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Financial Crisis: Risk and Opportunity

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Abstract

The bursting of speculative bubble in the United States has triggered the international finance crisis. Signal of weak loan growth and slowdown in major economies starting to impact Malaysia. This study intends to show the trend of the risk indicators and opportunity during financial crisis. The relationship among Non-Performing Loans ratio, Loan-to- Deposit ratio, loan growth rate, GDP growth rate and Composite Index has been tested. Besides that, the past trends of Non-Performing Loan ratio, Loan-to-Deposit ratio, loan growth rate, GDP growth rate and Composite Index have been analysed. Most risks are built up during financial booming and only materialise when economy hits downturn. Kuala Lumpur Composite Index shows the past financial crises ended in ways to create opportunities to the economy. Our banking system now is much stronger than the Asian Financial Crisis 1997, as evidenced by the low Non Performing Ratio and relative low Liquidity Ratio, to confront the current financial crisis.

JEL classifications: G01

Keywords: Financial Crisis, Risk, Opportunity, Financial Crisis Risk, Financial

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1.0 INTRODUCTION

Following the recent financial crises in United States, the global economy continues to be in havoc, i.e. global investment bank Lehman Brothers Holding Inc, financial advisory company Merrill Lynch & Co Inc and AIG, USA's largest insurance company, have become one of the hottest and worrying news to the world in the 3Q 2008. According to IMF, the world economy is now entering a major downturn in the face of the most dangerous shock in mature financial markets since the 1930s.

Malaysian Institute of Economic Research (MIER) executive director Datuk Dr Mohamed Ariff Abdul Kareem commented that "the picture looks more severe than it appeared at first" and that MIER may be revising its forecast of 3.4% gross domestic product (GDP) growth for 2009 to less than 3%. Mohamed Ariff was speaking to reporters after the MIER National Economic Outlook conference 2009-2010 on 2 December 2008.

2.0 OBJECTIVES

The objectives of this study are:

- (i) To establish relationship between Non-Performing Loans (NPL) ratio and Composite Index (CI), Loan-Deposit (LD) ratio, Gross Domestic Product (GDP) growth, Consumer Price Indicator (CPI) and Loan Growth Rate through correlation analysis.
- (ii) To identify the risks and opportunities that rose in the Malaysia banking industry, during the previous financial crisis 1997, and the timing of the risks or opportunities occurred during financial crisis. Not much literature on the risks and opportunities during financial crisis is available, and most studies have been done on the causes of the financial crisis or the measures taken to solve the financial crisis. Therefore, this paper attempts to fill some of the gaps.

Regarding the risk and opportunity arising from financial crisis, we examine:

- (a) Credit risk: the Non-performing Loans (NPL) ratio of the banking industry during financial crisis.
- (b) Liquidity risk: the Loan to Deposits (LD) ratio of the banking industry during financial crisis.
- (c) Opportunity: the Composite Index (CI) of Bursa Malaysia.
- (d) The likelihood of credit crunch to take place during the financial crisis.
- (e) Whether the NPLs ratio will increase significantly and immediately upon the occurrence of financial crisis.
- (f) Whether the risks arising from financial crisis will turn out to be opportunities to the industry / economy.

To provide a clearer picture on the trend of the NPL, loan growth and LD ratio in the analysis, the past trend of these variables have also been studied. Statistics for the period from 1997 to 1999 have been sourced and analysed. The remainder of this paper is structured as follows. Section 3 discusses the literature and arguments relating to financial crisis, risks and opportunities. Section 4 describes the methodology of study and the data used in this study. Section 5 presents the empirical results. Section 6 discusses on contribution of the study and Section 7 concludes. Finally, Section 8 states the limitation of the study.

3.0 LITERATURE REVIEW

3.1 Definition of Financial Crisis

According to Deardorff's Glossary of International Economics (University of Michigan), financial crisis is referring to a loss of confidence in a country's currency or other financial assets causing international investors to withdraw their funds from the country. Chen (2009)'s in-sample and out-sample forecasting have shown that among the macro variables that in the consideration of the study, inflation rates is one of the most useful predictors of recessions in the US stock market. Therefore, Consumer Price Indicator is also used in the study as one of the indicator which is

linked to financial crisis.

3.1.1 Global financial crisis 2007 - 2008

The global financial crisis of 2007-2008 began in July 2007 (Laeven & Valencia, 2008), when a loss of confidence by investors in the value of securitised mortgages in the United States resulted in a liquidity crisis which prompted a substantial injection of capital into financial markets by the United States Federal Reserve and the European Central Bank. The perceived credit risk in the general economy spiked up in July 2007, remained volatile for a year, and then spiked even higher in September 2008. Although United States's subprime crisis is often cited as having caused the financial crisis, the financial system was vulnerable because of intricate and overleveraged financial contracts and operations.

3.1.2 Asian Financial Crisis 1997

The Asian Financial Crisis was a period of financial crisis that gripped much of Asia beginning in July 1997, and raised fears of a worldwide economic meltdown (financial contagion). It started in Thailand with the collapse of Thai Baht, caused by the decision of Thai government to float the Baht. Before the crisis, Malaysia's KLSE activity was regularly the most active stock exchange in the world, with KLSE Composite Index of above 1,200 in the beginning of 1997. In July 1997, within days of the Thai Baht devaluation, the Malaysian Ringgit was also attacked by speculators, causing the overnight rate jumped from 8 to 40%. By end of 1997, KLSE fell to below 600. The country went into the recession in 1998 with negative GDP growth of 11.2% in 4Q 1998.

3.2 The Cause of the Global Financial Crisis

In both Japan and United States, falling asset prices, especially in real estate, were major triggers of the financial crisis. The increase in banks' lending activity directed toward real estate partly reflected the decline in their traditional core business of lending to established nonfinancial companies. Meanwhile, deregulation has fostered

the transformation of banks' portfolios, as banks were allowed to lend to riskier customers, and hold riskier assets (Dekle, 2002)^[1].

The bursting of a speculative bubble in the US real estate market triggered the international finance crisis. At the end of 2006, key interest rates began rising in the US. Demand sank and real estate prices began to slump. This created a situation in which a growing number of subprime borrowers were no longer able to make their interest payments. In order to refinance themselves, mortgage companies often bundled their loans with new forms of subprime bonds that were sold to investors worldwide, e.g. to Chinese and European banks. The bundled loans include bad mortgage loans were securitised and turned into assets that could be traded on stock markets. Due to the inability to assess the risk of the asset, buyer had to rely on the rating assigned to it by a rating agency.

3.3 Impact of Financial Crisis

3.3.1 Credit risk

Resulting from the non-performing loans, banking industry will be suffering severe losses. Sufiana (2009) states that, one of the main causes of banking crisis is the rapid rise of non-performing loans. Over the last quarter of the 20th century, both developed and developing countries have experienced severe banking crisis (Chile, Argentina, and Mexico, 1980s; Sweden, 1990s; Thailand, Malaysia, Korea, Philippines and Indonesia, 1997; Paraguay, 1995–1998; Russia, 1998; Turkey, 1994, 2000, and 2001; Argentina, 2001).^[2] The main causes of these crises are poor banking practices and lack of revenue diversification, inadequate capital, shortcomings in the assessment of credit risk, lending to connected enterprises,

¹ Dekle (2002) pointed that one of the most important issues in international finance of Japan in the 1990s and today is the weakness in the Japanese financial system. Japanese banks have been saddled with NPLs, owing to the late 1980s burst of the property bubble. These problems in the banking system have led to a contraction in bank lending, worsening Japan's recent economic downturn.

² According to Sufiana (2009), the main causes of these crises are poor banking practices and lack of revenue diversification, inadequate capital, shortcomings in the assessment of credit risk, lending to connected enterprises, excessive maturity or currency mismatches, and rapid rise of non-performing loans.

excessive maturity or currency mismatches, and rapid rise of non-performing loans.

3.3.2 Liquidity risk

Lopez (2008) defines liquidity as the ability of a financial firm to meet its debt obligations without incurring unacceptably large losses. An example is a firm preferring to repay its outstanding one-month commercial paper obligations by issuing new commercial paper instead of by selling assets. Financial firms are especially sensitive to funding liquidity risk^[3] since debt maturity transformation (for example, funding longer-term loans or asset purchases with shorter-term deposits or debt obligations) is one of their key business areas.

Asset securitisation is a form of liquidity management carried out using asset sales, but it is different from the use of liquidity reserves (Lopez, 2008). Depending on the business model, securitization proceeds can be used for ongoing funding of a business line or as a way to meet future funding needs. The sharp drop in investor demand for asset-backed securities since August 2007 has caused this potential source of funding to become more scarce and costly.

Study done by Wagner (2007) shows that an increased liquidity of bank assets, paradoxically, increases banking instability and the externalities associated with banking failures. This is because even though higher asset liquidity directly benefits stability by encouraging banks to reduce the risks on their balance sheets and by facilitating the liquidation of assets in a crisis, it also makes crises less costly for banks. As a result, banks have an incentive to take on an amount of new risk that more than offsets the positive direct impact on stability.

3.3.3 Opportunities

Opportunities could arise from the financial crisis, either directly or indirectly. A well managed corporation would turn the financial crisis into opportunities by

³ “Funding liquidity risk” is the risk that a firm will not be able to meet its current and future cash flow and collateral needs, both expected and unexpected, without materially affecting its daily operations or overall financial condition.

implementing the right financial decision. In order to solve financial crisis, especially for a corporation, Chong & Escarraz (1998) has suggested using a six-stage model for crisis planning. The acronym CRISIS may be used to more vividly describe the model, i.e. Coping, Rethinking, Initiating, Sensing, Intervening and Sandbagging.^[4]

Fong (2008) comments that, 10 years ago, over-leveraging and financing mismatches were the main causes of the financial crisis. Shareholders and creditors of companies, like Renong group (now known as UEM), Technologies Resources Industries Bhd (better known as TRI) and Lion group were forced to take hair cuts to restructure the companies' massive borrowings. However, the scenario is different a decade later. RAM Holdings Bhd's chief economist Dr Yeah Kim Leng says the sustainable average GDP growth of about 6% since 2000 should have enabled companies to accumulate some retained earnings to weather the storm. Lower corporate borrowings are also reflected in Malaysia's corporate debt-to-GDP ratio, which has slid to about 45% currently from 148.4% in 1998. In fact, almost 40% of the companies having learnt their lessons during the financial crisis are in net cash positions. Interestingly, some companies that were burdened with debt 10 years ago are now sitting pretty on a pile of cash. Being cash rich, these companies can seize any good business opportunities quickly and at times, cheaply.

