

**DETERMINANTS OF THE NON-PERFORMING LOANS OF COMMERCIAL
BANKING INSTITUTIONS IN MALAYSIA**

By:

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DECLARATION

I hereby declare that the project is based on my original work except for quotations and citation which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at USM or any other institutions.

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ABSTRACT

Credit risk that affects the failure of the bank institutions have been an important discussion amongst bankers and economist. The non-performing loans are the yardstick to measure credit risk. This study attempts to explore the specific bank factors that contribute to these non-performing loans. Eight commercial banks have been the subject for the study ranging 2000 to 2008. The bank's financial statement has been the main source for the study and the panel analysis has been carried out to obtain the result for this empirical study. The study begins with the two tests namely F-test (Pooled OLS Model versus Fixed Effect Model) and Hausman test (Random Effect Model versus Fixed Effect Model) to determine the most suitable model to be used in this study. The empirical analysis supported the two variables used in this study, where loan growth showed a positive relationship with the dependent variable while interest income indicates negative movement with non-performing loans. Meanwhile bank size, risk profile and the maturity of loans have been found given insignificant impact on non-performing loans.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

Among the two major sources of banking risk are credit risk and market risk. Credit risk can be explained as the risk that loan will not be repaid by the borrower while the market risk arises from adverse movements in market prices. In order for the bank and other financial institution to gain profit, they have to ensure the loans will be paid back in full by the borrowers to keep low credit risk (Mishkin and Eakins, 2003). According to Jackson and Perraudin (1999) credit risk can be categorized into two groups. It is the risk that the other party will default and the risks related to default incur after the recovery rate. In banking industry, non-performing loans are used as a measurement tools in order to identify credit risk faced by them.

Credit risk remains as the essential and challenging corporate function as it will affect the profitability and the sustainability of banking industry. The two concerns of the credit risk or the non-performing loans are (1) macroeconomic factors and (2) bank specific factors. According to the capital market theory credit risk has both an idiosyncratic and a systematic component (Louberge and Schlesinger, 2002). However only few macroeconomic factors are sufficient to explain the systematic risk that has determined all risk related to a loan contract (Wilson, 1998). Sinkey and Greenwalt (1991) done a study on loan losses experience and risk-taking behavior at large commercial banks in U.S from the period 1984 until 1987. In their study, they defined that credit risk reflects as loan losses or non-performing loans. As referred to another study, non-

performing loans ratio defined as ex-post measure of credit risk (Manove and Padilla, 2001; Jimenez, Lopez and Saurina, 2007)

Since the economic downturn in 1997 which affect most of the Asian countries, the concepts of non-performing loans are widely discussed among the economist. The non-performing loans (NPL) or default loans become more important when it is directly affect profitability and failure of the bank. The cycle of money is a crucial part in lending and borrowing activities among the bank institutions. The lending functions are considered by the banking industry as the most important function for the utilization of fund. According to Islam, Shil and Mannan (2005) the use of invested fund is important to improve the quality of life provided it needs to be settled in the given time frame to assist the cycle of economic process via reinvestment or by immediate consumption.

Rottke and Gentgen (2008) in their study on workout management on non-performing loans, defined non-performing loans in accordance to New Capital Accord of Basel II which defined non-performing loans as “loans that are past due and unpaid for more than 90 days”. As an additional definition, in most of G-10 countries loans are considered non-performing if (i) principal or interest is due and unpaid for 90 days or more or (ii) interest payments equal to 90 days interest or more have been capitalized, refinanced or rolled over (Cortavarria et. al, 2000; Dewenter and Hess, 2006). In the other word, non-performing loans (NPL) exist when the borrower default in making their payment according to the schedule agreed upon the acceptance of the contract between lender and borrower.

