divergence on the bank's stock performances during the pre-merger and post-merger.

2.1.1 Pre-merger of Banks

According to Ong et al (2011), the financial performance and efficiency of the banks is lower during the pre-merger period. The objective of this research is to examine whether the domestic banks have acquired their performance competence during the post merger period explicitly in the productivity, cost savings, liquidity, shareholders' wealth and solvency areas.

The study from Ong et al (2011) applied the performance from 1999 to 2001 as pre-merger performance in order to contrast with post-merger performance. Nonetheless, for the year 1998, it was excluded in the sample period collection because of the Asian Financial Crisis that occurred in 1997. This is because during that period the Asian Financial Crisis had influenced banks' returns such as the Dividend per Share (DPS) and Earning per Share (EPS).

Sulong and Harjito (2006) investigate whether there are impacts of merger and acquisitions announcement on the trend of stock performance and transformation on the economic performance. The outcomes from the financial ratios in the research indicated that there was a negative performance on the growth rate of stock performance before pre-merger between the banks.

Sulong and Harjito (2006) also stated that the Asian Financial Crisis in 1997 is emphasized because Malaysia banking industry will be slightly inclined and banks may face losses due to the crisis. Because of the crisis, the banks' stock performances like Earning per Share (EPS) and Dividend per Share (DPS) were commonly depleted during the pre-merger period. Therefore, the overall stock performance in Malaysia banking industry was a disappointment during the pre-merger period. In the end, the study showed that it was confirmed that the banks' stock performances during pre-merger period were worse than during post-merger period.

In addition, according to Scholtens and Wit (2004), there is disparity of announcement impact of large banks merger in European and United State stock markets. The purpose of the study is to discover the diverse effects of bank mergers in different market. This study applies event study method to investigate the study on short term shareholder wealth effects of bank mergers.

Scholtens and Wit (2004) showed that both stock markets generate positive abnormal returns during the merger announcement which is within pre-merger period. However, the United State's abnormal returns achieved higher returns compare to European abnormal returns during the pre-merger period. However, this research incapable to specify an obvious difference between the market responses to bidders in the two regions because the returns tend to oscillate around the equal value, which is zero.

Rosen (2006) explored about the relationships of the markets conditions and reactions towards the announcement of the firms' merger. The study discovered that the stock markets have a tendency to get a better response from the market when the mergers are announced. Moreover, the study found out that the bidder stock prices rises when merger declaration is made when the market is doing well.

In addition, Rosen (2006) has made evaluation on the short term and long term of the announcement period before the merger and noticed that there were positive returns in short term and in long term, the returns depreciate towards the announcement period despite of the current stock market stipulation. This signifies that the merger proclamation made in short period was more secure and convincing than in the long period because the viewpoint of the bidder firms were unpredictable.

Campa and Hernando (2006) examine on the values created to shareholders during the announcement period of merger and evaluate the market reaction of the firms engaged in merger and acquisition within the European financial industry. The research indicates that merger announcement denoted that there were surplus earnings for the target firm during the announcement phase while the returns are principally zero for the acquiring firm on the same phrase.

Still, Campa and Hernando (2006) found out that one year after announcement, the returns for both corporations are minimal almost reached zero returns especially for target firm where the returns become negative in value. The research also claimed that the returns are constant with the increase in the return on equity (ROE), pecuniary restrictions and experience efficiency enhancement but for acquirer, neither the return on equity nor financial margins displayed large differences after merger.

Mansor and Yap (2004) study on the market reactions towards bank merger announcements in Malaysia over the joined period of 1999 until 2000. According to the research, the share price response followed the announcement of merger phrase relating to the whole banking industry in Malaysia, from January 1999 to February 2000.

In addition, Mansor and Yap (2004) investigated on the overall positive market reaction to the declaration of the bank mergers, not resisting that the bank mergers were imposed by the Central Bank. The findings of the study specified that there was much ambiguity in the banking merger progression and positive returns in the precisely listed banks and also the investment firms of the unlisted banks.

According to Sufian and Habibullah (2009), the Malaysian banks have lower competence level at pre merger period in contrast to the post merger period. The study indicated that in pre-merger period, the empirical results seem to imply that the scale inefficiency balances the real nominal in the Malaysian banking industry during the post merger period.

Correspondingly, during post-merger period, the empirical results from Sufian and Habibullah (2009), displayed that Malaysian banks have revealed a higher mean technical efficiency levels compared to the pre-merger period. The findings in this study specified that the acquirers are fairly more competent compared to the targets in six out of the seven merger occurrences examined. Furthermore, the study found out that empirical results of this study have significant policy.

On the contrary, the research by Mat-Nor et al (2006) illustrates that there is no major differences in most of the financial ratios and efficiency level for the conventional banks before the merger period. By applying the financial ratios, the findings implied that, on average, the six anchor banks is a large asset based firm and have greater the shareholders' finance and book value per share than stands alone foundation and even have larger asset than ten anchor banks. Nevertheless, the ten anchor banks likely to signify a higher performance for operating cost efficiency and cost to income than stands alone foundation than the six anchor banks. In terms of non-performing loan or credit risk performance, productivity and liquidity, there is no huge disparity between the ten anchor banks and stand-alone basis.

Mat-Nor et al (2006) furthers the study by implementing the DEA methods to verify the previous findings and the results prove that the average scores of the efficiencies for the DMUs are elevated for both pre- and post-merger period. Thus, it can be assumed that there is no distinction in efficiency on these DMUs when DEA testing is executed. This is constant with results on efficiency determined earlier.

Mat-Nor et al (2006) also implied that efficiency (post merger positive reactions and overhead efficiency) seem to have increased through the consolidation phrase and may have devised the real economies as the consolidations occurred. Furthermore, they argue that the market believes the M&A event itself may have developed or made the organization realize the requirement improvement.

Besides, for Vaziri et al (2012), the research has explored the variation of abnormal returns and cumulative abnormal returns of various countries in

Asia included China, Hong Kong, Taiwan, Singapore, Indonesia and Malaysia. Each of the country displays the different findings of stock return before merging. The abnormal return in China, Hong Kong and Taiwan rose after merger announcement but Singapore exhibited a negative return after the proclamation. For Malaysia and Indonesia, there is no significance provided after announcement to evaluate on the average abnormal returns on stocks for both countries. Meanwhile, for China, Hong Kong and Taiwan, there is an increase in the cumulative abnormal returns after the announcement of the consolidation of the firms. However, for Singapore's cumulative abnormal was negative or nearly zero which indicates that the returns were constant before and after merger announcement. As for Malaysia and Indonesia there are no changes in the cumulative abnormal returns.

Tan and Hooy (2003) investigate on the four anchor banks in Malaysia which are Hong Leong Bank, Malayan Banking Berhad, Public Bank Berhad and Southern Bank Berhad. The study discovered that before announcement of the merger the stock price for the anchor banks are raising. However, after the merger announcement phrase was announced, the trend of the stock prices movement likely to slow down or become more stabilize. It was found that the market reacted more to the good news prior to the merger announcement but after the announcement it reacted more to the bad news.

Al-Khasawneh and Essaddam (2012) look into the market reaction of the merger announcement on the nine profit-efficiency pair merger combinations. The combination of low efficiency acquirers and targets develop a positive cumulative abnormal return. Whereas, for the combination of lower efficiency acquirers with average or high efficiency target generate a negative cumulative abnormal return which has the similar outcome with the high efficiency acquirers with average or low efficiency target combinations.

By combining average acquirers and other efficiency level of targets, the findings show that there is no significant market reaction between the combinations. For the combination of high efficiency acquirers and low efficiency targets, the merger announcement did not seem to produce any significance to the acquirers but there is significant value to the targets.

Valverde et al (2003) investigated on the relative benefits of mergers versus deregulation by resolving the comparative value of mergers, changed economic environment, and branching deregulation. Nevertheless, in the research, it has carried out analysis about the effect of bank mergers on costs, prices and profits during the three years of pre-merger period (1986 – 1988), and three years of post-merger period (1994 – 1998) on the chosen saving banks in Spain. The research testified that during the pre-merger period, the average cost increases, returns on assets (ROA) drop and loan deposit rate spread also declines. While in the post-merger period, average cost declines, ROA rises and the loan deposit spread rate still decline continuously since the pre merger period. Thus, Valverde et al (2002) concluded that during pre-merger period, costs rose, rate spread dropped and so did the returns on assets.

The matter of whether or not mergers and acquisitions have helped to improve banks efficiency and profitability which will bring impact to the stock performance has not yet been resolved in the studies. Why do banks engage in merger and acquisition activities? It is the fundamental issue of the studies in the financial industry. In the case of bank mergers there are at least two main points that will show the different in pre-merger and post-merger.

First, the federal deposit insurer might believe the consolidated bank too big to fail as a result of the merger. This approach permits all uninsured liabilities to have the insurance coverage and thus amplifies the value of the implied guarantees received from the government. Second, banks are focus to capital requirements. Therefore, shareholders or any promising investor who yearn to perform the investment cannot merely boost the leverage to make up for a merger that shielding the benefits of bondholders management (Jensen and Ruback, 1983).

According to Pilloff and Santomero (1996), the primary reason for the merger and acquisition is the performance development after the merger, which can be attained in several ways. First, there is a transfer of management knowledge from the superior firm to the less superior firm if the superior firm has complimentary proficiencies to the target firm. Once the two firms merged, it will become a large firm or a large single entity, thus, a better supervision team will enlarge and assist in the pecuniary as well as the stock market performances. Second, the merger and acquisition event can enhance the financial performance through the exclusion of unnecessary facilities and human resources. Third is the existence of the consolidation that involves technology, skills and resources when firms merged. Finally, the segmented market shares that each corporation separately held prior to the merger.

Consequently, Pilloff and Santomero (1996) acknowledged that the combined market shares are huge rand the new entity will have an economy of scale gains. It will not only convey returns to the management of the bank towards the accomplishment of goals, but also assists in financial and stock performance.

Prior to Pilloff and Santomero (1996), and Rappaport (1986), the studies recommended that apart from giving operational benefits such as economies of scale, asset restructuring, and technical and managerial skill transfer, bank consolidation can assist in improving the financial state of the bank by risk reduction, increasing the debt capacity and lowering interest rates as well as tax savings.

Moreover, Rhoades (1998) found out that the efficiency impact of bank mergers by using similar basic systematic method like financial ratios and the effect of the merger announcement on the stock of the acquiring and targeting firms. The findings showed significant cost cutting in line with pre-merger predictions. The most common and solemn synergies faced in the merger of the banks are that rise in the bidder returns relative to non-financial mergers, are unforeseen complexity in integrating data processing techniques and operations that indirectly affect the financial performance.

2.1.2 Post-merger of Banks

According to Ong et al (2011), the shareholders' wealth was improved after the merger as the Earning per Share (EPS) and Dividend per Share (DPS) were raised during the post-merger period. Usually, the stock performance in banking industry is low during the pre-merger period compared to post-merger period. The study evaluates that the Malaysia banking consolidation was provoked by the Asian financial crisis in year 1997. Related to this, the banks' stock performance started to improve after the merger and acquisition of banks. This study also specifies that the growing of the EPS and DPS in the banking industry will create a higher shareholders' wealth. Overall, there is no query that the banks' stock performances were better during the post-merger compared to pre-merger and this facilitated to enhance the shareholders' wealth.

Agrawal et al (1992) studied that the firms will be underperformed after merger. Before the research, it is assumed that the firm size effect and beta estimation was the issues to the negative returns. After research, the study rejected the assumption made earlier because the findings are not constant with decelerate change to the merger event. The findings indicated that the stockholders of the firm experience losses instead of returns over the five years of the merger completion when the findings were exposed to selection of requirement and did not seem to be initiated by the beta estimation. The study concluded that the losses are probably caused by the slow market change to the merger event, so when in long term performance, the net present value of the merger to the acquirer is not being acquired by the proclamation period.

Several studies had reviewed on the post-merger performance in the banking industry. Although in theory, the findings of the merger may bring returns to the performance of the bank, these positive outcomes are still opposed by some empirical findings after for several banks also examining on the mergers and acquisition. Rhoades (1990) and (1993), for example, explained that the cost reduction and efficiency gains were not significantly related to mergers. In addition, the study denoted that both profitability and non-interest expense are not influenced by merger event.

Furthermore, Srinivasan (1992) assumed that the mergers do not cut cost on the non-interest expenses of the financial institutions. Additionally, Berger and Humphrey (1992), that evaluate the merged banks' and nonmerged banks’ performance, cannot acquire any significant cost efficiency gains on average and the slight insignificant gains known were compensated by the declination in the scale efficiency.