According to Economy Report 2000/2001 (Malaysia Treasury, Ministry of Finance, 2001), Malaysian economy rebounded strongly in 2000 after recovering from the sharp output decline in 1998 and early 1999 following the financial crisis. Economic turnaround, which began in the second quarter of 1999, has since become well-entrenched, underpinned by the return of confidence and a more stable economic environment made possible by the introduction of selective capital controls and the

⁴ *Coping*: When a crisis hits a company, damages are bound to occur. The company has to grip with the crisis. *Rethinking*: A company that has survived a crisis needs to assess on all the events that led to the crisis. *Initiating*: Having been through a crisis, especially when it involved unprecedented, gigantic loss of financial, physical, technological, and human assets, most of these companies will not resist the idea of initiating an organized effort to build a workable crisis management program. *Sensing*: Managers should keep their eyes and ears open to look for signals, faint and illusive as though they may seem, that presage a crisis. *Intervening*: After reliable signals have been picked up at the sensing stage, managers may find it necessary to follow up with a "nip-it-in-the-bud" approach in executing a set of intervention strategies to prevent a potential crisis from gaining momentum. *Sandbagging*: Crisis resembles a river overflowing its banks and therefore sandbagging is needed for flood control.

pegging of the ringgit. The economic recovery is reflected by the real Gross Domestic Product (GDP) registered a growth of 10.3% in the first half of 2000, based on growth of 11.9% in the first quarter and 8.8% in the second quarter. Opportunities surged when KLCI began to pick up in October 2000 to close at 766.18 points on 16 October. ^[5]

3.4 Background of Malaysian Banking Sector Performance

The banking sector remained resilient, supported by strong capitalisation, sustained profitability and continued improvement in the level of non-performing loans (NPLs). As at end-September, capitalisation level remained high with risk-weighted capital ratio (RWCR) of 13%. Net NPLs based on 3-month classification was RM36,059 Million to account for 2.4% of total net loans. Given their sound balance sheets and ample liquidity in the financial system, banking institutions remained well positioned to continue meeting the financing needs of the economy.

Table 1: Key Statistics of Banking Sector as at September 2008

Total Risk Weighted Assets	RM889,824.1 Million	
Total Deposits	RM942,169.4 Million	
Total Loans	RM712,720.6 Million	
Total NPL (based on 3-month classification)	RM 36,059.0 Million	
Number of Commercial Banks	Local: 9	Total : 22
	Foreign: 13	
Number of Investment Banks	Local: 14	Total: 15
	Foreign: 1	
Number of Islamic Banks	Local : 11	Total: 17
	Foreign: 6	

Source: Bank Negara Malaysia

⁵ During the period 4 January to 16 October 2000, KLCI declined 8% while sharper declines were registered in other regional bourses, namely the Stock Exchange of Thailand Index (-48.2%), Korean Composite Index (-48%), the Jakarta Composite Index (-41.2%), the Philippines Composite Index (-40%) and the Singapore Straits Times Index (-26%).

4.0 METHODOLOGY OF STUDY

From the earlier introduction, we can observe that credit risk and liquidity risk are vulnerable to banking industry. This study intends to compare the risk indicators and opportunity indicator during financial crisis 1997. Risk indicators are NPL and LD ratios whereas opportunity indicator is CI. The indicators represent the quarterly statistic for the period from 1997 to 1999. Correlation of the indicators has been studied in order to ascertain the relationship of NPL ratio, LD ratio, Loan growth rate, CI, GDP growth rate and CPI. Besides, trend analysis has been adopted to show the performance and movement of the said indicators.

5.0 FINDINGS

5.1 Descriptive statistics

Table 2: Statistics of the indicators for Jan1997 – Dec 1999

	1997	1998	1999	Highest	Lowest
NPL ratio (%)	4.5	13.4	11.1	14.9	3.2
Loan growth rate (%)	5.9	-0.6	-0.3	6.3	-2.3
Loan-Deposits ratio (%)	97.2	96.1	87.7	100.4	87.7
GDP growth rate (%)	6.1	-11.2	10.8	10.8	-11.2
CI	594	586.1	812.3	1270.7	302.9
CPI	2.9	5.3	2.5	6.2	1.6

Source: Bank Negara Malaysia

Table 3: Statistics of the indicators for Jan 2007 – Oct 2008

	2007	2008	Highest	Lowest
NPL ratio (%)	3.2	2.4	4.7	2.4
Loan growth rate (%)	1.7	4.3	4.8	1.3
Loan-Deposits ratio (%)	74.2	76.6	77.9	71.3
GDP growth rate (%)	7.3	4.7	7.3	4.7
CI	1445	863.6	1445	863.6
CPI	2.4	7.6	8.5	1.4

Source: Bank Negara Malaysia

Table 2 and 3 above are summarised from the data collected from Bank Negara for the period from 1997 to 1999 and the period from 2007 to 2008 respectively, which

have been used in this study to show the risks and opportunities during financial crisis. The highest and the lowest figure for each indicator are taken from the monthly (for NPL ratio, Loan-Deposits ratio, CI and CPI) and quarterly (for Loan growth rate and GDP growth rate) report from Bank Negara.

The relationship between the above indicators, i.e. NPL ratio, Loan growth rate, Loan-Deposit ratio, GDP growth rate, CI and CPI will also be studied in the next section.

5.2 Correlation

Table 4: Correlation of the indicators for the period from 1997 to 1999

Variables	Variables					
	NPL	LD	CI	GDP	CPI	LoanGrowth
NPL	1	-.421	-.628*	-.501	.247	-.923**
Pearson Correlation		.173	.029	-.097	.439	.000
Sig. (2-tailed)						
Sum of Squares and Cross-products	194.709	-.775	-7121.555	-178.558	17.517	-119.009
Covariance	17.701	-.070	-647.414	-16.233	1.592	-11.901
N	12	12	12	12	12	11
LD	-.421	1	-.244	-.529	.641*	.455
Pearson Correlation			.445	.077	.025	.159
Sig. (2-tailed)						
Sum of Squares and Cross-products	-.775	.017	-26.129	-1.781	.430	.610
Covariance	-.070	.002	-2.375	-.162	.039	.061
N	12	12	12	12	12	11
CI	-.628*	-.244	1	.702*	-.568	.472
Pearson Correlation		.445		.011	.054	.142
Sig. (2-tailed)						
Sum of Squares and Cross-products	-7121.555	-26.129	659573.079	14555.795	-2344.475	3049.356
Covariance	-647.414	-.2375	59961.189	1323.254	-213.134	304.936
N	12	12	12	12	12	11
GDP	-.501	-.529	.702*	1	-.877**	.386
Pearson Correlation		.077	.011		.000	.241
Sig. (2-tailed)						
Sum of Squares and Cross-products	-178.558	-1.781	14555.795	651.903	-113.790	97.437
Covariance	-16.233	-.162	1323.254	59.264	-10.345	9.744
N	12	12	12	12	12	11
CPI	.247	.641*	-.568	-.877**	1	-.258
Pearson Correlation		.025	.054	.000		.444
Sig. (2-tailed)						
Sum of Squares and Cross-products	17.517	.430	-2344.475	-113.790	25.827	-13.278
Covariance	1.592	.039	-213.134	-10.345	2.348	-1.328
N	12	12	12	12	12	11
LoanGrowth	-.923**	.455	.472	.386	-.258	1
Pearson Correlation		.159	.142	.241	.444	
Sig. (2-tailed)						
Sum of Squares and Cross-products	-119.009	.610	3049.356	97.437	-13.278	103.265
Covariance	-11.901	.061	304.936	9.744	-1.328	10.326
N	11	11	11	11	11	11

*. Correlation is significant at the 0.05 level (2-tailed).
 **. Correlation is significant at the 0.01 level (2-tailed).

Based on Correlation Table above, $p < 0.05$ for correlation between NPL and CI. This reflects that negative correlation between NPL ratio and CI is significant. During the economy crisis 1997, the NPL ratio was on increasing trend while CI was on the downward trend. This shows that there is higher credit risk during the crisis. This result implies that during slowdown in economy, whereby there will be less economy

activities and CI drops correspondingly, borrowers will have less income to repay their loans. Therefore, higher risk of default.

$P > 0.05$ for the correlation between NPL ratio and LD ratio shows that NPL ratio is having weak negative correlation with LD ratio. This shows that when NPL ratio is moving upwards, LD ratio is moving downwards, but at a lower rate of changes. This could be due to smaller Loan growth but higher Deposits growth during financial crisis, while the NPL ratio is increasing.

$P > 0.05$ shows insignificant negative correlation between NPL ratio and GDP growth. This shows weak negative correlation between these 2 indicators; when the GDP is growing positively, NPL ratio is on declining trend, albeit at a slower pace. This implies that NPL ratio is relatively lower when economy is booming as the borrowers have sufficient capacity to repay their loans.

NPL ratio has weak positive correlation with CPI as shown by $p > 0.05$. This implies that CPI has little impact on NPL ratio. However, when the CPI is on the high side, it will also impact the buying power or cost of living of the borrowers, which resulting in higher NPL ratio.

