THE DETERMINANTS OF NET INTEREST MARGIN: AN EMPIRICAL STUDY OF INDONESIA CATEGORY-IV BANKS FOR THE PERIOD OF 2014-2017

Chandra Setiawan, President University
Ni Made Maylananda Maharani Wisna, President University

ABSTRACT

Bank's net interest margin (NIM) become key indicator on how it performs its intermediary function. NIM comes up from internal and external determinants. This research aims to analyze those determinants of NIM for Indonesia Category-IV banks in 2014-2017. The internal determinants used are Loan to Deposit Ratio, Operating Efficiency Ratio, and Capital Adequacy Ratio. Meanwhile, the external determinants are Interest Rate volatility and Inflation. It uses four Indonesia's Category-IV banks which chosen by purposive sampling methodology based on criteria set with quarterly time horizon. The statistical approach being used is panel least square fixed effect model. It reveals that Loan to Deposit Ratio, Operating Efficiency Ratio, and Inflation have positive significant influence towards NIM. Oppositely, Capital Adequacy Ratio shows negative significant influence while Interest Rate volatility contributes insignificantly. The overall findings underlined that contribution of internal factors are consistent in affecting the value of NIM in significant way.

Keywords: Capital Adequacy Ratio, Category-IV Banks, Inflation Rate, Interest Rate Volatility, Intermediary, Loan to Deposit Ratio, Net Interest Margin, Operating Efficiency Ratio.

INTRODUCTION

Background

The whole economic system consists of numerous sectors in which financial system and sector is a part of it. Financial system stability holds a very crucial role within the country economic condition to maintain sustainable economy. As a sub-system of economic system, it has a function to allocate the funds from surplus parties to the deficit parties. Financial system that is unstable and inefficient can hamper the economic growth (Bank Indonesia, 2018).

Refers to Indonesia Financial System Statistic data by Bank Indonesia, banking as financial institution is still dominating the financial service sector. It is indicated by the number of banking industry's total assets per December 2017 is amounted up to 77.28% of the whole financial sector total assets while the non-banking institution contributes only 22.72% within the same period.

In addition, as refers to Indonesia Banking Statistic 2017, commercial banks still become the largest fund channeling institution in Indonesia. The data shows that 98.07% of fund disbursement is carried out by commercial banks, while 1.66% by rural banks, and 0.27% through SBI and SBIS. Furthermore, for more specific, the commercial banks' market share is dominated by Category-IV banks in which during 2014 to 2017, their market share is valued within 45%-52% (Table 1).

Table 1 INDONESIA CATEGORY-IV BANKSMARKETSHARE 2014-2017				
	2014	**2015**	**2016**	**2017**
CommercialBanksAssets (In Bn IDR)	5,410,190	5,915,724	6,475,618	7,099,598
Category-IV BanksAssets (In Bn IDR)	2,477,677	2,728,358	3,120,003	3,729,446
ContributionofCategory-IV BanksAssetsto Total Assets (In %)	45,79%	46,12%	48,18%	52,53%

Source: Indonesia Banking Statistic 2017 (OJK)

The domination of bank financial institution especially commercial banks within the financial service sector in Indonesia indicates the high importance of banking industry towards the Indonesia economic development. According to Central Bank of Indonesia, in the condition when banks able to run its financial intermediation function in an efficient way, they will support and boost the economic growth of a country (Bank Indonesia, 2018).

The context of bank ability in performing the intermediation function can be providing using net interest margin (NIM) ratio. Refers to Table 2 below, the average of Net Interest Margin (NIM) of banks in Indonesia is comparatively higher compared to other ASEAN countries (stand in Top 2 during 2014 to 2017).

