DETERMINANTS FACTOR OF HOUSING LOAN/HOUSE FINANCING PRICING: COMPARATIVE EVALUATION BETWEEN CONVENTIONAL AND ISLAMIC BANK IN MALAYSIA.

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Abstract

The demand for house in Malaysia is increase due to the increasing of population and their life style. Furthermore, buying a house is one of the methods of long term investment. Due to that, financial institutions in Malaysia was competing each other in offering housing loan/house financing to the customer. Financial systems in Malaysia has divided into two major systems which is Conventional and Islamic system, so, this financing also divided into two which are housing loan for conventional and house financing in Islamic. Thus, the purpose of this study is to investigate the factors considered by banks in determining housing loan/house financing price; whereby a comparative evaluation will conduct between Conventional Bank and Islamic Bank. Net interest margin is using as a proxy to housing loan/house financing interest rate. To achieve the objective, this study employs the convergent interview and regression of the model. Software of Statistical Package for Social Science (SPSS) version 20 will be used as analysis technique to analyzed data.

Keywords: Loan Pricing, Housing Loan, House Financing

1. INTRODUCTION

Malaysian financial system opens to foreign-owned banking institutions to operate in Malaysia for decades. This operation has been a pioneer in the development of the Malaysian financial system. Various efforts have been made to strengthen the resilience and competitiveness of domestic financial institutions in which it has led to the emergence of Malaysia’s banking institutions. This has been proved by performance indicators improved significantly over the past few years (Bank Negara Malaysia, 2012).

Besides, Malaysia also developed dual financial for a long time ago (Mohamed, 1996) which is conventional and Islamic banking system. In the financial system, bank lending is an important role as the major source of funds and liquidity for the private sector in Malaysia (Public Bank Economic Review, 2002). As the main mobilize of funds in the economy, the banking sector is able to support the increasing financing required by business and economic activities in Malaysia.

As a central bank, Bank Negara Malaysia has stated that financing institutions need to give more attention to housing sector in their financing activity (Tajuddin, 1993: 75). Attention from the government
to housing sector included two levels which are supply and demand of the houses. At the supply level, the government has organized many programs such as built more low cost houses for low income people (Peh, 1993: 593). To cope with the increasing demand for the houses, the government has directed financial just to provide financing or credit facilities to the buyers. These facilities are provided especially to low income people who do not have enough income to buy a house.

An ordinary conventional housing loan is given on the basis of debtor/creditor relationship, whereby, interest is charged on the amount of loan. Normally, interest rate is quoted at a certain percentage above Base Lending Rate (BLR) over a loan period. The loan is repayable in periodic installments. The BLR will fluctuate and it will affect the total loan cost. Simultaneously, arrears in conventional loans are normally capitalized. However, under the Islamic banking scheme, since BBA concept is being applied, a seller buyer relationship is established and the selling price is fixed upfront. The sales price is then repaid in periodic installments and the agreed installment will remain fixed throughout the financing period. Furthermore, arrears will not be capitalized.

This clear distinction is based on the foundation of Islamic banking as stated in the Quran verse 2:275, "Trade is like usury". But Allah SWT has permitted trade and forbidden usury. The Quranic foundation has resulted in one of the most important characteristics of Islamic financing where it is based on asset-backed financing and it places the importance of underlying assets in the contract. Islamic financing works on the basis of buying and selling, whereby the bank purchases the property and subsequently sells to the customer above the purchasing price. Since the cost of financing is fixed, the interest rate risk on loan is avoided.

1.1 OBJECTIVES AND JUSTIFICATION OF THE STUDY

This study is will be conduct with respect to the factors effecting housing loan pricing in conventional bank and Islamic bank. The main objective of this study is to identify the affected factors consider by the banks in order to determine the housing loan interest rate/Islamic financing rate. Data is collected through interviews and annual report of each bank. The specific objectives include:

1. To analyze relationship between loan pricing (NIM) and its predictors.
2. To identify the factors in determining housing loan pricing in conventional bank and Islamic banks.
3. To review the factors which influence the loan pricing (NIM)

The reason why this study is conducted is to identify the factors considered by the bank in order to price the house financing/loan. By conducting this study we can understand how financial intermediaries or banking sector make pricing decisions, and we will point out which factor(s) may affect the interest rate or housing loan/house financing price. This study also motivated based on three objectives which are house as a need for individual, housing policy as an impact on the economic and fulfillment the housing needs: Malaysian government policy.