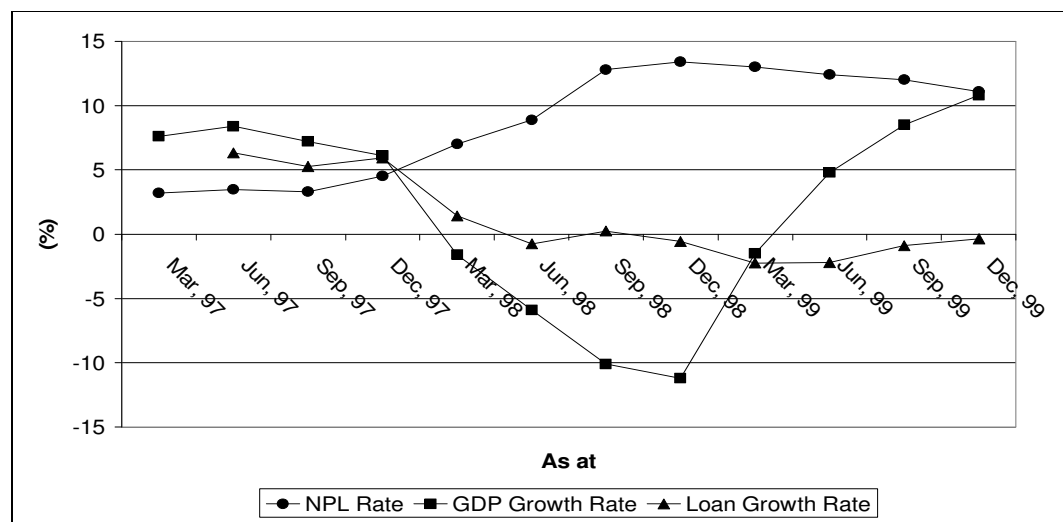
$P = 0.00$ for the correlation between NPL and Loan growth shows the strong negative correlation between these 2 indicators. There are few reasons to explain this strong correlation. First, there is likelihood of credit crunch to take place when NPL ratio is growing. Second reason will be: when there are more loans offered during economy booming, borrowers have higher ability to pay, therefore, lower NPL rate. Another reason could be: more good loans have been granted when the Loan growth is expanding, hence, NPL ratio is moving downwards.

From all the variables considered in the study of Bonfirm (2009), GDP growth rate seems to be the most important (with a negative contemporaneous impact on default probabilities, the coincident economic activity indicator (which also evaluates economic conditions), loan growth (which also displays a negative coefficient) and,

finally, stock market prices variation (implying that positive developments in stock market prices, which usually reflect an improvement in firms' financial conditions, are associated with lower default probabilities). All these variables display relatively high marginal effects on default probabilities, showing that macroeconomic conditions are very important in explaining default probabilities.

5.3 Credit Risk

Figure 1a: Banking Industry NPL, Loan Growth Vs. GDP Growth (1997 to 1999)



Similar to the previous financial crisis, the industry NPLs ratio of 3.2% in March 1997 was the lowest for the period from 1988 to 1997, before it started to climb up in Dec 1997. Corresponded to the CI which started to fall in Aug 1997, the NPL ratio was moving upwards since Dec 1997, to 8.9% in June 1998, until it hit the peak at 14.9% in Nov 1998. While the NPL is on the high side, the country had faced recession in 1998 with highest negative GDP growth of 11.2% recorded in Dec 2008. Therefore, during financial crisis, especially when the country is facing recession, risk of NPL for banking industry is high as the borrowers are not able to honour their financial obligations due to poor economy situation.

The current global financial crisis started in July 2007, however it does not give much impact to the Malaysian economy in the same year. Sign of slowdown in GDP

growth was shown only in the 2Q2008, whereby the GDP growth rate has started to decline from 7.6% (1Q2008) to 6.7% (2Q2008) and 4.7% (3Q2008). The GDP is expected to decline further as Bernama (2008) reported that Malaysia's GDP growth is forecast at 4% in 2009, based on a study done by economists of Allianz Dresdner Economic Research. NPL rate has not shown sign of deteriorating; in fact it is on gradual reducing mode. No region is immune to financial crisis, therefore we are unable to conclude that the NPL is not affected by the crisis at this juncture. Issue of time lag could be the reason that there is no immediate negative impact of financial crisis on NPL rate. (Refer to Figure 1b in the Appendix)

The results obtained from the study done by Bonfirm (2009) suggest that there are some important links between credit risk and macroeconomic developments; in periods of economic growth, which are sometimes accompanied by strong credit growth, there may be some tendency towards excessive risk-taking, i.e. most risk is built up during upturns, when banks apply looser credit standards, and most of the risk materialises only when the economy hits a downturn. Pederzoli and Torricelli (2005) also argue that high default rates during recessions are just a materialisation of the risk that is built up during expansions, most notably when strong economic growth is accompanied by the creation of unsustainable financial imbalances, and the imbalances created in such periods only become apparent when economic growth slows down.

5.4 Liquidity Risk

Financial market events since August 2007 have highlighted the prevalence and importance of liquidity risk for all types of financial firms. Liquidity risk management is a necessary component of a firm-wide risk management system. Even though the challenges in establishing and maintaining such a system are substantial, serious efforts by firms, their counterparties, and their supervisors in addressing these issues are critical.

Table 5: LD ratio for the period from Jan 1997 to Dec 1998

As at	LD ratio	As at	LD ratio
Jan, 97	0.9353	Jan, 98	0.9920
Feb, 97	0.9431	Feb, 98	0.9853
Mar, 97	0.9546	Mar, 98	0.9786
Apr, 97	0.9605	Apr, 98	0.9881
May, 97	0.9734	May, 98	0.9912
Jun, 97	0.9611	Jun, 98	0.9985
Jul, 97	0.9644	Jul, 98	0.9940
Aug, 97	0.9671	Aug, 98	0.9981
Sep, 97	0.9855	Sep, 98	0.9959
Oct, 97	0.9986	Oct, 98	1.0044
Nov, 97	1.0037	Nov, 98	0.9986
Dec, 97	0.9718	Dec, 98	0.9611

For the period from Jan 1997 to Dec 1998, the LD ratio for 1997-1998 is high, i.e. in the region of 0.9353 (Jan 1997) to 1.004 (Oct 1998). Therefore, it shows a high reliance of the banks on borrowed funds, which are generally more costly than most types of deposits. (Refer to **Figure 2a** in Appendix)

Table 6: LD ratio for the period from Jan 2007 to Oct 2008

As at	LD ratio	As at	LD ratio
Jan, 07	0.7190	Jan, 08	0.7287
Feb, 07	0.7145	Feb, 08	0.7289
Mar, 07	0.7146	Mar, 08	0.7247
Apr, 07	0.7145	Apr, 08	0.7180
May, 07	0.7131	May, 08	0.7282
Jun, 07	0.7312	Jun, 08	0.7373
Jul, 07	0.7573	Jul, 08	0.7387
Aug, 07	0.7684	Aug, 08	0.7582
Sep, 07	0.7733	Sep, 08	0.7565
Oct, 07	0.7700	Oct, 08	0.7663
Nov, 07	0.7788		
Dec, 07	0.7415		

As compared to the previous financial crisis in 1997, the LD ratio as at Oct 2008 of 76.6% is deemed good, e.g. for every RM1-00 deposits that the bank receive, it will lend out RM0-77 to its borrower. Therefore, it will still have the buffer of RM0-23 to cushion for liquidity purpose. In fact, Malaysia's LD ratio is among the lowest in the region. **Figure 2b** in the Appendix shows that the LD ratio remained on an upward trend since April 2008. Liquidity in the domestic financial system remains

ample as evidenced by the accommodative LD ratios and the loan growth rate of 4.3% for 3Q2008 as compared to 2Q2008. This shows that the financial institutions have sufficient liquidity to fund their lending activities.

5.5 Opportunity – Opening a new cycle

Microsoft Chairman Bill Gates was not concerned about the state of the U.S. economy in the long run (Farber, 2008). Historical data would support his longer-term view, but that will not make the current disarray and uncertainty about the economy any less scary for investors riding the daily, nausea-inducing roller coaster.

No doubt that Malaysia economy will be impacted by the global economy crisis as our trading partners, i.e. the United States, Europe, Japan, India and China are affected by the crisis, however, the country is not heading towards recession. The government is forecasting a GDP growth of 4%, which is a slower growth, instead of negative growth.

Based on the past trend on the KLCI, the index has weathered 2 cycles of financial crisis. These 2 cycles have shown upward trend, reflecting economy recovering after they slump to the bottom of the cycles. During the previous economy crisis, the KLCI went down to as low as 302.91 points (Aug 1998) from 814.57 points (September 1997). However, the Index was picking up slowly resulting from the measures taken by the Government in recovering the economy.

Figure 3: Performance of CI / KLCI from 1989 to 2008

“All financial crisis end-and when they end, they end in ways to create specular opportunity” – quote from Lawrence Summers, the Head of the new US National Economic Council on how to deal with the financial crisis. Unavoidably, financial crisis may pose risks to an industry or corporation; it is the corporation’s judgement call to make the right financial decision and turnaround the risks to opportunities. The lowly leveraged corporation with high competitive positions are more resilient in confronting the current crisis.

Warren E. Buffett said, “Be fearful when others are greedy, and be greedy when others are fearful.” Certainly, fear is now widespread, gripping even seasoned investors. According to him, investors are right to be wary of highly leveraged entities or businesses in weak competitive positions. But fears regarding the long-term prosperity of the nation’s many sound companies make no sense. These businesses will indeed suffer earnings hiccups, as they always have. But most major companies will be setting new profit records 5, 10 and 20 years from now.