There are several studies done in the context of bank profitability and failure. Some of these studies applied several internal factors and external factors in determining the relationship of success and failures of banking institutions. For example the internal factor used such as moral hazards among the loan officer that will directly contribute to the banks lending activities and then translated to the bank's profit and loss. Other studies considered certain bank's specific factors such as market capitalization, size, interest charge and risk exposure that contribute to the bank's profit or failure. In the context of credit risk there are some studies which considered the macroeconomic factor such as inflation rate, real interest rate, Gross Domestic Product (GDP) growth that determined the bank's credit risk as well as profitability. As considered in one study on the macro factor on the credit risk, it suggested that there is a significant relationship between default rate of bank and key macroeconomic factors (Wong, Choi and Fong, 2006). This finding are supported by Aver (2008) and confirmed that certain macroeconomic factors have major influence on the credit risk of Slovenian banking system portfolio.

It is also widely accepted that the percentage of non-performing loans will directly influence the failure of banking institutions as well as financial crises in developed and developing countries (Khemraj and Pasha, 2008). Because of the huge negative impact from non-performing loans, some of the Asian countries had implemented several methods to control the size of non-performing loans. Some of the methods implemented are using asset securitization¹ through the sale of NPLs, reserving a provision in bank's balance sheet to write

¹ This is a structured process whereby the interest on loans and other receivable are sold to the third parties in form of asset backed securities. This market enables the financial institution to transfer some risks of ownership to other parties that willing or able to manage the asset. (Asset Securitization Comptroller's Handbook, 1997). Retrieve on 9 January 2010 from: http://www.dallasfed.org/news/ca/2005/05wallstreet_assets.pdf

caused deposit and loan growth decelerate abruptly (Detragiache and Gupta, 2004). The economic crisis has also given big impact on the Asian economy and caused the non-performing loans to increase in most Asian countries.

During the economic downturn, most of the borrowers are affected thus caused a setback on the repayment schedule and subsequently increase the amount of non-performing loans. Based on a study done by Jimenez and Saurina (2005), bank always anticipate that during the recession period the unemployment rate will increase because of the retrenchment policy. The demand will slow in the business environment and in turn will affect firms and household expenditure. Subsequently this type of problem raises the likely hood of delay in fulfillment of their financial obligations.

In 1997 China marked as one of the Asian countries which have been affected by the economic downturn in 1997. The rapid accumulation of non-performing loans in China during that time contributed by the (1) agricultural bank of China lending policy to purchase grains. Grain prices peaked dramatically in 1993-1995 but the prices could not recovered fully when grain prices declined in 1996-1997; (2) bank could not recover their loans to small enterprises because of the operational troubles in the contraction period of 1996-1997; (3) banks could not recover their loans on real estate that were lent out in 1992-1994 due to the decline in real estate prices later (Yanfei Ye,2003) .

In Japan, the non-performing loans problem resulted from the bursting of the bubble economy in 1990. Cooperative Credit purchasing Company was launched in 1993 to buy non-performing loans while Housing Loans Management Company was set up by the government in 1996 to deal with the problem of housing related non performing loans (Yanfei Ye, 2003).

Malaysian economy has performed strongly during the 1990s with an average annual real growth rate 8.5 percent. However when the banking sector was hit by the downturn in 1997, it caused a sudden withdrawal of short term capital from the country and resulted sharp depreciation of currency and forcing the interest rate to boost up. Many businesses faced difficulties and caused unemployment rate to rise from 2.6% in 1997 to 3.9% in 1998 (Cheng and Hossain, 2001)

According to Islam et al. (2005) in their study regarding the cause of non-performing loans, he found that the increasing loan size in bank will increase the risk of default loans which is referred as Inverted Pyramid Effect³. The market power had a negative relationship with bank risks which meant that if the market power of bank increase in the respective industry, the NPL of the bank would decrease (Jimenez, Lopez and Saurina., 2007). Whereas in other study, showed that there are negative relationship between size of the institution and firm specific risk. It is also proven that there is a positive relationship between size of institution and systematic risk and this relationship seems to be weakened over time (Demsetz and Strahan, 1995)

³ A project fund created to help rural people in Malawi where this fund were used to enable borrowers to obtain loans equal three times their deposit or share balance

Due to the economic downturn 1997, non-performing loans levels had risen sharply. Asian countries including Malaysia had implemented a mechanism to improve its economic condition. In order to overcome the crisis, Thailand announced the Financial Sector Restructuring Package under supervision of International Monetary Fund while South Korea tried to rebuild its economy under the Leadership of the Financial Supervisory Commission. Indonesia also had established the Indonesian Bank Restructuring agency to deal with its financial crisis.