2. LITERATURE REVIEW

2.1 Net Interest Margin (NIM)

Gracia (2010) study the factors influence net interest margin, comparison between developed and developing countries for period 2001 -2008. He found that, the positive and significant relationship to net interest margin are other operating expenses, capital adequacy ratio, interaction between credit risk and market risk, and implicit interest payment.
Ahmad.N, Ariff.M (2004) stated in their study that key determinant of the bank net interest margin is changes in assets and liabilities due to interest rate shock. In this study also, the authors found that interest rate is the main factor in determining bank performance. The profits that bank earn from lending to borrowers are risky owing in part to changes in interest rate risk in financial market. Due to that, bank will be in interest rate risk when changes in market interest rate cause bank profits to fluctuate (Hubbard, 2002).

Angbazo (1997) found in his research that the empirical model for the net interest margin is expected to be a function of the following variables: default risk, interest rate risk, an interaction between default and interest risk, liquidity risk, leverage, implicit interest payments, opportunity cost of non-interest bearing reserves, management efficiency, and a dummy for states with branch restrictions.

2.2 Base Lending Rate (BLR)

For this study, we use BLR as a proxy to market interest rate. There is some evidence of price rigidity in local deposit markets with decreases in deposit interest rates being more likely than increases in these rates in the face of changes in the market interest rate (Hannan and Berger, 1991). One reason for such behavior is market concentration: banks in concentrated markets were found to exacerbate the asymmetric adjustments (Neumark and Sharpe, 1992).

Study conducted by Gracia (2010) on the net interest margin determinants in developed and developing countries found that the relationship between net interest margin and interest rate risk is negative. This is support by Liebeg and Schwaiger (2006), where they mentioned that higher interest rate risk will increase the likelihood of default. Meanwhile, Brock and Rojaz-Suarez (2000) in their study suggest that Net Interest Margin may have an inverse relationship with interest rate risk.

2.3 Capital Adequacy Ratio (CAR)

CAR is used as a proxy for capital requirement in determining NIM. The more capital the financial institution required holding against an asset and higher the cost of capital, the higher will be rate charged on asset. This aspect of the pricing decisions is discussed by De Lucia (1989). But, high capital adequacy will reflect greater banking stability and contribute to lower interest rate margins (Horvath, 2009; Hawtrey and Liang, 2008). Capital requirement can arise from regulations such as the BIS capital adequacy requirements or from internal management rules arising from, for example, a VAR (value at risk) analysis. The cost of capital is the rate that financial institution must earn on their equity to satisfy the investor who supplies it. Angbazo (1997) in his study mention that capital base to total assets or leverage of the banks in America is positively related to net interest margin.

This finding is consistent with finance theory that substituting equity for debt reduces the risk of insolvency. A high average capital requirement will have similar affect to those of high and punitive reserve requirements. It will force the institution to charge a high rate and reduce its competitiveness relative to institution which is not subject to the capital requirement. Meanwhile, in the study done by Ahmad.N, Afirr.M (2004), they use CAR as a proxy for the risk of insolvency.

2.4 Loan loss provision (LLP)

Another factor that considered by the bank is loan loss provision to total loan (LLP). LLP is using by Valentine T (1990) in his study to measure the default risk. In his study, he mentions that the percentage rate of default on loans refers to the average rate of default on loans of the type in
question. If the financial institution makes a large number of loans, this component of the price will cover the average losses incurred.

Angbazo (1997) in his study mention that banks with more risky loans and higher interest rate risk exposure would select higher loan and deposit rate in order to achieve higher desired bank rate spread. One component of the spread is the premium from probability of loan default or credit risk (Ho and Saunder, 1981; Kramer 2002).

2.5 Required reserve (RR)

According to Valentine T (1990) rate charge on an asset such as loan increase as the required reserve increases and as the return paid on the required reserve falls relative to the cost of fund. If the yield earned on required reserves involved no penalty (ie. It is equal to the cost of funds), the reserve requirement has no impact on the rate charged on assets.

The finding in his study shows that the penalty imposed by the reserve requirement is passed onto customer to an extend that depends on the elasticity of demand in the market concerned. A high reserve requirement or involving a positively low return forces the institution to earn a correspondingly high return on its assets.

2.6 Gross Domestic Product (GDP)

Black et.al(1996) in their study noted that the lead of unemployment rate and GDP growth are used to control for aggregate demand; the real interest rate lagged six month and the rate of inflation are include as variables cost; current employment reflects the opportunity cost of self-employment; the ratio of the current level of the index of real house prices to that at the time the cohort was born is included as a proxy for appreciation in the value of any collateral pledged at the startup date.

In a comprehensive study, Demirgüç-Kunt and Huizinga (1999) investigate the determinants of bank interest margins using bank-level data for 80 countries in the years 1988-1995. The set of regressors include several variables accounting for bank characteristics, macroeconomic conditions, explicit and implicit bank taxation, deposit insurance regulation, overall financial structure, and underlying legal and institutional indicators.

2.7 Consumer Price Index (CPI)

Consumer price index is using as a proxy to determine inflation for this study. According to Balck et al (1996) in his study used inflation as one of the factor in determining housing prices. Brock and Rojas-Suarez (2000) run a regression for the measure of “pure” bank spreads on macroeconomic variables reflecting interest rate volatility, inflation rate and GDP growth rate. Their results shown that interest rate volatility increases bank spread in Bolivia and Chile; the same happens with inflation in Colombia, Chile and Peru. For the other cases, the coefficients are not statistically significant.

High inflation is associated with high nominal interest rates and may also be viewed as a proxy for poor macroeconomic management. High inflation is often associated with higher relative price volatility, which makes the accurate assessment of credit and market risks more difficult. On the other hand, a significant and rapid reduction in the rate of inflation could lead to lower nominal income and cash flows, affecting the liquidity and solvency of financial institutions. Study done by Dumičić and Ridzak (2012) found that inflation have a positive relation with net interest margin.

2.8 Loan to Deposit Ratio (LD)

Loan to deposit ratio is getting from total loan over total deposits. If the ratio is too high, it means that banks might not have enough liquidity to cover any
unforeseen fund requirements; if the ratio is too low, banks may not be earning as much as they could be. Study done by Ahmad.N and Ariff.M(2004) found that loan to deposit ratio is positive and significant for bank in six Asean countries. According to Thilainathan (1997) and Obiyathullah (1998), leverage for Malaysian banks is explained by the proportion of their loans to the size of deposits.

Claeys and Vander Vennet (2008), argues in his study that the capital adequacy ratio is a standard proxy for the creditworthiness of banks. Capital adequacy rules set by the regulator in order to prevent banks from accepting too much risk and ensure the stability of banking sector.

2.9 Natural log of Earning Assets

The natural log of earning assets (Earning assets = Total assets – non earning assets) is used to estimate the components of the loan pricing. The study done by Ahmad.N and Ariff.M(2004) mention that earning assets is used to estimate the components of the interest margins that are attributable to management quality. This is suggesting by Angbazo (1997), and Tripe (2002).

3. METHODOLOGY

This study is conducted to test the hypothesis and develop relationship between dependent variable and independent variables. The populations of this study are all the local commercial banks in Malaysia. There are 8 Conventional commercial banks and 10 Islamic commercial banks. For this study, researcher only uses six (6) banks namely; Bank Islam Malaysia Berhad, Bank Muamalat Malaysia Berhad, Maybank Islamic Bank Berhad, CIMB Bank Berhad, Public Bank Berhad and Malayan Banking Berhad. These six (6) banks will be group in 2 groups as table below:

<table>
<thead>
<tr>
<th>Conventional Banks</th>
<th>Islamic Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>• CIMB Bank Berhad</td>
<td>• Bank Islam Malaysia Berhad (BIMB),</td>
</tr>
<tr>
<td>• Public Bank Berhad</td>
<td>• Bank Muamalat Malaysia Berhad (BMMB)</td>
</tr>
<tr>
<td>• Malayan Banking Berhad</td>
<td>• Maybank Islamic Bank Berhad,</td>
</tr>
</tbody>
</table>

CIMB Bank Berhad, Public Bank Berhad and Malayan Banking Berhad are selected because they are anchor bank and have a strong asset after merger in Malaysia. Meanwhile, researcher selects Maybank as an Islamic bank group because Maybank became the largest Islamic banking operator in the country with total assets RM 21.9 billion (Maybank Annual Report, 2005). For Bank Islam Malaysia Berhad and Bank Muamalat Malaysia Berhad, we already knew that these two banks are Islamic banks in Malaysia.

In order to achieve the purpose of the study, two approaches has been selected which are, convergent interview and multivariate linear regression. The data from financial statement of each bank will be used in
order to test the multivariate regression. Meanwhile, convergent interview will conducted to counter check the result from the regression result. This study will used a SPSS software version 20 as analysis technique to analyzed data.

The secondary data from annual reports of the banks comprises loan loss provision, required reserve, total deposit, total loan, earning assets. The data are collected and calculated into financial ratio. These financial ratios are proxies for factors identified in the literature to determine the loan pricing. The definition of each ratio is as follows:

<table>
<thead>
<tr>
<th>Ratio</th>
<th>Definition (formula)</th>
<th>Proxy for</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIM</td>
<td>Net Interest Income</td>
<td>Loan pricing</td>
</tr>
<tr>
<td></td>
<td>---------------------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td>Earning Assets</td>
<td></td>
</tr>
<tr>
<td>LLP</td>
<td>Loan Loss Provision</td>
<td>Risk</td>
</tr>
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<td></td>
<td>---------------------</td>
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</tr>
<tr>
<td></td>
<td>Total Loan</td>
<td></td>
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<tr>
<td></td>
<td>Total Loan</td>
<td></td>
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<tr>
<td></td>
<td>Total Deposit</td>
<td></td>
</tr>
<tr>
<td>LD</td>
<td>Total Loan</td>
<td>Leverage</td>
</tr>
<tr>
<td></td>
<td>---------------------</td>
<td>-------------</td>
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<tr>
<td></td>
<td>Total Deposit</td>
<td></td>
</tr>
<tr>
<td>RR</td>
<td>Reserve</td>
<td>Reserve</td>
</tr>
<tr>
<td></td>
<td>---------------------</td>
<td>-------------</td>
</tr>
<tr>
<td></td>
<td>Total Deposit</td>
<td></td>
</tr>
<tr>
<td>LNEA</td>
<td>Total assets – non earning assets</td>
<td>Natural log of earning assets</td>
</tr>
<tr>
<td>CPI</td>
<td>Consumer Price Index</td>
<td>Inflation</td>
</tr>
<tr>
<td>BLR</td>
<td>Base Lending Rate</td>
<td>Market interest rate</td>
</tr>
<tr>
<td>CAR</td>
<td>Risk weighted capital ratio</td>
<td>Capital requirements</td>
</tr>
<tr>
<td>GDP</td>
<td>Gross domestic product</td>
<td>Gross Domestic Product</td>
</tr>
</tbody>
</table>
The theoretical framework for this study is as follow:

Figure 1: Theoretical framework of the loan pricing and predictors

Source: literature review

The hypotheses for this study are:

- **H$_{1A}$**: There is positive relationship between Based Lending Rates (BLR) and the loan pricing (NIM).
- **H$_{1B}$**: There is positive relationship between Capital Adequacy Ratio (CAR) and loan pricing (NIM).
- **H$_{1C}$**: There is positive relationship between Loan Loss Provision (LLP) and loan pricing (NIM).
- **H$_{1D}$**: There is positive relationship between Required Reserve (RR) and loan pricing (NIM).
- **H$_{1E}$**: There is positive relationship between GDP Growth (GDP) and loan pricing (NIM).
- **H$_{1F}$**: There is positive relationship between Consumer Price Index (CPI) and loan pricing (NIM).
- **H$_{1G}$**: There is positive relationship between Loan to Deposit Ratio (LD) and loan pricing (NIM).
- **H$_{1H}$**: There is positive relationship between Log Earning Assets (LNEA) and loan pricing (NIM).

**H$_2$**: Independent variables show a significant influence to dependent variable.

**H$_3$**: BLR, CAR, LLP, RR, GDP, CPI, LD and LNEA have an influence on the loan pricing (NIM)
For this study researcher has developed a multiple linear regression model. The purpose of this regression is to know the relationship between independent variables and dependent variable more specifically. The mathematical expression of the relationship between NIM and its predictors is as follow:

\[
\text{Loan Pricing}_{i,t} = \beta_1 + \beta_2 \text{BLR}_{i,t} + \beta_3 \text{CAR}_{i,j} + \beta_4 \text{LLP}_{i,j} + \beta_5 \text{RR}_{i,j} + \beta_6 \text{GDP}_{i,j} + \beta_7 \text{CPI}_{i,j} + \beta_8 \text{LD}_{i,j} + \beta_9 \text{LNEA}_{i,j} + \varepsilon
\]

where NIM_{i,t} is the net interest margin of bank i at time t. The NIM is calculated as the difference between interest income and interest expenses.

<table>
<thead>
<tr>
<th>BLR</th>
<th>= Based Lending Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR</td>
<td>= Capital Adequacy Ratio</td>
</tr>
<tr>
<td>LLP</td>
<td>= Loan Loss Provision</td>
</tr>
<tr>
<td>RR</td>
<td>= Required Reserve</td>
</tr>
<tr>
<td>GDP</td>
<td>= Gross Domestic Product</td>
</tr>
<tr>
<td>CPI</td>
<td>= Consumer Price Index</td>
</tr>
<tr>
<td>LD</td>
<td>= Loan to Deposit Ratio</td>
</tr>
<tr>
<td>LNEA</td>
<td>= Natural log of Earning Assets</td>
</tr>
</tbody>
</table>

4. CONCLUSION

Based on the literature review and previous studies, there are many differences in the findings and the use of different variables in each study. Because of this, researcher tried to gather all the variables found in different studies to see if there is a difference or finding a new relationship between NIM and its predictors. From this study also, researcher try to get some information about the increasing demand of housing loan/financing. What are the special factors that cause an increase in loan demand among consumers? For further research, the researcher opines that some more works need to be done to do better in evaluation on housing loan/house financing in Malaysia. The research could be conducted to analyze in other perception or using other evaluation techniques. The new research also proposed to use a larger sample size for accuracy in research findings. Further research may find new factors considered by the financial institution in their loan or financing price.

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