THE IMPACT OF SUBPRIME MORTGAGE CRISIS ON
ISLAMIC BANKING AND ISLAMIC STOCK MARKET

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This project is submitted in partial fulfillment of
the requirement for the degree of Bachelor of Finance with Honours
(Finance)

Faculty of Economics and Business
UNIVERSITY OF MALAYSIA SARAWAK
2012
Statement of Originality

The work described in this Final Year Project, entitled

“The Impact of Subprime Mortgage Crisis on Islamic Banking and

Islamic Stock Market”

is to the best author’s knowledge that the author

except where due reference is made.

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Kata Kunci: Perbankan Islam, pasaran saham Islam, ujian sebab-menyebab Granger
ABSTRACT
THE IMPACT OF SUBPRIME MORTGAGE CRISIS ON ISLAMIC BANKING AND ISLAMIC STOCK MARKET

By
Wong Siew Lee

This paper examines the impacts of Subprime Mortgage Crisis on Islamic banking and Islamic stock market in Malaysia. Monthly data of Islamic banks’ financing, Islamic banks’ deposit and Islamic stock market indices covering the period of 2000 to 2011 are used in this study. Time series econometric methods, such as Johansen and Juselius (JJ) Cointegration Test, Granger Causality Test and Impulse Response Functions (IRFs) are applied to examine the relationship. From the results, we found that, both Islamic banks’ financing and Islamic stock market are cointegrated with other macroeconomic variables in both pre-crisis and during Subprime Mortgage Crisis period. However, we find evidence of no cointegration for the Islamic banks’ deposit. We also note that both Islamic banks’ financing and Islamic stock market are vulnerable to financial crisis. The result is in line with those of Kaleem and Isa (2006) and Majid and Kassim (2009). In contrast, the Islamic deposit is the only variable resilient and invulnerable to the financial crisis. Owing to profit sharing deposits possessed the most stable and policy invariant function, fluctuation of interest rate and risk of financial instability in banking system could be minimized.

Key Words: Islamic banking, Islamic stock market, Granger Causality Test
ACKNOWLEDGMENT

First and foremost, I would like to extend my gratefully thanks to our God who has given me wisdom to complete this thesis. His spiritual has supported and shine the route of success in me since the very early stage of the thesis.

I would like to express utmost gratitude to Mr. Bakri Bin Abdul Karim, the supervisor to this thesis whose sincerity, guidance, patience, advice and encouragement have been my inspiration as I hurdle all the obstacles in the completion this thesis. In additional to that his valuable experience and sharing have motivated me throughout the thesis.

I wish to avail myself of this opportunity for expressing gratitude and love to my beloved family and friends for their manual and mentally support. Last but not least, without the Lord’s love, I would not have completed this thesis with the guidance and help from everyone.
TABLE OF CONTENTS

LIST OF TABLES........................................................................................................ ix
LIST OF FIGURES...................................................................................................... x

CHAPTER 1: INTRODUCTION .................................................................................. 1
  1.0 Introduction............................................................................................................. 1
  1.1 Background of the Study ..................................................................................... 3
      1.1.1 Development of Islamic Banking in Malaysia .............................................. 3
      1.1.2 Development of Islamic Stock Market in Malaysia .................................. 6
  1.2 Problem Statement ............................................................................................ 8
  1.3 Objective.............................................................................................................10
      1.3.1 General Objective .......................................................................................10
      1.3.2 Specific Objective .....................................................................................10
  1.4 Significance of the Study...................................................................................11
  1.5 Scope of the Study ...........................................................................................11
  1.6 Conclusion of Introduction...............................................................................12