In Malaysia the non-performing loans rose from 6 percent at 1997 to 22 percent at the end of 1998. Thus in order to overcome the problem arose from the economic crisis 1997, Danamodal and Danaharta was formulated under National Economic Recovery Plan to strengthen Malaysia's financial sector. The role of Danaharta was to take the non-performing loans of banks while Danamodal used to recapitalize them.⁴

In 2008, the Asian country was hit again by the financial crisis. The sub-prime crisis in U.S triggered the negative consequences again when the inflation rate rose, reduced GDP due to slower production level and the non-performing loan ratios rose. During this period, public expenditure was slashed and monetary policy was tightened due to the depreciation in exchange rate.

⁴ Retrieve on 12 May 2010 from : <http://www.businessweek.com/adsections/country/malaysia/part2.html>

In Japan due to the crisis, manufacturing corporations like Toyota and Honda showed a decreased in its production by 5.1 percent and 4.1 percent respectively. In India, certain sectors showed a declining trend in their exports which lead to job losses. Eventhough there has been major impacts due to the economic crisis, but it didn't effects Asian banks as they had little exposure to U.S toxic assets, and the rise in domestic non-performing loans had been modest. Therefore the damage to their capital positions from the crisis had been relatively small (Chandrasekhar and Ghosh, 2009). Table 1.1 shows the record of the non-performing loans in most of the Asian countries due to the economic downturn in 2008:

Table 1.1

Non-performing Loans among the Asian Countries 2008

Country	NPLs	In RM*	Date	Source (website)
Thailand	THB388,628million	40.24 million	30-Jun-09	Bank of Thailand
Indonesia	Rp53trillion	18.29 billion	30-Jun-09	Bank of Indonesia/Local Bank
Malaysia	RM32.6 billion	32.6 billion	Jul-09	Bank Negara
Philippines	PHP84.62billion	6.19 billion	30-Jun-09	Philippine Central Bank
Korea	KW14.3trillion	39.3 trillion	31-Dec-08	Korean Financial Supervisory Service
Japan	JPY17trillion	65.15 trillion	FSA	FSA
China	RMB518.1billion	268.43 billion	Jul-09	China Banking and Regulatory Commission
India	US14billion	49.33 billion	Mar-09	Reserve Bank of India

Sources: http://www.pwc.com/en_TH/th/publications/assets/NPL11-Asia-October2009.pdf

*currency value in MYR translated by researcher

Table 1.1, indicates that Japan recorded the highest NPL in Asia amounted to RM65.15 trillion while Korea indicated non-performing loans amount of RM39.3 trillion. Malaysia was the third rank in the list, recorded RM32.6 billion of NPL in 2008.

Therefore the main focus of this study is to examine whether internal bank's factors would influence the non-performing loans of the local commercial banking institution in Malaysia. Due to the intention of this study, CAMEL framework is used as the underlying theory. CAMEL framework used by supervisory authorities of banks to govern banking institutions and prevent them from failure. As specified by Cadet (2007), the five elements in CAMEL framework are the bank specific factors which contribute to banking failure. Besides moral hazards theory also briefly discussed in order understand the existence of non-performing loans in banks..The further explanations of CAMEL framework and moral hazards theory will be discussed in Chapter 2.

