



Determinants of non-performing financing in multi-finance enterprises in Indonesia

Endang Saefudin Mubarak¹, Imanuddin², Wiwin³

¹⁻³ Faculty of Economics, Jakarta Islamic University, Jl. Balai Rakyat, Utan Kayu, Jakarta, Indonesia

Abstract

This study aims to examine the impact of inflation, the BI rate, the exchange rate, loans to asset ratio, and capital towards non performing financing within Indonesian multi-finance enterprises. The sample involved in the study included finance companies listed on the Indonesia Stock Exchange. The analysis model chosen is multiple regression using panel data. The observed data are repeated data on the same research unit from time to time. The total number of samples was 42 units and the observation period was 2011-2017. The results of this study indicate that three factors, namely the IDR exchange rate, BI rate, and loan to asset ratio (LAR), have a positive and significant effect on non performing financing. Meanwhile, both inflation and capital have a negative and significant effect on non performing financing. Simultaneously the contribution of these five factors to the non performing financing is 34.75 percent.

Keywords: inflation, interest rate, exchange rate, LAR, capital, and NPF

1. Introduction

Literature in general emphasizes that government policies in the financial sector are very important to encourage and develop the financial sector. The financial sector has a very important role in driving national economic growth. Therefore, since 1983, Indonesia has issued various policies in the financial sector with the aim of encouraging growth and increasing the efficiency of the financial sector. These various government policies have changed the constellation and the structure of the Indonesian financial industry (Abid *et al.*, 2014) ^[1]. According to Minister of Finance Decree No. : KEP-38 / MK / IV / 1972, financial institutions in Indonesia consist of banks and non-bank financial institutions. This non-bank financial institution is an entity that conducts activities in financial matters, directly or indirectly, collects public funds by issuing securities to then be distributed as financing for corporate investment. One of the non-bank financial institutions is multi-finance, also called a financial enterprises (Effendi *et al.*, 2017) ^[4].

As a business entity, this financial institution conducts financing activities in the form of providing funds or capital goods. The form of this business entity includes finance companies, venture capital companies, and infrastructure project finance companies. The activities of finance companies are leasing, factoring, consumer financing and or credit card business. A venture capital company carries out financing or equity participation in a company that receives financial assistance for a certain period of time in the form of equity participation, participation in the purchase of convertible bonds, and / or financing based on the distribution of business results (Firmansyah, 2014) ^[6]. Considering that banking financial institutions have limitations in providing funds for community, business investment, the government opens opportunities for various business entities to conduct financial activities to support economic growth. A financing institution is a business entity that carries out financing activities in the form of provision of funds or capital goods as referred to in legislation concerning financial institutions (Maidalena, 2014).

Since 2012, the number of finance companies in Indonesia has increased. In addition, the number of assets, financing receivables, liabilities and equity also tend to increase. But the trend of increasing assets and financing receivables is not directly proportional to the increase in net income. Like banking institutions, the activities of finance companies are to channel credit to consumers in the hope that the credit distribution will have a positive impact on the financing institution itself, the debtor, and for national economic growth. On the other hand, the distribution of financing contains risks, namely the occurrence of problematic financing, which is reflected in the ratio of non-performing financing (NPF). The lower the NPF ratio, the better the condition of the financial institution (Havidz and Setiawan, 2015) ^[9].

Many factors suspected of causing non-performing financing. These factors can be classified into two: internal and external factors. Internal factors include issues of quality analysis, credit supervision, company aggressiveness in lending. While external factors include a decline in monetary, economic conditions, business conditions, natural disasters, and restrictive government regulations that have an impact on financial and operational capabilities as well as customer management, economic recession, devaluation, inflation, deflation, rising lending rates and monetary policy others (Louzis *et al.*, 2012) ^[11]. Another factor is a change in government policy in the real sector so that the weakening of the national currency exchange rate against foreign currencies, business risks, geography, security, politics, risk of uncertainty and competition (Maraya and Syaichu, 2016) ^[13].

In the view of Ricardas (2012) ^[18], NPF is caused by two factors, namely: the company side and the debtor side. From the company side, the credit analysis unit is not very careful in checking the truth and authenticity of the documents or incorrectly calculating the existing ratios. From the customer side, there is an element of deliberation, meaning that the customer intentionally does not want to pay his obligations so that the credit provided is automatically

jammed. There can also be an element of inadvertence, in fact the customer has the willingness to pay but is not capable because the business is financed by the disaster such as flooding or fire. Meanwhile, Mutamimah and Chasanah (2012) ^[15] are of the view that like other business activities, financing businesses also face the risk of bankruptcy. This risk arises because not all credit businesses provided by the company can be billed again. Therefore, companies need to have sufficient capital to cover credit risk. Besides the capital factor, the factor of net interest margin is also important in an effort to cover credit or financing risks. The greater the NIM, the higher the interest margin that is obtained so that the problematic financing gets smaller (Rulyasri *et al.*, 2017) ^[20, 21].