5.5.1 Measures to improve economy during the last financial crisis in 1997/98

In September 1998, the Ringgit was moved from a free float to a fixed exchange rate regime. Bank Negara the ringgit at 3.8 to the dollar. With capital controls in place, the

government pursued expansionary fiscal and monetary policies to stimulate the economy in 1999. Loan growth rate had increased from -1.26% (Dec 1998) to 0.3% (Nov 1999), with NPL ratio decreased gradually from 13.4% (Dec 1998) to 11.7% (Nov 1999) as the as the economy continues to recover. Besides, the government has made considerable progress in cleaning up the banking sector by NPL purchases and capital injections. Pengurusan Danaharta Nasional Bhd, the asset management company which was set up in 1998 to purchase and rehabilitate the banking sector's bad debt, acquired around 35% of NPLs and began disposing of these assets. The company has taken over NPLs amounting to RM45.5 billion as at the end of December, 1999 (Xinhua English Newswire, 2000).

In the recovery of economy, Aghion et al (2004) suggested that a policy of allowing insolvent banks to fail may in fact prolong the slump if it restricts firms' ability to borrow (because of the comparative advantage of banks in monitoring firms' activities). Moreover, to the extent that the government has to spend resources on restructuring and cleaning-up after a spate of bankruptcies, it should avoid raising taxes during a slump since doing so would further limit the borrowing capacity of domestic entrepreneurs and therefore delay the subsequent recovery.

5.5.2 Measures taken to improve economy in 2008

Business Times (2008) commented that a combination of monetary and fiscal measures will be more prudent to protect the economy from a global meltdown and with inflationary pressures easing.

Given the heightened downside risks to growth and the diminishing inflationary pressures, the Overnight Policy Rate (OPR) was reduced by 25 basis points on 24 November by Bank Negara as a pre-emptive measure aimed at providing a more accommodative monetary environment. Besides, the Statutory Reserve Requirement (SRR) was also reduced from 4% to 3.5%, with effect from 1 December 2008 to further reduce the cost of intermediation. The rate cut in OPR and Base Lending Rate (BLR) will be benefiting the lower to medium income groups. The additional cash flow from lower existing loan repayment could slightly ease the burden on the lower

and medium income households and restore their confidence in facing the economic downturn. Bank Negara Malaysia has also introduced 2 financing schemes, i.e. SME Assistance Facility and SME Modernisation Facility in August 2008 to the Malaysian Small and Medium Scale Enterprise (SMEs) to assist the SMEs to ride through the tough time of the crisis.

Besides the RM7 Billion fiscal stimulus plan introduced by the government early November 2008, the government has also further lowered fuel prices to speed up its price reduction campaign for other goods in battling inflation in order to reduce the society's burden.

5.6 Risks and Opportunities

With increased uncertainty prevailing in the global economic outlook and in the financial, the potential risk for banking industry will be credit risk. Although in the analysis for the period from Jan 2007 to Oct 2008 has not shown immediate impact on the NPL ratio in the Malaysian banking system, the actual NPL will surface later. This is because the risk that is built up during economic expansion will only materialize when economic growth slows down.

Despite a weakening outlook for our economy, liquidity risk, however, is not a cause of concern for Malaysian banking industry. Comparing to the Asian financial crisis in 1997, the LD ratio as at Oct 2008 of 76.6% is deemed good. The LD ratio was high during the period from 1997 to 1998, i.e. in the region of 0.9353 (Jan 1997) to 1.004 (Oct 1998), showing high reliance of the banks on borrowed funds. Therefore the current liquidity in the domestic financial system remains ample as evidenced by the accommodative LD ratios and the loan growth rate.

Nonetheless, there are several downside risks which could derail the growth momentum of the world economy. These include higher unemployment rate^[6],

⁶ The International Labour Organization predicted that at least 20 million jobs will have been lost by the end of 2009 due to the crisis - mostly in "construction, real estate, financial services, and the auto

lower-than-expected growth of the US economy (which impacts other trade-partner companies, a prolongation of the subprime mortgage crisis, widening global imbalances, earlier oil price shocks leading to higher world inflation. Resulting from these downside risks, Malaysia GDP growth rate and CI have started to move downwards.

No doubt that signs of moderation in growth have surfaced in the emerging economies, investors who have liquidity may wish to take the opportunity to make investment when the property prices are down during economy crisis. Besides, there are also investment opportunities in the stocks market when the CI turns low. Blue chips could be very cheap for investor to achieve good long term gain.

Going forward, the deterioration of the global financial environment has begun to have an adverse impact on global economic activity, with several major developed economies sliding into a recession. Malaysia's better resilience lies in the established strong fundamentals that have been built-up over several years. The continued significant current account surplus, low external debt, large international reserves and well-capitalised banking system, will place the economy in a stronger position to weather this challenging period.

6.0 CONTRIBUTION

The findings of this study contribute to the literature on several dimensions. Firstly, correlation has been tested to show the relationship between NPLs ratio, LD ratio, GDP growth and KLCI. Secondly, trend analysis has been adopted to provide an insight on the movement of NPLs ratio, LD ratio, GDP growth and KLCI during the previous and present financial crisis. Most of the analyses conducted have focused on the credit risk and liquidity risk during financial crisis. As such my work has added to the understanding of the immediate impact of financial crisis, the economy cycle and the measures taken by the government to battle the crisis.

sector" - bringing world unemployment above 200 million for the first time. (Reuters, 2008)

7.0 CONCLUSION

According to Leong (2008), there are early signal of weak loans growth. Slow down in major economies starting to impact Malaysia. ^[7] Exports to USA, China, Hong Kong and Australia has declined,^[8] mainly due to lower exports of electrical and electronic (E&E) products and commodities (refined and crude petroleum as well as palm oil).

In tandem with the fall in exports, Malaysia's total imports in October 2008 declined 5.3% YoY and 7.8% MoM on reduced imports of capital goods and intermediate goods. While the lower imports of intermediate goods (bulk of which are E&E products) is directly linked to the slowing exports, the decline in imports of capital goods is perhaps a signal that businesses have turned cautious and are cutting back on their investment plans. Leong (2008) had also pointed that weak external sector will dampen banks' outlook, i.e. the latest trade numbers re-affirms that the rapid deterioration in the external sector would drag down Malaysia's GDP growth, resulting in sharply lower loans growth.^[9]

Based on Malaysian Institute of Economic Research (MIER) Quarterly Surveys (2008), Malaysian economy has been resilient in the first-half of 2008, however, it is increasingly being affected by the global downturn. GDP growth has moderated to 6.3% in 2Q08 after a strong 7.1 per cent gain in 1Q08, bringing growth to a high average of 6.7% in the first-half. The growth was driven by high commodity prices, strong private consumption and steady investment, partly supported by fiscal spending. Malaysia has been increasingly feeling the shock from the slowing US

⁷ According to data released by Malaysia's Statistics Department on 4 December 2008, Malaysia's exports in October fell 2.6% from a year ago and a sharp 14.2% as compared to September 2008.

⁸ Malaysia's exports to the USA fell 19% to RM6.44bil from RM7.94bil in October 2007 mainly due to lower exports of E&E products. Exports to China were down 7% YoY to RM4.89bil on lower exports of palm oil, crude rubber, manufactures of metal and refined petroleum products. Singapore, the USA, Japan, China, and Thailand were the top five export destinations, accounting for 51.7% of Malaysia's total exports in October 2008.

⁹ Notwithstanding the moderation in loans growth in September and October 2008, a year-to-date increase of 11.1% indicates that the domestic banking industry is set to close 2008 with loans growth of approximately 11%. The outlook for 2009 is far less sanguine and Leong (2008) has factored in loans growth of 3% for most banking stocks under AmResearch's coverage, which is deemed more conservative than the 5%-6% growth that some banks are guiding for.

economy through trade and investment linkages. The external downturn has not reached bottom yet. The US economy is on the brink of a recession, Japan has reported a contraction and Europe is coming to a standstill. Singapore has gone into recession in 3Q08 based on quarter-on-quarter growth.

However, BNP Paribas (2008) does not expect a repeat of the NPL nightmares that Malaysian banks faced during the last financial crisis because the corporate balance sheets and Malaysian Banks are in better shape now than during the Asian Financial Crisis. During the Asian Crisis, the balance sheets of corporates were bad and this had a negative effect on the finance sector through rising NPL. Furthermore, Bank Negara's accommodative monetary policy, lower interest rates and inflation easing means that NPL is not likely to rise to alarmingly high levels.

As our banking system is much stronger now as compared to the Asian Crisis 1997, as evidenced by the low NPL ratio, relatively low LD ratio and our balance of payment as been in surplus for almost 10 years, these factors will definitely help to cushion our economy from the Wall Street fall out. The main problem we face now is the structure of our economy which is highly dependent on external trade. The short term flow of fund in and out of our country may present limited risk, as most of these funds have left the country earlier because of the political uncertainty.

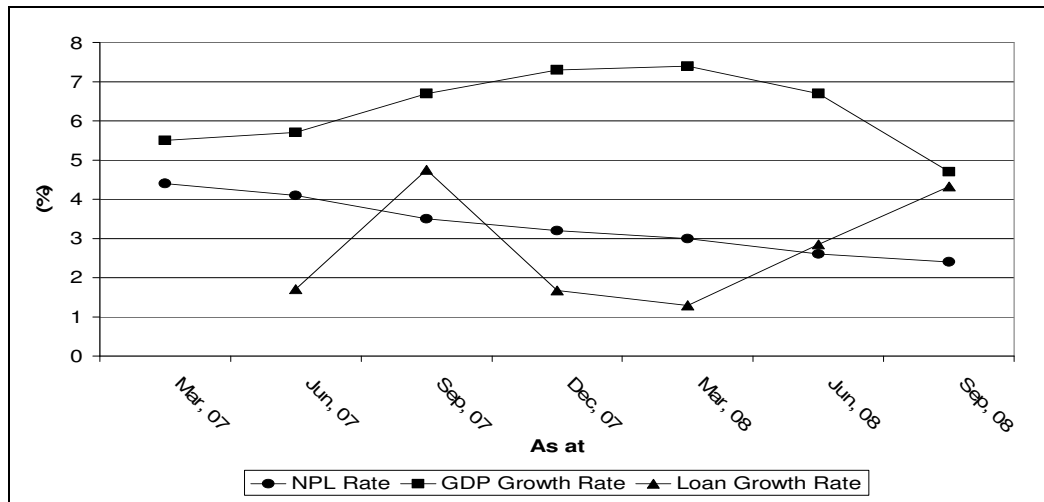
Although there are several potential risks resultant from the financial crisis, undoubtedly there is also existence of opportunities for investor to take.

8.0 LIMITATION

1. The study is not including the earlier financial crisis happened way back in 1980s, 1970s, 1960s, etc. The structure of the financial system may change over time in response to changing financial tools and regulation in the country.
2. The lack of detailed literature on the opportunities which could be arose from the financial crisis remains an obstacle to a more refined analysis.
3. Immediate impact of the current financial crisis on Malaysia banking system is not significant in 2008 due to time lag.

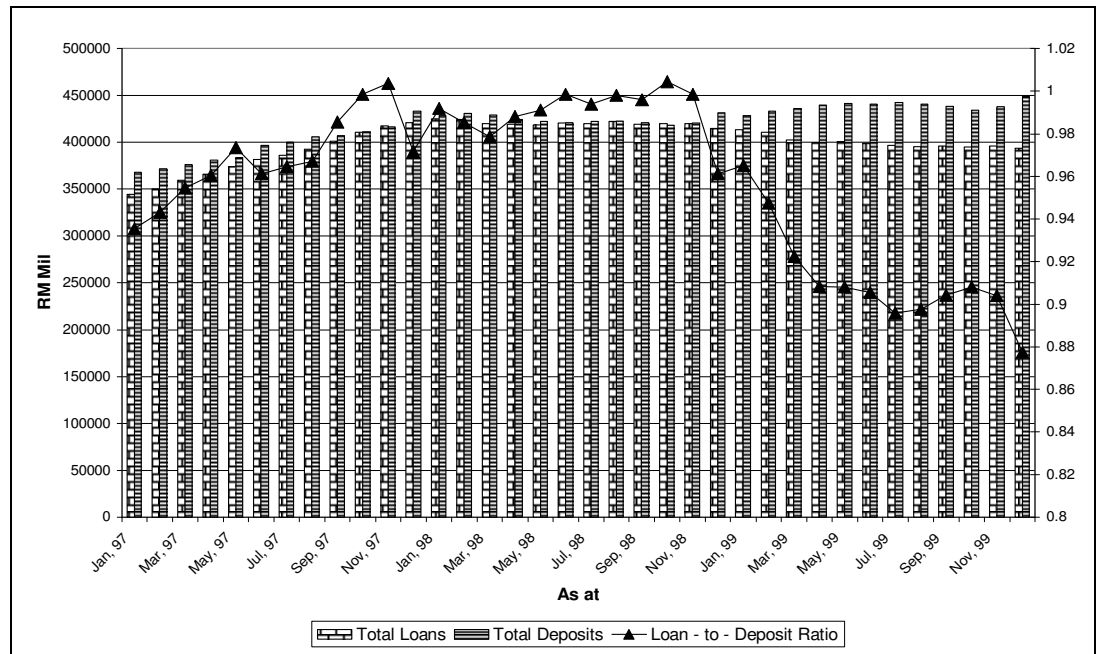
Appendix

Figure 1b: Banking Industry NPL, Loan Growth Vs. GDP Growth (2007-2008)



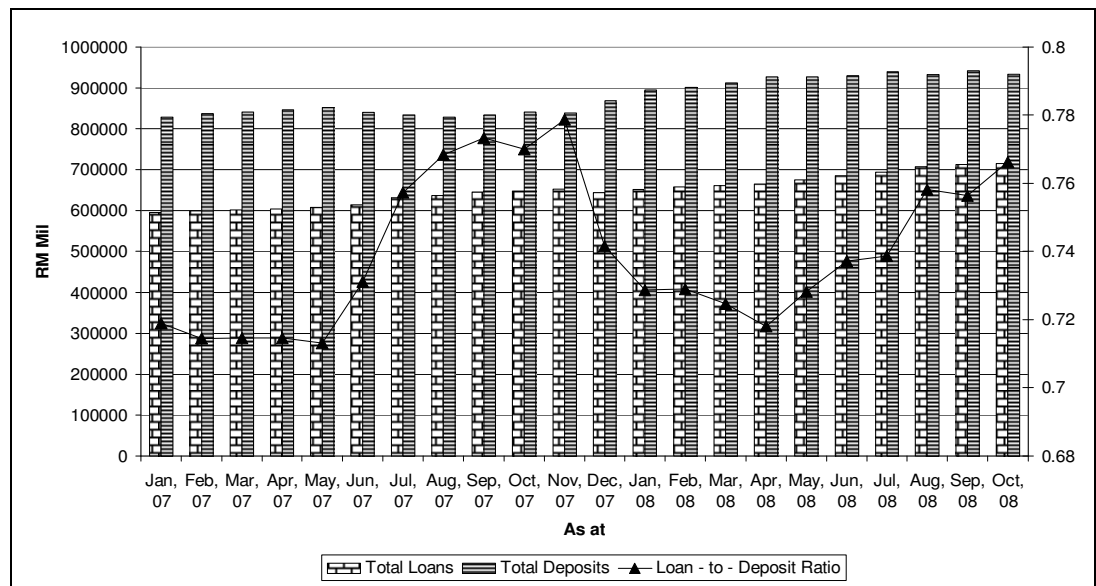
Source: Bank Negara Malaysia

Figure 2a: Banking Industry Loans Vs. Deposits (1997-1999)



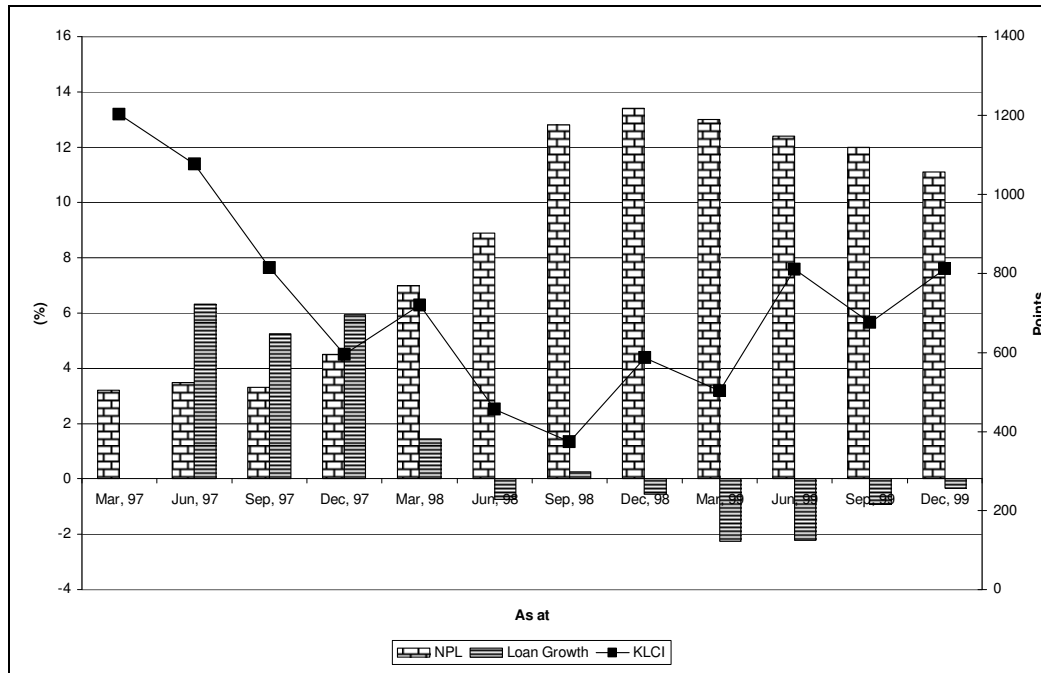
Source: Bank Negara Malaysia

Figure 2b: Banking Industry Loans Vs. Deposits (2007 -2008)



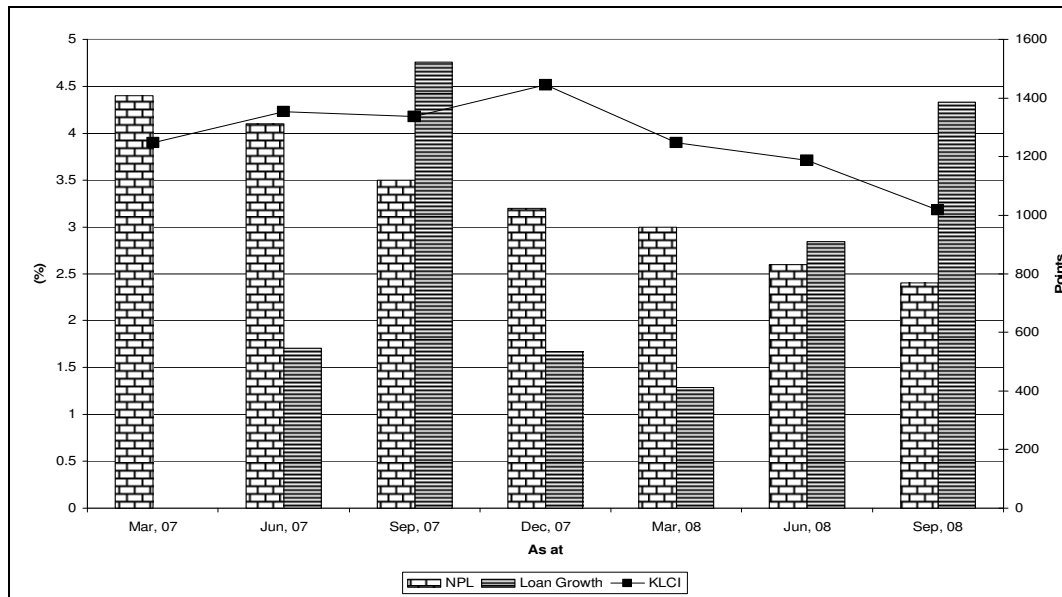
Source: Bank Negara Malaysia

Figure 4a: Banking Industry NPL & Loan Growth Vs. CI / KLCI (1997-1999)