1.2 Overview of the Malaysian Financial Institution

Malaysian banking system can be divided into two categories: banking system and the non-bank financial intermediaries. Banking system comprises of three main groups namely the commercial banks, finance companies and merchant bank. The non-financial intermediaries is a group of provident and pension funds, insurance companies and takaful operators. Today there are 23 Commercial Banks in Malaysia which can be divided into local bank and foreign bank. The lists of Commercial Banks in Malaysia are as listed in Table 1.2 below:

Table 1.2

List of Commercial Bank in Malaysian Banking Institution

<i>Malaysian Controlled Institution</i>	<i>Foreign Controlled Institution</i>
1. Affin Bank Berhad	1. Bangkok Bank Berhad
2. Alliance Bank (M) Berhad	2. Bank of America (M) Bhd
3. AmBank (M) Berhad	3. Bank of China (M) Bhd
4. CIMB Bank Berhad	4. Bank of Tokyo-Mitsubishi UFJ (M) Bhd
5. EON Bank Berhad	5. Citibank Bhd
6. Hong Leong Bank Berhad	6. Deutsche Bank (M) Bhd
7. Malayan Banking Berhad	7. HSBC Bank (M) Bhd
8. Public Bank Berhad	8. Industrial and Commercial Bank of China (M) Bhd
9. RHB Bank Berhad	9. J.P Morgan Chase Bank Bhd
	10. OCBC Bank (M) Bhd
	11. Standard Chartered Bank (M) Bhd
	12. The Bank of Nova Scotia Bhd
	13. The Royal Bank of Scotland Bhd
	14. United Overseas Bank (M) Bhd

Source: <http://www.bnm.gov.my/index.php?ch=13&cat=banking>

1.3 Local Commercial Bank in Malaysia

Today Malaysia has nine local commercial banks after the merger exercised in year 2000. There are Alliance Bank Berhad, AmBank (M) Berhad, Affin Bank (M) Berhad, CIMB Bank Berhad, EON Bank Berhad, Hong Leong Bank Berhad, Malayan Banking Berhad, Public Bank Berhad and RHB Bank Berhad. For the purpose of this study only eight local commercial banks will be taken as our subject of study. Alliance Bank Berhad will be excluded from this study due to the data constraint. The profile of each bank that under study is briefly described below:

1.3.1 Affin Bank Berhad

Affin Bank Berhad is a wholly owned subsidiary of Affin Holdings Berhad which is listed in Bursa Malaysia. It commenced operations in January 2001 following a merger between Perwira Affin Bank Bhd and BSN Commercial (M) Bhd in August 2000 while in June 2005 merged with the former Affin ACF Finance Bhd. As to date it has a network of 82 branches nationwide. The vision that guide Affin Holdings Berhad is “A premier partner for financial growth and innovative services”. As at December 2009, Affin Holdings Berhad recorded total assets value at RM36 billion while its net profit for the year is RM317million.

1.3.2 Am Bank Berhad

Am Bank is the subsidiary of AmBank Group which established in August 1975 and the sixth largest banking group in Malaysia. As at December 2009 its total asset is equal to RM94.9 billion and net profit of RM860.8 million. The mission of AmBank Group is “To entrench our position as a premier financial services group providing innovative products and services to our customers”

1.3.3 CIMB Bank Berhad

CIMB Bank is a group of Bumiputra Commerce Finance Berhad, Commerce International Merchant Bankers Berhad and Multi Purpose Bank Berhad after the completion of banking mergers activities. CIMB group was listed on the main board of Bursa Malaysia since 1987 and as at December 2009, it had recorded total asset of

RM240.4 billion with net profit of RM2.8 billion. Today it has more than 323 branches and over 2100 self service terminal in Malaysia. As at December 2009, the market capitalization of the group is RM45.3 billion making it to be the third largest company in Bursa Malaysia. The vision of CIMB Group is “To be South East Asia’s most valued universal bank”

1.3.4 EON Bank Berhad

The holding company for EON Bank Berhad is EON Capital Bhd which listed on the main board of Bursa Malaysia on 23 December 2002. Today EON Bank has more than 139 branches in Malaysia with more than 5,000 employees. As at 30 June 2009 the group had recorded total asset of RM43,337 billion with net profit. The mission that drive this group is “To be the Malaysian bank of choice”