CHAPTER 2 : LITERATURE REVIEW .................................................................. 13
  2.0 Introduction........................................................................................................13
  2.1 Theoretical Framework .....................................................................................14
  2.2 Literature Review ............................................................................................19
      2.2.1 Impact of Financial Crises on Islamic Finance ......................................19
<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2.2</td>
<td>Impact of Financial Crises on Stock Markets</td>
<td>27</td>
</tr>
<tr>
<td>2.3</td>
<td>Conclusion of Literature Review</td>
<td>43</td>
</tr>
<tr>
<td><strong>CHAPTER 3 : DATA AND METHODOLOGY</strong></td>
<td></td>
<td>44</td>
</tr>
<tr>
<td>3.0</td>
<td>Introduction</td>
<td>44</td>
</tr>
<tr>
<td>3.1</td>
<td>Research Design</td>
<td>45</td>
</tr>
<tr>
<td>3.1.1</td>
<td>Sample</td>
<td>45</td>
</tr>
<tr>
<td>3.1.2</td>
<td>Data Collection</td>
<td>45</td>
</tr>
<tr>
<td>3.1.3</td>
<td>Data Analysis</td>
<td>47</td>
</tr>
<tr>
<td>3.2</td>
<td>Methodology Framework</td>
<td>48</td>
</tr>
<tr>
<td>3.2.1</td>
<td>Johansen and Juselius (JJ) Cointegration Test</td>
<td>48</td>
</tr>
<tr>
<td>3.2.2</td>
<td>Granger Causality Test</td>
<td>50</td>
</tr>
<tr>
<td>3.2.3</td>
<td>Impulse Responses and Forecast Error Variance Decomposition</td>
<td>53</td>
</tr>
<tr>
<td>3.3</td>
<td>Conclusion of Methodology</td>
<td>54</td>
</tr>
<tr>
<td><strong>CHAPTER 4 : EMPIRICAL RESULTS AND DISCUSSIONS</strong></td>
<td></td>
<td>55</td>
</tr>
<tr>
<td>4.0</td>
<td>Introduction</td>
<td>55</td>
</tr>
<tr>
<td>4.1</td>
<td>Descriptive Statistics</td>
<td>56</td>
</tr>
<tr>
<td>4.2</td>
<td>Unit Root Tests</td>
<td>59</td>
</tr>
<tr>
<td>4.3</td>
<td>Johansen-Juselius Cointegration Test</td>
<td>62</td>
</tr>
<tr>
<td>4.4</td>
<td>Granger Causality Test</td>
<td>65</td>
</tr>
<tr>
<td>4.5</td>
<td>Impulse Response Functions</td>
<td>76</td>
</tr>
<tr>
<td>4.6</td>
<td>Variance Decomposition Analysis</td>
<td>81</td>
</tr>
<tr>
<td>4.7</td>
<td>Conclusion of Empirical Results and Discussions</td>
<td>84</td>
</tr>
</tbody>
</table>
CHAPTER 5: CONCLUSION AND RECOMMENDATIONS........86

5.0 Introduction...........................................................................................................86
5.1 Summary of Findings ............................................................................................88
5.2 Recommendations ..................................................................................................91
5.3 Practical Implications ............................................................................................92
5.4 Limitation of Study ..................................................................................................93

REFERENCES .............................................................................................................95
LIST OF TABLES

Table 1: Asset and liabilities of Malaysia Islamic Bank from 2007 to 2011 .................. 5
Table 2: Market capitalization, Sukuk and Unit Trust NAV of Shariah-compliant
    companies in 2000 and 2010 ................................................................. 7
Table 3: Summary of literature review ............................................................34
Table 4: Descriptive statistics of variables ...................................................... 58
Table 5: Unit root test of variables ..................................................................60
Table 6: JJ cointegration test ............................................................................63
Table 7: Granger causality results for pre-crisis period ...................................... 67
Table 8: Granger causality results for during-crisis period ................................. 71
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>Relationship diagram of causality for pre-crisis period</td>
<td>75</td>
</tr>
<tr>
<td>Figure 2</td>
<td>Relationship diagram of causality for during-crisis period</td>
<td>75</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Responses of Islamic banks’ financing to shock in macroeconomic variables for pre-crisis period</td>
<td>77</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Responses of Islamic banks’ financing to shock in macroeconomic variables for during-crisis period</td>
<td>77</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Responses of Islamic banks’ deposit to shock in macroeconomic variables for pre-crisis period (VAR in first differenced)</td>
<td>78</td>
</tr>
<tr>
<td>Figure 6</td>
<td>Responses of Islamic banks’ deposit to shock in macroeconomic variables for during-crisis period (VAR in first differenced)</td>
<td>78</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Responses of Islamic stock market to shock in macroeconomic variables for pre-crisis period</td>
<td>80</td>
</tr>
<tr>
<td>Figure 8</td>
<td>Responses of Islamic stock market to shock in macroeconomic variables for during-crisis period</td>
<td>80</td>
</tr>
</tbody>
</table>
CHAPTER ONE

INTRODUCTION

1.0 Introduction

Many researchers might want to know the impact of Subprime Mortgage Crisis on Islamic banking and Islamic stock market. Are Islamic banking and Islamic stock market immune to the shock from Subprime Mortgage Crisis? In order to understand the effect of Subprime Mortgage Crisis on the Islamic banking and Islamic stock market a lot of researches have been carried out. Through the exploration, many researchers claimed that the Islamic banking is more stable than conventional banking during financial crisis.

Nevertheless, almost all these studies are using theoretical literature rather than a formal empirical analysis (Yusoff and Wilson, 2005; Cihak and Hesse, 2008). Papers by Kia and Darrat (2003), Abduh, Omar and Duasa (2011) and Khan (1985), presented that Islamic Financial system is more stable than conventional financial system due to profit and loss sharing nature against financial crisis. According to Islamic Finance theory, on the other hand, Islamic banking is prohibited to participate in interest-based financial transactions. All these studies have proved that Islamic banking system is as resilient to global financial crisis (Kaleem, 2000). However, these findings are not in line with the finding of Kassim and Majid (2010) and Kaleem and Isa (2006) which found that the
Islamic and conventional banks systems are vulnerable to financial shocks. For instance, Kaleem and Isa (2006) claimed that Islamic money market returns are indirectly affected by conventional money market returns which can ultimately influence the performance of Islamic intermediate aggregates.

How about the Islamic stock market? To establish an Islamic stock market, it is crucial to first understand the role of Islamic stock market in the economic growth and respond to the demands of the Shariah compliance (Osmani and Abduallah, 2009). Karim, Kasssim and Arip (2010) claimed that there is no evidence of cointegration among the Islamic stock markets in pre-crisis period and during crisis period. It means that the Islamic stock markets does not affected by financial crisis at the long run co-movement by means of Islamic stock market can drift arbitrarily away from each other in the long run. Majid, Meera and Omar (2008), on the other hand, argued that long-run cointegration relationship among equity market were strengthened during the financial crisis and become more integrated after the financial crisis.
1.1 Background of the Study

1.1.1 Development of Islamic Banking in Malaysia

The emergence of strong Islamic movements has generated new interests in Islamic economics, especially in Islamic interest-free banking. It has been growing dramatically over the last three decades that it has being used more than 75 countries in the world with about 550 Islamic financial institutions in the field (Ayub, 2007). Moreover, it has also evolved from a local industry to a global market where both Muslim and non-Muslim are working together and learning from each other for developing relevant products and services. The major different between the Islamic financial services and the conventional banking products is not only competitive pricing but the most importantly is Islamic banking system is having a feature of Shariah compliance.

Islamic banking system is well recognized and developed around the world relates to its workability and viability. A number of international institutions and regional financial centre are acting as very important characters in the standardization of Islamic finance products and thus enhancing its credibility. Islamic banking system has also attracted the attention of mega international financial institutions, regulators like the Federal Reserve Board, FSA of England international financial institutions like the IMF and the World Bank and prestigious centers of learning like Harvard and Rice Universities in the United States and the London School of Economics, Long borough
and Durham Universities in Britain, International Islamic Universities in Malaysia and Pakistan and a number of other institutions in Saudi Arabia and Egypt.

In fact, Iran and Sudan have adapted Islamic banking systems and many other countries have also established a mixed or dual banking system where Islamic banks and conventional banks are operated at once. Malaysia has followed the trend by setting up its first Islamic bank and beginning to operate in July, 1983, Bank Islam Malaysia Berhad (BIMB). According to Mokhtar, Abdullah and Al-Habshi (2006), Malaysia is the first country to implement a dual banking system where both Islamic banking system and the conventional banking system are operated at once. Islamic banking in Malaysia has achieved significant growth mainly due to supportive policy environment provided by the government through the Bank Negara Malaysia in past two decades (Yusof, Wosabi and Majid, 2009). Hence, the Malaysian model has been recognized and studied by many Islamic countries as the model of the future and in addition to that many countries have shown interest in adopting this system. As a result, delegates from various countries mainly Muslim countries have been sent particularly to the Central Bank and Bank Islam Malaysia Berhad (BIMB) for studying and adopting the dual banking system.

Since Islamic financial system is sheltered from Global financial crisis, many scholars have got more attentions to the Islamic banking sector due to its interest-free nature. The following section will present the performance of Islamic banks during and after Subprime Mortgage Crisis. The performance of Islamic banking system during and
after Subprime Mortgage Crisis is represented by its deposits and financial (assets) which is the main determinant of bank sector of all Islamic banks in Malaysia. Table 1 represents the performance of Islamic banks from 2007 to 2011.