Some previous studies show that some internal and external factors have a positive and significant effect on NPF. In the banking industry, some researchers also found a positive relationship between several internal and external factors with NPL. However, several other studies show that these internal and external factors do not significantly influence NPF. Thus, it is interesting to examine more deeply the relationship between inflation and NPF on financial institutions (Purnama and Ramantha, 2015 ^[17]; Ramantha and Khan, 2015) ^[9].

2. Literature Review and Hypotheses Development

2.1 Financing Companies and Non Performing Financing

The financial services business is the business sector that is most vulnerable to risk. The risk experienced by the financial services business sector is a consequence of various decisions made such as lending, controlling credit cards, foreign exchange, collections, and various other forms of financial decisions (Benny and Iman, 2015) ^[2]. The risk of various decisions can lead to bankruptcy and systematic risk. All types of financing channeled have risks so that they need to be anticipated and minimized. Financing risk arises if the bank or finance company cannot recover the principal installments and interest from the financing provided (Sinkey and Greenwalt, 1991).

The causes of bad financing can be caused by internal and external factors. External causes such as changes in government policy in the real sector, rising prices of production factors, increasingly fierce business competition, rising lending rates, recession, inflation, and other monetary policies (Dimitrios *et al.*, 2016) ^[3]. Viewed from the aspect of credit, Triagarajan and Ramachandran (2011) ^[25] hold that the declining business and industrial cycle is one of the causes of problematic financing. While the external aspect is caused by conditions of macroeconomic, political, and government policies that are difficult to predict.

Given the financing business is still relatively new compared to the banking business that has more complex rules and requirements, it is important for the government to support and control the assets of finance companies so that finance companies can play a more important role in increasing economic growth. Mutamimah and Chasanah (2012) ^[15] reminded that Bank Indonesia has required four risks to be managed, namely credit / financing risk, factors related to the debtor, operational risk, and liquidity risk. Credit / financing risk is related to the inability of debtors to fulfill their obligations as required by creditors. Factors related to the debtor relate to cases such as mismanagement, lack of knowledge and business experience of the owner,

interest rates, inflation, exchange rates, and increasingly fierce competition. Operational risk is related to the loss of the bank or company due to insufficiency or failure in managing the company, human resources, and the system. Liquidity risk is related to the result of the inability of a company or bank to fulfill its short-term obligations.

2.2 Factors Causing Non Performing Financing

Non Performing Financing (NPF) is a form of delay and or no installment payment by the debtor. Credit risk is the risk of possible bank losses as a result of not repaying loans given by banks to debtors (Vithessonthi, 2016) ^[26]. Credit risk in conventional banking is reflected in the NPL ratio, while the financing risk in Islamic banking and finance companies is reflected in the NPF ratio. Problem financing is a loan that has difficulty repaying due to intentional factors or external factors beyond the debtor's ability (Wood and Skinner, 2018) ^[27]. In the view of Zhang *et al.* (2016) ^[28], NPF is a number of credit problems and may not be billed or jammed. Bad credit is a credit that cannot be collected or is difficult to obtain and repay (Ekayanake and Azeez, 2015) ^[5]. The greater the NPF value, the worse the performance of the finance company. The existence of problem financing that is reflected in NPF can result in the loss of the opportunity to obtain income from the financing provided so as to affect the profitability.

NPF reflects financing risk, the higher the ratio, the worse the quality of Islamic bank financing. Gabeshi (2017) ^[7] categorizes NPL into three that are common in banking practices, namely: (1) Delays in interest payments and or master loans, more than 90 days from the due date; (2) Loans outstanding are not repaid at all; and (3) The need for re-negotiation of the terms of repayment of credit and interest stated in the loan agreement. The reference in assessing the level of health of the financing company is the Circular of the Financial Services Authority Number 1 / SEOJK.05 / 2016 concerning the obligations of the Financing Company to maintain the quality of its financing receivables. The circular letter explained: (1) The obligation to maintain the quality of financing; (2) The category of problematic financing receivables includes substandard, doubtful and loss quality; (3) The value of troubled financing receivables is after deducting the allowance for possible losses on mandatory financing receivables at the maximum of five percent of the total financing receivables; (4) Value of financing receivables is calculated based on outstanding principal financing, namely total bills reduced by unearned interest income and other income and expenses; (5) Assessment of the quality of financing receivables is determined to be: smooth, special attention, substandard, doubtful and loss; and (6) The evaluation of the quality of financing receivables is determined based on the factor of the payment of principal and / or interest.

Inflation

Experts generally agree that inflation has a broad impact on the overall economy such as economic growth, external balance, competitiveness, interest rates, income distribution, bad credit, and unemployment (Mubarok, 2013) ^[14]. Ghosh (2015) ^[8] classifies inflation into three: namely low inflation, galloping inflation, and hyper inflation. High inflation has a negative impact on economic growth, because the continual increase in costs will encourage productive activities to be unprofitable so capital owners

prefer to use their money for other purposes. As a result productive investment is reduced, economic activity is declining, and unemployment is increasing in number.

The increase in high inflation can encourage the risk of purchasing power and corporate financial risk. The risk of purchasing power is the real value of money lent plus interest payments are smaller than expected. Inflation also has an impact on the level of non-performance loans (Rulyasri *et al.*, 2017) ^[20, 21]. Even though a debtor is initially able to pay the installment of the financing, but when prices increase quite high, while the debtor's income does not increase, the ability of the debtor to pay the installments becomes weaker because most or all of his income is used to meet their household needs. In this case, even though the return of bank credit runs smoothly, the value of the return money will go down or be lower than the value of money when the credit is given. Thus, the higher the inflation rate, the higher the possibility of NPF (Vithessonthi, 2016) ^[26].

Interest Rate (BI Rate)

The second factor suspected of having an impact on the NPF is the Bank Indonesia interest rate (BI rate). The BI rate is the benchmark interest rate of Bank Indonesia. The interest rate applies in the short term (1-3) months announced by Bank Indonesia periodically for a certain period of time which serves as a monetary policy signal. The BI Rate is set by Bank Indonesia every January, April, July and October. Under certain conditions, if deemed necessary, the BI Rate can be adjusted in other months (Siamat, 2005) ^[23]. According to Mubarok (2013) ^[14], the BI rate is one indicator that can be used to assess the country's economic condition. Changes in interest rates are changes in the demand for money (credit). An increase in interest rates results in a decrease in aggregate demand / investment expenditure. In the external sphere, the interest rate greatly contributes to capital inflows in and out.

BI rate, which are determined in the form of effective interest rates, have become a reference for financial institutions. That is, if a financial institution uses funds from Bank Indonesia, then the interest rate becomes the basis for calculating the financial services that will be charged to the debtor or consumer. This interest rate is equated as the cost of principal capital to procure funds and is added to the range of additional interest as business operating costs and the risks contained in credit financing. This becomes a reference for the debtor when the debtor conducts credit transactions (Benny and Iman, 2015) ^[2]. The increase in the BI Rate, which is followed by an increase in bank lending rates, can lead to an increase in non-performing loans, because the interest expense that must be borne by the debtor will be even heavier. A low BI rate will trigger a decline in interest rates, so the margins in finance companies will be increasingly competitive. Some experts have found a positive relationship between the BI rate and NPF. These experts suggested that the increase in the BI rate would be accompanied by an increase in NPF. The increase in the BI rate will be responded by finance companies by raising their lending rates so that debtors must pay a greater interest expense. The increase in interest expense that must be paid by the debtor will increase the likelihood of debtors failing to fulfill their obligations in paying credit (Effendi *et al.*, 2017) ^[4]

Exchange Rate

The foreign exchange rate is the unit price of a currency in another currency. This value is determined in the foreign exchange market, namely the market where various different currencies are traded. Most funding sources for financing companies are from banks in the form of channeling and joint financing. Thus, if the banking institution experiences problems in the exchange rate, the financing institution will be affected unfavorably. Changes in exchange rates are vulnerable to NPLs. A decline in a currency against foreign exchange causes loans in foreign currencies to increase in value relative to that decline. The banking industry faces the risk of decreasing the quality of foreign currency loans if the value of the rupiah decreases as global funds emerge suddenly. If foreign parties withdraw their funds from the domestic financial market, foreign debt will increase. In addition, non-performing loans on US dollar-denominated loans will surge. If the bank issues bonds, the banking industry will face problems because the depreciation of the rupiah and the portfolio of banking assets in the form of credit are getting worse (Samuelson and Nordhaus, 2005) ^[22].

Changes in the rupiah exchange rate have different effects on bank debtors. For debtors operating in the export business, strengthening the rupiah against foreign currencies will reduce their income. Conversely, for debtors engaged in importing business, the strengthening of the rupiah will increase its income. This difference causes the effect of changes in the rupiah exchange rate on the performance of debtors to be different so that the effect on the NPF will also be different. If a bank does not provide a loan to its debtor in the form of foreign exchange, then due to changes in the exchange rate, the possibility of a decline in the NPF becomes small. Some previous studies claim that changes in the rupiah exchange rate have a positive and significant influence on changes in commercial commercial NPF in Indonesia (Poetry and Sanrego, 2011) ^[16].

Loan to Asset Ratio

Loan to asset ratio is part of the liquidity ratio that shows the level of ability of banks to meet short-term obligations when billed or due. That is, the bank can pay back the disbursement of depositors' funds and can fulfill the credit requests that have been submitted. The higher this ratio, the smaller the level of solvency, because the amount of assets needed to pay for credit becomes even greater. This ratio is a comparison between the amount of credit given by the bank and the amount of total assets owned by the bank. The greater the credit disbursed, the lower the credit risk that might be faced because the loans distributed are funded by assets owned. Use of loan to asset ratio to measure the ratio of the amount of credit channeled to the amount of assets owned by the bank. The higher the level of this ratio, the lower the level of liquidity of the bank and the lower the level of solvency (Ekayanake and Azeez, 2015) ^[5].

Distributing funds is an activity to sell funds successfully collected from the community. The distribution of funds carried out by banks is done through the provision of loans, which is commonly called credit or financing in finance companies. The main business of a finance company is providing credit, which is reflected in almost 70% - 80% of the assets of finance companies. Financing companies in

distributing their funds face credit risk or a large risk of financing, which is characterized by the existence of non-performing financing. This situation will have a negative impact on liquidity and profitability issues so that finance companies become unhealthy. The occurrence of NPF can be caused because banks are too aggressive in channeling loans / gifts, because of the large amount of third party deposit funds in the short term, so that banks need a large interest income to cover interest costs from third party funds. The aggressiveness of lending / financing, which encourages the emergence of NPF, is most likely due to the lack of maximum loan management implementation. This management principle is to provide loans that provide benefits by taking into account the level of security. Several previous studies showed that loan to asset ratio had a positive and significant effect on NPF (Abid *et al.*, 2014; Dimitrios *et al.*, 2016; Effendi *et al.*, 2017) ^[1, 3, 4].

Capital

Capital is money invested by the owner of the company as a principal to start a business or to expand its business. Capital is an important factor for companies in the context of business development and accommodates the risk of losses. Judging from the background, the concept of capital adequacy arises because of the risk of insolvency financing business. Like other business activities, financing business activities can also face the risk of bankruptcy. Not all credit / financing provided by a finance company can be billed again. In other words, finance companies are always faced with the risk of the emergence of bad credit. The occurrence of bad credit can threaten the smooth flow of funds of finance companies, so that the finance company may not be able to provide funds to fulfill its obligations, because funds embedded in bad credit cannot be withdrawn. So that the requester of money can still take the money, then the bad credit must be covered by the finance company's capital. Therefore, an adequate amount of capital is needed so that the interests of penitir money can always be protected. One of the functions of capital for financial services companies is to cover losses due to bad credit (Purnama and Ramantha, 2015 ^[17]; Mutamimah and Chasanah, 2012) ^[15].

Some experts propose the need for a special instrument to disclose the condition and feasibility of the actual business of the debtor. The instrument can be a credit information system that contains the conditions of the debtor's business and the credit track record it receives. It is important to provide a credit guarantee as a selection instrument so that safe debtors have a greater likelihood of applying for credit than risky debtors. However, no matter how sophisticated the debtor selection process is, there is still a risk of bad credit after the credit has been disbursed. Debtor failure can occur either due to management negligence or the general condition of the economy. Financing companies still face bad selection problems in lending. In the financing portfolio, there are some debtors who succeed in their business and some are at risk of failure. A number of previous studies showed that the capital adequacy ratio had a significant effect on the NPF level. A number of previous studies show that capital adequacy has a positive and significant effect on NPLs. However, several other studies claim that capital adequacy has a negative and significant effect on NPLs (Ricardas. 2012; Maraya and Syaichu, 2016) ^[18, 13].

2.3 Conceptual Framework and Hypotheses

Based on the literature review, this study put forwards the conceptual framework of this study as depicted in Figure 1

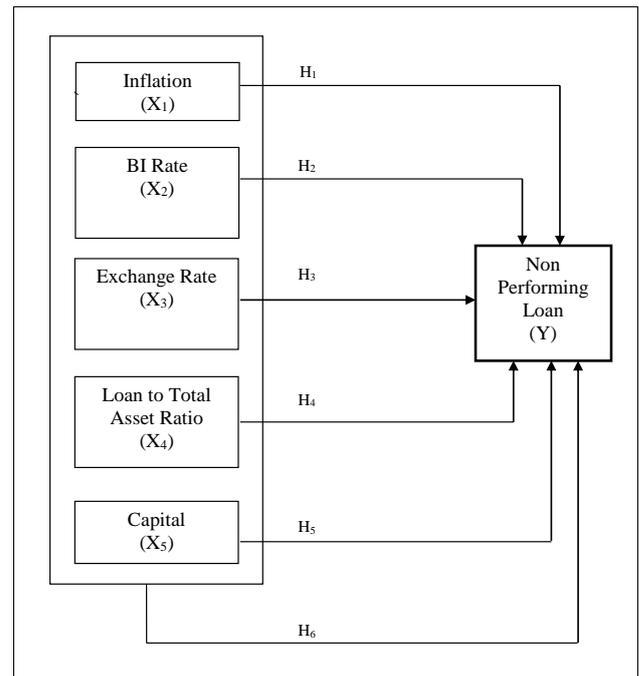


Fig 1: Conceptual framework

Based on the proposed conceptual framework, this study proposes the working hypothesis as follows.

- Hypothesis 1: The inflation individually is positively associated with the non performing financing within Indonesian multi-finance enterprizes
- Hypothesis 2: The BI rate individually is positively associated with the non performing financing within Indonesian multi-finance enterprizes
- Hypothesis 3: The exchange rate individually is positively associated with the non performing financing within Indonesian multi-finance enterprizes
- Hypothesis 4: The loan to total asset ratio individually is positively associated with the non performing financing within Indonesian multi-finance enterprizes
- Hypothesis 5: The capital adequacy individually is positively associated with the non performing financing within Indonesian multi-finance enterprizes
- Hypothesis 6: The inflation, BI rate exchange rate, loan to total asset ratio, and capital adequacy simultaneously are positively associated with the non performing financing within Indonesian multi-finance enterprizes

3. Research Methodology

The method used in this study is causality, while the process of data collection uses purposive sampling with the criteria of finance companies listed on the Indonesia Stock Exchange. The number of samples in this study were as many as six companies from ten finance companies as the population listed on the stock exchange. From the results of pooling there were 42 total samples; i.e., six of which were included in the criteria multiplied by the number of time periods during the seven years (2011-2017). Data analysis using panel data regression equation model with the form of the equation as follows:

$$NPF = \beta_0 + \beta_1Inf + \beta_2BIR + \beta_3ER + \beta_4LAR + \beta_5Cap + \mu$$

where:

- NPF = Non performing financing
- INF = Inflation
- BIR = BI rate
- ER = Exchange rate
- LAR = Loan to asset ratio
- CAP = Capital
- μ = Error

4. Results and Discussion

4.1 Selection of the Best Model

This study uses a regression equation model with panel data. In estimating the parameters of the panel data model, this study applied the pooled estimator method known as the ordinary least square (OLS) method. This method is generally used in pure cross section and time series models. Panel data has more observations than pure cross section and time series data. When panel data is combined into pooled data, the resulting regression tends to be better than the regression using pure cross section or time series data. By combining data, variations between individuals and between times cannot be seen. To overcome this problem, there are two methods that are usually used in panel data modeling, namely the fixed effects model and random effects model. Predictors of the fixed effects model are able to explain differences within individuals, because this model allows for differences in intercepts for each individual. While estimators from the random effects model accommodate individual characteristics in the model error. The selection of the best model was carried out using three types of tests, namely the Chow test, Hausman test and Pagan LM Breusch test. The Chow test is carried out to determine the choice between the OLS method and the fixed effect. The Hausman test is carried out to determine the choice between the fixed effect method and random effect. The Breusch Pagan LM test was conducted to determine the choice between the OLS method and random effect. The results showed that the p-value for the Chow test is 0.0724 which is greater value than the value of $\alpha = 0.05$. Therefore, the null hypothesis was accepted and the model chosen is the common model.

4.2 Determination of Non Performance Financing

Table 1 depicts the Chow test results applied in determining the choice between panel data regression with common effects and fixed effects. From the table, it is known that the Fstatistic value is 2.26. Meanwhile, the value of Ftable with numerator 5 and denominator 37 at $\alpha = 5$ percent is 2.41. Therefore, the model used is the common effects model. Simultaneously, the independent variables significantly influence the NPF with a p-value of 0.0063. The model can be said to be good because it has a relatively low adjusted R-Square. The value of adjusted R-Square is 34.75 percent.

Table 1: Chow Test Results

Effects Test	Statistic	d.f.	Prob.
Cross-section F	2.26	(5; 31)	0.07
Cross-section Chi-square	13.08	5	0.02

Table 2: Estimation of Non Performing Financing Panel Regression

No	Variable	Coeffisient	P-value
1	Constant	- 0,1154	0,0000
2	Inflation	- 0,0854	0,0000
3	BI Rate (interest)	0,0128	0,0000
4	Exchange Rate	0,0942	0,0000
5	Loan to Asset Ratio	0,0123	0,0000
6	Capital	- 0,0002	0,2781

Furthermore, the results of the analysis show that the p-value is 0.0067. Thus it can be concluded that inflation factors, BI rate, exchange rate, loan to total asset ratio, and capital have an effect on NPF. From table 2, the regression equation can be constructed as follows.

$$NPF = - 0, 1154 - 0,0854 INF + 0,0128 BIR + 0,0942 ER + 0,0123 LAR - 0.0002 CAP$$

Influence of Inflation on Non Performing Financing

The regression test results indicate that inflation has a negative effect on NPF with a coefficient of -0.0854. That is, any increase / decrease of one unit of inflation will decrease / increase the NPF by 0.0845 unit. Therefore, the hypothesis that inflation has a negative effect on NPF was supported. The result is in line with the results of a number of previous studies which showed that inflation has a negative effect on NPLs. According to macroeconomic theory, the rate of price increases is classified into three: moderate inflation, hydden inflation, and hyper inflation. Moderate inflation is the inflation rate of 5 to 10 percent; hydden inflation is the process of increasing prices slowly; Hyper inflation is an increase in prices, with the rate of increase more than 50 percent in one month so that the value of money decreases sharply. In that situation, production costs and domestic prices are getting higher. As a result, the real income of the community decreases and the company's revenue decreases resulting in NPF. The average inflation in Indonesia in the 2011-2017 analysis period was 4.99 percent. Such conditions can be categorized as low inflation or single digit inflation because the value is still below 10 percent. This inflation rate causes people to still believe in the value of money, can increase company profits, the community is able to repay loans, and can even promote investment.

Effect of the BI Rate on Non Performing Financing

The regression test results show that the BI rate has a positive effect on non-perform financing, with a coefficient of 0.0128. This means that each BI rate increases / decreases by one unit, the NPF will increase / decrease by 0.0128 units. Therefore, the hypothesis that the BI rate has a positive effect on NPF is supported. These results are in line with the results of a number of previous studies which found a positive relationship between the BI rate and NPF. The increase in the BI rate, which is followed by an increase in bank lending rates, can cause an increase in NPF because the interest expense that must be borne by the debtor will be even higher (Rulyasri *et al.*, 2017) ^[20,21]. According to the general principles of asset management, finance companies

are required to get high profits. The economic concept of moral hazard provides a framework for understanding the principles that must be followed to reduce credit risk. Moral hazard occurs because the finance company gets an incentive to carry out activities that are not preferred from the perspective of the lender. In a situation like this, it is very possible that the finance company has a problem from the risk of default hazard. Thus, a finance company must overcome a moral hazard problem that makes it possible for a loan to default. In overcoming this problem, finance companies must help customers by explaining the principles in managing credit risk, screening and monitoring, forming long-term relationships with customers, loan commitments, collateral obligations and compensation balances, and credit restrictions.

Effect of exchange rate on non performing financing

The regression test results show that the exchange rate has a positive effect on non-performing financing with a coefficient of 0.0942. That is, any increase and decrease of one unit of exchange rate will increase and decrease non-performing financing by 0.0942 units. Therefore, the hypothesis stating that the exchange rate has a positive effect on non-performing financing is supported. The results of this study are in line with the results of a number of previous studies which found a positive relationship between exchange rates and non-performing financing (Mutamimah and Chasanah, 2012; Lidyah, 2016) ^[15]. In situations where financial activity no longer knows the boundary, it is possible that finance companies are faced with beneficial or detrimental conditions. Financial institutions, especially finance companies, are the parties that most significantly accept the risk effects of this condition. To minimize the risk of this uncertainty, there are three ways commonly adopted, namely converting assets and liabilities of companies in the form of foreign currencies into domestic currencies, establishing treatment policies on income and costs in foreign currencies in the coming financial year, and conducting research and in-depth analysis of future trends in foreign exchange rates (Sinkey and Greenwalt, 1991; Triagarajan and Ramachandran, 2011) ^[25].

Effect of loan to asset ratio on non performing financing

The regression test results show that loan to asset ratio has a positive effect on non-performing financing with a coefficient of 0.0123. That is, each increase or decrease in loan to asset ratio by one unit will increase or decrease non-performing financing by 0.0123 units. Therefore, the hypothesis stating that the loan to asset ratio has a positive effect on non-performing financing is supported. The results of this study are in line with the results of a study conducted by Ekanayake and Azeez (2015) ^[5] which showed that loan to asset ratio posed a positive and significant effect on non-performing financing. The finding is also in line with Sinkey and Greenwalt (1991) ^[24], which states that value probability is more than the cost of high risk that is represented by high loan to asset levels. In theory, the emergence of non-performing financing might be due to management aggressiveness in lending. Because of the existence of large third party funds, the finance company requires large interest income to cover the interest expense of third party funds. Inefficient application of loan management might also lead to aggressive credit

distribution, which results in non-performing financing.

Effect of capital adequacy on non performing financing

The regression test results show that capital adequacy has a negative effect on non-performing financing with a coefficient of 0, 0002. That is, any increase or decrease in capital of one unit will increase or increase non-performing financing by 0.0002 units. Therefore, the hypothesis stating that capital adequacy has a positive effect on non-performing financing is not supported. Thus, the greater the capital owned by the finance company, the greater the company's ability to close non-performing financing, and vice versa. The results of this study are in line with the results of Ekanayake and Azeez (2015) which show that capital or firm size negatively and significantly affects non-performing financing, though, what are some studies that show that capital has a positive and significant effect on the level of non-performing financing.

5. Conclusion

The results of this study indicate that partially the exchange rate factor ($\beta = 0.0924$), interest rate ($\beta = 0.0128$) and loan to asset ratio ($\beta = 0.0123$) have a positive and significant effect on NPF. Thus, the research hypothesis regarding the three factors are supported. Meanwhile, partially the inflation factor ($\beta = -0.0854$) and capital adequacy ($\beta = -0.00002$) has a negative and significant effect on NPF. Thus, the research hypothesis regarding these two factors is not supported. Simultaneously, the contribution of the five variables, namely inflation, interest rate, exchange rate, loan to asset ratio, and capital to NPF is 34.75%.

The results of this study provide a number of managerial implications in the practice of managing finance companies. First, in an effort to suppress NPF, finance companies need to reduce financing when there is an increase in the BI rate, an increase in the exchange rate, and an increase in inflation. Second, finance companies need to apply strict principles of prudence and loan management when distributing financing. Third, finance companies need to monitor the development of macroeconomic factors, especially inflation, the BI rate, and also the exchange rate; educating and training employees, especially regarding the distribution of financing and marketing of financial services; implement funding distribution systems and procedures; reviewing the planning of company activities to ensure goals, targets and strategies for achievement clearly; implement a credit information system that contains the condition of the debtor's business and the credit track record received; optimize credit guarantee as a selection instrument especially for risky debtors; and avoid management negligence and moral hazard.

References

1. Abid L, Ouertani MN, Zouari, Ghorbel S. Macroeconomic and Bank-Specific Determinants of Household's Non-Performing Loans in Tunisia: a Dynamic Panel Data, *Procedia Economics and Finance*. 2014; 13:58-68.
2. Benny AM, Iman ST. Non Performing Loan: Impact of Internal and External Factor (Evidence in Indonesia), *International Journal of Humanities and Social Science Invention*. 2015; 4(1):87-91.
3. Dimitrios A, Helen L, Mike T. Determinants of non-performing loans: Evidence from Euro-area countries,