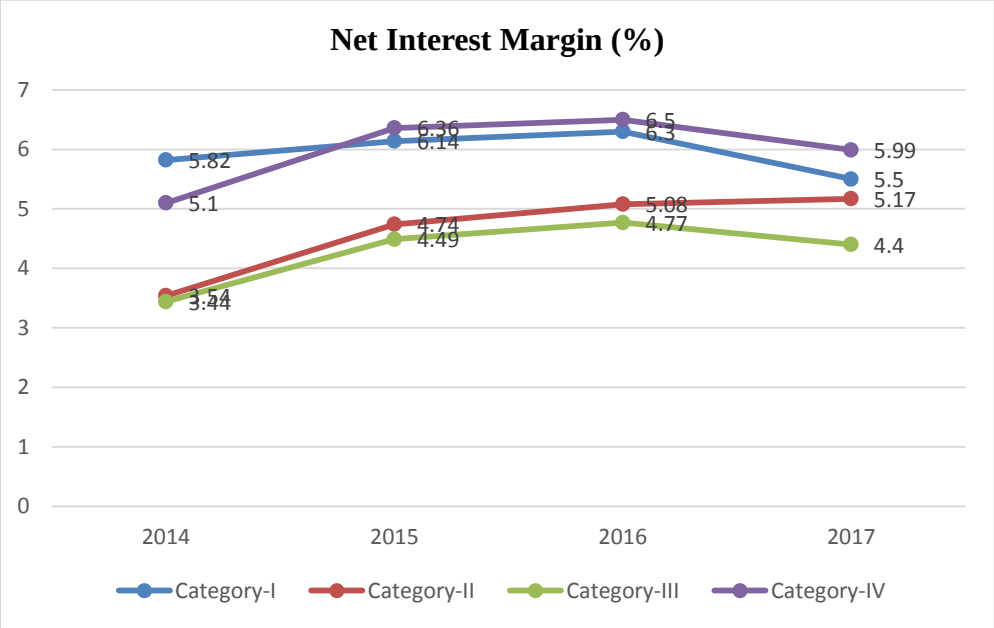
Table 2 AVAILABLE PUBLISHED ASEAN BANK NIM 2013-2017 (IN %)				
	2014	**2015**	**2016**	**2017**
Cambodia	5.94	6.59	6.15	5.54
Indonesia	5.68	5.70	6.39	6.03
Laos	2.99	3.67	3.33	3.64
Malaysia	2.45	1.80	1.93	2.26
Myanmar	1.61	0.63	1.85	2.91
Philippines	3.44	3.31	3.31	4.06
Singapore	1.52	1.42	1.39	1.88
Thailand	2.95	2.72	2.94	3.49
Vietnam	2.53	2.93	2.99	3.62

Source: The global economy for other countries and OJK for Indonesia

To more specific, the NIM of Category-IV banks in fact shows an incline and hold the highest NIM compared to other categories of conventional commercial banks in Indonesia. As refers to following table, a starter growth throughout 2014 led Category-IV banks to have standout NIM in 2015 and remain high up to 2017. The fact that Category-IV banks dominate market share of Indonesia commercial banks around 50% and how they start to performs significant increase of NIM starting 2014 leads researcher to use Category-IV banks as the sample of research. Moreover, it turns out to use year of 2014 as the beginning year of research study and carrying forward to the next 3 year at the time Category-IV banks perform as the highest NIM holder.

High NIM is likely to be associated to the existence of bank inefficiency, especially in developing countries. It is underlined by a main reason that banks attempt to cut the costs by acquiring assets through high interest income thus technically will transfer the managerial expenses to the bank's customers resulting high interest rate charged and higher margin (Aysen, 2013). This statement is in line with the effort taken by Financial Service Authority (OJK) of Indonesia together with Central Bank of Indonesia. Banking authorities in Indonesia has been

trying to encourage commercial banks to lower NIM and loan interest rates at a reasonable level (OJK, 2016). Net Interest Margin itself is a proxy that can be used to represent both profitability and efficiency. Therefore, the interpretation towards high value of NIM would be variety. These such as either it represents a better earning collected by bank through better lending practice in distributing loan or it tends to reflect lower level of bank efficiency (Figure 1).



Source: Indonesia Banking Statistic 2017 (OJK)

FIGURE 1
INDONESIA COMMERCIALBANKS' NIM 2014-2017

The fact through the data presented below shows the majority incline of Operating Efficiency Ratio from 2014 to 2017 reflected by Operating Expense to Operating Income ratio where this condition reflects the incline of in efficiency (Table 3).