Table 1: Asset and liabilities of Malaysia Islamic Bank from 2007 to 2011

<table>
<thead>
<tr>
<th>Year</th>
<th>Total asset (RM million)</th>
<th>Total deposit (RM million)</th>
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<tbody>
<tr>
<td>2007</td>
<td>993,340.00</td>
<td>1,059,057.41</td>
</tr>
<tr>
<td>2008</td>
<td>1,188,055.70</td>
<td>1,231,606.74</td>
</tr>
<tr>
<td>2009</td>
<td>1,426,741.61</td>
<td>1,497,211.58</td>
</tr>
<tr>
<td>2010</td>
<td>1,807,254.52</td>
<td>1,790,197.70</td>
</tr>
<tr>
<td>2011</td>
<td>2,170,140.28</td>
<td>1,984,149.23</td>
</tr>
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Source: Bank Negara Malaysia, Monthly Statically Bulletin

As shown in Table 1, the growth of total assets is 118.47 percent while total deposits which represent liabilities also have shown an upward trend from 2007 to 2011. This increase has proved that the Islamic banking system is more resilient to the Subprime Mortgage Crisis due to its distinguishing nature where the financial transactions must be trade based and asset linked (Abduh et al., 2011).
1.1.2 Development of Islamic Stock Market in Malaysia

Dow Jones Islamic Market Malaysia Titans 25 Index is a market capitalization weighted and free-float adjusted index provided by Dow Jones through the License Agreement. The Benchmark Index was created on 18 January 2008 by Dow Jones and was constructed based on a reference value of 1000 as of 17 January 2008. It consists of 25 Shariah-compliant securities of companies listed on Bursa Malaysia Securities Berhad. In other words, it tracks the stocks of corporations whose business and activities are compatible with Islamic law. The index refers to a basket of stocks permissible to Islamic principles such as shunning unethical or engaged in gambling, or, highly-indebted firms, alcohol sales and other forbidden activities (Hakim and Rashidian, 2002).

In Islamic financial system usury and interest are strictly prohibited. According to muamalat (business dealings), all activities are permissible unless forbidden by revelation (Quran) or the practice of Prophet Muhammad (pbuh). In addition to that the Islamic financial contracts need to be clearly documented, equitable and avoid the element of Riba (usury or interest), Gharar (uncertainty) and Maysir (gambling). Riba not only refers to interest but also the nonmonetary transactions with unequal value. Gharar refers to uncertainty, risk or speculation is also prohibited on the grounds that one party could suffer from the uncertainty left unresolved in the contract. Maysir means
getting something too easily or getting a profit without working for it (Karim et al., 2010).

Table 2: Market capitalization, Sukuk and Unit Trust NAV of Shariah-compliant companies in 2000 and 2010

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<tr>
<td>Market capitalization of Shariah-compliant companies</td>
<td>254.0</td>
<td>756.0</td>
<td>11.5</td>
</tr>
<tr>
<td>Sukuk</td>
<td>40.0</td>
<td>294.0</td>
<td>22.11</td>
</tr>
<tr>
<td>Total</td>
<td>294.0</td>
<td>1050.0</td>
<td>13.6</td>
</tr>
<tr>
<td>Shariah-compliant unit trust net asset value (NAV)</td>
<td>1.7</td>
<td>24.0</td>
<td>30.3</td>
</tr>
</tbody>
</table>

Source: Securities Commission Malaysia, 2011 Speeches by YBhg Dato’ Dr Nik Ramlah Mahmood

As shown in Table 2, market capitalization, Sukuk and Shariah-Compliant Unit Trust net asset value has shown significant growth from year 2000 to year 2010 which are 11.5 percent, 22.11 percent and 30.3 percent respectively. The high growth of these products has shown that the Islamic finance sector is resilient to the impact of financial crisis.
1.2 Problem Statement

Islamic finance was extremely growing due to its criterion on free-interest aspect since it first existed in the 1970s. Current global Islamic assets under management have reached USD750 billion and it is expected to achieve USD1.6 trillion by 2012 (Bank Negara Malaysia, 2011). Nowadays, the resilience of Islamic finance has been an interesting topic of discussion especially in many Islamic finance forums, conferences, workshops, media interviews or empirical researches.

Moody’s has reported that Islamic financial institutions in the Gulf were presented strong resilience during the global financial crisis (Moody’s reports, 2008). IFIs, however, are not risk immune because of a lack of liquid instruments and shortage of an Islamic interbank market. The ratings agency expects the growth rate in Islamic banking assets will decelerate in 2009, probably in the range of 10 to 15 percentages from 20 to 30 percentages in 2008.

There is still limited number of studies examining the resilience of Islamic finance against crisis. Few studies that worth mention are Khan (1985), Hassan (1998), Karim et al. (2010) and Abduh et al. (2011), they found that Islamic banking system and stock market is resilience and invulnerable to financial crisis. Khan (1985) has reported that Islamic banking instruments are more stable against financial crisis as its liabilities fluctuate with its assets due to profit and loss nature by using Rigorous Mathematical Techniques. Hassan (1998) has also shown that Islamic banking is more stable than
conventional banking system by having lower variance than the latter by utilizing Ordinary Least Square (OLS) and Pooled Time Series Analysis.

However, this finding is inconsistent with the findings of Kaleem and Isa (2006) and Kassim and Majid (2010) which found that the Islamic banking system is not stable and vulnerable to financial crisis. Basically, there are two schools of thought that support or against the resilience of Islamic finance against financial crisis. Kaleem and Isa (2006) have proved that Islamic money market returns are indirectly affected by conventional money market returns in Malaysia by using econometric analysis. Followed by Majid and Kassim (2009), they have found that the stock markets tend to show greater degree of integration and co-movement during financial crisis by employing Time series technique, Vector Auto-Regression (VAR), Impulse Response Functions (IRF) and Variance Decomposition Analysis (VDA). Cihak and Hesse (2008) reported that the small Islamic banks tend to be financially stronger than the small commercial banks while the large commercial banks tend to be financially stronger than large Islamic banks. In other words, the resilient of small Islamic banks against the crisis is stronger than the large Islamic banks.

Unlike previous studies, this study will empirically examine the impact of Subprime Mortgage Crisis on both Islamic banking and Islamic stock market in Malaysia. In comparing both Islamic banking and Islamic stock market, to the best of our knowledge, this study goes clearly beyond the subject matter in Malaysia. We hope
to shed light on the issue and contribute more to future in the literature. The implication of the findings will be useful for policy maker and practices.

1.3 Objective

1.3.1 General Objective:

To examine the impact of Subprime Mortgage Crisis on Islamic Banking and Islamic stock market in Malaysia

1.3.2 Specific Objective:

- To examine the impact of Subprime Mortgage Crisis on Islamic banks’ deposit
- To examine the impact of Subprime Mortgage Crisis on Islamic banks’ financing
- To examine the impact of Subprime Mortgage Crisis on Islamic stock market
1.4 Significance of the Study

This study will be beneficial to the policy makers who are the important person to make decision in Islamic banking and Islamic stock market. The study is also beneficial to domestic and foreign investors so that they could know whether the Islamic banking and Islamic stock market are vulnerable to the Subprime Mortgage Crisis. Moreover, this study will be also valuable to academicians so that further studies could be carried out.

1.5 Scope of the Study

This study aims to examine and provide empirical evidences on the impact of Subprime Mortgage Crisis on Islamic banking and Islamic stock market. In order to carry out this study, Malaysian data of Islamic banks’ financing, Islamic banks’ deposit, Islamic stock market indices, overnight policy rate, industrial production index, customer price index and real effective exchange rate are essential data to be taken into account. The route of gathering the data would be from Bank Negara Malaysia’s Monthly Statistical Bulletin and Data Stream. The previously mentioned time series data are basically collected in monthly which covering two sub-periods, namely, the pre-crisis period (2000-2007) and during the Subprime Mortgage Crisis period (2007-2011).
1.6 Conclusion of Introduction

General background of development for Islamic banking and Islamic stock market in Malaysia has been discussed in this chapter. Furthermore, the data related to impact of Subprime Mortgage Crisis on the Islamic banking and Islamic stock market activities has also been included.
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

There are two sections in this chapter which are theoretical framework and literature review. Islamic finance theory is discussed in theoretical framework section since it will be employed in this study. Moreover, the literature review discusses the previous empirical review on the Islamic finance and Islamic stock market as well as their impact against the Subprime Mortgage Crisis.
2.1 Theoretical Framework

In late 1970s, Islamic Finance started as a small cottage industry in some Arab country. It distinguished itself from conventional finance in its ostensible compliance with principles of Islamic law, or Shariah. In convention Financial System, there are no profit and loss sharing (PLS), over expansion in the size of derivatives and “too big to fail” concept, which tends to give assurance to big banks. According to Dusuki and Abdullah (2007), Islamic banks aim to create a fair and balanced society as prescribed by the Islamic economics. Ghannadian and Goswami (2004) said that the main Islamic banking principles are risk and profit sharing. Moreover, Pollard and Samers (2007) reported that Islamic Banking emphasize on the prohibition of interest and the absence of interest in all lending.

There are two conditions of the financial system to promote justice. Firstly, the financier should share the risks and not to shift the entire burden of losses to the entrepreneur. Secondly, an equitable share in financial resources mobilized by financial institutions, hence, it helps to eliminate poverty, expand employment and self-employment opportunities.

The principle of Islamic is Islamic Law or Syariah, it is derived from the Quran and Sunnah which governs all economic and social activities and undertakings of Muslims. On the other hand, there are 3 major principles in Islamic finance. Firstly, the Islamic economic model emphasizes on fairness. This is reflected in the requirement