Penas and Unal (2004) provide the evidence to show that the relation between announcement month abnormal equity returns and adjusted bond returns is positive and significant, which rules out the possibility that bondholders gain at the expense of equity holders. In fact, the positive effect of the incremental size on adjusted bond returns is larger for post-mergers, which can be explained by the greater market power in mergers and acquisition.

Cornett et al (2006) studied on the operating performance around commercial banks mergers. The research stated that operation of the banks rises significantly after merger. The study also discovered that large bank mergers generated higher performance than small banks mergers, the activity concentrating mergers produced more returns than activity diversifying mergers and lastly, hr geographically concentrating mergers created greater performance gains than diversifying mergers, therefore the research concludes that industry-adjusted operating performance of the bank mergers amplified considerably.

Moreover, Cornett et al (2006) acknowledged that improving of the performance resulted on greater profitable returns and higher cost reduction. Finally, when there was an increase in the performance, the bank mergers will received a positive abnormal returns for the long run stock.

The merging process with conditions which is completed through forced and of not purely voluntary, the effect of the merging will be of otherwise. Chong et al (2006) relates the impact of forced mergers scheme on the shareholders' wealth in Malaysia. Based on Chong et al (2006), Malaysia's merger scheme that have been forced, have destroyed the economic value and the acquiring banks tend to benefits from the expense of the target banks contrasting to the findings on voluntary mergers and acquisitions.

Furthermore, the Chong et al (2006) pointed out that there is no noticeable difference in capital adequacy ratio, non-performing loans of the acquiring banks and target banks, and profitability. Moreover, growing literature on cronyism and political connected firms has been added by the findings. Contradicting to that, forced bank merger scheme is said to be linked to cronyism via the thorough check-through of relative wealth effect of the Malaysian forced bank merger scheme on politically connected firms.

Knapp et al (2006) studies the effect of mean reversion on the post-merger bank holding companies (BHC) by discovering the characteristic of industry-adjusted returns. This study stated that there is an implication of the mean reversion in the corporate earnings overtime in BHCs. The study also finds out that tendency towards the mean reversion should be quantified when running over the changes from the after mergers to get more precise results on the impact of merger.

Besides, Knapp et al (2006) make discovery that when the post-merger performance is contemplated, the average acquirer gain more benefits after the merging. Additionally, this study stated that post-merger change in industry adjusted returns corrected for mean reversion is broadly encouraging in the years for both cash flow returns. These positive findings on post-merger suggested that strong connections are enabled between mean reversions on the impact of the post-merger bank holding companies.

Vallascas and Hagendorff (2011) researched on the impact of European bank mergers on the default risks by the acquirers. From the research, in the diversifying mergers where low-risk banks involved, the changed in industry-adjusted distance to default is noteworthy and negative, hence, it will amplify the default of the bank. Additionally, the study found that risk related with the merger event increases quite enormously because of cross-border and activity-diversifying deals.

Moreover, Vallascas and Hagendorff (2011) stated that deal volume causes danger to the stability of banking sectors following from the negative impact on the industry-adjusted gap to default. The research also focuses on the risk faced by the acquiring bank, and discovered that the risk of mergers are less negative than the results achieved because the targeted firm will faced much higher risks than acquiring firms if the deal is in default. Hence, this research concludes that the aftermaths of M&A on systemic stability like the deals that will lead to intricate banking operations and deals that may increase the market concentration still remained unclear.

Anderson et al (2004) zoom in into the relationship that happen in 1990s related to the changes on the CEO compensation with the mergers among outsized bank. The study indicates that the typical CEO reimbursement is raised significantly when merger event occurs to the banks with capital amounted to billions. Due to the long-term reward depends on the future performance, thus, changes in return for the post-merger are consistent with the finest restructuring of CEO compensation.

Furthermore, Anderson et al (2004) showed that bidder bank will gain positive return and is in contrast for the public bank leads to cash and total compensation of bidder CEOs to rises due to the share of merger gains or not gains for the target bank. Besides that, this study also indicates that post-merger compensation changes are associated to the increase of dual value of acquiring and target banks upon merger announcement. In the end, the study suggests that tentative trend in CEO compensation due to the bank mergers are coherent with the markets for corporate controls.

Apart from these, Ismail and Rahim (2009) found that the scores for efficiency during pre merger are much lower compared to the efficiency scores during post merger. Also, the paper shows that the foreign banks efficiency scoring is higher compared to the domestic banks after the merger. In views of productivity, the technical change contributes to the main productivity growth. Both of the local and international banks experienced a height in productivity. From the research, the local banks have an increase due to the technical changes rather than efficient changes, while the international banks seem to fall in the efficiency and improve in the technical change.

The known impact after consolidation from previous studies is increased in market coverage and potential to realize benefits. Based on Went (2003) which investigating the reasons of merging in late 1980s that involves 2 Scadinavian universal banks, namely StateBank and PolarBank. The study furthers examines information directed towards internal information (the employees of the institutions involved in the merger) and towards the external information (media, customers and others). The statistical result from the findings shows that the main motives or causes for the merger were the access to the complementing branch network of PolarBank as well as StateBank's need for competency in corporate banking.

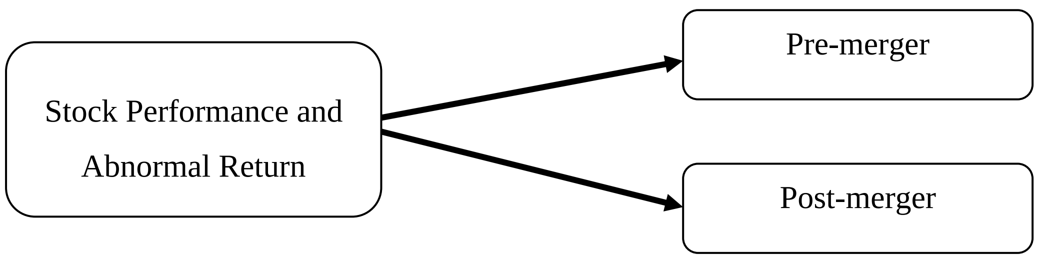
Went (2003) also proves the fact that the increased market coverage that was supposed to be in benefit of merger. Went (2003) concludes that merger would results in certain, although unclear, the merged institution was coupled with both strategic benefits and financial gains. However, it can be confirmed that the advantages of the merger and the possible arguments of the merger itself were the increased market coverage and the potential to realize benefits from a more dominating presence were. Competitive reasons and not primarily by a quest for efficiencies were the drivers for merging.

Valkanov and Kleimeier (2007) researched through the cases from US and European Bank consolidation using the shareholder's value. In US, the evident suggested that the bank merger and acquisition over the years is a zero-sum hinting that only targeted banks will create value. Whereas in European, evidence proved that the abnormal return in bank merger is limited since the merger and acquisitions conducted create shareholders value for the target banks but did not destroy the value for acquirer banks shareholder therefore it does create value.

Besides that, Marks (2006) pointed out that the research studies shows that three-fourths of mergers and acquisition fail to achieve their financial or strategic goals. Most of the mergers are done purely to minimize the expenses occurs, when financial institution consolidates and eliminate unnecessary back office functions. Base on a longitudinal study it is found that it is more favorable to those firms who have yet to experience merger and acquisition than to those who have involved in it.

2.2 Review of Relevant Theoretical Model

Figure 2.2: Theoretical Model of the Research



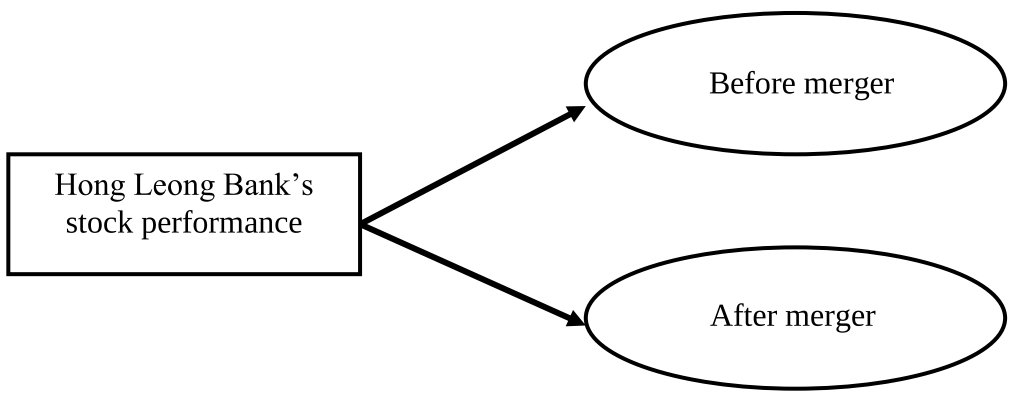
From the previous sub-chapter 2.1 Review of Literature, it is found that most authors have concluded the findings on the stock performance and abnormal returns before the merging process is carried out are mostly positive during the pre-merger announcement. However, some authors found that the different combination of targeted and acquired companies provides different results. For instance, low efficiency target and acquirers have positive abnormal return whereas, low efficiency acquirers and medium or high efficiency shows a negative abnormal return.

Besides that, during post-merger announcement, most of the authors' findings on the stock performance and abnormal returns after the merging process is done are positive. Moreover, some authors computed EPS and DPS and linked it to the shareholders wealth, whereby the findings were relatively positive. Positive EPS and

DPS will boost up the shareholders wealth, subsequently, increases the abnormal returns and stock performance.

2.3 Proposed Theoretical/ Conceptual Framework

Figure 2.3: Proposed Conceptual Framework



An event study methodology is anticipated to study on the aftermaths of pre- and post-merger in terms the performance in stock of Hong Leong Bank before and after it merge with EON Bank. In the research, the applied determinants are the stock performance which functions as the dependent variable while pre- and post- merger periods function for the independent variables.

The root ground of the research is to study thoroughly the returns consequential from the stock prices of the chosen banks either before or after the announcement of the merger and acquisition. Given the market return, the actual return less the return predicted by the firm's beta is defined as an abnormal return (residual). The residual or abnormal return represents the part of the return that is not predicted and is, thus, an estimate of the change in firm value on a day, which is caused by the merger announcement.

The market capitalization reflects the market participant's view on the value of those benefits once the merger is announced. When the bank merged with another bank, the stock prices of both banks will be affected. Generally, the acquiring bank's stock price will decline while targeted bank's stock price will incline due to several reasons.

When the announcement of the merger is made, the acquiring bank's stock price may fluctuate constantly due to existence of elements namely, uncertainty of the investors with regards to the takeover of the targeted bank. So, the investors will trace down the stock price of the acquiring bank cautiously before investing. After merger, the stock prices of the bank will rise in the early stage and begin to stabilize after a period of the merger.

2.4 Hypothesis Development

H_0 = There is no significant impact of the consolidation between the banks on the bank's stock performance.

H_1 = There is significant impact of the consolidation between the banks on the bank's stock performance.

The null hypothesis in this paper marks that there is no significant impact of merger between Hong Leong Bank and EON Bank to the Hong Leong Bank's stock performance. Meanwhile, the alternative hypothesis in this paper indicates that there is significant impact of the merger between the two banks to the Hong Leong Bank's stock performance.

2.5 Conclusion

As conclusion, this chapter is explaining the scope on literature review, which includes the review of literature that comprises of the review on pre-merger and the review on post-merger of the banks. The next section on this chapter is briefly explaining the review of relevant theoretical models that implemented by the authors in their journals. This chapter is also briefly discussed about the proposed theoretical or conceptual framework that used in this entire research to explain the relationship between dependent variable and independent variable. Besides that, the hypothesis development is attached in this chapter which examines the relationship between Hong Leong Bank's stock performance and the pre and post merger of the banks which will be explained further in Chapter 3.

CHAPTER 3: METHODOLOGY

3.0 Introduction

This chapter is explaining the methodology that employed in this study. Section 1 is Research Design. Section 2 will explain the Data Collection. Sampling Design, Research Instrument and Constructs Measurement, Data Analysis will be presented in Section 3, 4 and 5 respectively.

3.1 Research Design

A research design is used to enclose or accomplish the methodology and formula selected to carry on the study. The research design included in this chapter is description research such as event study. Event study is carried out in this study to examine the main connection or correlation between the stock market of Hong Leong Bank before and after merging with the EON bank recently. The descriptive research is also known as an analytical research that describing the evidences or facts and characteristics of the population being studied. In this research, the event study is a statistical mode and it helps to understand the merging event influences on the bank's values.

Event study is defined as the method that undertaken in many studies fields, such as management, marketing, accounting and finance, financial economics, information technology, and others due to the impacts of whatever event on the alteration of the share price acquired. The reason that event-study methodology to be used in this study is because of the stock market data in numbering within 60 days before and after merger is being used. Thus, the announcement of a merger between the two banks entities can be analyzed in this paper to see whether the bank investors believe that the merger will create or destroy the firm value.

3.2 Data Collection

Data is derived as the values of quantitative or qualitative measurements that can be a part of the sample. Data can be developed into many types like in tabular, graph, and others. With the existence of data, it is easier to examine and analyze the movement and the pattern of the price of stock of Hong Leong Bank in Malaysia before the event of merger and after the event of merger happen.

Data collection known as the progress of gathering and computing the information on the project variables, in a produced or enacted steady shape which produce one to acknowledging the study objectives, testing of hypothesis, and estimating the outcomes. Furthermore, data collection is performed in many study areas like physical and social sciences, humanities, business and others.

For this paper, the data will be sought from the *DataStream*, Library of University Tunku Abdul Rahman (Perak Campus). Meanwhile, the data could be obtained from the *Bursa Malaysia* website, *Yahoo Finance* website. All data are collected on a daily basis. Besides, all data that is obtained are secondary data.

3.2.1 Secondary Data

Secondary data is the data that have been already collected by and readily available from other sources. The secondary data are more quickly obtainable than the primary data and also may be available when primary data cannot be obtained at all. Besides time saving, the secondary data saves efforts and expenses. It also helps to make primary data collection more specific.

This paper is collects Hong Leong Bank's stock performance daily which is 60 days before and 60 days after merging with EON Bank. The 60 days before the merger of the two banks is from 28th April 2011 until 1st July 2011 while the 60 days after the merger is from 2nd July 2011 until 29th August 2011. This paper is only focus on one sample which is Hong Leong Bank in Malaysia since the EON Bank already consolidated with Hong Leong Bank and EON Bank no longer in the listing on *Bursa* Malaysia.

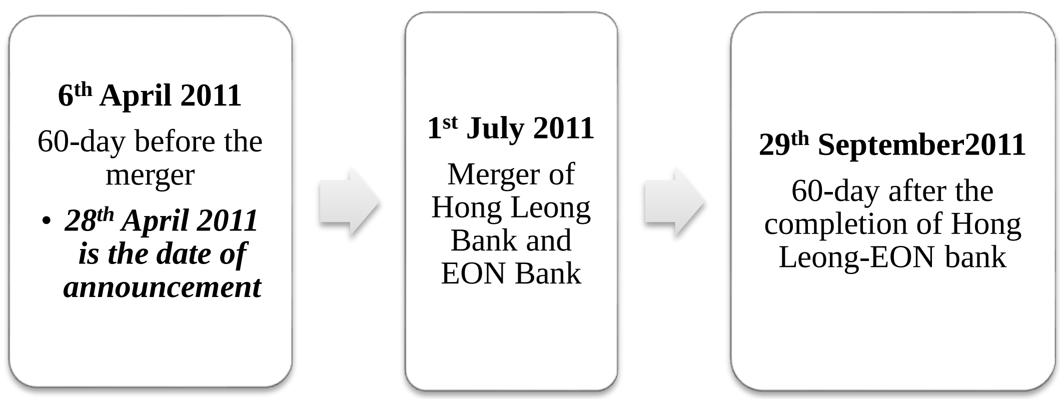
3.3 Sampling Design

This section is discussing the techniques or skills to be used in handling and collecting the data. It will be on how we obtain the data, and also the sample size in this paper.

3.3.1 Event Window

The figure below shows the event window for Hong Leong Bank before and after merging with EON Bank:

Figure 3.3.1: Timeline of Hong Leong Bank and EON bank merger



From the past studies on Merger and Acquisitions (M&A) activities in the banking industry, they had shown a diversification of outcomes on the share performance before and after merger. Hence, this paper is to perform the research on the latest merging of banks in Malaysia which is the merging between Hong Leong Bank and EON Bank and observe on the diversification on Hong Leong Bank stock prices during the specified period shown on the event window. Overall, the event window covers the period from 60 days before merger until 60 days after merger.

3.4 Research Instrument and Constructs Measurement

An event study is an attempt to measure the valuation effects of a corporate event by examining the responds of the stock-price around the announcement of the event. This paper is examining when an event of the merger happened and how it will affect the stock price of a bank. Therefore, the method of the event window is going to be applied as the research instrument in this paper. Through the event study the Hong Leong Bank's stock performance of the merger between Hong Leong Bank and EON Bank is analyzed. It is to test whether there would be abnormal return and cumulative abnormal return when the event of merger happened between Hong Leong Bank and EON Bank 60 days before the merger and 60 days after the merger.

3.5 Data Analysis

Data analysis is a progression of describing the details, determining the trends, exploiting the explanations of findings, and test hypothesis. Usually, the data analysis is applied in sectors like business, administration, policy and so on. This paper conducts the event study to examine the effect of the merger between EON Bank and Hong Leong Bank to Hong Leong Bank's stock performance.

The event study is to test the pre-merger and post-merger of Hong Leong Bank and EON Bank. This event dates from the time period of 6th April 2011- 30th June 2011 is the pre-merging time period and post-merger time period is from 4st July 2011 – 29th September 2011. This paper will obtain data of the stock performance from the time period above to calculate for the rate of returns for individual stocks, abnormal return, average abnormal return and cumulative abnormal return.

3.5.1 Rate of return for individual stock

Rate of return is the annual income from an investment expressed as a proportion (usually a percentage) of the original investment (Oxford Dictionaries). It can also be define as the gain or loss on an investment over a specified period, expressed as a percentage increase over the initial investment cost. Gains on investments are considered to be any income received from the security plus realized capital gains (Investopedia).

Since the paper is mainly about stock performance of Hong Leong Bank and EON Bank before and after the completion of their merger. Therefore, their individual stock rate of return can be calculated as of the formula below.

The formula for rate of return is

$$\text{Return of Stock} = \alpha + \beta_{stock}\, R_{market}$$

where, β_{stock} is the beta coefficient of the stock, R_{market} is the expected return from the market and α is a constant that measures excess return for given level of risk.

3.5.2 Abnormal return (AR)

Abnormal returns (AR) are defined as the component of the return that is not due to systematic influences (market wide influences). In other words, abnormal returns known as the inconsistency between the actual returns and that are predictable to outcome from market development (normal return) (Financial Glossary, 2011).

The model for abnormal return is

$$AR=R-(\hat{\alpha}+\hat{\beta}R_m)$$

where, AR is the abnormal return of stocks at the time calculated. R represents the daily return on the Bank stock for the event day t and R_m is the return on the benchmark for the event day t, $\hat{\alpha}$ and $\hat{\beta}$ is the OLS regression parameters that are estimated using the market model over the period of pre-merger and post merger event dates. In summary, R is the actual return for the bank while$(\hat{\alpha} + \hat{\beta}R_m)$ is the estimated market return.

3.5.3 Average abnormal return (AAR)

Average abnormal return is computed by applying the surplus of the average return divided by the sum number of average return being calculated at time *t*.

The model for average abnormal return is

$$AAR_t = \sum \frac{AR_t}{N}$$

where, AAR_t is the average abnormal return of stock at time t, AR_t is the abnormal return at time t computed using the formula as stated above and N is the total number of abnormal returns computed at time t.

3.5.4 Cumulative average abnormal return (CAAR)

Cumulative average abnormal return is described as the totaling of average abnormal return divided by the total figure of average abnormal return being estimated at time t.

The model for cumulative average abnormal return is

$$CAAR_t = \frac{1}{N} \sum AAR_t$$

where, $CAAR_t$ represent the cumulative average abnormal return, AAR_t is the average abnormal return at time t and N is the total number of average abnormal returns computed at time t.

3.5.5 Test of Significance

Under the null hypothesis, the abnormal returns will jointly normally distribute with a zero conditional mean and conditional variance σ^2 (AR_{it}) where:

$$\sigma^2\left(\overline{AR}_{it}\right) = \frac{1}{N}\sum_{i=1}^{N}\sigma^2_{\sum i}$$

H_0 can be tested using,

$$\theta_1 = \frac{\overline{CAR}(t_1,t_2)}{var\left[\overline{CAR}(t_1,t_2)\right]^{\frac{1}{2}}} \sim N\,(0,1)$$

$$t-\ stat_{t_1,t_2} = \frac{CAAR_{t_1,t_2}}{\sigma_{t_1,t_2}}$$

Where,

$$\sigma_{t_1,t_2} = \sqrt{\frac{\left(CAR_{t_1,t_2} - \ CAAR_{t_1,t_2}\right)^2}{n-1}}$$

3.6 Conclusion

As conclusion, the Chapter 3 in this study discussed the methodology framework to be used and applied in this paper in examining the relationship between the Hong Leong Bank's stock performance and the merger activity among Hong Leong Bank and EON Bank in 2011. This chapter composes of the Introduction of this chapter, Research Design that indicating the method for analysis, Data Collection which identifying where the data comes from, Sampling Design that discussing the techniques to be used in handling and collecting the data, Research Instrument and Constructs Measurement which indicating the tools to be used in analyzing the study and Data Analysis that involving Rate of return for individual stock, Abnormal Return (AR), Average Abnormal Return (AAR), Model Cumulative Average Abnormal Return (CAAR) and the Test of Significance.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

This chapter is analyzing and explaining the data used in this research. Section 1 is briefly explaining the empirical results of bank stock returns by classifying the test significance in a table. Besides that, Section 2 is explaining the results of data analysis on investors' returns with the presence of graphs.

4.1 Empirical Results of Bank Stock Returns

Table 4.1 presents the summary of the significant results test of Cumulative Average Abnormal Return (CAAR) according to the different event windows taken from the sample. The abnormal return estimation is carried out according to the time period occurred in the sample.

A full sample of event window of [-60, +60] is used to test the significance of the 60 days before and after merger. According to the findings in Table 4.1, the cumulative average abnormal return for the whole period sample is negative. Moreover, the findings show a significant result in value. Thus, the 60 days before and after merger leads to significant deteriorates in overall value of the return.

The announcement day of merger is on [-44] day, so event windows of [-50, -38] and [-47, -41] are utilized to test the significance of the sample windows. The findings found out that during the announcement period, in long run event window of [-50, -38], there is positive cumulative abnormal return and has a significant value. While in the short run event window of [-47, -41], the return turns out to be negative and significantly decreases in the value during the announcement period. Overall, the findings indicate that the bank is less consistent on the positive impact of the stock performance during the announcement period.

In addition, six different event windows are applied in attempt to examine the changes of the performance of stocks around the merger day which is the [0] day. Therefore, three sample periods from before the merger, during merger and after the merger are being utilized to obtain the significance of the return.

The event windows are arranged according to the time period such as [-10, 0] and [-5, 0] event windows are applied on the period before merger, [-3, +3] and [-6, +6] event windows used during the merger and event windows of [0, +5] and [0, +10] utilized for the period after merger. These periods constructed to observe the differences in the returns and values for the pre- and post merger of Hong Leong Bank.

Before the merger occurred, during the long run event window, the outcome of the return is negative and show significant fall in the return while in the short run event window, it shows a positive and significant increase in the overall value when the merger day is closer. This means, in short run, the bank is indicative to the positive response to merger.

During the merger period, the findings showed a negative return and slightly decrease in value during the long run event window. But, in the short run event window, the value becomes positive and has a significant cumulative abnormal return. This shows that there is an increase in value in short period during the merger date. The results imply that the bank receive positive reaction in the stock performance during short run of merger.

After merger, in both long run and short run event windows, the results displayed that the cumulative average abnormal returns are significantly positive. The statistic tests illustrate significant results from both windows. These results show an increase of the bank's stock performance after merger and indicate that the bank is doing better than before merger.

Overall, the stock returns of the bank seem to be significantly different from zero for every event windows. This implies that the merger period have a great impact towards the stock performance of the bank. These statistic results are significant whether the cumulative average abnormal returns are in positive or negative values.