1.3.5 Hong Leong Bank Berhad

Hong Leong Bank was listed on Bursa Malaysia in October 1994 and is the member of Hong Leong Group. The group has been in the financial industry since 1968 through Hong Leong Finance Bhd. As at June 2009 Hong Leong Group had recorded total assets of RM79,405 million with net profit of RM904,625 million. The vision that drive the group is “An outstanding financial services organization, highly competitive and profitable, where people make the difference”

1.3.6 Malayan Banking Berhad

Incorporated in Malaysia on 31 May 1960 and commenced operation on 12 September 1960. Maybank was listed on the Bursa Malaysia on 17 February 1962 and as today, it is among the top companies by market capitalization in Bursa Malaysia with total assets more than RM330billion. It has an extensive global network of 1,750 offices in 14 countries and 39,000 employees who serve over 16 million customers worldwide. The mission of Maybank is “To be a leading regional financial group by 2015”

1.3.7 Public Bank Berhad

Public Bank Berhad was established in 1966 and as at 2009 it has expanded to 248 branches in Malaysia. After the completion of merger in year 2000, Public Bank led the Public Finance Berhad, Hock Hua Bank Berhad, Advance Finance Bhd and Sime Merchant Bankers Bhd. It was listed on the main board of Bursa Malaysia since 6 April 1967 and the mission of the group is “To sustain the position of being the most efficient, profitable and respected premier financial institution in Malaysia”

1.3.8 RHB Bank Berhad

RHB Bank is wholly owned by RHB Capital and was listed on the main board of Bursa Malaysia since December 1994. The vision of the bank is “To be among the top three financial institutions in ASEAN by the year 2020”. As at 31 December 2009 total assets value for the group is RM115 billion while the net profit for the year is RM1.2 million

The non-performing loans ratio recorded for eight local commercial banks that will be the subject of the study are as in Table 1.3 and Figure 1.1⁵:

Table 1.3

Net Non-Performing Loans Ratio From 2000-2008

BANK	2000	2001	2002	2003	2004	2005	2006	2007	2008
EON Bank Bhd	6.9	7.8	6.6	4.8	3.4	5.3	4.5	4.2	2.4
AM Bank Bhd	10.11	16.95	20.64	17.47	13.75	11.94	9.06	7.01	3.11
Hong Leong Bank Bhd	5.5	7.5	6.6	4.8	3.9	4.5	3.4	2.1	1.5
Public Bank Bhd	1.32	4.23	2.41	1.94	2.17	1.74	1.64	1.32	0.91
Maybank Bhd	4.29	6.99	6.87	5.99	6	4.83	3.76	3.11	1.86
CIMB Bank Bhd	4.7	7.2	7.2	6.9	8.1	7	6.37	4.28	2.55
RHB Bank Berhad	3.23	6.7	9.3	8.4	6.3	5.2	4.6	3.5	2.2
Affin Bank Bhd	9.63	21.1	25.67	24.56	23.63	13.75	12.43	8.38	3.49