Table 3
INDONESIA OPERATINGEFFICIENCYRATIO 2013 - 2017

	2014	2015	2016	2017
Indonesia	76,29%	81,49%	82,22%	78,64%

Source: Indonesia Banking Statistic 2017(OJK)

The major market-share holder (Category-IV banks) stand as the group of banks with better efficiency compared to other groups in Indonesia. However, even Category-IV is the most efficient group with these numbers below, it is still less efficient compared to ASEAN neighbor. Cost to income ratio differs widely among ASEAN's banking industry. As per researched by 2015, Indonesia's ratio is much higher than the average cost to income ratio in ASEAN which is only around 40-60% (Yohanes & Astriana, 2015) (Table 4).

Table 4
INDONESIA COMMERCIALBANKS OER 2014 - 2017

	2014	2015	2016	2017
Category-I	85.26%	85.86%	88.09%	87.31%

Category-II	81.04%	85.48%	85.38%	86.40%
Category-III	84.67%	90.71%	89.33%	86.07%
Category-IV	67.10%	70.46%	75.05%	70.31%

Source: Indonesia Banking Statistic 2017 (OJK)

This finding leads researchers to utilize the Operating Efficiency Ratio variable to be examined regarding its relevancy towards NIM to figure out first research question on how this most efficient group among others responding to its NIM if any changes in cost efficiency occurred. Other variables incorporated are taken according to the basic understanding on how actually bank modelled as a dealer with risk adverse characteristic facing asymmetry loan market and third-party fund market which exposed to interest rate volatility in money market (Williams, 2007).

Therefore, researcher utilizes Capital Adequacy Ratio (CAR) represents risk-averse of bank, Loan to Deposit Ratio (LDR) to represent banks that stand as intermediary for loan market and third party fund market, and Interest Rate volatility are examined as well. Inflation rate variable is added to represent macroeconomic condition. Jorgensen & Apostolou (2013) figures out macroeconomic factors are relevant to describe bank interest margin and inflation rate is the main macroeconomic determinants. It is in line with the research done by Achille Fofack, which stated that among numerous macroeconomic factors, inflation variable is the most relevant determinant of bank interest margin, especially in developing countries (Fofack, 2016).

In recent years, the research about Net Interest Margin has been widely studied by numerous academic and research professional parties across countries. The findings reveal inconsistent result due to different countries and banks samples driven by different factors. Furthermore, the use of interest rate volatility variable as per observed by researcher recognized to be less in Indonesia study. These reflect gaps thus further research need to be conducted.

Throughout this research, researcher use several common variables which have been widely used by other researcher for Indonesia study namely Loan to Deposit Ratio, Capital Adequacy Ratio, Operating Efficiency Ratio, and Inflation. Researcher decided to bring up one less used variables in Indonesia study which is interest rate volatility to fill in the gap and come up with new finding. All the variables used intended to respond the second research question regarding which one between internal and external determinants most sensitively influence NIM of these banks.

This paper is structured with Section 1 discussing on the research background, Section 2 elaborating the research methodology, Section 3 discussing the empirical results, and Section 4 for conclusions.

LITERATURE REVIEW

Research on net interest margins is one of the topics that is widely studied in the banking industry. Ho & Saunder's (1981) study serves as the pioneer in analyzing net interest margins by modeling bank as an institution with intermediary function among the loans and third party fund market. This scheme then known as a “dealer” model among the depositors and borrowers. The spread of deposit rates and the lending rates is described as the fee to serve the intermediation function under the condition of uncertainty of deposit supplies and loan demands. Firstly, Ho & Saunders (1981) recognize these two basic understanding on: how bank acts as a risk-averse institution and how bank is exposed by the uncertainty in the money market in a form of asymmetry deposit supplies and demand of loans which leads to interest rate volatility. As its

development, NIM determinants eventually come up from bank characteristic, industry, and macroeconomic factors (Williams, 2007).

Gesang et al. (2014) declared LDR reflects the liquidity concern of a bank in which the greater the ratio indicates the lower the capacity of bank liquidity. Trade-off between liquidity and profitability lead to the condition where banks must provide liquid assets (idle funds) to maintain liquidity, but on the other hand these funds when used for lending will yield higher returns for bank as income generated from the interest income growth (Judisseno, 2005).

Operating Expense to Operating Income is one indicator that measures the level of management efficiency of a bank. The greater the value of OER indicates the lower bank operating efficiency. Theory by Plakalovic & Alihodzic (2015) stated that banks with less efficiency are having higher NIM as they expected to transmit the cost of inefficiency incurred to the customers.

Gesang et al. (2014) defined CAR as a measure of capital adequacy held by bank which is used to compensate the overall prospective risks attached to their earning assets calculated by dividing the total capital to total risk-weighted assets. Theory of risk-aversion model by Ho and Saunders stated that the higher the risk-aversion level of a bank, the higher margin set by them as the nature of bank which avoids the risk (Williams, 2007). Meanwhile, theory by Akinlo & Owayemi (2012) stated that capital adequacy contributes negative relation on bank interest margin. Roman Horvath (2009) also stated when a bank is having greater capital adequacy; it is likely to be connected to smaller value of interest margins. Brock and Franken as cited from research of Horvath (2009) claimed the motivation to be attached on higher risk is coming from less-capitalized banks as they expect to generate higher return as the compensation. Thus, less-capitalized bank claimed to be relevant with higher margin. Ahokpossi (2013) also adding that well-capitalized banks deal with lower borrowing cost as well as lower risk of bankruptcy which leads to the creation of lower margins

Bank in serving as an intermediary function deals with asymmetry and uncertainty in the supply of deposit and demand of loan. Thus, when the mismatch happen, bank will cope the mismatch by dealing with the money market which exposed to the uncertainty and risk (Williams, 2007). According to theory from Ho & Saunder (1981) as developed by McShane and Sharpe (1985) regarding money market interest rate volatility, this variable should give a positive sign result towards the NIM. This positive sign means, within a cateris paribus condition, greater volatility represents a greater risk and uncertainty faced in the money market, means greater intermediation margin is required to compensate the risk (Cruz-Gracia et al., 2017). Afzal (2012) found that a positive sign is definitely exist to represent the relation of interest rate volatility and NIM but insignificant relation occurs in the sample he observed. It is justified as a result of sample uniqueness or characteristics. In Indonesia, interbank rate represents the condition in the money market. Money market serves as the first transmission of the monetary policy rate that eventually will affect the third-party fund, credit market of the bankand finally the NIM value. However, the process of transmitting interbank rate to influence bank interest rate generally does not take place immediately, but there is a time lag considering bank internal factors (Warjiyo, 2004).

Inflation rate is considered as one of macroeconomic variables which has been used in numerous banking research including the research regarding bank interest margin. Jorgensen and Apostolou (2013) figures out macroeconomic factors are relevant to describe bank interest margin and inflation rate is the main macroeconomic determinants. It is in line with the research done by Achille Fofack, which stated that among numerous macroeconomic factors, inflation

variable is the most relevant determinant of bank interest margin, especially in developing countries (Fofack, 2016). Perry (1992) as written in Daniel K. Tarus et al., (2012) stated that the influence of inflation towards Net Interest Margin depends on whether or not the inflation is anticipated. Under the condition of anticipated inflation, bank parties able to adjust the interest rate directly thus increasing the value of NIM. Meanwhile, a non- anticipated inflation leads to the lower margin as banks might taking longer time in adjusting the interest rate. Hence, it affects NIM negatively due to the additional cost incurred under the condition of inflation. Under the elevated inflation period, debtors or borrowers with high risk profile those who are most likely attached to loans default are entering the market (Aysen Doran, 2013).

RESEARCH METHOD

Sampling and Data Collection Method

This research implements the quantitative approach which is a research method that gathers data in form of numerical data. The quantitative model applies deductive process which means the development of the hypotheses is refers to the theory to define how each of independent variables influences the dependent variable itself. Hypotheses decision regarding the rejection or acceptance will be underlined by the result of the data from the hypotheses testing (Sekaran & Bougie, 2013).

The sampling is designed by implementing the non-probability sampling method which is the purposive sampling. It is explained as sampling method that utilizes people own judgement to choose the sample (Greener, 2008). Samples used are all of commercial banks which are listed as Indonesia Category-IV during the period observed (2014-2017) that fully published the quartal report. With the aforementioned criterias, researcher obtains 4 banks as observation samples namely PT Bank Central Asia Tbk, PT Bank Mandiri Tbk, PT Bank Negara Indonesia Tbk, and PT Bank Rakyat Indonesia Tbk. This research utilizes secondary data which is collected from respective bank quartal report, Central Bank of Indonesia, Financial Service Authority (OJK), and Central Bureaus of Statistics (BPS) Indonesia.

Research Instrument

The main analysis tool used in this research is statistical tool Eviews (Econometric Views) version 9. This research uses Eviews to process the raw data statistically in order to get result to be interpreted. Eviews is software with a function to serve as data analysis platform which perform regression analysis on statistical data (Eviews, 2017).

Explaining Model of Study

This research combines both time series and cross-section thus researcher use data type which can accommodate this, namely panel data. On thelesserextent, panel data has bothspaceandtimedimensions. Panel data approachimplementedwithinthisresearch study isthebalanced panel data in whichthenumberofobservationsforboththeseriesandcross-sectionunits are the same (Gujarati, 2003).

Time series in this research covers the period of 2014-2017 quarterly which are equal to 16 time-series data (four years times by four quartal per year). While, the number of cross-section used is 4. Therefore, there are 64 data as number of observations used in this research.

According to Roscoe (1975), 30 to 500 is the proper sample size to be used for soundness of the research.

There are three alternative estimation models for panel data, which are: 1) Common Constant Model, 2) Fixed Effect Model, and 3) Random Effect Model. To decide one, Chow and Hausman test is run. Chow test is done to decide between common effect or fixed effect model (Basuki & Prawoto, 2016). Statistical result shows the probability of the chi-square is valued less than 0.05 which is 0.000. Therefore, the Fixed Effect model ischosen. Afterwards, the hausman test need to bed one to select whether Fixed effect or Common Effect model is the most suitable one. However, due to the number of cross section within this research are less than the independent variables, Hausman test is ignored and Fixed Effect Model is deliberately selected (Gujarati, 2003). Therefore, Fixed Effect Model isthemostsuitable model forthe panel regression in thisresearch.

Under panel least square fixed effect model, multiple regression analysis is run once all classical assumption tests have been fulfilled. Below is the equation form of the multiple regression analysis utilized within this research study:

$$\mathbf{NIM = \alpha + \beta_1 LDR_{it} + \beta_2 CAR_{it} + \beta_3 OER_{it} + \beta_4 INTVOL_{it} + \beta_5 INFrate_{it} + e_{it}}$$

NIM	: Net Interest Margin
LDR	: Loan to Deposit Ratio
CAR	: Capital Adequacy Ratio
OER	: Operating Efficiency Ratio
INTVOL	: Interest Rate Volatility
INFrate	: Inflation Rate (QtQ)
$\beta_1, \beta_2,..., \beta_i$	: Regression Coefficient
α	: Constanta, as the value of Y when all X equals to zero.
e	: standard error
i	: number banks in total
t	: number observations for each bank in total

Estimation of the Determinants of Net Interest Margin

Inside this research, the variables are divided into two types based on its relationship, which are the dependent variable represented by Net Interest Margin (Y) and the independent variables represented by Loan to Deposit Ratio (X1), Operating Efficiency Ratio (X2), Capital Adequacy Ratio (X3), Interest Rate volatility (X4), and Inflation Rate (X5). The researcher aims to see any partial influence from each independent variable towards dependent variable. Accordingly, the simultaneous influence from all independent variables under multiple regression analysis, T-test is conducted to investigate the partial influence of each independent variable by measuring its value of significance. Whereas, F-test is applied to check the simultaneous influence towards the dependent variable. In addition to this, the adjusted R square is recognized to figure out the value of the independent variables variation in explaining the dependent variable itself.

The type and definition of each variable used in this study can be completely seen in the following Table 5.

Table 5 EXPLANATORY RESEARCH VARIABLES	
VARIABLE	**INDICATOR**
Net Interest Margin (NIM)	$= \frac{Annualized\ Net\ Interest\ Income}{Average\ Earning\ Assets}$ Measurement: in % Source(s): Given ratio in published Bank Report
Loan to Deposit Ratio (LDR)	$= \frac{Total\ Loans}{Total\ ThirdParties\ Funds}$ Measurement: in% Source(s): Calculated from component in published bank report
Operating Efficiency Ratio (OER)	$= \frac{Operating\ Expense}{Operating\ Income}$ Measurement: in % Source(s): Calculated from component in published bank report
Capital Adequacy Ratio (CAR)	$= \frac{Total\ Capital}{Total\ Risk\ Weighted\ Assets}$ Measurement: in % Source(s): Calculated from component in published bank report
Interest Rate Volatility	*Standard deviation of monthly Interbank rate (3 months maturities) data within intended quarter.* Measurement: in % Data Source(s): SEKI BI
Inflation Rate (QtQ)	*Sum of the monthly Inflation rate within the respective quartal period* *Monthly inflation*$= \frac{CPI(m)-CPI(m-1)}{CPI(m-1)} x100\%$. Measurement: in % Data Source(s): bps.go.id

RESULTS AND DISCUSSION

Descriptive Statistics

See below Table 6 for the detail descriptive statistic result of each variable.

Table 6 DESCRIPTIVE STATISTIC RESULT (N = 64)				
	Minimum	**Maximum**	**Mean**	**Std. Deviation**
Net Interest Margin	5.410	9.060	6.693	1.009
Loan to Deposit Ratio	75.400	94.000	85.169	5.086
Operating Efficiency Ratio	58.650	87.410	69.143	5.483
Capital Adequacy Ratio	15.570	23.620	19.463	2.163
Interest Rate Volatility	0.000	0.880	0.238	0.269
Inflation Rate	-0.430	4.430	1.121	0.997

Source: Processed by Researcher by Eviews 9

Multiple Regression Analysis

Prior to multiple regression analysis, classical assumption test should be fulfilled. It covers the test of normality; multicolinearity, heteroscedasticity, and autocorrelation where all the classical assumption tests to support this research have been fulfilled. Afterwards, the chosen independent variables are processed by Eviews 9 using the Fixed Effect Model of panel data regression (Figure 2).

Figure 2
MULTIPLE REGRESSION ANALYSIS RESULT

Dependent Variable: Y_NIM				
Method: Panel Least Squares				
Sample: 2014Q1 2017Q4				
Periods included: 16				
Cross-sections included: 4				
Total panel (balanced) observations: 64				
White cross-section standard errors & covariance (d.f. corrected)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1_LDR	0.043787	0.016099	2.719854	0.0087
X2_OER	0.020757	0.008266	2.511230	0.0150
X3_CAR	-0.061897	0.024009	-2.578106	0.0126
X4_INTVOL	0.031131	0.183809	0.169364	0.8661
X5_INFLATION	0.038317	0.014708	2.605239	0.0118
C	2.682548	1.287861	2.082948	0.0419
	Effects Specification			
Cross-section fixed (dummy variables)				
R-squared	0.924085	Mean dependent var		6.692656
Adjusted R-squared	0.913043	S.D. dependent var		1.008704
S.E. of regression	0.297451	Akaike info criterion		0.542566
Sum squared resid	4.866242	Schwarz criterion		0.846159
Log likelihood	-8.362111	Hannan-Quinn criter.		0.662167
F-statistic	83.68717	Durbin-Watson stat		0.830814
Prob(F-statistic)	0.000000			

Source: Processed by Researcher by Eviews 9

Multiple regression analysis result can be concluded as follows: Loan to Deposit Ratio (LDR) has probability value less than 0.05 (0.009 < 0.05) and coefficient regression of 0.043, which means Loan to Deposit Ratio has significant and positive influence towards Net Interest Margin. Under condition when LDR increases, the loan growth are greater compared to the growth of third-party funds. It leads to the increase in the net interest income of a bank itself due to the greater growth of interest revenue collected from loan growth. It is in line with the supporting theory from Kosmidou (2008) that less liquid agents are potential to earn greater income from their aggressive loan distribution.