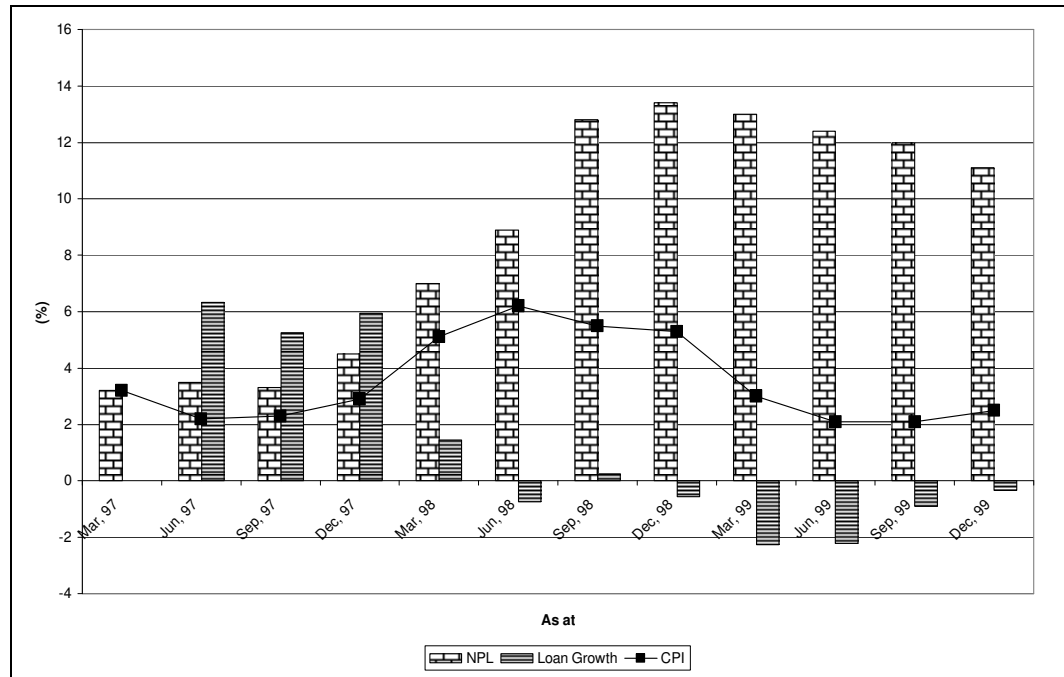
Source: Bank Negara Malaysia

Figure 4b: Banking Industry NPL & Loan Growth Vs. CI / KLCI (2007 – 2008)



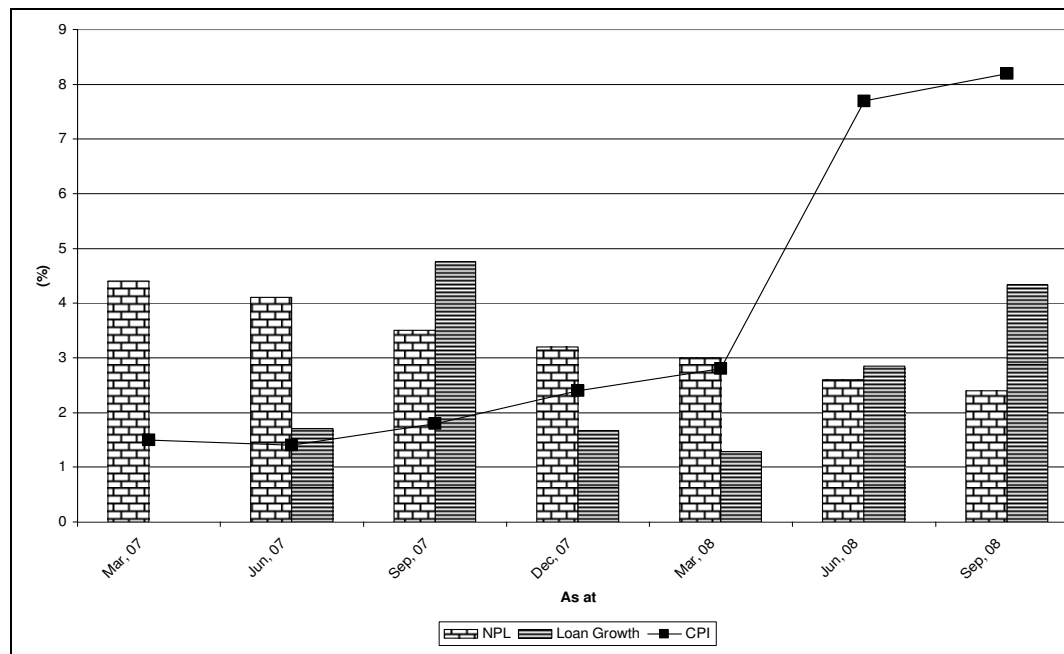
Source: Bank Negara Malaysia

Figure 5a: Banking Industry NPL & Loan Growth Vs. CPI (1997-1999)



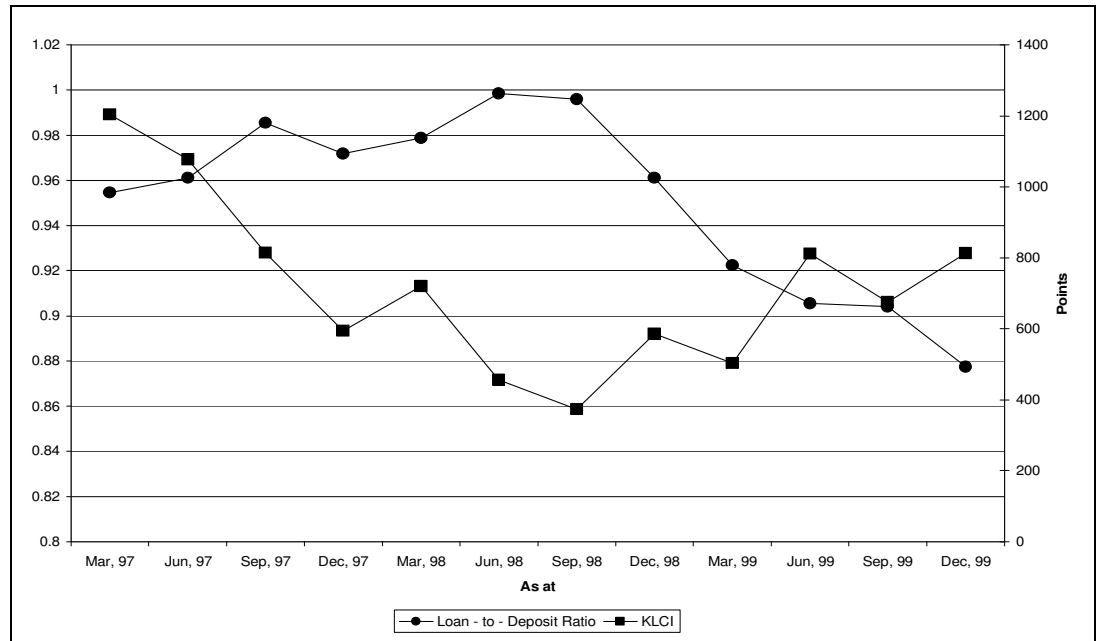
Source: Bank Negara Malaysia

Figure 5b: Banking Industry NPL & Loan Growth Vs. CPI (2007-2008)



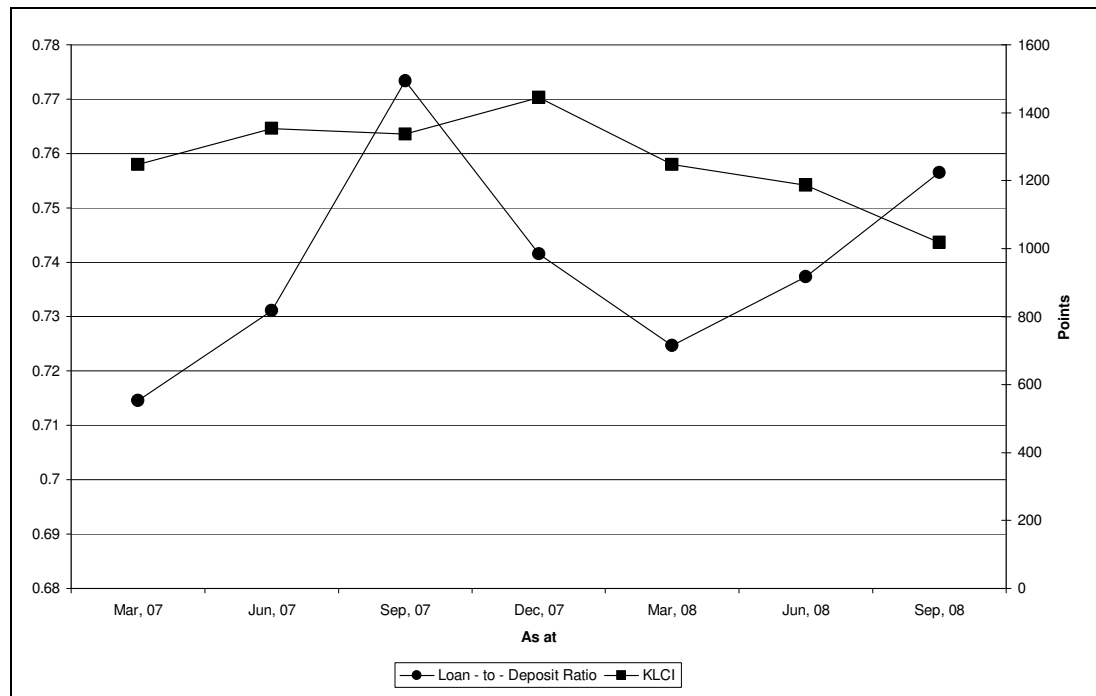
Source: Bank Negara Malaysia

Figure 6a: Banking Industry Loan-to-Deposit Vs. CI / KLCI (1997-1999)



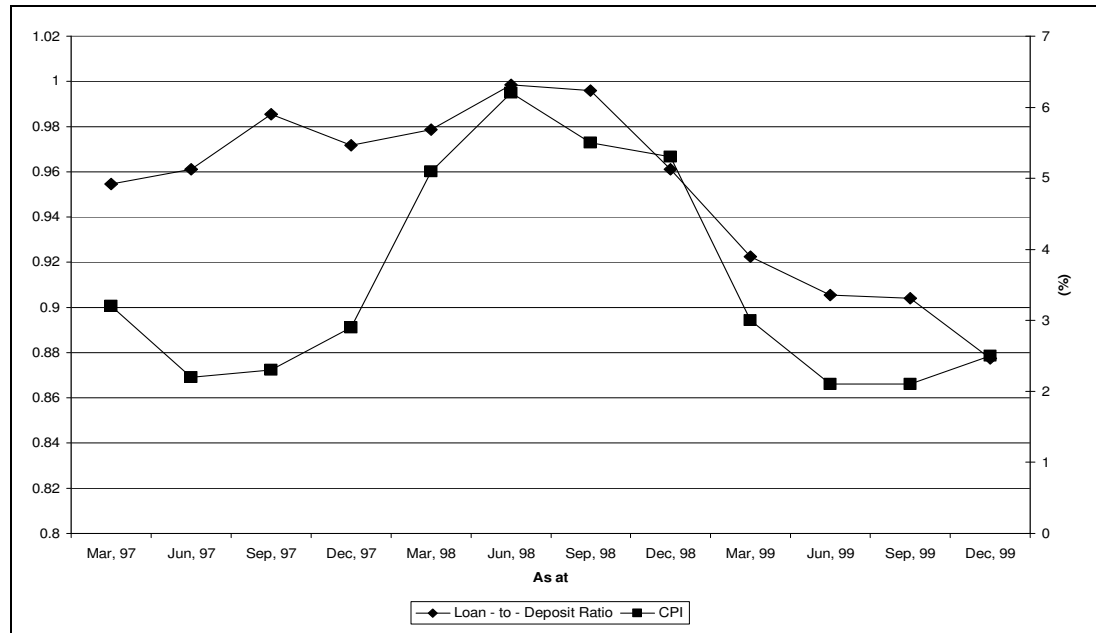
Source: Bank Negara Malaysia

Figure 6b: Banking Industry Loan-to-Deposit Vs. CI / KLCI (2007-2008)



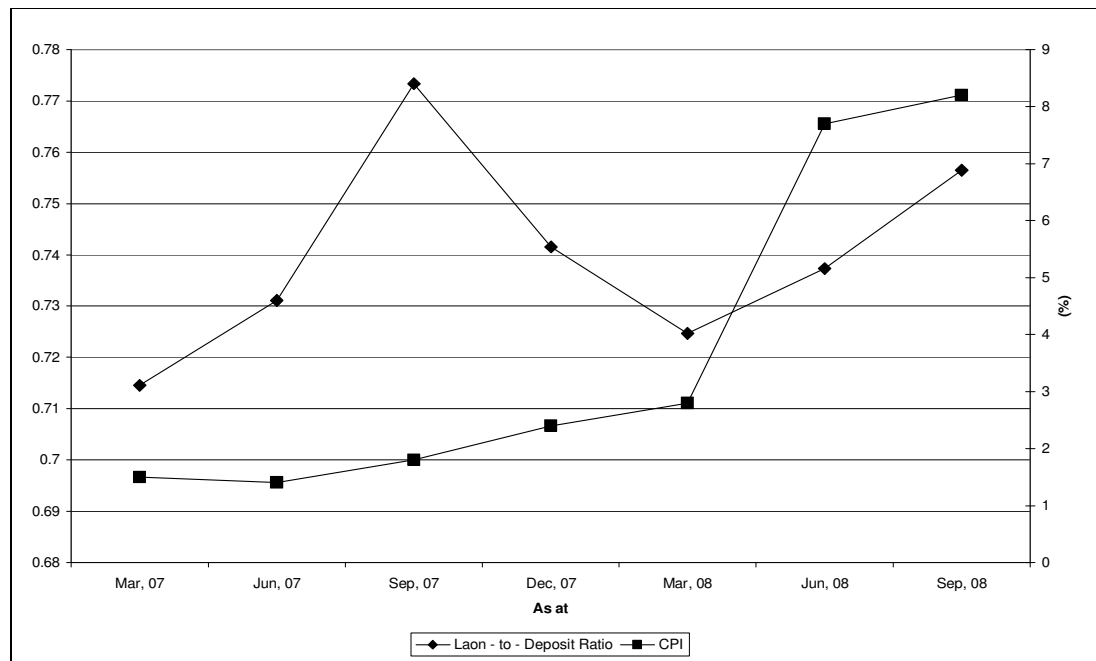
Source: Bank Negara Malaysia

Figure 7a: Banking Industry Loan-to-Deposit Vs. CPI (1997-1999)



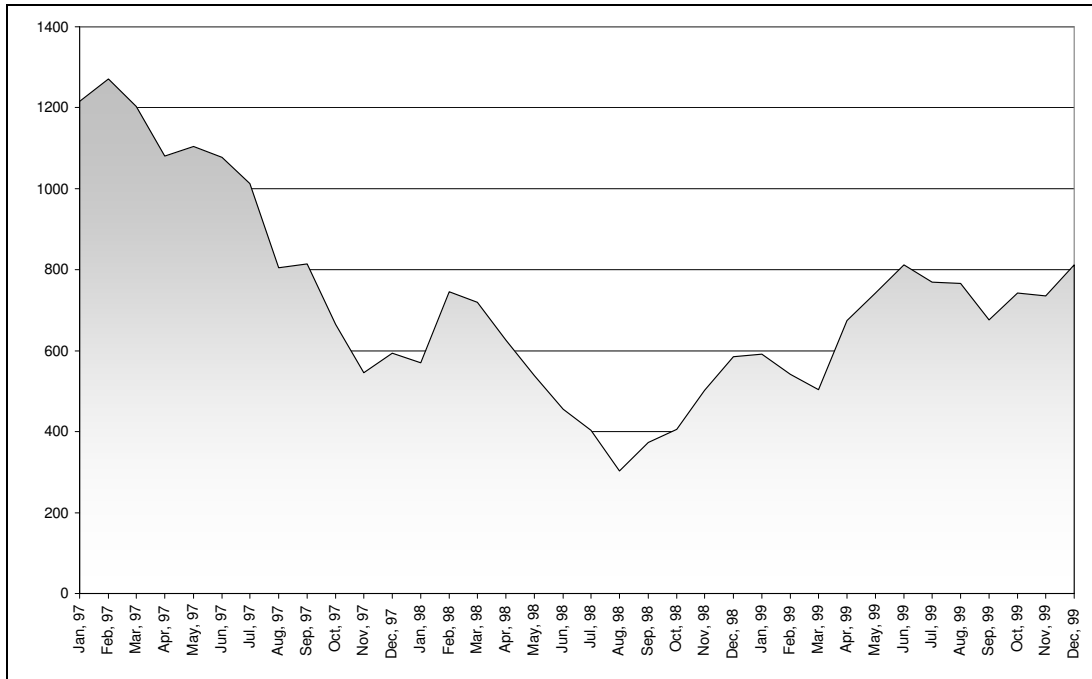
Source: Bank Negara Malaysia

Figure 7b: Banking Industry Loan-to-Deposit Vs. CPI (2007-2008)



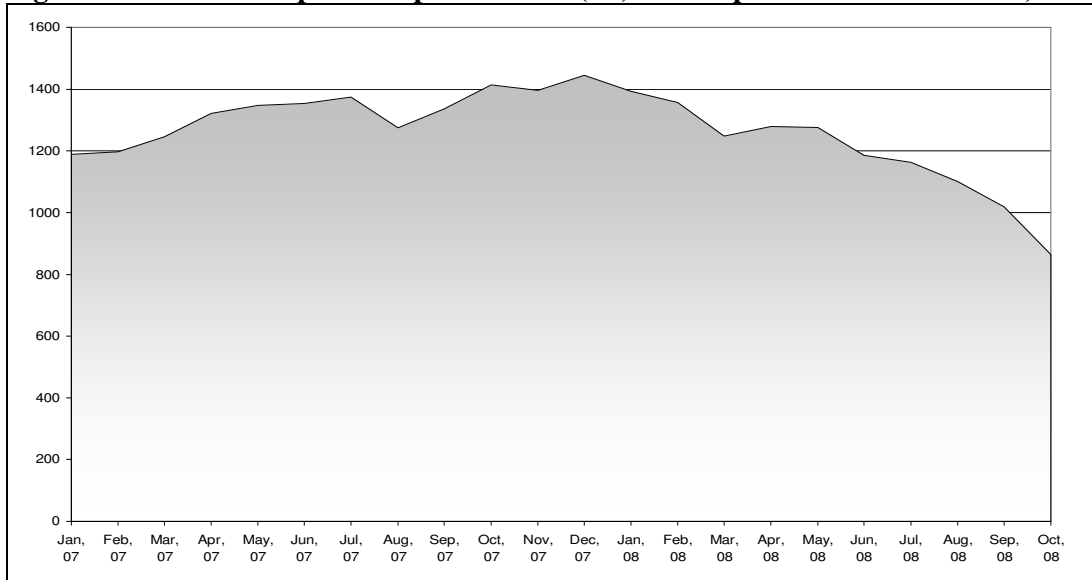
Source: Bank Negara Malaysia

Figure 8a: Kuala Lumpur Composite Index (CI) for the period from 1997 – 1999)



Source: Bank Negara Malaysia

Figure 8b: Kuala Lumpur Composite Index (CI) for the period from 2007-2008)



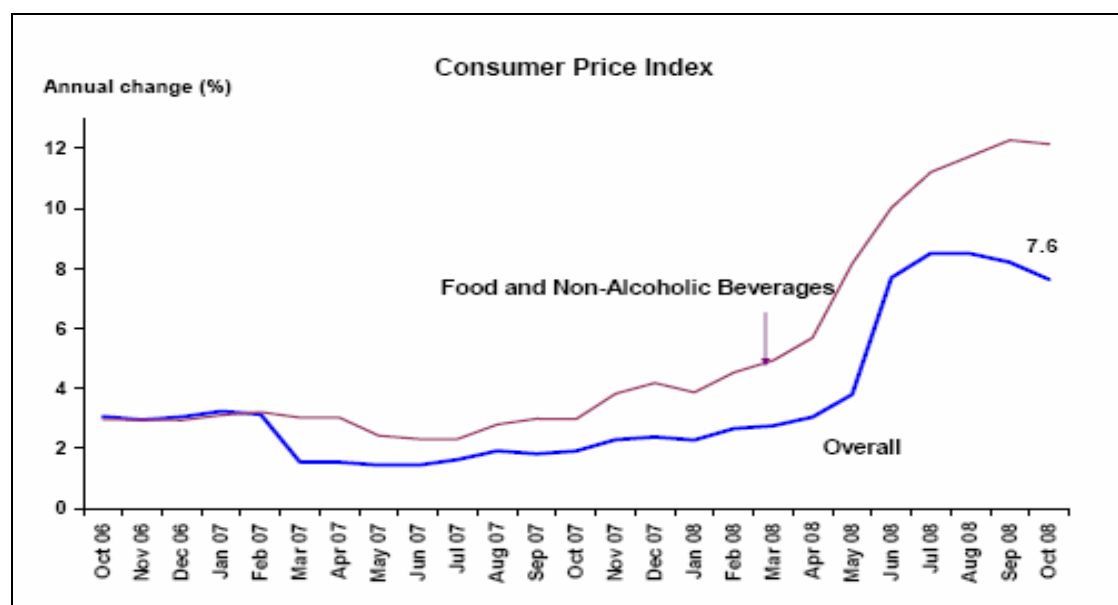
Source: Bank Negara Malaysia

**Relevant figures / table sourced from Monetary and Financial Developments
October 2008 - Highlights of the Press Release, Bank Negara Malaysia**

**Major Economic Indicators, Malaysia, 1997-2001
(percent)**

Item	1997	1998	1999	2000	2001
GDP growth	7.5	-7.5	5.4	6.0	6.1
Gross domestic investment/GDP	42.9	26.7	23.7	24.1	25.0
Gross national savings/GDP	37.3	39.6	37.7	35.4	35.0
Inflation rate (consumer price index)	2.7	5.3	2.8	3.3	3.5
Money supply (M2) growth	18.5	2.7	8.3	12.0	14.5
Fiscal balance/GNP	2.5	-1.9	-4.9	-2.0	0.5
Merchandise exports growth	1.2	-7.5	10.1	8.0	8.0
Merchandise imports growth	1.4	-26.5	10.0	12.6	13.0
Current account balance/GDP	-5.0	12.9	14.0	11.3	8.1
Debt-service ratio	6.5	6.6	6.2	5.3	5.0

Sources: IMF (2000); Bank Negara Malaysia; staff estimates.



Inflation moderated to 7.6% in October

Bank lending indicators

	RM billion		Annual Growth (%)	
	Sep-08	Oct-08	Sep-08	Oct-08
Overall				
Loan applications	40.1	35.6	-5.8	-7.9
Loan approvals	23.0	20.0	-2.9	-14.4
Loan disbursements	55.1	52.8	9.1	8.2
Chg in Loans Outstanding ^{1/}	5.3	2.8	10.6	10.3
Businesses				
Loan applications	20.5	18.7	-17.2	-2.5
Loan approvals	10.9	9.1	-17.9	-26.4
Loan disbursements	39.2	38.3	8.7	16.5
Chg in Loans Outstanding ^{1/}	1.0	-0.2	9.5	8.8
SMEs^{2/}				
Loan applications	9.7	7.3	-0.4	-8.7
Loan approvals	3.8	3.7	-29.8	-12.6
Loan disbursements	14.2	13.5	18.1	11.4
Chg in Loans Outstanding ^{1/}	-0.9	0.3	11.0	10.5
Households				
Loan applications	19.6	16.8	9.8	-13.3
Loan approvals	12.1	10.8	16.2	-0.8
Loan disbursements	15.9	14.2	10.1	-9.4
Chg in Loans Outstanding ^{1/}	3.6	1.8	9.1	8.9

^{1/}The annual growth in outstanding amount as at end-period.

^{2/}Include loans to individual businesses.

Banking System Health Indicators

	2001	2002	2003	2004	2005	2006	2007	Aug 08	Sep 08	Oct 08
Capital (%) **										
Core capital ratio	11.1	11.1	11.1	11.4	10.7	10.7	10.2	10.6	10.5	10.3
RWCR	13.0	13.2	13.8	14.4	13.7	13.5	13.2	13.2	13.0	12.6
Net NPLs (3-month classification)										
% of net total loans	11.5	10.2	8.9	7.5	5.8	4.8	3.2	2.5	2.4	2.4
Amount (RM million)	46,254	43,110	40,013	36,668	31,332	27,360	20,011	17,187	16,660	16,878
GP / Net total loans (3-month, %)										
	2.1	2.1	2.0	1.9	1.8	1.7	1.7	1.7	1.7	1.7

* Figures include Islamic banks.

** Beginning March 2008, RWCR and CCR are computed based on Basel II for banking institutions that have adopted the standardised approach

Key Monetary and Financial Statistics

	Aug 08		Sep 08		Oct 08	
	Outs.	Ann. growth	Outs.	Ann. growth	Outs.	Ann. growth
	(RM b)	(%)	(RM b)	(%)	(RM b)	(%)
Monetary Aggregates						
Reserve money	69.3	12.1	73.6	16.9	69.5	16.0
M1	174.5	13.1	179.7	14.9	172.7	8.6
M2	872.5	14.7	883.5	15.6	870.8	13.3
M3	904.6	12.8	912.8	13.5	900.4	11.5
Banking System						
Total deposits	933.1	12.5	942.2	13.0	933.5	10.9
Total loans (including loans sold to Cagamas)	707.5	11.0	712.7	10.6	715.3	10.3
Loan-deposit ratio (%)		74.5		74.3		75.3
Financing-deposit ratio ¹ (%)		82.3		82.2		83.3
Loans applied (during the period)	52.3	25.5	40.1	-5.8	35.6	-7.9
Loans approved (during the period)	29.1	15.4	23.0	-2.9	20.0	-14.4
Loans disbursed (during the period)	55.4	14.9	55.1	9.1	52.6	8.2
Loans repaid (during the period)	46.1	9.3	50.6	24.5	49.9	12.6
Banking System Health						
Risk-weighted Capital Ratio (RWCR) (%)		13.2		13.0		12.6
Net NPLs: 3-month classification (%)		2.5		2.4		2.4
Net Reserves in RM billion						
Net Reserves in USD billion (equivalent)		122.6		109.7		100.2
Months of retained imports		9.5		8.9		8.1
Interest Rates at end-period [average for the month]						
Overnight Policy Rate (OPR)		3.50		3.50		3.50
Interbank:	Overnight	3.49 [3.49]		3.49 [3.50]		3.49 [3.50]
	1-week	3.52 [3.52]		3.52 [3.52]		3.52 [3.52]
	1-month	3.56 [3.56]		3.57 [3.56]		3.57 [3.57]
Fixed deposits of commercial banks:	1-month	3.08		3.08		3.08
	3-month	3.14		3.14		3.14
BLR of commercial banks		6.72		6.72		6.72
ALR of commercial banks		5.98		5.96		6.01
Prices						
Consumer Price Index (CPI) (2005=100)	114.9	8.5	114.7	8.2	114.2	7.6
Producer Price Index (PPI) (2000=100)	148.4	11.3	145.5	8.7	n.a.	n.a.
Exchange Rates of Ringgit against Selected Currencies (end-period)						
US dollar		3.3895		3.4575		3.5625
Euro		4.9971		4.9636		4.5794
Pound Sterling		6.2079		6.2254		5.8382
100 Japanese yen		3.1065		3.3154		3.6127
Singapore dollar		2.3937		2.4153		2.4050
100 Thai Baht		9.9152		10.154		10.171
100 Philippine Peso		7.3837		7.3159		7.2767
100 Indonesian Rupiah		0.0370		0.0367		0.0325
100 Korean Won		0.3116		0.2846		0.2787
Capital Market						
Net funds raised (in RMb) by:	public	3.5		2.8		7.5
	private	3.5		1.4		1.9
Bursa Malaysia Composite Index (end-period)		1,100.5		1,018.7		863.6
Bursa Malaysia Market Capitalisation (RMb, end-period)		833.5		770.5		655.3

¹ Refers to the ratio of loans and holdings of PDS by the banking system to deposits of the banking system.

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