Net NPL Among Commercial Banks in Malaysia

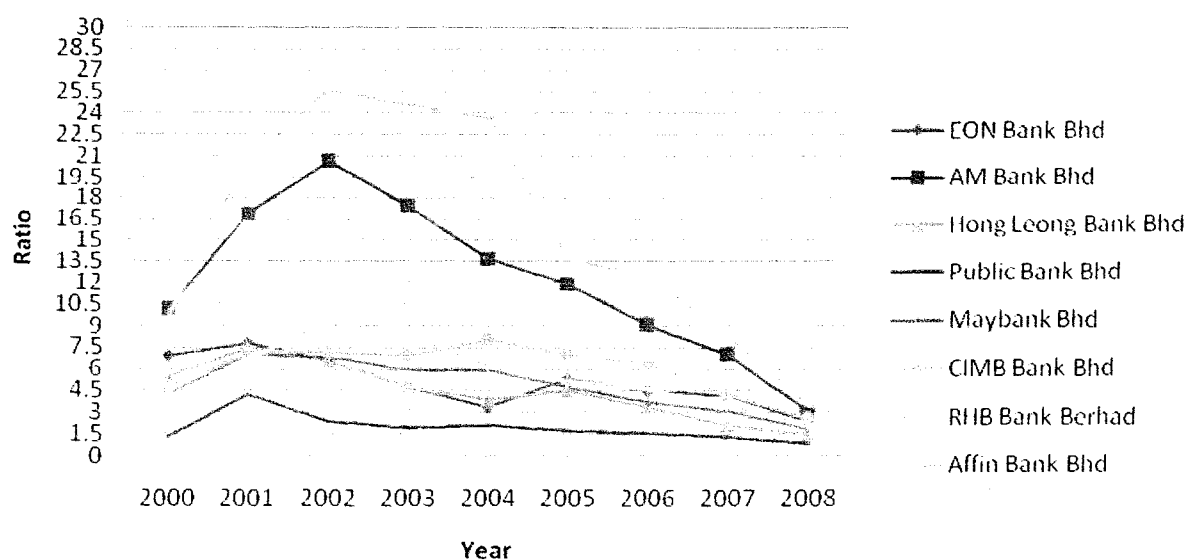


Figure 1.1 Net Non-Performing Loans Ratio among Commercial Banks 2000-2008

⁵ Data gathered from bank's annual report

Based on the figure 1.1, it shows that Public Bank Bhd maintained the lowest net NPL compare to the other local commercial bank. At the end of 2008, seems all local commercial bank improved their ratio below than 5 percent.

1.4 Malaysian Banking Institution and Non Performing Loans

Based on the first quarter 2009, non-performing loan of the Malaysian commercial banks showed an increase trend. Table 1.4 shows the NPL ratio for the first quarter of 2009 compared to fourth quarter 2008 are as follows:

Table 1.4

Non-performing Loans Ratio among Commercial Banks

	March 2009 (%)	Dec 2008 (%)
Affin Holdings Bhd	3.38	3.20
AMMB Holding Bhd	2.6	2.7
CIMB Group	2.3	2.3
EON Capital Bhd	3.10	2.5
Hong Leong Bank	1.4	1.3
Malayan Banking Bhd	1.73	1.79
Public Bank Bhd	0.84	0.86
RHB Capital Bhd	2.57	2.24

Source: <http://www.bizedge.com/business-news/14842-all-eyes-on-non-performing-loans.html>

Eventhough the rate of NPL increased in the first quarter of 2009, but subsequently at the beginning of the third quarter 2009, the non-performing loans in Malaysian Banking system is showing downwards trend as the gross NPL fell from RM34.3 billion in December 2008 to

RM32.6 billion in July 2009 (PWC, 2009)⁶. The non-performing loan ratio seems to response well with the implementation of fiscal stimulus measures which translated into a positive effect on growth in the second half of 2009 (BNM, 2009).⁷ The status of banking industry in Malaysia at the end of 2008 is fairly strong as measured by its Risk-weighted Capital Ratio (RWCR) of 14.2% and the net NPL ratio was 2.2% (The Star, 2009).

As reported by RAM in 2009, the gross non-performing loan rate may mark 9 percent which is worse relative to 4.1 percent in the year 2008. This statement was supported by Fitch Rating where they assumed it will be higher rate of delinquencies in loan repayment from individual borrower as the worsening unemployment scenario in 2009 (The Star, 2009). This can be concluded that macro environment will give an impact on the NPL if the government and bank didn't take serious action to prevent it from happen. But Malaysian banking sector position is much better than 1997 crisis where banks have stronger asset quality, profitability, capitalization and liquidity (The Star, 2009). Therefore Malaysian NPL is still lower as we maintain at 2.2% at the end of 2008 and 2009.

In view of the previous financial crisis in year 1997 Bank Negara Malaysia had done well to bring back the health of banking industry in Malaysia. Non-performing loans in the banking

⁶ NPL Asia (2009). Retrieve on January 12, 2010 From : http://www.pwc.com/en_TH/th/publications/assets/NPL11-Asia-October2009.pdf

⁷ The action taken by Malaysian government is similar to the Keynesian Model developed by Keynes (1936). This model suggested during the economic downturn, aggregate demand will fall thus government needs to lower interest rate which will help to raise investment and subsequently income.

industry in Malaysia have been declining steadily from 5.1% at the end of November 2006 to as low as of 2.4% as at the end November 2008 (The Star, 2009).