Operating Efficiency Ratio (OER) reflected by operating expense to operating income ratio has probability value less than 0.05 (0.015 < 0.05) and coefficient regression of 0.020, which means Operating Efficiency Ratio has significant and positive influence towards Net Interest Margin. This positive relation indicates bank behavior in transmitting the cost of operating inefficiency to the customers in form of higher margin. It is in order to compensate the greater cost made by bank operational activities. The result of this research is in line with previous finding from Aysen Doyran (2013) that higher NIM in Argentine is associated with higher operating expense and in efficiency. In addition, with in journal articles of Aysen Doyran (2013), it also in corporates the result from other developing nation which is Latin America researched by Gelos (2006) that also figured out high NIM is associated with in efficiency. Theory by Plakalovic & Alihodzic (2015) stated that banks with less efficiency (greater value of OER) are having higher NIM as they expected to transmit the cost of inefficiency incurred to the customers.

Capital Adequacy Ratio (CAR) has probability value less than 0.05 (0.013 < 0.05) and coefficient regression of -0.061, which means a significant and negative influence towards NIM

is confirmed. This negative and significant relation is supported by the findings from Akinlo & Owayemi (2012) as well as Horvath (2009). This finding is in line with the theory stated by Ahokpossi (2013) in which well-capitalized banks deal with lower borrowing cost as well as lower risk of bankruptcy. Well-capitalized banks have a stronger capital base to compensate several risks thus does not merely burden those to margin.

Interest Rate volatility has probability value more than 0.05 (0.866 > 0.05) and coefficient regression of 0.031, means the insignificant and positive influence towards Net Interest Margin is confirmed. This finding is in line with the research result of Afzal (2012); Islam & Nishiyama (2016).

The process of transmitting policy rate to interbank rate to eventually influence bank interest rate generally does not take place immediately, but there is a time lag considering the bank internal factors (Warjiyo, 2004). Withal, researcher aassume this insignificant result for bank samples in Indonesia due to the condition of volatility does not directly responded by the bank. Banks perhaps need more time to transmit the volatile interbank rate as a reference for them to set new margin. As limitation of previous research study with Indonesia banks sample which use interest rate volatility as one of independent variable, this result performs as the new finding.

Inflation Rate has probability value less than 0.05 (0.012 < 0.05) and coefficient regression of 0.038, which means Inflation Rate has significant and positive influence towards NIM. Positive relation occurs as the elevated inflation can be anticipated by the bank thus bank adjusts the greater margin sooner for the cost inflation made. This finding is in line with the research conducted by Gesang et al. (2014) and Plakalovic & Alihodzic (2015).

F-test result told that Loan to Deposit Ratio, Operating Efficiency Ratio, Capital Adequacy Ratio, Interest Rate volatility and Inflation Rate are able to explain the variation of NIM by 91.30% while the rest of 8.70% is influenced by other variables which are not examined in this study.

CONCLUSIONS

Net Interest Margin of Indonesia Category-IV Banks for period of 2014-2017 is more sensitive to be influenced by bank internal factors. It answers the objective of this research to figure out which one between internal and external determinants is more impactful in influencing NIM. From the internal factors itself, all of the variables namely Loan to Deposit Ratio, Operating Efficiency Ratio, Capital Adequacy Ratio contribute significant influence at 5% significance level to Net Interest Margin. Loan to Deposit Ratio and Operating Efficiency Ratio affect Net Interest Margin positively while the Capital Adequacy Ratio performs negative influence. Meanwhile, from the external factors itself, inflation rate is the only factor that significantly influence Net Interest Margin with positive direction. The finding about insignificant contribution of interest rate volatility for the samples within the quarterly period contributes as the new finding.

The research also answers the objective to confirm that group of banks with highest NIM and better operating efficiency in Indonesia still also perform ‘cost transmission’ behavior. As refers to statistical result, operating expense to operating income ratio and NIM show a positive relation. Meaning, greater operating expense results greater NIM. Cost or expense still managed to be transmitted to higher NIM. It is relatable to the likeliness of bank’s behavior in most of developing countries.

Even though group of banks observed are banks with better efficiency among others, researcher still come up with final remark to suggest them to be able to manage the cost as any increase in cost will be followed by an increase of NIM.

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