

The Impact Of Nominal GDP And Inflation On The Financial Performance Of Islamic Banks In Malaysia

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Abstract

The aim of this paper is to analyse the financial performance of Islamic banks in Malaysia measured using ratio analysis of profitability, liquidity, credit risk and impaired financing performance. The study also includes determining the impact of nominal Gross Domestic Product (GDP) and inflation rates on the variables of profitability, liquidity, credit risk and impaired financing performance during the period spanning from year 2007 to year 2011. The result of regression shows that nominal GDP has significant impact on macroeconomic variables such as return on average asset, liquidity ratio and equity to net loans. Therefore, there are only certain macroeconomic variables that have significant impact towards nominal GDP. As for the log-linear regression between nominal GDP and inflation rate as the dependent variables, the results shown that nominal GDP has significant and positive impact on ROAA (return on average asset) and liquidity ratio and EQL (equity to total liquidity). However, as for inflation rate, the results shown that the inflation rate has negative correlation with profitability ratio (ROAE and ROAA). Furthermore, surprisingly the inflation rates have no significant impact on the profitability ratio. The constraint of this paper is the limitation of time series period data on some of the economic variable as well as relying in the use of basic linear regression analysis.

Keywords: credit risk, financial performance, Islamic banks, impaired financing liquidity, nominal GDP, profitability.

1.0 Introduction

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Over the last three decades, Malaysia has succeeded in developing a vibrant and modern Islamic banking and financial industry through the establishment of the Islamic Banking Act that came into force in 1983. These developments led to the growth of Islamic banks and financial institution assets, increased market share of products and services to the total banking and financial system, formulation of legal frameworks and various standards, development of infrastructure and institutional capacity, education and training facilities, et cetera.

During the early stage, the industry served as an alternative channel for Muslims to perform banking and financial transactions in accordance with Islamic practices that avoided elements that are prohibited by Islam. The emergence of Islamic banking is often related to the revival of Islam and the desire of Muslims to live in all aspects of their lives in accordance with the teachings of Islam (Bank Negara Malaysia, 1994). However, the Islamic banking and financial industry is now widely accepted and used by all Malaysians and this has turned the industry to become a global model for a modern and dynamic industry.

Islamic finance in Malaysia has shown continuous rapid growth in developing product innovation, promoting a diversity of financial institutions from across the world by having a broad range of innovative Islamic investment instruments supported by comprehensive financial infrastructure in adopting global regulatory and legal best practices. Malaysia also emphasized on human capital development ensuring availability of Islamic finance talent. Even though Malaysia's Islamic finance industry remains resilient and strong, there is a need to study the performance of the Islamic banks in assessing the level of resilience to the financial shocks and the impact of the financial crisis that indeed manifested the inherent weakness of the institutions.

The objective of this paper is to analyse the performance growth of the Islamic banks in terms of profitability, liquidity, credit risk as well as impaired financing performance. It also includes in determining the impact of profitability, liquidity, credit risk as well as impaired financing performance variables on nominal GDP and inflation rate of Malaysia amongst the Islamic banks. The study covers a five-year period from 2007 to 2011 that incorporates the period of during and after the global financial crisis. The five-year period was selected in order to analyse the performance

of the Islamic banks during the global financial crisis in year 2007 to 2008 and after the global financial crisis (2009 to 2011).

2.0 Literature Review

There are numerous studies that measure the Islamic banking performance. Some of the studies discussed various impact of using different macroeconomic factors in determining the performance of the banking industry.

Molyneux and Thornton (1992) found significant relationships between profitability (proxies through return on equity) and several macroeconomic factors which were the level of interest rates, bank concentration and government ownership in the 18 European countries studied. While Chaudry and Kamath (1995) found that US banks during the 1970s and 1980s depend on general interest rate trends. Meanwhile, Guru and Balashanmugam (2002) however found a negative relationship between interest rates and bank profitability.

In general, method analysis of prior studies in examining of financial performance of Islamic banks with ratios analysis can be categorised into two (Widagdo, A.K. *et al*, 2008), namely studies examining the performance of Islamic banks during certain period and studies examining the performance of Islamic banks and compare that with conventional banks' performance. Other macroeconomic factors such as unemployment rate, inflation rate and gross domestic product (GDP) are some of the identified variables that determine the performance of a bank. Abreu and Mendes (2002) showed that unemployment rate positively affects profitability of banks and it was confirmed by Hefferman and Fu (2008). Hefferman and Fu (2008) also found that inflation rate positively affects the profitability of banks.

Meanwhile, several studies found that there is a positive relationship between GDP and profitability of the banks; Guru and Balashanmugam (2002) in their study on Malaysia banks, Naceur (2003) for Tunisian banks, Kosmidau, Tanna and Pasiours (2005) for domestic UK commercial banks, Athanasoglou, Delis and Staikouras (2006) for banks in the South Eastern European region, Flamini, McDonald and Schumacher (2009) for Sub-Saharan African commercial banks and Sufian and Habibullah (2009) for commercial banks in China. However, the study from

Demerque-Kunt and Huizingha (1999) found that the ratio of bank asset to GDP and lower market concentration led to lower profitability.