1.5 Problem Statement

Credit risk is one of the most important areas of risk management. It plays an important role in bank institution to develop their credit risk models in order to increase bank portfolio quality. According to a study done by Ahmad, Skully and Ariff., (2008) credit risk defined as the risk that the debtor will default in making their payment. Manove and Padilla (2001) defined NPL as ex-post measure of credit risk. The impact of NPL is very huge as it is not profitable at all for banking institution as well for the country.

In Hong Kong Monetary Authority, non-performing loans described as “Proven to be hindrance in the economic growth and stability of the region”. However there is a study carried out on the perspective of the positive side of non-performing loans. The approach sees that non-performing loans as a necessary evil which it is a method to reduce the burden of taxation and promote employment and it is called as public finance approach of non- performing loans (Dwight, 2004).

An uncollectible loan for the banking business is not only a loss of revenue but also loss of capital which specifically describe the uncollectible interest receivable as the loss of revenue and uncollectible principal as the loss of capital (Podder and Al Mamun, 2004). Higher GDP growth rates should be associated with smaller increments to non-performing loans as most

companies perform better in business expansions (Dewenter and Hess, 2006). According to Bank Negara Malaysia, in year 2009 NPL ratio remained flat at 2.2%.

Based on the previous literature most of the studies on non-performing loans are based on three macroeconomic indicators (Hagirawa and Pasadilla, 2004):

- (1) Credit growth
- (2) Corporate profitability
- (3) Bank profitability

Several studies carried out on non-performing loans indicated that asset management companies, work out management internally or externally and asset securitization are the tools used to reduce the non-performing loan rate. There are also few studies that consider how the macroeconomic condition affects the rate of default loans.

Based on the Bank Negara Annual Report 2008, average net non-performing loans recorded at 2.2%. Figure 1.2 below showed the net non-performing loans for the local commercial bank in Malaysia compared to the average net NPL reported by bank Negara Malaysia for the year 2008:

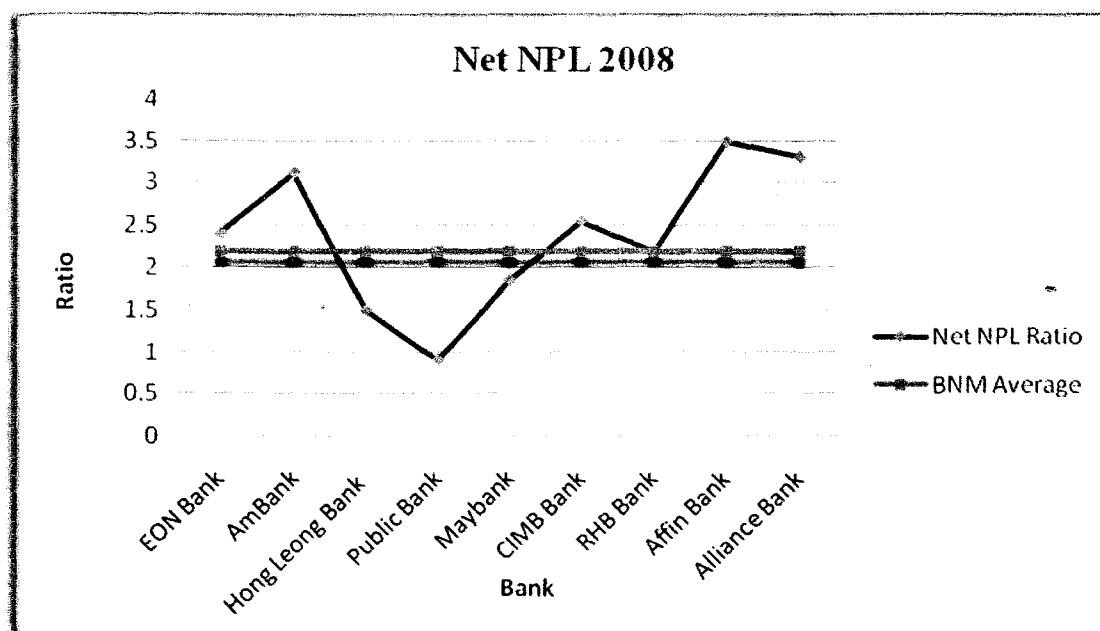


Figure 1.2 Net NPL compared to Bank Negara Report 2008

Source: Bank's Annual Report

Based on Figure 1.2, the average of non-performing loans reported by BNM is 2.2 percent Hong Leong bank, Public Bank and Maybank reported their NPL much lower than BNM average.

What are the factors that may influence the NPL of these banks? Therefore the main purpose of this study is to understand the factors that could affect non-performing loans of the commercial bank in Malaysia. The objectives are to examine and determine what the causes of non-performing loan in the commercial banking industry in Malaysia. This study will use bank internal factors as independent variables to determine NPL of the commercial banking institutions in Malaysia. The depth description of each variable will be elaborated in chapter two.

1.6 Research Question

In order to make the study valuable and meaningful, there are several guidelines that will be used throughout the study especially when gathering data to complete the topic. These data will be guided by the research questions as follows:

1. What are the bank's specific factors that significantly influence the non-performing loans of the local commercial banks in Malaysia?
2. Are there any differences between non-performing loans of government-owned bank and private-owned bank?

1.7 Research Objective

The scope of the study is to look at the influence of bank specific factors on the non-performing loans of the local commercial banking institutions in Malaysia. The objectives are:

1. To determines the bank's specific factors that significantly influence non-performing loans of the local commercial banking institution in Malaysia.
2. To identify whether there are any differences in the characteristics of non-performing loans between government-owned and private-owned bank.

1.8 Significance of Study

Lending and borrowing activities are the main purpose of financial institutions and it is the heart of economic cycle. If the lending and borrowing activities deteriorated due to the loan defaults ultimately it will affect all financial activities. It will influence the smooth running of the

(iv) Risk Profile

In common situation, a risk have been viewed as a chance that some unfavorable events would occur but in finance perspectives, a risk was defined as the possibility that actual future returns will deviate from expected returns. Higher risks were expected to have higher return (Moyer R.C et al. 2005).

(vii) Maturity

Maturity of a debt instrument is the expiry date of the obligation between borrower and lender (Mishkin and Eakins, 2003)

1.10 Organization of Study

The remainder of the study is organized as follows: Chapter 2 covers the previous studies of the bank's internal and external factors in determining the non-performing loans. The literature review is important in order to develop the framework and hypothesis development in this study. Chapter 3 illustrates the methodology used in this study which present the measurement, statistical analysis as well as the description of the hypothesis developed for this study while Chapter 4 represents the empirical results of the data analysis. Finally Chapter 5 concludes the findings of this study, limitation and suggestions for the future research.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter discusses about the previous studies that have been conducted by various researchers from the perspective of non-performing loans of banking institutions. These literature reviews mainly focus on the bank specific factors that affected the non-performing loans of the commercial banks in Malaysia.

2.1 Reviews on Each Variable

2.1.1 Non-Performing Loans

According to Fukuda, Kasuya and Kentaro., (2008) in Japan proxy for non-performing loans is based on risk management loans divided by total assets. Each bank needs to disclosed the amount of “risk management lost” every year as according to the Federation of Bankers Associations of Japan where risk management loans are comprised of “past due loans” in arrears by three months or more, and “restructured loans” with changes in terms and conditions, as well as loans to borrowers in legal bankruptcy. A study done by Gonzales, Pazarbasioglu and Billings., (1997) reveals that the ratio of non-performing loan to total loan increase the probability of banking fragility as it reduces the probability of survival. According to the minimum standard of Bank Negara Malaysia, loan is classified as non-performing when the interest and principal is default for six months from the first day of default. This concept illustrated in Figure 2.1: