# THE EFFECT OF THE GAP BETWEEN RATE SENSITIVE ASSETS (RSA) AND RATE SENSITIVE LIABILITY (RSL) AND CHANGES IN INTEREST RATES GIVES IMPLICATIONS FOR NET INTEREST INCOME

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**Abstract.** In management Asset Liability Management (ALMA), banks can try look for road best in avoid possibility big loss as consequence from happening changes on level ethnic group bank interest, inflation as well as changes on mark swap a currency. Analysis in gap management also aims to go as far Possible release the bank from possibility happening mismatch caused it No liquid as well as No can fulfil his obligations party third. Method used in study This is descriptive analysis with approach studies case (case study) on the People's Precredit Bank. Research results showing partially the variables that can form net interest income are influenced by gap positions and interest rates. Then from the regression equation and the results of the t test, it means that the formation of net interest income that occurs in the company is influenced by a positive gap position (RSA > RSL) and a decrease in interest rates with a calculation system with changing interest rates (floting rate).

Keywords: gap position; interest rate; net interest income

### I. INTRODUCTION

Bank management includes management assets and Liabilities. Every credit thrown by the bank will always bring impact that is return and risk, which in turn affect assets owned by the bank [1]. Conversely, every time the bank obtains funds and parties third (giro, savings, and time deposit) sides liability of the bank concerned will affected. So, to get optimal net interest income, bank management must always sensitive to various risk banking like financial risks, operational risks, business risks and even risks. Study from experience bad banking national since crisis economy, everything change the will influence bank health, from Healthy become No Healthy only in snap [2]. From four group risks faced by banks, two groups risk among them that is business risk and event risk is types partial risk big No direct influenced by the performance of the bank only [3]. The risks This precisely more Lots caused by activities carried out by other parties outside the bank, such as happening change level ethnic group interest in the market, change mark exchange and policy authority monetary as well as type risk external other [4]. To cope consequences possible negative override the bank as consequence from it works various type the risks faced by the bank, then Asset Liability Management (ALMA) is step the proper anticipatory that can be carried out by bank management [5].

In management Asset Liability Management (ALMA), banks can try look for road best in avoid possibility big loss as consequence from happening changes on level ethnic group bank interest, inflation as well as changes on mark swap a currency [6]. Analysis in gap management also aims to go as far Possible release the bank from possibility happening mismatch caused it No liquid as well as No can fulfil his obligations party third [7]. How much big a bank can reach profit (Net profit), p this is so depending on success internal bank management empower and manage assets as well the liability [8]. Output managing assets and liabilities Here, there are two groups income that is originating income from reception flower (net interest income) and income out bank interest (fee based income) [9]. Net interest income comes from from interest income more tall from interest expenses, meanwhile fee-based income achieved through non-interest income and non-interest expenses that are outside function main bank [10]. To achieve Net Interest Income is strongly influenced by fluctuations level ethnic group interest rates and gap conditions between Rate Sensitivity Assets (RSA) and Rate Sensitivity Liabilities (RSL)[11]. It means when happen positive gap position (RSA > RSL) and level ethnic group interest rate goes up, then the Net Interest Income should be increase. And if the gap is negative (RSA < RSL) with level ethnic group flower increases, then the net interest income should be decreased. This in line with Bambang Djinarto's opinion in [12] If there is a positive gap means the bank's income will be move in the same direction with movement level ethnic group flowers and when If there is a negative gap, the bank's income will move with opposite direction [13].

Above conditions No in accordance with phenomena that occur at PT. BPR in Bandung, that coupled positive gap conditions with rise level ethnic group interest for 6 periods



(June 20 18 – December 20 20) it turns out, the net interest income is fluctuating and inclined decreased. With circumstances this is very important for the bank manager to continue make an effort do place the most appropriate and most optimal gap management strategy in effort get the maximum net interest income and of course that strategy must in line with happening change on gap position and level ethnic group flower, so achievement the bank's goal password. Result of study This expected implicated to management of PT BPR in Bandung to manage positive gaps towards a unidirectional net interest income with movement level ethnic group flower as well as the opposite negative gap with direction between change level ethnic group flower with net interest income.

#### **II. RESEARCH METHODS**

Method used in study This is descriptive analysis with approach studies case (case study) [14]. In study This done observation and analysis to object study that is in the form of report data financial statements (balance sheets and reports) [15]. profit loss along with other data that is not inseparable with object discussion, that is about Analysis of Gap Sensitive Assets with Liabilities and Changes in Interest Rate Implications to Net Interest Income [16]. Related with object discussion, basically divided on 2 (two) variables independent namely Gap Sensitive Assets with Liabilities (X1) and Changes in Interest Rates (X2) and 1 (one) dependent variable, namely Net Interest Income (Y).

### **III. RESULTS AND DISCUSSION**

Theoretically, in a negative gap position, bank profitability will decrease if there is an increase in interest rates [17]. Conversely, banks will experience an increase in their profitability if there is a decrease in bank interest rates. Conversely, in a positive gap position, bank profitability will increase if there is an increase in bank interest rates. Conversely, if the bank's interest rate decreases, the bank's profitability will also decrease [18]. Thus, both positive and negative gaps encourage bank managers to always develop a gap strategy that best suits their future projections regarding the development of the bank's interest rate. However, this is to find out how far the influence of the gap position and changes in interest rates has on net interest income and what the company's management should be able to do to work around this for the maximum profit for the bank. As an answer to how far the position of the gap and changes in interest rates have implications for the net interest income of the following companies, the SPSS output presentation is table 1.

Table 1. Relationship and Influence of Gap Position (X 1) and Interest Rate (X 2) on Net Interest Income (Y)

Model Summary							
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate			
1	.705 <sup>a</sup>	.497	.479	294487.14677			
a. Predictors: (Constant), Tingkat Suku Bunga, Gap							

b. Dependent Variable: Net Interest Income

Looks that coefficient correlation simple (R) of 0.705 means connection between Position Gap (X 1) and Change look Interest Rate (X 2) by simultaneous have strong and positive relationship, so give meaning that Gap Position (X 1) and Changes in Interest Rates (X 2) have connection strong and positive. It means that gap positions and changes level ethnic group flower need get attention internal bank management relation with net interest income, because variable the way together own unidirectional relationship with net interest income. It means that if happen positive gap position (Gap conditions in the average company are positive and tend to be increases) and level ethnic group flower (condition level ethnic group interest in the company tend decreased), then the net interest income will be increased (the average NII condition at Bank NBP2 Bogor increased). From the correlation value above, if squared it will produce a termination coefficient (RS quart) of 0.497 meaning that 49.70% of the overall variability of the Net Interst Income (NII) variable can be explained by the independent variables or their predictors in the form of gap positions and interest rates while the rest as much as 50.30% % is explained by independent variables that are outside this study. Then to test the hypothesis that the authors put forward that: "The position of the gap (between RSA and RSL) and changes in interest rates simultaneously have a significant relationship with net interest income in companies. The results appear in the SPSS output below.

Table 2. Hypothesis Test about Gap Position (X 1) and<br/>Changes in Interest Rates (X 2) simultaneously<br/>have a significant effect on Net Interest Income (Y).

ANOVA <sup>b</sup>									
Model		Sum of Squares	df	Mean Square	F	Sig.			
1	Regression	4886889706167.260	2	2443444853083.631	28.175	.000 <sup>a</sup>			
	Residual	4943192737993.670	57	86722679613.924					
	Total	9830082444160.930	59						
a. Predictors: (Constant), Tingkat Suku Bunga, Gap									

b. Dependent Variable: Net Interest Income

The table above shows that the Sig F value is 0.000 and or F count is 28.175 > F table is 2.36. Circumstances mean H 0 is rejected and as an alternative is H 1 accepted. This means that "There is a simultaneous significant influence on the position of the gap (between the RSA and the RSL) and changes in interest rates on the net interest income of the company. Then to find out the position of the gap (between the RSA and the RSL) and changes in interest rates partially affect net interest income, this can be done through the analysis of the t test and the SPSS output shown below.

Table 3. Hypothesis Testing about Gap Position (X 1) and Changes in Interest Rates (X 2) have a significant partial effect on Net Interest Income (Y).

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	1426823.114	367693.987		3.880	.000
	Gap	1.750	.291	.568	6.008	.000
	Tingkat Suku Bunga	-53084.938	13848.442	362	-3.833	.000

a. Dependent Variable: Net Interest Income

The table above, the multiple regression equation obtained is: Net Interest Income (Y) = 1,426,823,114.139,-+1,750 X 1 + (53,084) X 2

From the above equation, information is obtained that the position of the gap (between the RSA and the RSL) and changes in interest rates partially have a significant effect on net interest income. It is intended for the two variables, namely the gap variable and changes in interest rates, that the calculated t value is greater than the t table or the significance level of the two veria is below 0.05. (it can be seen in the Sig column that the average is only 0.00). This situation means that partially the variables that can form net interest income are influenced by gap positions and interest rates. Then from the regression equation and the results of the t test above, it means that the formation of net interest income that occurs in the company is influenced by a positive gap position (RSA > RSL) and a decrease in interest rates with a calculation system with changing interest rates (floting rate). The causal factor is not unidirectional between the positive gap, and the interest rate on net interest income, that the system for determining loan interest to each debtor is more nominated with a fixed rate system, so that the net interest income achieved by the company is not much influenced by the system floting interest but with a fixed interest system [19].

## **IV. CONCLUSION**

In order for the level of net interest income to continue to be increased, the management of the bank determines the following: To achieve a positive gap, if the bank's interest rate (interest with a floting system) tends to increase, the bank will increase the RSA or reduce the RSL. Meanwhile, if the interest rate is with a fixed system, you can do it by increasing the amount of credit extended but with the condition that the short-term interest rate is higher than the long-term rate or in stable economic conditions. To achieve a negative gap, it is known that interest rates (interest with a floting system) tend to decrease. And that can be through efforts to emphasize the RSA baseline and drive up the RSL magnitude. Meanwhile, if the interest rate is with a fixed rate system, it can be done by raising funds as much as possible at the lowest interest rate, but there is a tendency if future economic conditions are not conducive. If it is known that the floting rate in a bank fluctuates unpredictably with constant movement. In this regard, there are many factors that influence it, which also fluctuate unpredictably, so the company's strategy is to try to minimize the gap as much as possible and, if possible, reach a zero position.

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