Shaista and Hanimas (2010) study found that capital, liquidity, operational efficiency, asset quality, inflation and GDP affect profitability of Islamic banks in Malaysia. This significant relationship was not supported by Sanusi and Ismail (2005) in examining the determinants of Islamic banks' profitability in Malaysia by using fifteen samples of full-fledged Islamic banks and Islamic windows during the period of 1995 – 2004. This study suggests that high profitability tends to be associated with banks that hold a relatively high ratio of total loans over total assets and growth of total assets. The results also show that, the GDP growth rate has no impact on bank profitability. Maher and Jemma (2010) found that during the global financial crisis the performance of Islamic banking is only just average when the performance was measured in terms of profit, equity, efficiency and liquidity. The analysis resulted that Islamic banks' credit and asset growth performed better than conventional banks in year 2008 to 2009 contributing to financial and economic stability but some weaknesses in risk management practices in some Islamic banks that led to a larger decline in profitability in 2009 compared to conventional banks. Meanwhile, Saleh and Zeitun (2006) commented that Islamic banking can still survive during the global financial crisis indicating Islamic financial products are accepted by many especially in Muslim countries where the Islamic financial products have overtaken conventional banking systems. Even though both Islamic and conventional were impacted during the financial crisis, Islamic banking actually operated more efficiently. The reason being is because Islamic banking is more liquefied compared to conventional banking. Hasan and Drili (2010) studied the performance of Islamic banks and conventional banks during the global crisis in 2008 by looking at the impact of the crisis on profitability, credit and asset growth as well as external ratings. It found that Islamic banks have been affected differently during the crisis. Factors related to Islamic banks' business model helped limit the adverse impact in profitability in 2008. While weaknesses in risk management practices by Islamic banks caused a larger decline in profitability in 2009; in terms of credit and asset growth, Islamic Banks performed better contributing to financial and economic stability. However, Mirakhor and Krichene (2010) argued that Islamic finance also gets impacted during the economic crisis. Although the impact is not as huge as

compared to conventional banking because many customers turned to Islamic finance from conventional banking during the global financial crisis.

3.0 Research Methodology

In order to analyse the performance growth of the Islamic banks, the financial data was generated from Bankscope for the duration of year 2007 until 2011. The period chosen include the U.S. financial crisis as the results should portray the resilience of the Islamic Banks. The Islamic Banks chosen are operating as a full fledge Islamic banks and not as windows. A total of 10 Islamic banks were chosen of which 2 are fully owned Islamic entity and the remaining 8 are subsidiaries of conventional banks. Previously, the only full-fledged Islamic bank was Bank Islam Malaysia Berhad, while the rest were operating as Islamic windows. These five years financial data are used to calculate the financial ratios which are profitability, liquidity, credit risk as well as impaired financing performance variables. The analysis also includes determining of the impact of profitability, liquidity, credit risk as well as impaired financing performance variables on nominal GDP and inflation rates of Malaysia. The GDP data used in this study is the nominal GDP. It is a figure that has not been adjusted for inflation. Thornton (2013) opined that some economists and policymakers have suggested that the Federal Reserve or other central banks should target nominal GDP in policy rule in making decision as it takes into account real economic activities. It is the determination of actual gross domestic product without taking into account other factors or variables such as inflation.

3.1 Profitability Performance

Based on Samad and Hassan (1999), they used three profitability ratios to assess the performance of Islamic banks in Malaysia. These ratios were return on average assets (ROAA), return on average equity (ROAE) and profit expense ratio (PEM). However, in this study the ROAA and ROAE are used to assess the profitability performance of the Islamic banks. Profitability ratios measure the managerial efficiency whereby it uses margin analysis and show the return on assets, deposits, investments and equity. The higher profitability ratios are indicator of better performance of a bank. The ROAA ratio is used to proxy for profitability and it is calculated by dividing the net income of the bank with its total assets. It reflects how a bank manages its real

investment resources to generate profits. The profitability can be judged by the following criteria.

3.1.1 Return on average asset (ROAA) = Profit after tax/ Average total asset

It is an indicator of the profitability of the assets of a bank. It is calculated by taking net income and dividing average total assets and this ratio expressed as a percentage of total average assets. It reflects on how efficiently a bank is utilising its assets and is also to aid comparison among peers in the same industry. The higher the ROAA, the better is the financial performance or profitability of the banks.

3.1.2 Return on average equity (ROAE) = Profit after tax/ Average equity

It refers to the performance of a company over a financial year. This ratio is an adjusted version of the return of equity that measures the profitability of a bank. The ROAE involves the denominator being computed as the summation of the equity value at the beginning and the closing of a year divided by two. The higher the ROAE, the more efficient is the performance of the banks.

3.2 Liquidity Performance

Liquidity ratios are used to determine a bank's ability to meet its short-term debt obligations. There were several studies that used liquidity measurement as part of the indicator to measure the liquidity performance. Iqbal (2001) used current ratio as liquidity measure whereas Samad & Hassan (1999) used two more measures which included Loan/ deposit ratio and Current assets ratio to evaluate the performance of Malaysia Islamic banks during 1984-1987. Hassan & Bashir (2003) also used Net loans/ total assets ratio as liquidity measurement indicator. When banks have lower liquidity, it reflects the banks are holding less money and lending more to public. Therefore, the banks could generate interest income and imply growth in business. In order to assess the liquidity performance amongst the Islamic banks in Malaysia, there will be three liquidity ratios being used; which are Net loans to assets ratio, Liquid assets to deposit and short term fund ratio and Net loans to deposit and borrowings.

3.2.1 Net loans to asset ratio (NetLTA) = net loans/ total assets

It measures the percentage of assets that are tied up in loans. The higher the ratio, the less liquid the bank is. (Mohamed and Salina, 2002)

- 3.2.2 Liquid assets to deposit and short term fund ratio (LdASF) = liquid assets/ customer deposit and short term funds

It is an indication of percentage of deposit and short term funds that are available to meet the sudden withdrawals. The higher the ratio percentage indicates the more liquid is a commercial bank and less vulnerable it is to have a run on the bank. (Mohamed and Salina, 2002)

- 3.2.3 Net loans to deposit and borrowings (LDBR) = net loans/ total deposit and borrowings

The percentage of the total deposit locked into non-liquid asset which the higher the ratio percentage the higher is the liquidity risk. (Mohamed and Salina, 2002)

3.3 Credit Risk Performance

There are three credit risk ratios being used to measure the credit risk performances of the Islamic banks which are equity to asset ratio, equity to net loan ratio and total impaired loans to gross loan ratio. These ratios are usually used to assess the bank's performance in terms of its lending/financing activities because it is mostly seen in case of banks where the customers defaulted due to failure of the businesses for which they have taken loan/financing (Sufian, 2007).

- 3.3.1 Equity to Assets Ratio (EQTA) = common equity/ assets

It measures the equity capital as a percentage of total assets. If the bank has higher percentage of this ratio it shows that the bank has great capability to sustain its assets losses.

- 3.3.2 Equity to Net Loan Ratio (EQL) = total equity/ net loans

It measures equity capital as a percentage of total net loans. The bank' ability in absorbing its loan assets when its ratio on equity to net loan ratio is higher. The higher the ratio of EQL, the higher is the capacity for a bank in absorbing loan losses (Samad, 2004).

3.3.3 Total Impaired Loan to Gross Loan Ratio (ILGL) = impaired (non-performing loans) loans/ gross loans.

Impaired loans or non-performing loans of a bank are the loan/financing that is six months past due and is considered as non-performing loans or impaired financing. This is one of the most important criteria to assess the quality of loans or asset of a bank. It measures the percentage of gross loans which are doubtful in banks' portfolio. The lower the ratio, the better is the asset/ credit performance for the banks (Samad, 2004).

3.4 Analysis on the impact of variables towards nominal GDP and inflation rate

In this study we use the method of simple and multiple regression models in explaining the correlation among the variables. Basically, there are two approaches to regression which are a hit- and – trial approach and a pre-conceived approach. The hit- and- trial approach will be the suitable approach to be used. This is because in the hit and trial approach, we need to collect the data on a large number of independent variables and then try to fit a regression model with a stepwise regression model by just entering one variable into the regression equation at a time. The general regression model (linear) is of the type below:-

$$Y = a + b_1 X_1 + b_2 X_2 + \dots + b_n X_n$$

This is where Y is the dependent variable and $X_1, X_2, X_3, \dots, X_n$ are the independent variables expected to be related to Y and expected to explain or predict Y . While $b_1, b_2, b_3, \dots, b_n$ are the coefficients of the respective independent variables, which will be determined from the regression model.

Input data on Y and each of the X variables is required to do a regression analysis. This data is input into a package to perform the regression analysis. The output consists of b coefficients for all the independent variables in the model. The output also gives you the results of a t -test for the significance of each variable in the model, and the result of the F -test for the model on the whole. Assuming the model is statistically significant at the desired confidence level (usually 95% or 99% for typical applications in the marketing area); the coefficient of determination of R^2 of

the model is an important part of the output. The R^2 value is the percentage (or proportion) of the total variance in Y explained by all the independent variables in the regression equation.

The following log-linear regressions models have been constructed to analyse the data to show the impact of X on GDP/ inflation of Malaysia.

$$\ln \text{GDP/Inflation} = f [\ln (X)]$$

Where dependent variable is log value of GDP/inflation and independent variable is the log of X. The log linear model has been used for easy interpretation of the results in percentage. Moreover, in order to analyse the impact of other macroeconomic variables on GDP/inflation, all 3 independent variables are included together in the model in step-wise regression.

$$\ln \text{GDP/Inflation} = f [\ln (\text{Profitability}), \ln(\text{Liquidity}), \ln(\text{Credit})]$$

Where,

Profitability = Profitability Ratio,

Liquidity = Liquidity Ratio,

Credit = Credit Risk

Inflation = Inflation rate

The above regressions will be tested by using the SPSS statistical software in order to determine the significant level of each variable in the regression models. This data is input into a package to perform the above regression analysis. The output of the analysis will give the coefficient figures which result a *t*- test for the significance of each variable in the model as well the *F*- test for the model on the whole.

4.0 Findings

4.1 Profitability Performance

4.1.1 Return on Average Asset (ROAA)

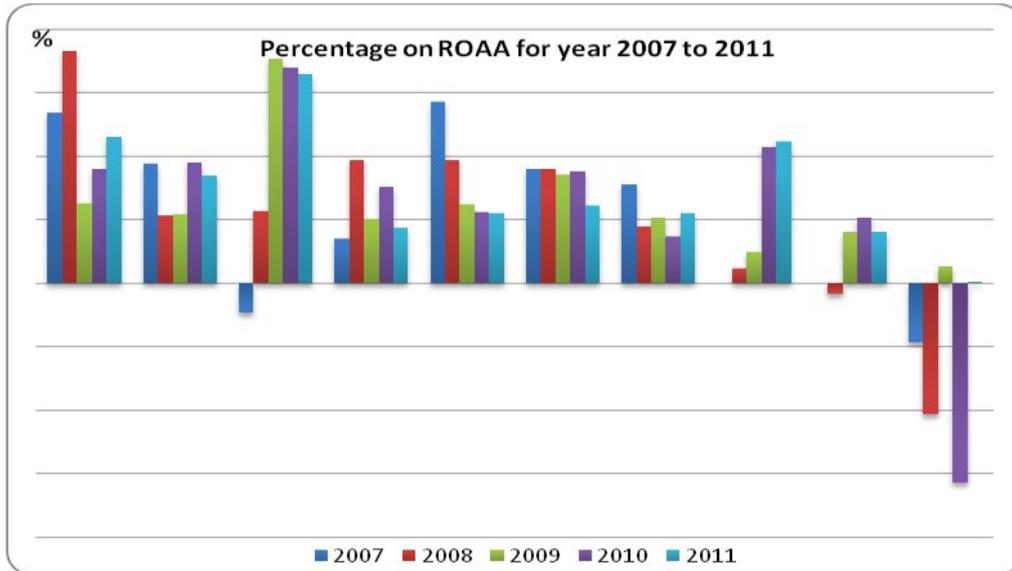


Figure 4.1: ROAA for year 2007 to 2011

Source Data: Bureau van Dijk <Bankscope>

4.1.2 Return on Average Equity (ROAE)

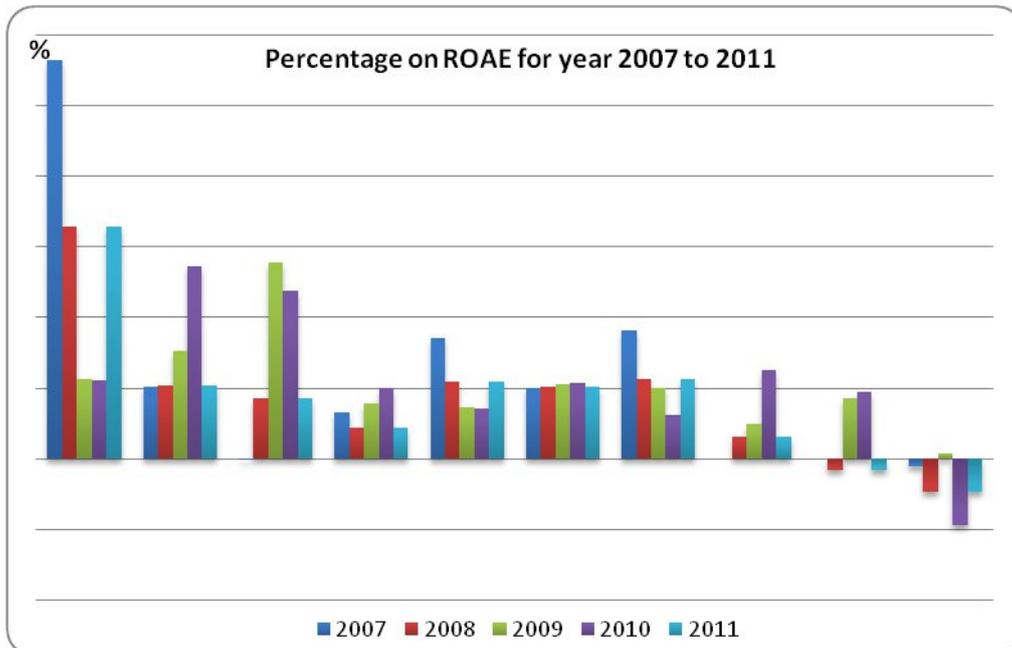


Figure 4.2: ROAE for year 2007 to 2011; Source Data: Bureau van Dijk <Bankscope>

Figure 4.1 and Figure 4.2 show the results of ROAA (%) and ROAE (%) of the selected Islamic banks in Malaysia from year 2007-2011. The Islamic banks were trying to manage their assets effectively for the past five years to generate profits. However, the profitability is decreasing continuously for most Islamic banks in year 2011 for both ROAA and ROAE figures. It shows that there were two Islamic banks experiencing negative percentages of ROAA and ROAE respectively in year 2007 during the financial crisis which indicated that the banks experienced major losses. Meanwhile, there were three Islamic banks experiencing sharp decline of ROAE in year 2008 compared with 2007 which were Bank Islam Malaysia, Affin Islamic Bank and Asian Finance Bank (2007:56.5% and 2008:32.9%; 2007:18.2% and 10.2%:2008; and 2007: -1.1% and 2008:-4.7% respectively). The sharp decline of ROAE for Bank Islam Malaysia was due to accumulated losses of RM1.67 million and negative equity experienced by the bank in year 2006. ROAE of the Islamic banks from 2007 to 2008 indicates that the crisis has an adverse effect on the Islamic banks' profitability. It was observed that after the financial crisis, the percentage of ROAA and ROAE of majority Islamic banks were gradually positive of percentage of ROAA and ROAE or rather the Islamic banks were trying to sustain their business in generating profit.

4.2 Liquidity Performance

The figure 4.3 shows that Affin Islamic Bank Berhad had the lowest net loans to assets ratio (NetLTA) throughout the five years whereas Public Islamic Bank Berhad showed the highest percentage of NetLTA amongst the rest since year 2008 to 2011. Hong Leong Islamic Bank Berhad and RHB Islamic Bank Berhad recorded the NetLTA percentage within 40% to 60% in the five years period. The NetLTA ratio shows the percentage of assets that are tied up in loans. As such, the lower the ratio, the higher the liquidity.

Meanwhile, Figure 4.4 shows that Bank Islam Malaysia Berhad and Bank Muamalat Malaysia Berhad recorded a sustained range of LDBR ratio within 40% to 50% for the five years period. CIMB Islamic Bank Berhad and OCBC Al-Amin Bank Berhad recorded highest percentage of LDBR ratio with above 60% for year 2010 and 2011. This means both Islamic banks held the highest LDBR ratio which will have highest liquidity risk.

4.2.1 Net loans to Asset Ratio (NetLTA)

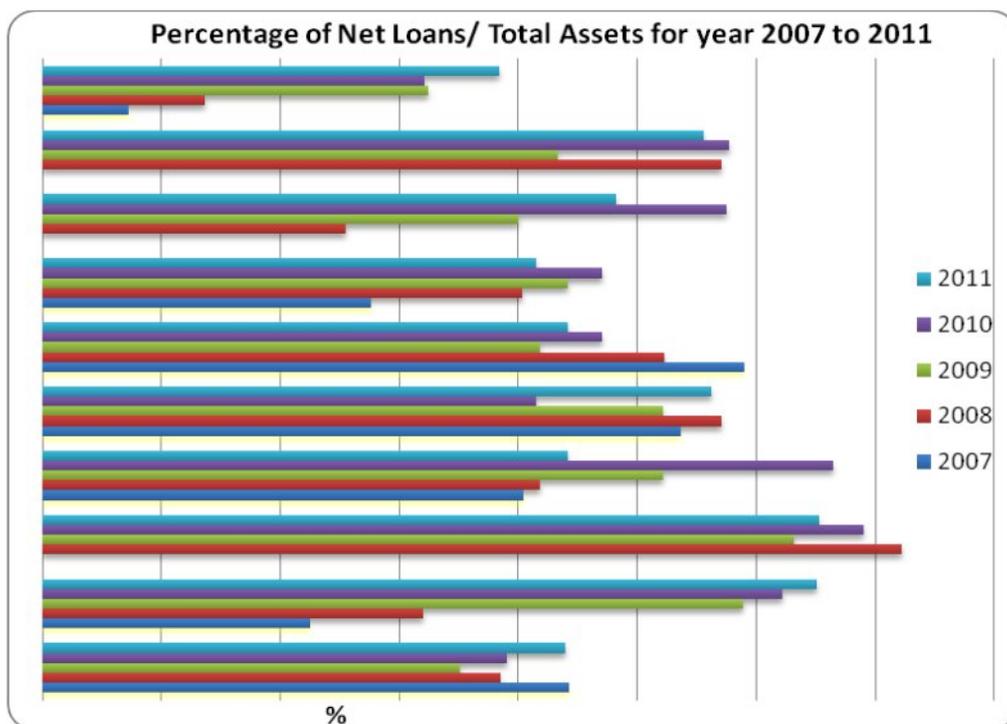


Figure 4.3 NetLTA for year 2007 to 2011

Source Data: Bureau van Dijk <Bankscope>

4.2.2 Net Loans to Deposit and Borrowings Ratio (LDBR)

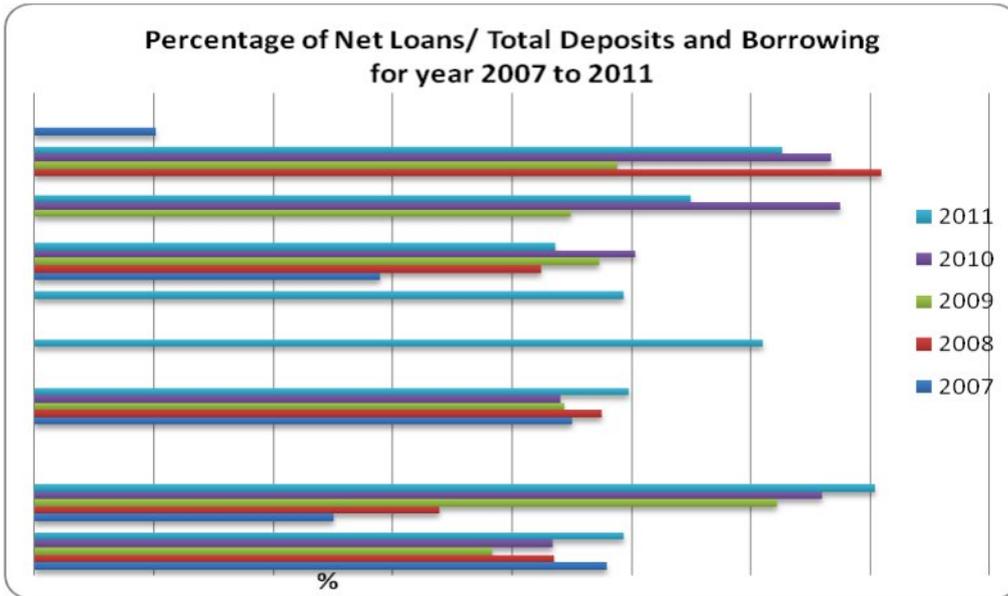


Figure 4.4 LDBR for year 2007 to 2011
 Source Data: Bureau van Dijk <Bankscope>

4.2.3 Liquid Assets to Deposits and Short Term Funds Ratio (LdASF)

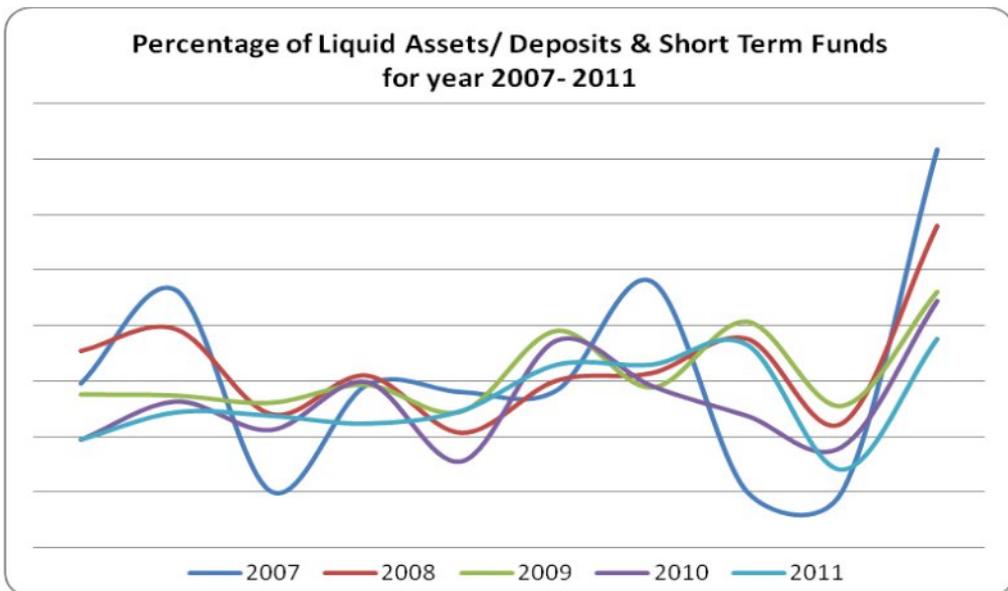


Figure 4.5 LdASF for year 2007 to 2011

Source Data: Bureau van Dijk <Bankscope>

Figure 4.5 on liquid assets to customer deposits and short term funds (LdASF) ratio shows that majority Islamic banks from year 2008 to 2011 were within the range of 20% to 60% except for Asian Finance Bank Berhad, as the bank recorded highest ratio for the five years period. The high ratio explained that the Islamic banks have greater extent of liquid assets and exposed to less liquidity risk.

4.3 Credit Risk

4.3.1 Equity to Total Assets (EQTA)

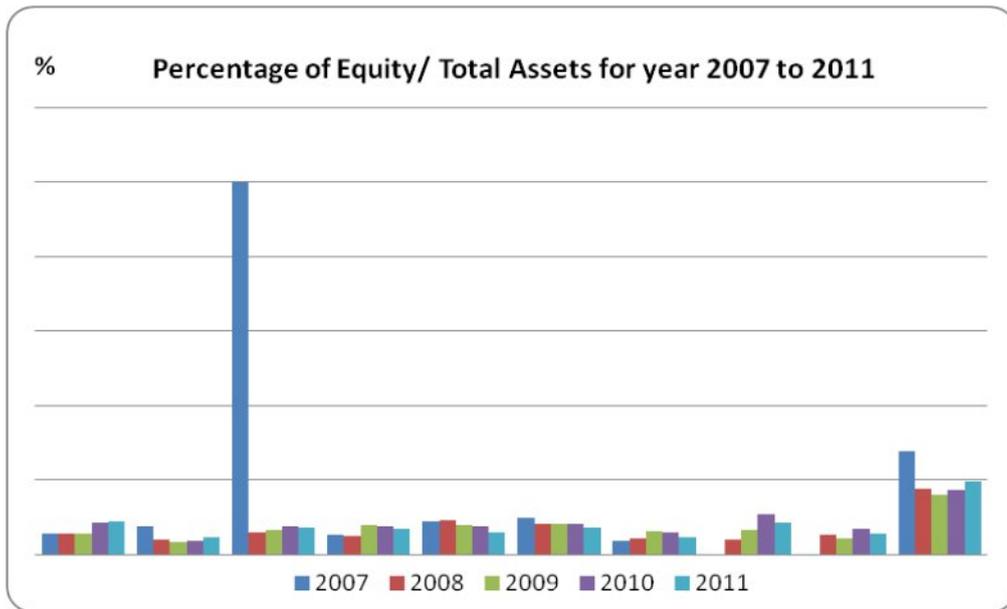


Figure 4.6 EQTA for year 2007 to 2011

Source Data: Bureau van Dijk <Bankscope>

4.3.2 Equity to Net Loans (EQL)

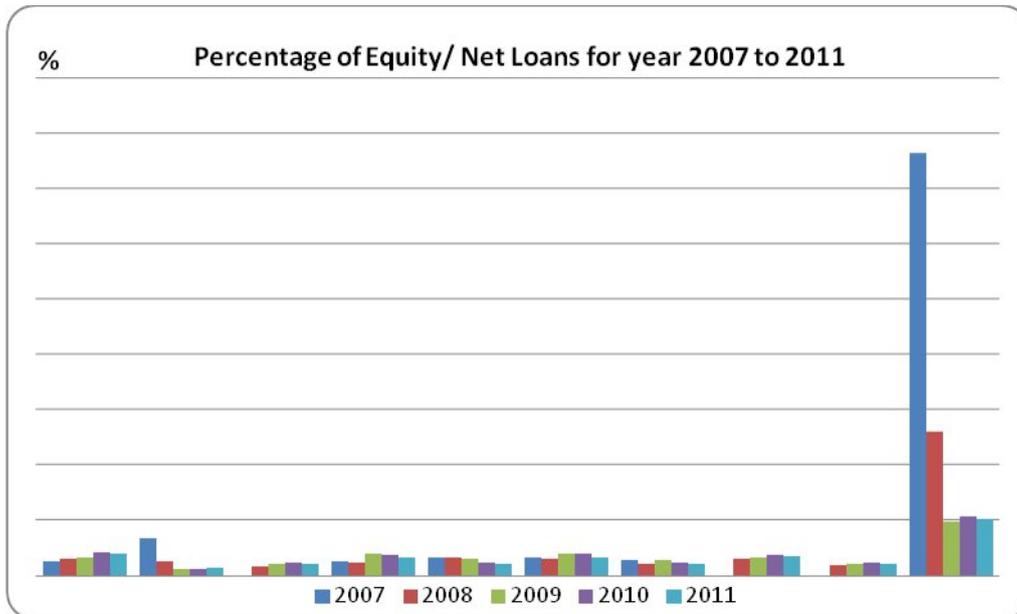


Figure 4.7 EQL for year 2007 to 2011

Source Data: Bureau van Dijk <Bankscope>

4.3.3 Impaired Loans to Gross Loans (ILGL)

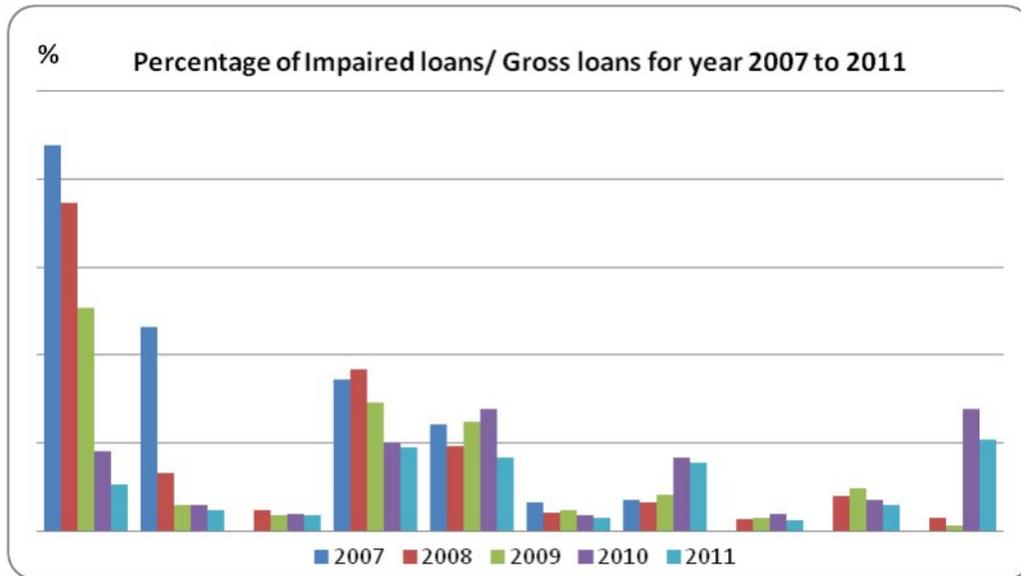


Figure 4.8 ILGL for year 2007 to 2011

Source Data: Bureau van Dijk <Bankscope>

Figures 4.6 and 4.7 showed that the percentages of EQTA and EQL ratio were less than 20% and 50% respectively. While Figure 4.8 indicated that the percentage of ILGL for the past five years was mainly less than 10% for majority Islamic banks. Bank Islam Malaysia may have faced difficulty in sustaining its gross impaired financing ratio where there was a decrease of percentage in year 2008 onwards. The banks should ensure having sufficient credit in the bank to overcome any shortfall. This may lead for the banks to call for capital injection from internal as well as external sources.

4.4 Impact of variables towards nominal GDP and Inflation rate

The stepwise log-linear regression has been used where three (3) more independent variables namely Profitability ratio, Liquidity ratio and Credit risk have been included in the model. This stepwise regression model has been used for the purpose in which algorithm adds on independent variable at a time, starting with the one which explains most of the variation in independent variable. Then, add one more independent variable to it and recheck the model to see that both the variables form a good model.

Next, we add on the third independent variable if it adds to the explanation of dependent variable and so on.

Table 1: Impact of other Macroeconomic Variables on GDP of Malaysia

| Independent Variables | Model 1 | Model 2 | Model 3 |
|------------------------------|----------------------|---------------------|----------------------|
| Constant | 8.236** (10.791) | 4.491 ** (1.972) | 7.320 ** (20.792) |
| Ln Profitability | | | |
| ROAA | 0.575 ** (1.677) | | |
| ROAE | -0.578** (-1.631) | | |
| Ln Liquidity | | | |
| NetLTA | | 0.144** (0.299) | |
| LdASF | | 0.143** (0.259) | |
| LDBR | | 0.318** (0.718) | |
| Ln Credit | | | |
| EQTA | | | -0.441** (-1.251) |
| EQL | | | 0.342** (0.760) |
| ILGL | | | -0.632** (-1.475) |
| Adj R Square | 0.636 | 0.596 | 0.692 |
| F | 4.500** | 2.971** | 4.056** |
| n | 5 | 5 | 5 |

Note: ** and * indicate that the coefficients are statistically significant at 99% and 95% level of coefficients respectively

Based on the table above, the value of F varies from 4.500 to 4.056 which indicate that all the models are in good fit at less than 95% level of confidence. The value of R Square varies from 0.636 of the model 1 to 0.692 in Model 3. This 63.6% variation in GDP is explained by the independent variable of profitability ratio (ROAA and ROAE). However, the Model 2 has resulted in 59.6% of variation and is explained by the independent variables of liquidity ratio (LDBR, LdASF and NetLTA).

It is observed in the regression analysis that the ROAA and liquidity ratio and EQL are positively associated with the dependent variable GDP in all the models. The coefficients of all chosen independent variables (by models) are found to be significantly satisfactory as stated in the above table. In Model 1, a unit change of ROAA will lead to the increase of GDP by 0.575. Similarly, the liquidity ratio (NetLTA, LdASF and LDBR) experienced some increase of GDP by 0.144, 0.143 and 0.318 respectively. The EQL will experience of increase of 0.342 of GDP.

Most of the previous studies used real GDP growth or gross domestic product per capital (GDPPC) to analyse the impact of GDP on profitability of a bank. Some studies showed that the GDPPC has insignificant impact on the Return on Assets (Al Manaseer (2007); Bennaceur and Goaid (2008) and Flamini and Schumacher, (2009)). However, the studies from Demirguc-Kunt and Huizinga (1999); Bikker and Hu (2002) and Athanasoglou, Brissimis and Delis (2008) stated that GDP growth has a positive effect on banks profitability, possibly due to increases in lending rates.

Based on the results of the analysis, it showed that nominal GDP has significant impact on variables such as ROAA, liquidity ratio and equity to net loans. Therefore, there are only certain variables that have significant impact towards nominal GDP.

Table 2: Impact of other Macroeconomic Variables on Interest Rate of Malaysia

| INDEPENDENT VARIABLES | MODEL 1 | MODEL 2 | MODEL 3 |
|-----------------------|---------|-----------|-----------|
| Constant | 9.902** | -1.796 ** | -2.863 ** |

| | | | |
|-------------------------|------------------------|----------------------|----------------------|
| | (1.702) | (-0.049) | (-0.900) |
| Ln Profitability | | | |
| ROAA | - 2.749 ** (-1.051) | | |
| ROAE | -4.626** (-1.711) | | |
| Ln Liquidity | | | |
| LDBR | | 1.181** (0.166) | |
| LdASF | | 0.985** (0.111) | |
| NetLTA | | -1.343** (-0.713) | |
| Ln Credit | | | |
| EQTA | | | -5.511** (-1.730) |
| EQL | | | 7.372** (1.815) |
| ILGL | | | -5.796** (-1.497) |
| Adj R Square | 0.216 | -2.882 | 0.080 |
| F | 1.550** | 0.10** | 1.116** |
| <i>n</i> | 5 | 5 | 5 |

Note: ** and * indicate that the coefficients are statistically significant at 99% and 95% level of coefficients respectively

Based on the table above, the value of F varies from 1.550 to 1.116 indicating that all the models are in good fit at less than 95% level of confidence. The value of R Square

varies from 0.216 from model 1 to 0.08 in Model 3. This 21.66% variation in inflation rate is explained by the independent variable of profitability ratio (ROAA and ROAE). However, the Model 2 has resulted in -28.8% of variation in inflation rate is explained by the independent variables of liquidity ratio (LDBR, LdASF and NetLTA).

The regression analysis shows the independent variables of Net Loans to Deposit and Borrowings Ratio, Net Loans to Deposit and Borrowings Ratio and equity to net loans are positively associated with the dependent variable inflation rate. It was also observed that the regression result as stated in Table 2 indicated that inflation rates as dependent variable has no significant impact on the profitability ratio (Model 1) which differs from the results of the previous study by Shaista and Hanimas (2010) revealing that inflation and GDP affect profitability of Islamic banks in Malaysia. However, the research study by Muhamad, and Abdelhakim (2013) found that inflation rate has a negative significant effect in determining bank's profitability which has a similar outcome as the current regression results.

5. Conclusion

The comparative analysis concludes that Islamic banks have performed well for the 5 years period under review corresponding to the recent global financial crisis. The analysis results showed an increase on bank's profitability in year 2011 and it is expected in the future Islamic banks would surpass the profitability level. Islamic banks should have a better capacity of absorbing financial crises and shrinking the impaired losses although it was just 10% for majority Islamic banks identified except for Bank Islam Malaysia Berhad between year 2007 to year 2009. As for the log-linear regression between nominal GDP and inflation rate as the dependent variables, the results showed that nominal GDP has significant and positive impact on ROAA and liquidity ratio and EQL (equity to total liquidity). However, as for inflation rate, surprisingly the results showed that the inflation rate has negative correlation with profitability ratio (ROAE and ROAA).

This study is still subject to a number of limitations. There was a constraint on the information needed for this study which was not available from the possible sources. This has led to the constraint of time series period data on some of the economic

variables. Meanwhile, this study covers the time-period spanning 2007 to 2011 and shows the impact of macroeconomic variables on nominal GDP and inflation rate in the long run whereby the study was more exposed to primary research. The relationship of variables with nominal GDP and inflation rate could have been analysed by using more sophisticated research tools instead of basic linear regression analysis. Accordingly, future studies may require the use of DEA analysis in studying the impact of nominal GDP and inflation rate on other variables.

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