Table 4.1: Significance Test of Cumulative Average Abnormal Returns (CAAR) according to the time period of the merger

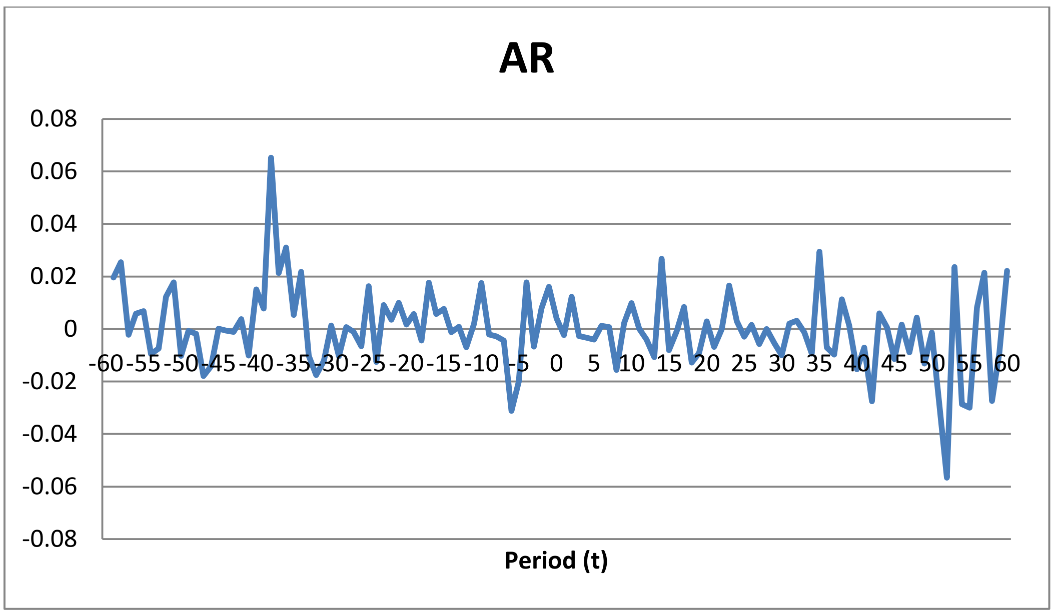
Sample	Event Window	No. of Days	Cumulative Average Abnormal Return (CAAR)	Standard Deviation (σ)	T-stat	P-value
Full	[-60, +60]	120	-1.5323E-18**	0.0149	-1.1276E-15	1.000
During Announcement Period	Long Run [-50, -38]	13	0.0027**	0.0208	0.4644	0.6880
	Short Run [-47, -41]	7	-0.0057**	0.0083	-1.8383	0.2074
Before Merger	Long Run [-10, 0]	11	-0.0004**	0.0155	-0.0768	0.9457
	Short Run [-5, 0]	6	0.0032**	0.0144	0.5410	0.6427
During Merger Period	Long Run [-6, +6]	13	-0.0008**	0.0137	-0.2229	0.8443
	Short Run [-3, +3]	7	0.0041**	0.0085	1.2771	0.3298
After Merger	Short Run [0, +5]	6	0.0007**	0.0064	0.2528	0.8240
	Long Run [0, +10]	11	0.0002**	0.0074	0.0948	0.9331

*Note: '**' indicates the significance of CAAR*

4.2 Graphs Analysis

4.2.1 Abnormal Return (AR)

Figure 4.2.1: Abnormal Return



Note: t_o = merger date, t_{-44} = announcement date, t_{-60} = 60 days before merger period, t_{+60} = 60 days after merger period.

Abnormal return is the component of return that is not due to systematic influences. In other words, the abnormal return is the difference between the actual return and that is expected to result from market movements (Chatterjee et al, 1992).

The graph 4.2.1 shows a gradual increasing and decreasing patterns of returns before announcement date which are the period within day -60 until day -45. Next, announcement day of the merger and acquisition which is on the day -44 shows that there is negative point of -0.0006 point and drop at the day -43 to the point of -0.0011. The reason of the false decreasing maybe caused by short of details and information about the mergers and acquisitions that are received in the market.

Starting from day -42, it exhibits increasing sequences but failed to maintain and dropped to negative point on next day which is day -41. This can be caused by lack of confidence and certainty of investors on the merger announcement between the banks. However, at the day of -40 the abnormal return increase in ascending order until day -38 which means that investor started to react to the investment market of the merger and acquisition of these two banks.

In addition, the graph shows that the return is bottom out starting from day -37 and started to rebound on day -30 which present a positive point of 0.0013. After that, the graph shows that advance gradually increasing and decreasing pattern of the performance.

However, it reached a minimum point of -0.0312 before merger and acquisition as supply of stock in market is more than the demand to develop a lower stock price before the merger and acquisition occur in order to construct the concept of buy low sell high theory. The graph shows that it start to bounce back after it reached minimum point and shows an downward trend for a few day before the merger of banks take place.

During the merger and acquisition take place, the abnormal return shows a significant decrease but started to increase at the second day of the merger. However, it started to drop from day four and shows random increase starting from day eight.

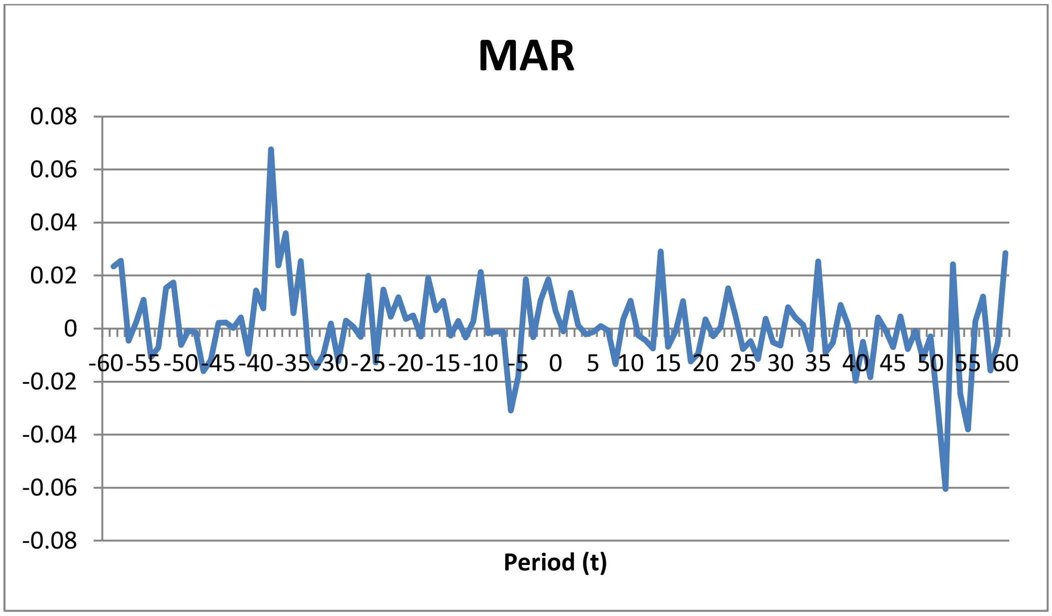
The unsteady performance after the merger and acquisition take place can be one of the reasons of unstable movement of stock as there is no significant achievement after the merger of Hong Leong Bank and EON Bank. However, it reached a maximum point within the period after merger and acquisition take place which is 0.0294 point all along the merger period.

Besides, on the day 50, there is a drastic fall in the return and it reached a minimum point all over the whole graph which is -0.0566 point and it shows a dramatic bounce day 53. Sometimes, there is a fundamental reason for a stock to fall after earnings are announced. For example, perhaps the bank's gross margins have fallen dramatically, or maybe its cash position has drop dramatically as it is investors attitude that affect the stock price.

When compare and contrast the abnormal return graph with the mean adjusted return graph, there are only a very slight different with the fluctuations which is at the day -23 and the day 40. The essential of abnormal return is to determine the financial performance by a single stock or the portfolios of stocks that vary from the market average and are important in determine whether the stock outperformed or underperformed the market performance.

4.2.2 Marginal Abnormal Return (MAR)

Figure 4.2.2: Marginal Abnormal Return



Note: t_o = merger date, t_{-44} = announcement date, t_{-60} = 60 days before merger period, t_{+60} = 60 days after merger period.

As it is shown in the graph 4.2.2, at the day -44 which known as the day of the actual announcement of the merger the marginal abnormal return, it exhibits an increase just slightly which is about 0.002 and then started dropping to point of 0.0002 at the day -43 but still it is at a positive point. This might be because the news of the merger has not spread wide enough and maybe only a few of the people knows about this news.

Whereas at the day -42 it started to increase a little which is 0.0042 but at the day -41 it drop to negative point which is -0.0096. This event happen might be due to the public still have doubts about this merger announcement. However, at the day of -40 the marginal abnormal return increases dramatically to 0.014. This could be due to the merger news started to spread widely among the public hence the public started to pay attention to this merger news.

A day before the merger, it shows a positive return of 0.018. Still, at the day 0, the return decreased to 0.006 and continues to fall until a negative return of -0.0011 the following day. However, at the second day of the merger it shows an increase of return to 0.014.

However, it started to drop from day four (-0.022) and increase back from day 8 (0.0035). Why did this event happen? This event happens most probably because Hong Leong Bank and EON Bank just merged, thus there is not much of an achievement shown by the bank since the employee just started to get to know each other and adapt to the environment.

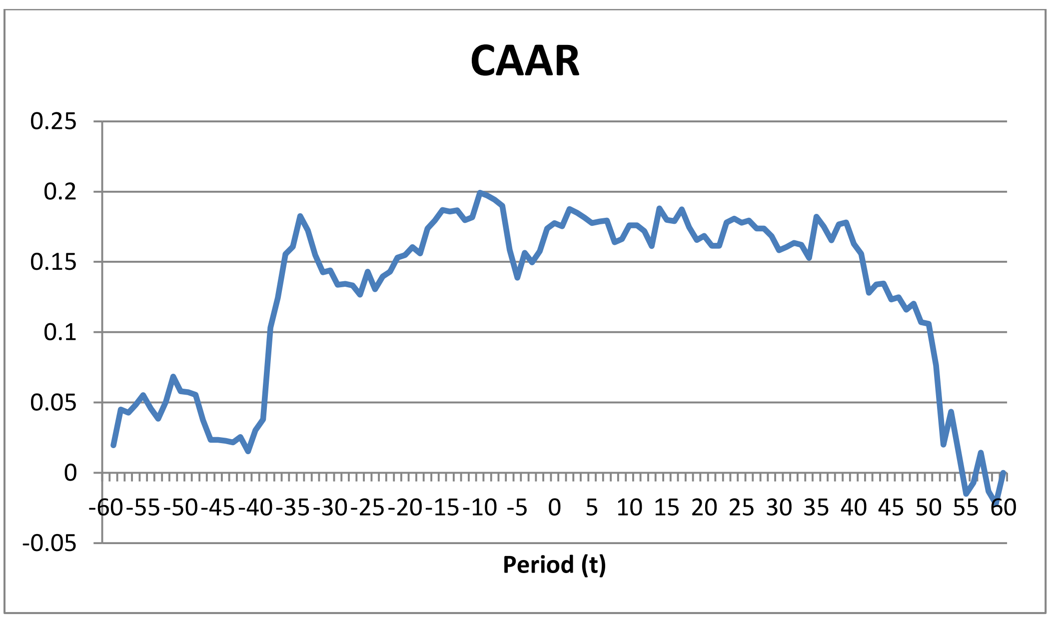
Furthermore, on the 48 days after the merger there is a drastic fall in the marginal abnormal return. It drops to the point of about -0.00085 but after that it shoot back up to about 0.024 on the 53 days after the merger. The decreasing trend is probably caused after the merger where the bank need have paid dividend hence when the public get money they will tend to sell off the share of the bank therefore the price and return drop.

After the price drop till a certain level the investor will expect the price to increase back in the future so they will start to buy the stocks. After day 53 it dropped back to a negative which is below -0.038 on the fifty fifth days after the merger. This might be due to the investor expectation on the banks stock performance after the investors have gain enough so they will tend to sell off the shares hence the return will drop.

Finally, when comparing the abnormal return (AR) graph with the marginal abnormal return (MAR) graph, both graphs display that the fluctuations of the returns are approximately the same and parallel. The only difference between these two graphs is the amount of returns in the sample window. Besides, the fluctuations are almost similar. The outlier is also about the same. This could be seen in the graph that the outliers in the abnormal return graph and the marginal abnormal return graph at the positive and negative points they are about the same.

4.2.3 Cumulative Average Abnormal Return (CAAR)

Figure 4.2.3: Cumulative Average Abnormal Return



Note: t_o = merger date, t_{-44} = announcement date, t_{-60} = 60 days before merger period, t_{+60} = 60 days after merger period.

The graph 4.2.3 shows the cumulative average abnormal return. The summation of average abnormal returns over the T days in the event window will form the cumulative average abnormal return (CAAR). Cumulative average abnormal return is a useful statistical analysis because it aids to get a dense of the aggregate effect of the abnormal returns. Specifically, the influence of the event during event window may not actually reflected on the event date itself, hence cumulative average abnormal return will be proved to be useful (Value relevance of analysts' earnings forecasts, 2003).

Overall, the graph shows an increasing and decreasing pattern within the 60 days before and 60 days after the merger period. Within the sample period, the highest cumulative average abnormal return is at day -10, which is the period that is between the period after the announcement date and the period that is near to merging date while the lowest cumulative average abnormal return is at day +60 which is 60 days after the actual merging date.

Before the announcement date, the graph shows an increasing pattern from day -59 and day -58. The returns bottom out at day- 53 before reaching a peak at day -51. However, as nearing the announcement date, the cumulative average abnormal return shows a gradual declining pattern. This could be due to the lack of confidence in the public. Hence, the public begins to sell off their stock causing an imbalance between supply and demands. During the announcement date the returns were relatively low.

Even so, few days later, after the announcement period the cumulative average abnormal return rockets up in day- 38 and continues to climb to day -33. This may be due to optimist perspective that investor have in the bank. After day-33 the cumulative average abnormal returns begins to fall until day

-26. Even so, the cumulative average abnormal return begins to rise in day -26 before changing its pattern in day -8. There was a sharp decline in day -6. This could be due to the speculators activities trying to earn up some profits before the actual merging of the bank takes place.

Although the returns shows an upward trends few days before the actual merging of Hong Leong Bank and EON bank but the trends did not remains constant. It fluctuates along a narrow band of values of cumulative average abnormal returns between day -4 and day +50.

Three noticeable slumps were identified within period of day -4 to day +50. One of the slumps happened between days +16 to day +22 while another slump happened in the period of day +29 to day +34. The last noticeable slump happened between the periods of day +40 to day +47. One of reasons for the slumps to happen is that trading of the bank stock itself.

On day +51 and day +52, there were sharp declines in the cumulative returns in the graph. The values continue to drops until the end of the sample period, that is day +60. In day +60, the returns hits rock bottom. This could be due to the wear-off effect of the merging news. People no longer believe that the merged banks between Hong Leong bank and EON bank can no longer provides anymore abnormal return and the return gradually back to normal.

4.3 Conclusion

As conclusion, the Chapter 4 is briefly explaining the result and analysis from the data used in this paper, which is empirical result of stock returns and the graph analyses. The Section 1 shows a table which including the summary of test significance with standard deviation, t-test and p-value. Furthermore, the Section 2 in this chapter described the stock returns patterns, such as abnormal return, marginal abnormal return and cumulative average abnormal return according to the graphs.

CHAPTER 5: DISCUSSION, CONCLUSION AND IMPLICATIONS

5.0 Introduction

This chapter is briefly explained the discussion, conclusion and implication on the study. Section 1 is the Discussion of Major Findings that authorizing the objectives and the hypothesis of this paper while Section 2 in this chapter is Limitations of the Study that shortly providing some drawbacks during the research development. Besides that, Recommendation for Future Research is also included in this chapter to offer some suggestions or opinions on the title of this study and the methodology used in this paper. Lastly, the last section is Policy Implication that preparing some practical references according to the title of this research.

5.1 Discussions of Major Findings

This research main objective is to examine the impact of merger between Hong Leong Bank and EON Bank towards Hong Leong Bank's stock performance. Empirical analysis of abnormal return and cumulative abnormal return are applied in the research. By applying data sample of Hong Leong Bank's stock prices from 60 days before merger until 60 days after merger, a sample of event windows are carried out to analyze the significance of the cumulative average abnormal return.

Furthermore, the results obtained from the analysis of the cumulative average abnormal return (CAAR), several findings shown the negative abnormal returns for [-60, +60], [-47, -41], [-10, 0], and [-6, +6] event windows and positive abnormal returns for [-50, -38], [-5, 0], [-3, +3], [0, +5] and [0, +10] event windows. From the findings, it proves that the returns of the bank are significantly positive after the merger whether in long or short run event windows. In the previous chapter, the empirical results are significant for all the event windows.

In addition, to investigate on the fluctuation of the abnormal return for Hong Leong Bank, graphs of 4.2.1, 4.2.2 and 4.2.3 are illustrated in Chapter 4. Graph 4.2.1 exhibits the abnormal return of [-60, +60] event window, where it shows the maximum point after the announcement of merger and began to stabilize after the announcement.

Similar with graph 4.2.1, graph 4.2.2 displays the trend of the marginal abnormal return for the full sample. In the graph 4.2.2, it shown that there were outlier returns where there is positive outlier return before merger and negative outlier return after merger. For graph 4.2.3 represent the cumulative average abnormal return where it illustrated that the fluctuation of the return is relatively positive in the full sample window.

The findings of the research have achieved the objective of the study in which the results shown there are significance of the stock performance in the event of the merger between the banks. The results suggested that although there are negative and positive significance level, overall the bank's stock performance are influenced by the merger of Hong Leong Bank with EON Bank.

The findings of this research are consistent with Penas and Unal (2003), Bert and Robert (2004), Agus and Zumaidah (2006), and Rosen (2006) which also examine the relationship between stock performance of the firm with the period of merger. The findings from their researches had shown that there is significance effect of merger towards the acquiring firm’s stock performance.

Overall, the results shown in the previous chapter are supportive to the objective of the research and also clarify the hypothesis testing of the research that indicating significance impact of merger between the banks to the acquiring bank’s stock performance for 120 days. To conclude, the findings have justified that merger between Hong Leong Bank and EON Bank will create a significant effect on Hong Leong Bank’s stock performance.

5.2 Limitations of the Study

The limitation of this paper is that this research only study on the stock performance of one merging bank only which is Hong Leong Bank and EON Bank. This research did not study about the merging of other banks in Malaysia. With the study of only one merging banks’ stock performance, even if the result shows that there are value creations in this merging activity to this particular bank. However, it is unable to know whether the merging activity does actually create value to the other merging banks as well. This is because there is not only this particular bank that have merged but also other bank merged in Malaysia as well. Since this the paper only study one merging bank the results that is obtain cannot be compare with the other merging bank because there is no result from them hence it is not really known whether the other bank also will have value creation .

Next is that this research only study on the effect of the merging and acquisition on the stock performance of the bank. However, this research did not take into account that there are other macroeconomic factors that will affect the stock performance of the bank. This is because the stock performance changes not only cause by the merger and acquisition only but also the macroeconomic factors such as inflation, interest rate, and etc. All of this factors will affect the investor reaction to the stock hence when investor react to the macroeconomic factor it will directly affect the stock price of the merged banks as well.

5.3 Recommendations for Future Research

Sample size is an essential element in the empirical research because it contributes in constructing the assumptions on the populations. Sample size is suggested to be increased in the research to obtain more favorable results. For example, take other banks merger with similar period or extend the period of the bank merger. So, by increasing the sample size, there is the likelihood that the results obtained are within the significance level. The greater the sample size, the results will be more precise and accurate and exhibits the characteristics of the whole population (Kalla, 2009).

Besides bank merger, there is variation of macroeconomic factors that will influence the trends of the stock price of the bank. Interest rate plays an important role in the movement of the stock price such as higher interest rate will cause the stock price to reduce and vice versa. It is due to several reasons like inflation, economic shocks and changes in the monetary policy. In addition, country's economy condition also important in manipulating the behavior of the stock prices. When the economy is booming, it will bring more investment to the firms and hence, the stock prices will increase.

5.4 Policy Implication

There have been many implications of study identifiable in this paper with regards to studies in Malaysian banking sector, filling up the gaps in literature, constructing future course of action plan by regulatory authorities and indicators on the expected future stock performance movement in the stock market.

5.4.1 Managerial Implications

Guiding the government policy regarding deregulation mergers is one of the examples of important implications the study has. As a means to enjoying efficiency gains, decision-makers hence ought to be more cautious in promoting mergers. Although the merging process may have positive impact towards small and medium banks, but it can also creates negative impacts towards larger banks.

The first implication that is being contributed to the banking sector in Malaysia is that the purpose of this research itself – identifying the effect of bank consolidation on the stock market performance with case study of Hong Leong bank and EON bank. To date, few researchers have conduct studies related to the effect of bank merging towards the stock performance of the banks involved in respect to Malaysian banking system or rather the impact of bank consolidations in Malaysia even though after the Asian Financial crisis in 1997, many banks have been forced to consolidate as part of the Malaysian government program to strengthen the banking sectors in Malaysia. Hence, this sector has been remained under-researched in the Malaysian banking sector compared to studies in other countries.

The second implication from the research is to address these important gaps in the literature. Currently, no study in the literature addressed these important issues due to the lacking of research papers in the affected sectors. Although that has been many literature regarding to the bank consolidations, but most literature are related to countries other than Malaysia such as U.S. and Europe. Hence, in order to appraise the success of the merging process of Malaysian domestic incorporated commercial bank (Hong Leong bank and EON bank), a proper study on the merging contribution towards Malaysian banking systems should be conducted in regards to fill in the literature gap.

Thirdly, the study has important public policy implications. With regards to one of the goals and functions of Central Bank of Malaysia (Bank Negara Malaysia) – providing an efficient and competitive financial system, the study provides a rough guidelines in helping the regulatory authorities structuring a better and more effective future course of action plan to further strengthen the Malaysian Banking systems especially the domestic incorporated commercial banks. Since, the banks in Malaysia plays an important role in Malaysia's market, this future course of action plan is particularly important as the fall of Malaysian Banking systems will leads to further sequences of events that can disrupt the economy in Malaysia.

Lastly, the study also provides an implication in the stock market. One of the factors that are affecting the volatility of the stock market performance as identify in this paper is the bank's consolidation. Hence, in reference to Efficient Market Hypothesis, this gives a rough idea to what investor in the stock market should perceives on fluctuating movement of the stock market performance when a bank announced their plan to merge with another bank.

5.5 Conclusion

The Chapter 5 in this study is briefly explaining the conclusion of the research. This chapter is including the Introduction of the chapter, Discussion of Major Findings that explaining the objectives and the hypothesis in this paper is significant, and Limitations of the Study that showing the drawbacks on this research. Besides that, the Recommendation for Future Research is also included in this chapter to provide some opinion on the topic of the research, which is the impact of merger between Hong Leong Bank and EON Bank to Hong Leong Bank's stock performance and also the methodology used, event study. The final section is Policy Implication which described some practical references for the policy makers.

REFERENCES

Agrawal, A., Jaffe, J. F., & Mandelker, G. N. (1992). The post-merger performance of acquiring firms: A re-examination of an anomaly. *The Journal of Finance*, *47*(4), 1605-1621.

Al-Khasawneh, J. A., & Essaddam, N. (2012). Market reaction to the merger announcements of US banks: A non-parametric X-efficiency framework. *Global Finance Journal*, *23*, 167-183.

Anderson, C. W., Becher, D. A., & Campbell II, T. L. (2004). Bank mergers, the market for bank CEOs, and managerial incentives. *Journal of Financial Intermediation*, *13*, 6-27.

Berger, A. N., & Humphrey, D. B. (1992). Measurement and efficiency issues in commercial banking. *National Bureau of Economic Research*, 245-300.

Campa, J. M., & Hernando, I. (2006). M&As performance in the European financial industry. *Journal of Banking & Finance*, *30*, 3367-3392.

Chatterjee, S., Lubatkin, M. H., Schweiger, D. M., & Weber, Y. (1992). Cultural differences and shareholder value in related mergers: Linking equity and human capital. *Strategic Management Journal*, *13*(5), 319-334.

Chong, B. S., Liu, M. H., & Tan, K. H. (2006). The wealth effect of forced bank mergers and cronyism. *Journal of Banking & Finance*, *30*, 3215-3233.

Cornett, M. M., McNutt, J. J., & Tehranian, H. (2006). Performance changes around bank mergers: Revenue enhancements versus cost reductions. *Journal of Money, Credit and Banking*, *38*(4), 1013-1050.

Financial Glossary. (2011). Retrieved March 18, 2013, from http://www.nasdaq.com/investing/glossary/a/abnormal-return

Harjito, D. A., & Sulong, Z. (2006). The effect of merger and acquisition announcements on stock price behaviour and fnancial performance changes: A case of banks in Malaysia. *Journal Sinergi*, *8*(1), 1-12.

Hong Leong Bank. (2011, August). *Hong Leong Bank - EON Bank merger progress & 100-day achievement report.* Kuala Lumpur.

Hong Leong Bank. (2012). The Hong Leong bank story. Retrieved January 25, 2013, from http://www.hlb.com.my/ahlb/corpstry.jsp?flag=corpstry

Ismail, M., & Rahim, H. A. (2009). Impact of merger on efficiency and productivity in Malaysian commercial banks. *International Journal of Economics and Finance*, *1*(2), 225-231.

Jensen, M. C., & Ruback, R. S. (1983). The market for corporate control : The scientific evidence. *Journal of Financial Economics*, *11*(1-4), 5-50.

Kalla, S. (2009, June 18). Statistical significance and sample size. Retrieved March 22, 2013, from http://explorable.com/statistical-significance-sample-size

Knapp, M., Gart, A., & Chaudhry, M. (2006). The impact of mean reversion of bank profitability on post-merger performance in the banking industry. *Journal of Banking & Finance*, *30*, 3503-3517.

Mansor, I., & Yap, C.M. (2004). Market reaction to merger announcements: The case for consolidation of the banking sector in Malaysia. *Malaysian Journal of Economic Studies*, *41*(1&2), 39-69.

Marks, M. L. (2006). Workplace recovery after mergers, acquisitions, and downsizings: Facilitating individual adaptation to major organizational transitions. *Journal of Organizational Dynamics*, *35*(4), 384-399.

Mat-Nor, F., Said, R. M., & Hisham, M. (2006). Financial performance and efficiency changes of Malaysian banking institutions in mergers and acquisitions. *Journal of Banks and Bank Systems*, *1*(1), 102-109.

Ong, T. S., Teo, C. L., & Teh, B. H. (2011). Analysis on financial performance and efficiency changes of Malaysian commercial banks after mergers and acquisitions. *International Journal of Business and Management Tomorrow*, *1*(2), 1-16.

Penas, M. F., & Unal, H. (2004). Gains in bank mergers: Evidence from the bond markets. *Journal of Financial Economics*, *74*, 149-179.

Pilloff, S. J., & Santomero, A. M. (1996). *Center for Financial Institutions Working Papers: Vol. 97-07. The value effects of bank mergers and acquisitions*. Pennsylvania: Wharton School Center for Financial Institutions.

Rappaport, A. (1986). *Creating shareholder value: The new standard for business performance*. New York and London: Free Press.

Rhoades, S. A. (1990). Billion dollar bank acquisitions: A note on the performance effects. *Mimeom Board of Governors of the Federal Reserve System*.

Rhoades, S. A. (1993). Efficiency effects of horizontal (in-market) bank mergers. *Journal of Banking & Finance*, *17*(2-3), 411-422.

Rhoades, S. A. (1998). The efficiency effects of bank mergers: An overview of case studies of nine mergers. *Journal of Banking & Finance, 22*(3), 273-291.

Rosen, R. J. (2006). Merger momentum and investor sentiment: The stock market reaction to merger announcements. *The Journal of Business*, *79*(2), 987-1017.

Scholtens, B., & Wit, R. (2004). Announcement effects of bank mergers in Europe and the US. *Research in International Business and Finance*, *18*, 217-228.

Srinivasan, A. (1992). Are there cost savings from bank mergers? *Federal Reserve Bank of Atlanta Economic Review*, *77*(2), 17-28.

Sufian, F. (2004). The eficiency effects of bank mergers and acquisitions in a developing economy: Evidence from Malaysia. *International Journal of Applied Econometrics and Quantitative Studies*, *1*(4), 53-74.

Sufian, F., & Habibullah, M. S. (2009). Do mergers and acquisitions leads to a higher technical and scale efficiency? A counter evidence from Malaysia. *African Journal of Business Management*, *3*(8), 340-349.

Tan, H. B., & Hooy, C. W. (2003). Bank merger and bank stock volatility: A post-announcement analysis. *Journal of Managerial Finance*, *30*(4), 29-47.

Valkanov, E., & Kleimeier, S. (2007). The role of regulatory capital in international bank mergers and acquisitions. *Research in International Business and Finance*, *21*, 50-68.

Value relevance of analysts' earnings forecasts. (2003). In *Equity Strategy Research* (pp. 1-5).

Vallascas, F., & Hagendorff, J. (2011). The impact of European bank mergers on bidder default risk. *Journal of Banking & Finance*, *35*, 902-915.

Valverde, S. C., Humphrey, D. B., & Fernández, F. R. (2003). Bank deregulation is better than mergers. *Journal of International Finanacial Markets, Institution and Money*, *13*, 429-449.

Vaziri, M., Bhuyan, R., & Yang, I. C. (2012). Market reaction to mergers and acquisitions: An empirical analysis on banking industry in the Asia Pacific region. *International Review of Business Research Papers*, *8*(1), 224-254.

Went, P. (2003). A quantitative analysis of qualitative arguments in a bank merger. *International Review of Financial Analysis*, *12*, 379-403.

Yong, Y. N. (2010, June 10). EON Bank's humble beginnings in Sibu. Retrieved January 27, 2013, from http://www.theedgemalaysia.com/highlights/167951-eon-banks-humble-beginnings-in-sibu.html

APPENDIX A

Actual Return of FTSE Bursa Malaysia and Hong Leong Bank [-60, +60]

Event Day	Date	FTSE Bursa Malaysia KLCI	Hong Leong Bank	RCI	Actual Return
-60	4/6/2011	1552.89	10.1		
-59	4/7/2011	1561.93	10.4	0.005804525	0.029270382
-58	4/8/2011	1557.49	10.64	-0.002846685	0.022814678
-57	4/11/2011	1544	10.5	-0.0086991	-0.013245227
-56	4/12/2011	1525.92	10.4	-0.011778945	-0.009569451
-55	4/13/2011	1535.59	10.58	0.006317165	0.01715962
-54	4/14/2011	1525.8	10.4	-0.006395809	-0.01715962
-53	4/15/2011	1521.94	10.3	-0.002533026	-0.009661911
-52	4/18/2011	1527.92	10.5	0.003921497	0.019231362
-51	4/19/2011	1521.53	10.64	-0.004190926	0.013245227
-50	4/20/2011	1531.02	10.64	0.006217772	0
-49	4/21/2011	1526.33	10.6	-0.003068019	-0.003766483
-48	4/22/2011	1522.75	10.56	-0.00234825	-0.003780723
-47	4/25/2011	1524.05	10.4	0.000853354	-0.015267472
-46	4/26/2011	1527.34	10.3	0.002156395	-0.009661911
-45	4/27/2011	1529.91	10.34	0.00168125	0.003875974
-44	4/28/2011	1535.3	10.4	0.003516892	0.005785937
-43	4/29/2011	1534.95	10.4	-0.000227994	0
-42	5/3/2011	1531.47	10.42	-0.002269749	0.00192123
-41	5/4/2011	1528.43	10.3	-0.001986994	-0.011583141
-40	5/5/2011	1521.18	10.4	-0.004754715	0.009661911
-39	5/6/2011	1515.5	10.44	-0.003740932	0.003838776

-38	5/9/2011	1519.41	11.2	0.002576684	0.070269196
-37	5/10/2011	1523.37	11.5	0.002602884	0.026433257
-36	5/11/2011	1536.03	12.02	0.00827618	0.044224894
-35	5/12/2011	1532.29	12.06	-0.002437817	0.003322262
-34	5/13/2011	1540.74	12.44	0.005499472	0.031022896
-33	5/16/2011	1536.27	12.28	-0.00290542	-0.012945165
-32	5/18/2011	1541.27	12.14	0.003249351	-0.011466137
-31	5/19/2011	1544.02	12.04	0.001782653	-0.008271346
-30	5/20/2011	1541.03	12.04	-0.001938381	0
-29	5/23/2011	1528.98	11.8	-0.007850178	-0.020134908
-28	5/24/2011	1532.12	11.86	0.002051551	0.005071862
-27	5/25/2011	1533.57	11.88	0.000945954	0.00168492
-26	5/26/2011	1540.94	11.9	0.004794269	0.001682086
-25	5/27/2011	1548.69	12.2	0.005016792	0.024897552
-24	5/30/2011	1542.84	12	-0.003784538	-0.016529302
-23	5/31/2011	1558.29	12.3	0.009964192	0.024692613
-22	6/1/2011	1556.42	12.34	-0.001200754	0.003246756
-21	6/2/2011	1558.04	12.5	0.001040309	0.012882626
-20	6/3/2011	1559.85	12.56	0.001161042	0.004788517
-19	6/6/2011	1552.14	12.56	-0.004955039	0
-18	6/7/2011	1551.89	12.52	-0.000161081	-0.003189795
-17	6/8/2011	1551.79	12.76	-6.44396E-05	0.018987912
-16	6/9/2011	1550.89	12.84	-0.000580144	0.00625002
-15	6/10/2011	1556.19	13.02	0.003411567	0.013921339
-14	6/13/2011	1545.88	12.9	-0.006647199	-0.009259325
-13	6/14/2011	1548.51	12.96	0.001699851	0.00464038

-12	6/15/2011	1556.19	12.98	0.004947348	0.00154202
-11	6/16/2011	1554.24	13	-0.001253846	0.001539646
-10	6/17/2011	1563.43	13.36	0.005895445	0.027315811
-9	6/20/2011	1559.19	13.3	-0.00271567	-0.004501133
-8	6/21/2011	1560.79	13.3	0.001025648	0
-7	6/22/2011	1567.35	13.34	0.004194192	0.003003005
-6	6/23/2011	1563.19	12.9	-0.00265769	-0.033539729
-5	6/24/2011	1564.66	12.68	0.000939943	-0.017201362
-4	6/27/2011	1562.52	12.9	-0.001368645	0.017201362
-3	6/28/2011	1570.02	12.92	0.004788456	0.001549187
-2	6/29/2011	1575.01	13.1	0.003173263	0.013835732
-1	6/30/2011	1579.07	13.38	0.002574445	0.021148824
0	7/1/2011	1582.94	13.5	0.002447811	0.008928631
1	7/4/2011	1582.35	13.48	-0.000372794	-0.00148258
2	7/5/2011	1581.85	13.66	-0.000316036	0.013264749
3	7/6/2011	1591.34	13.76	0.00598138	0.007293978
4	7/7/2011	1590.24	13.72	-0.00069148	-0.00291121
5	7/8/2011	1594.74	13.74	0.002825765	0.001456664
6	7/11/2011	1588.58	13.7	-0.003870178	-0.002915454
7	7/12/2011	1578.1	13.6	-0.006618944	-0.00732604
8	7/13/2011	1580.67	13.44	0.001627216	-0.011834458
9	7/14/2011	1579.84	13.48	-0.000525232	0.00297177
10	7/15/2011	1577.25	13.6	-0.001640752	0.008862687
11	7/18/2011	1562.58	13.44	-0.009344523	-0.011834458
12	7/19/2011	1555.64	13.32	-0.004451265	-0.00896867
13	7/20/2011	1562.59	13.28	0.004457664	-0.003007521

14	7/21/2011	1565.81	13.7	0.002058561	0.031136689
15	7/22/2011	1565.06	13.6	-0.0004791	-0.00732604
16	7/25/2011	1559.6	13.54	-0.003494784	-0.004421525
17	7/26/2011	1561.77	13.7	0.001390415	0.011747565
18	7/27/2011	1558.17	13.5	-0.002307738	-0.014706147
19	7/28/2011	1551.91	13.32	-0.004025625	-0.01342302
20	7/29/2011	1548.81	13.34	-0.001999536	0.001500375
21	8/1/2011	1558.01	13.38	0.005922472	0.002994014
22	8/2/2011	1554.85	13.36	-0.002030288	-0.001495887
23	8/3/2011	1545.1	13.48	-0.006290445	0.008941937
24	8/4/2011	1546.89	13.56	0.001157831	0.005917177
25	8/5/2011	1524.43	13.26	-0.014625894	-0.022372298
26	8/8/2011	1496.99	12.96	-0.018164144	-0.022884294
27	8/9/2011	1472.14	12.6	-0.016739301	-0.028170877
28	8/10/2011	1480.52	12.72	0.005676253	0.009478744
29	8/11/2011	1476.46	12.62	-0.002746047	-0.007892701
30	8/12/2011	1483.67	12.6	0.004871417	-0.001586043
31	8/15/2011	1499.74	12.84	0.010773012	0.018868484
32	8/16/2011	1498.24	12.88	-0.001000674	0.003110422
33	8/17/2011	1503.07	12.94	0.003218597	0.004647568
34	8/18/2011	1503.3	12.84	0.000153008	-0.007757991
35	8/19/2011	1483.98	13	-0.012935024	0.012384059
36	8/22/2011	1472.16	12.78	-0.007996958	-0.017067909
37	8/23/2011	1482.37	12.8	0.006911448	0.001563722
38	8/24/2011	1469.15	12.8	-0.008958156	0
39	8/25/2011	1464.74	12.78	-0.00300625	-0.001563722

40	8/26/2011	1444.81	12.36	-0.013699927	-0.033415997
41	8/29/2011	1447.27	12.32	0.001701198	-0.003241494
42	9/2/2011	1474.09	12.32	0.018361827	0
43	9/5/2011	1463.12	12.28	-0.007469708	-0.003252035
44	9/6/2011	1454.37	12.2	-0.005998325	-0.006535971
45	9/7/2011	1464.61	12.2	0.007016178	0
46	9/8/2011	1469.83	12.3	0.003557752	0.008163311
47	9/9/2011	1469.12	12.2	-0.000483166	-0.008163311
48	9/12/2011	1446.26	12	-0.015682668	-0.016529302
49	9/13/2011	1448	11.88	0.00120238	-0.010050336
50	9/14/2011	1437.61	11.76	-0.007201281	-0.010152371
51	9/15/2011	1430.93	11.36	-0.00465743	-0.034605529
52	9/19/2011	1413.12	10.56	-0.012524557	-0.073025135
53	9/20/2011	1410.64	10.8	-0.001756524	0.022472856
54	9/21/2011	1419.04	10.6	0.005937085	-0.018692133
55	9/22/2011	1387.81	9.98	-0.022253622	-0.060270911
56	9/23/2011	1365.94	9.85	-0.015884129	-0.013111635
57	9/26/2011	1331.8	9.72	-0.025311426	-0.013285837
58	9/27/2011	1364.2	9.8	0.024036766	0.008196767
59	9/28/2011	1371.55	9.8	0.005373311	0
60	9/29/2011	1387.46	10.2	0.01153325	0.040005335

Source: Yahoo Finance

APPENDIX B

Abnormal Return (AR) of Hong Leong Bank [-60, +60]

Event Day	Date	AR
-60	4/6/2011	
-59	4/7/2011	0.019579218
-58	4/8/2011	0.02545146
-57	4/11/2011	-0.002268773
-56	4/12/2011	0.005795772
-55	4/13/2011	0.006737946
-54	4/14/2011	-0.009465348
-53	4/15/2011	-0.007472092
-52	4/18/2011	0.012223507
-51	4/19/2011	0.017797548
-50	4/20/2011	-0.01028004
-49	4/21/2011	-0.000814301
-48	4/22/2011	-0.001854208
-47	4/25/2011	-0.017903234
-46	4/26/2011	-0.014154502
-45	4/27/2011	6.04635E-05
-44	4/28/2011	-0.000645357
-43	4/29/2011	-0.001094843
-42	5/3/2011	0.00373588
-41	5/4/2011	-0.010171416
-40	5/5/2011	0.01501763
-39	5/6/2011	0.007749857
-38	5/9/2011	0.065177695
-37	5/10/2011	0.021304421
-36	5/11/2011	0.03101163
-35	5/12/2011	0.005376409
-34	5/13/2011	0.021766432
-33	5/16/2011	-0.010224685
-32	5/18/2011	-0.017516187
-31	5/19/2011	-0.012231355
-30	5/20/2011	0.001342452
-29	5/23/2011	-0.010368166
-28	5/24/2011	0.000728674
-27	5/25/2011	-0.001082795
-26	5/26/2011	-0.006569466

Event Day	Date	AR
-25	5/27/2011	0.016328904
-24	5/30/2011	-0.012556082
-23	5/31/2011	0.009073936
-22	6/1/2011	0.003538092
-21	6/2/2011	0.009980454
-20	6/3/2011	0.001714301
-19	6/6/2011	0.00564118
-18	6/7/2011	-0.00437999
-17	6/8/2011	0.017660004
-16	6/9/2011	0.005656988
-15	6/10/2011	0.007640133
-14	6/13/2011	-0.001206824
-13	6/14/2011	0.000798363
-12	6/15/2011	-0.006927669
-11	6/16/2011	0.001906638
-10	6/17/2011	0.017495085
-9	6/20/2011	-0.002051047
-8	6/21/2011	-0.002881279
-7	6/22/2011	-0.004393439
-6	6/23/2011	-0.031172264
-5	6/24/2011	-0.019960513
-4	6/27/2011	0.017731943
-3	6/28/2011	-0.006694081
-2	6/29/2011	0.007894107
-1	6/30/2011	0.016060514
0	7/1/2011	0.004020773
1	7/4/2011	-0.002371085
2	7/5/2011	0.012295364
3	7/6/2011	-0.002649204
4	7/7/2011	-0.003345588
5	7/8/2011	-0.003989777
6	7/11/2011	0.001179803
7	7/12/2011	0.000686198
8	7/13/2011	-0.01557297
9	7/14/2011	0.002300489

Event Day	Date	AR
10	7/15/2011	0.009781019
11	7/18/2011	6.17224E-05
12	7/19/2011	-0.004045367
13	7/20/2011	-0.010779413
14	7/21/2011	0.026783511
15	7/22/2011	-0.008063059
16	7/25/2011	-0.000861204
17	7/26/2011	0.008346493
18	7/27/2011	-0.012837363
19	7/28/2011	-0.009106252
20	7/29/2011	0.002929973
21	8/1/2011	-0.006865224
22	8/2/2011	-2.24676E-05
23	8/3/2011	0.016486066
24	8/4/2011	0.002847538
25	8/5/2011	-0.002950181
26	8/8/2011	0.001579818
27	8/9/2011	-0.005737162
28	8/10/2011	-2.96327E-05
29	8/11/2011	-0.005399328
30	8/12/2011	-0.009947532
31	8/15/2011	0.002097243
32	8/16/2011	0.003116645
33	8/17/2011	-0.001358657
34	8/18/2011	-0.009395762
35	8/19/2011	0.029396692

Event Day	Date	AR
36	8/22/2011	-0.007092005
37	8/23/2011	-0.009704804
38	8/24/2011	0.011345608
39	8/25/2011	0.00130044
40	8/26/2011	-0.01531338
41	8/29/2011	-0.00708543
42	9/2/2011	-0.027585278
43	9/5/2011	0.00597254
44	9/6/2011	0.000591888
45	9/7/2011	-0.011417766
46	9/8/2011	0.00167379
47	9/9/2011	-0.008894536
48	9/12/2011	0.004398714
49	9/13/2011	-0.013183458
50	9/14/2011	-0.001310304
51	9/15/2011	-0.029388441
52	9/19/2011	-0.056597417
53	9/20/2011	0.023556162
54	9/21/2011	-0.028572194
55	9/22/2011	-0.029979307
56	9/23/2011	0.008103462
57	9/26/2011	0.021363128
58	9/27/2011	-0.02747528
59	9/28/2011	-0.009076685
60	9/29/2011	0.022150756

Alpha	0.001419735
Beta	1.424996741
SSE	0.026372259
df	118
VarError	0.000223494
CAAR	-1.51968E-18

APPENDIX C

Marginal Abnormal Return (MAR) of Hong Leong Bank [-60, +60]

Event Day	Date	MAR	Event Day	Date	MAR
-60	4/6/2011		-25	5/27/2011	0.019880759
-59	4/7/2011	0.023465857	-24	5/30/2011	-0.012744764
-58	4/8/2011	0.025661363	-23	5/31/2011	0.01472842
-57	4/11/2011	-0.004546127	-22	6/1/2011	0.00444751
-56	4/12/2011	0.002209494	-21	6/2/2011	0.011842317
-55	4/13/2011	0.010842455	-20	6/3/2011	0.003627475
-54	4/14/2011	-0.010763811	-19	6/6/2011	0.004955039
-53	4/15/2011	-0.007128885	-18	6/7/2011	-0.003028714
-52	4/18/2011	0.015309865	-17	6/8/2011	0.019052352
-51	4/19/2011	0.017436153	-16	6/9/2011	0.006830164
-50	4/20/2011	-0.006217772	-15	6/10/2011	0.010509772
-49	4/21/2011	-0.000698464	-14	6/13/2011	-0.002612127
-48	4/22/2011	-0.001432472	-13	6/14/2011	0.002940529
-47	4/25/2011	-0.016120827	-12	6/15/2011	-0.003405328
-46	4/26/2011	-0.011818306	-11	6/16/2011	0.002793492
-45	4/27/2011	0.002194724	-10	6/17/2011	0.021420365
-44	4/28/2011	0.002269046	-9	6/20/2011	-0.001785463
-43	4/29/2011	0.000227994	-8	6/21/2011	-0.001025648
-42	5/3/2011	0.004190979	-7	6/22/2011	-0.001191187
-41	5/4/2011	-0.009596147	-6	6/23/2011	-0.030882039
-40	5/5/2011	0.014416626	-5	6/24/2011	-0.018141305
-39	5/6/2011	0.007579708	-4	6/27/2011	0.018570008
-38	5/9/2011	0.067692512	-3	6/28/2011	-0.003239269
-37	5/10/2011	0.023830373	-2	6/29/2011	0.010662469
-36	5/11/2011	0.035948714	-1	6/30/2011	0.01857438
-35	5/12/2011	0.00576008	0	7/1/2011	0.006480819
-34	5/13/2011	0.025523424	1	7/4/2011	-0.001109786
-33	5/16/2011	-0.010039745	2	7/5/2011	0.013580784
-32	5/18/2011	-0.014715488	3	7/6/2011	0.001312598
-31	5/19/2011	-0.010053999	4	7/7/2011	-0.00221973
-30	5/20/2011	0.001938381	5	7/8/2011	-0.001369101
-29	5/23/2011	-0.012284731	6	7/11/2011	0.000954724
-28	5/24/2011	0.003020311	7	7/12/2011	-0.000707096
-27	5/25/2011	0.000738967	8	7/13/2011	-0.013461674
-26	5/26/2011	-0.003112183	9	7/14/2011	0.003497002

Event Day	Date	MAR
10	7/15/2011	0.010503439
11	7/18/2011	-0.002489935
12	7/19/2011	-0.004517405
13	7/20/2011	-0.007465186
14	7/21/2011	0.029078128
15	7/22/2011	-0.00684694
16	7/25/2011	-0.000926741
17	7/26/2011	0.01035715
18	7/27/2011	-0.01239841
19	7/28/2011	-0.009397395
20	7/29/2011	0.003499912
21	8/1/2011	-0.002928458
22	8/2/2011	0.000534401
23	8/3/2011	0.015232382
24	8/4/2011	0.004759347
25	8/5/2011	-0.007746404
26	8/8/2011	-0.00472015
27	8/9/2011	-0.011431576
28	8/10/2011	0.003802491
29	8/11/2011	-0.005146654
30	8/12/2011	-0.00645746
31	8/15/2011	0.008095473
32	8/16/2011	0.004111096
33	8/17/2011	0.001428971
34	8/18/2011	-0.007910999
35	8/19/2011	0.025319083

Event Day	Date	MAR
36	8/22/2011	-0.009070951
37	8/23/2011	-0.005347726
38	8/24/2011	0.008958156
39	8/25/2011	0.001442528
40	8/26/2011	-0.01971607
41	8/29/2011	-0.004942692
42	9/2/2011	-0.018361827
43	9/5/2011	0.004217673
44	9/6/2011	-0.000537646
45	9/7/2011	-0.007016178
46	9/8/2011	0.004605558
47	9/9/2011	-0.007680145
48	9/12/2011	-0.000846634
49	9/13/2011	-0.011252716
50	9/14/2011	-0.00295109
51	9/15/2011	-0.029948099
52	9/19/2011	-0.060500578
53	9/20/2011	0.02422938
54	9/21/2011	-0.024629218
55	9/22/2011	-0.038017289
56	9/23/2011	0.002772494
57	9/26/2011	0.012025589
58	9/27/2011	-0.015839998
59	9/28/2011	-0.005373311
60	9/29/2011	0.028472084

APPENDIX D

Significance Results of Cumulative Average Abnormal Return (CAAR)

Event Day	AR	AAR	CAAR	Var	Normal Test stat	P-value z-stat
-59	0.019579	0.019579218	0.019579218	0.036050592	0.103119108	0.91786844
-58	0.025451	0.02545146	0.045030678	0.036050592	0.134046815	0.893365556
-57	-0.00227	-0.002268773	0.042761905	0.036050592	-0.01194909	0.990466232
-56	0.005796	0.005795772	0.048557677	0.036050592	0.03052496	0.975648387
-55	0.006738	0.006737946	0.055295623	0.036050592	0.035487166	0.97169128
-54	-0.00947	-0.009465348	0.045830275	0.036050592	-0.049851745	0.960240531
-53	-0.00747	-0.007472092	0.038358183	0.036050592	-0.03935374	0.968608361
-52	0.012224	0.012223507	0.050581691	0.036050592	0.064378321	0.948668992
-51	0.017798	0.017797548	0.068379239	0.036050592	0.093735471	0.925319293
-50	-0.01028	-0.01028004	0.058099198	0.036050592	-0.054142538	0.956821601
-49	-0.00081	-0.000814301	0.057284898	0.036050592	-0.004288729	0.9965781
-48	-0.00185	-0.001854208	0.055430689	0.036050592	-0.009765677	0.992208241
-47	-0.0179	-0.017903234	0.037527455	0.036050592	-0.094292096	0.924877128
-46	-0.01415	-0.014154502	0.023372954	0.036050592	-0.07454841	0.940574023
-45	6.05E-05	6.04635E-05	0.023433417	0.036050592	0.000318447	0.999745916
-44	-0.00065	-0.000645357	0.02278806	0.036050592	-0.003398941	0.997288043
-43	-0.00109	-0.001094843	0.021693217	0.036050592	-0.005766281	0.995399199
-42	0.003736	0.00373588	0.025429097	0.036050592	0.019675996	0.98430184
-41	-0.01017	-0.010171416	0.015257681	0.036050592	-0.053570442	0.957277407
-40	0.015018	0.01501763	0.030275311	0.036050592	0.079094303	0.936957615
-39	0.00775	0.007749857	0.038025168	0.036050592	0.040816665	0.967442054
-38	0.065178	0.065177695	0.103202863	0.036050592	0.343275491	0.731391217
-37	0.021304	0.021304421	0.124507284	0.036050592	0.112205341	0.910660595

-36	0.031012	0.03101163	0.155518913	0.036050592	0.163330914	0.870257895
-35	0.005376	0.005376409	0.160895323	0.036050592	0.028316275	0.9774099
-34	0.021766	0.021766432	0.182661754	0.036050592	0.114638643	0.908731549
-33	-0.01022	-0.010224685	0.172437069	0.036050592	-0.053850998	0.957053878
-32	-0.01752	-0.017516187	0.154920882	0.036050592	-0.092253611	0.926496545
-31	-0.01223	-0.012231355	0.142689527	0.036050592	-0.064419653	0.948636082
-30	0.001342	0.001342452	0.144031978	0.036050592	0.007070375	0.994358704
-29	-0.01037	-0.010368166	0.133663813	0.036050592	-0.054606674	0.956451821
-28	0.000729	0.000728674	0.134392487	0.036050592	0.003837754	0.996937923
-27	-0.00108	-0.001082795	0.133309692	0.036050592	-0.005702825	0.995449829
-26	-0.00657	-0.006569466	0.126740225	0.036050592	-0.034599824	0.972398842
-25	0.016329	0.016328904	0.143069129	0.036050592	0.086000472	0.931466042
-24	-0.01256	-0.012556082	0.130513048	0.036050592	-0.066129911	0.947274397
-23	0.009074	0.009073936	0.139586984	0.036050592	0.047790275	0.961883387
-22	0.003538	0.003538092	0.143125076	0.036050592	0.018634293	0.985132846
-21	0.00998	0.009980454	0.15310553	0.036050592	0.052564691	0.958078751
-20	0.001714	0.001714301	0.154819832	0.036050592	0.009028819	0.992796142
-19	0.005641	0.00564118	0.160461011	0.036050592	0.029710758	0.976297732
-18	-0.00438	-0.00437999	0.156081021	0.036050592	-0.023068372	0.981595734
-17	0.01766	0.017660004	0.173741025	0.036050592	0.09301106	0.925894775
-16	0.005657	0.005656988	0.179398013	0.036050592	0.029794019	0.976231329
-15	0.00764	0.007640133	0.187038146	0.036050592	0.04023877	0.967902769
-14	-0.00121	-0.001206824	0.185831322	0.036050592	-0.006356054	0.994928637
-13	0.000798	0.000798363	0.186629685	0.036050592	0.004204789	0.996645074
-12	-0.00693	-0.006927669	0.179702016	0.036050592	-0.036486394	0.970894528
-11	0.001907	0.001906638	0.181608654	0.036050592	0.010041811	0.991987928
-10	0.017495	0.017495085	0.199103739	0.036050592	0.092142474	0.926584842

-9	-0.00205	-0.002051047	0.197052693	0.036050592	-0.010802378	0.991381117
-8	-0.00288	-0.002881279	0.194171413	0.036050592	-0.015175016	0.987892553
-7	-0.00439	-0.004393439	0.189777974	0.036050592	-0.023139204	0.981539234
-6	-0.03117	-0.031172264	0.15860571	0.036050592	-0.164176937	0.869591856
-5	-0.01996	-0.019960513	0.138645197	0.036050592	-0.105127295	0.916274801
-4	0.017732	0.017731943	0.15637714	0.036050592	0.093389946	0.925593777
-3	-0.00669	-0.006694081	0.149683059	0.036050592	-0.035256142	0.971875495
-2	0.007894	0.007894107	0.157577166	0.036050592	0.041576394	0.966836392
-1	0.016061	0.016060514	0.173637681	0.036050592	0.084586928	0.932589791
0	0.004021	0.004020773	0.177658453	0.036050592	0.021176459	0.983104893
1	-0.00237	-0.002371085	0.175287369	0.036050592	-0.012487943	0.990036322
2	0.012295	0.012295364	0.187582732	0.036050592	0.06475677	0.948367661
3	-0.00265	-0.002649204	0.184933528	0.036050592	-0.01395273	0.988867693
4	-0.00335	-0.003345588	0.181587941	0.036050592	-0.017620418	0.985941668
5	-0.00399	-0.003989777	0.177598164	0.036050592	-0.021013209	0.983235119
6	0.00118	0.001179803	0.178777967	0.036050592	0.006213741	0.995042184
7	0.000686	0.000686198	0.179464165	0.036050592	0.003614044	0.997116416
8	-0.01557	-0.01557297	0.163891195	0.036050592	-0.082019146	0.934631488
9	0.0023	0.002300489	0.166191684	0.036050592	0.012116132	0.990332962
10	0.009781	0.009781019	0.175972703	0.036050592	0.05151431	0.9589157
11	6.17E-05	6.17224E-05	0.176034425	0.036050592	0.000325077	0.999740626
12	-0.00405	-0.004045367	0.171989058	0.036050592	-0.02130599	0.983001566
13	-0.01078	-0.010779413	0.161209645	0.036050592	-0.056772617	0.954726327
14	0.026784	0.026783511	0.187993156	0.036050592	0.141062415	0.887820635
15	-0.00806	-0.008063059	0.179930098	0.036050592	-0.042466222	0.966127038
16	-0.00086	-0.000861204	0.179068893	0.036050592	-0.00453576	0.996380999
17	0.008346	0.008346493	0.187415386	0.036050592	0.043959005	0.964937082

18	-0.01284	-0.012837363	0.174578023	0.036050592	-0.067611354	0.946095017
19	-0.00911	-0.009106252	0.165471771	0.036050592	-0.047960474	0.961747743
20	0.00293	0.002929973	0.168401744	0.036050592	0.015431476	0.987687952
21	-0.00687	-0.006865224	0.161536521	0.036050592	-0.036157507	0.971156768
22	-2.2E-05	-2.24676E-05	0.161514053	0.036050592	-0.000118331	0.999905585
23	0.016486	0.016486066	0.178000119	0.036050592	0.086828207	0.930808066
24	0.002848	0.002847538	0.180847657	0.036050592	0.014997306	0.988034329
25	-0.00295	-0.002950181	0.177897476	0.036050592	-0.015537906	0.987603043
26	0.00158	0.001579818	0.179477293	0.036050592	0.008320527	0.993361257
27	-0.00574	-0.005737162	0.173740131	0.036050592	-0.030216277	0.975894568
28	-3E-05	-2.96327E-05	0.173710498	0.036050592	-0.000156068	0.999875475
29	-0.0054	-0.005399328	0.16831117	0.036050592	-0.028436982	0.977313628
30	-0.00995	-0.009947532	0.158363639	0.036050592	-0.052391295	0.95821691
31	0.002097	0.002097243	0.160460882	0.036050592	0.011045683	0.991187
32	0.003117	0.003116645	0.163577526	0.036050592	0.01641463	0.986903608
33	-0.00136	-0.001358657	0.162218869	0.036050592	-0.007155725	0.994290606
34	-0.0094	-0.009395762	0.152823107	0.036050592	-0.049485255	0.960532588
35	0.029397	0.029396692	0.182219799	0.036050592	0.154825417	0.876958953
36	-0.00709	-0.007092005	0.175127794	0.036050592	-0.037351911	0.970204415
37	-0.0097	-0.009704804	0.16542299	0.036050592	-0.051112906	0.959235552
38	0.011346	0.011345608	0.176768599	0.036050592	0.059754634	0.952351057
39	0.0013	0.00130044	0.178069038	0.036050592	0.006849108	0.994535245
40	-0.01531	-0.01531338	0.162755658	0.036050592	-0.080651947	0.935718753
41	-0.00709	-0.00708543	0.155670228	0.036050592	-0.037317285	0.970232023
42	-0.02759	-0.027585278	0.128084949	0.036050592	-0.145285132	0.884485753
43	0.005973	0.00597254	0.134057489	0.036050592	0.031455954	0.974905918
44	0.000592	0.000591888	0.134649377	0.036050592	0.003117331	0.997512733

45	-0.01142	-0.011417766	0.123231611	0.036050592	-0.06013467	0.952048377
46	0.001674	0.00167379	0.124905401	0.036050592	0.008815457	0.992966374
47	-0.00889	-0.008894536	0.116010866	0.036050592	-0.046845414	0.962636433
48	0.004399	0.004398714	0.12040958	0.036050592	0.023166987	0.981517072
49	-0.01318	-0.013183458	0.107226122	0.036050592	-0.069434154	0.944644044
50	-0.00131	-0.001310304	0.105915818	0.036050592	-0.006901059	0.994493795
51	-0.02939	-0.029388441	0.076527377	0.036050592	-0.154781965	0.87699321
52	-0.0566	-0.056597417	0.01992996	0.036050592	-0.2980852	0.765638137
53	0.023556	0.023556162	0.043486121	0.036050592	0.124064728	0.901264026
54	-0.02857	-0.028572194	0.014913927	0.036050592	-0.150482982	0.880383576
55	-0.02998	-0.029979307	-0.01506538	0.036050592	-0.157893916	0.874540392
56	0.008103	0.008103462	-0.006961918	0.036050592	0.042679016	0.965957407
57	0.021363	0.021363128	0.014401209	0.036050592	0.112514537	0.910415444
58	-0.02748	-0.02747528	-0.013074071	0.036050592	-0.144705797	0.884943162
59	-0.00908	-0.009076685	-0.022150756	0.036050592	-0.047804753	0.961871849
60	0.022151	0.022150756	-1.83881E-16	0.036050592	0.116662788	0.907127279

Event Window	No. of Days	CAAR	Std Deviation(σ)	t-test stat	p-val t-stat
AR-59 to +60	120	-1.53234E-18	0.01488676	-1.12757E-15	1
AR -50 to -38	13	0.00267874	0.02079689	0.464412509	0.688002948
AR -47 to -41	7	-0.005739001	0.008259904	-1.838274363	0.207408592
AR -5 to 0	6	0.003175457	0.014377601	0.540997757	0.642707518
AR -10 to 0	11	-0.000359109	0.015499221	-0.076844522	0.945742757
AR -6 to +6	13	-0.000846154	0.013689412	-0.222862247	0.844333633
AR -3 to +3	7	0.004079484	0.008451384	1.277104437	0.329785924
AR 0 to +5	6	0.000660081	0.006394997	0.252832101	0.824011068
AR 0 to +10	11	0.000212275	0.007429262	0.094765222	0.933140807