- Finance Research Letters. 2016; 18(1):116-119.
4. Effendi J, Thiarany U, Nursyamsiah T. Factors Influencing Non-Performing Financing (NPF) At Sharia Banking, Walisongo: Jurnal Penelitian Sosial Keagamaan. 2017; 25(1):109-138.
 5. Ekayanake EMNN, Azeez AA. Determinants of Non Performing Loans in Licenced Commercial Banks: Evidience from Srilangka, Asian Economic Financial Review. 2015; 5(6):868-882.
 6. Firmansyah I. Determinant of Non Performing Loan: The Case Of Islamic Bank In Indonesia, Bulletin of Monetary, Economics and Banking. 2014; 17(2):251-267.
 7. Gabeshi K. The Impact of Macroeconomy and Bank Specific Factors on Albanian Non Performing Loans, European Journal of Sustainable Development Research. 2017; 2(1):95-102.
 8. Ghosh A. Banking-industry specific and regional economic determinants of non-performing loans: Evidence from US states, Journal of Financial Stability. 2015; 20(1):93-104.
 9. Havidz SAH, Setiawan C. Bank Efficiency and Non Performance Financing (NPF) in The Indonesia Islamiuc Banks, Asian Journal of Economic Modelling. 2015; 3(3):61-79.
 10. Lidyah R. Dampak Inflasi, BI Rate, Capital Adequacy Ratio, dan Biaya Operasional Pendapatan Operasional Terhadap Nonperforming Financing Pada Bank Umum Syariah Di Indonesia, I-Finance. 2016; 2(1):1-19.
 11. Louzis DP, Vouldis AT, Metaxas VL. Macroeconomic and bank-specific determinants of non-performing loans in Greece: A comparative study of mortgage, business and consumer loan portfolios, Journal of Banking & Finance. 2012; 36(4):1012-1027.
 12. Maidalena. Analisis Faktor Non Performing Financing (NPF) pada Industri Perbankan Syariah, Human Falah. 2014; 1(1):127-138.
 13. Maraya AM. yaichu. Analisis Pengaruh Faktor Internal dan Faktor Eksternal Terhadap Tingkat Pembiayaan Bermasalah Pada Bank Umum Syariah di Indonesia Periode Tahun 2010-2014, Diponegoro Journal of Management. 2016; 5(3):2337-3792.
 14. Mubarok ES, Pengantar Ekonomi Makro, Penerbit Universitas Islam Jakarta (UID), Jakarta, 2013,
 15. Mutamimah, Chasanah SNZ. Analisis Internal dan Eksternal dalam Menentukan Non Performance Financing Pada Bank Umum Syariah di Indonesia, Jurnal Bisnis dan Ekonomi. 2012; 19(1):46-64.
 16. Poetry ZD, Sanrego YD, Pengaruh Variabel Makro Dan Mikro Terhadap Npl Perbankan Konvensional Dan NPF Perbankan Syariah, Islamic Finance & Business Review. 2011, 6(2):79-104.
 17. Purnama DK Ramantha IW, Pengaruh Loan Deposit Ratio, Suku Bunga BI. dan Bank Size Terhadap Non Performance Loan, E-Journal Akuntansi Universitas Udayana. 2015; 11(3):909-920.
 18. Ricardas M. Macroeconomic Determinant of Loan Portofolio Credit Risk in Banks, Inzenerine Ekonomika-Engineering Economics. 2012; 23(5):496-504.
 19. Rizvi W, Khan MMS. The Impact of Inflation on Loan Default: A Study on Pakistan, Australian Journal of Business and Economic Studies. 2015; 1(1):87-94.
 20. Rulyasri N, Achسانی NA, Mulyati H. Effects of Macroeconomic Condition Non Performing Loan in Retail Segment: An Evidence from the Indonesian Banking, International Journal of Scientific and Research publication. 2017; 7(10):208-217.
 21. Rulyasri, Novri, Achسانی, Noer Azam, Mulyati Heti. Effects of Macroeconomic Condition Non Performing Loan in Retail Segment: An Evidence from the Indonesian Banking, International Journal of Scientific and Research publication, 2017; 7(10):ISSN2250-3153.
 22. Samuelson PA, Nordhaus WD. Ilmu Makroekonomi, Edisi Bahasa Indonesia, PT. Media Global Edukasi, Jakarta, 2005.
 23. Siamat D. Manajemen Lembaga Keuangan, Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia, Jakarta, 2005.
 24. Sinkey JF, Greenwalt MB. Loan-Loss Experience and and Risk-Taking Behaviour at Large Commercial Bank, Journal of Financial Services Research 1991; 22(3):2003-224.
 25. Triagarajan SA, Ramachandran A. Credit Risk Determinants of Public and Private Sector Banks in India, European Journal of Economic, Finance and Administrative Sciences. 2011; (34):147-154.
 26. Vithessonthi C. Deflation, bank credit growth, and non-performing loans: Evidence from Japan, International Review of Financial Analysis. 2016; 45(1):295-305.
 27. Wood A, Skinner N. Determinats of Non Performing Loans: Evidience from Commercial Banks in Barbados, The Business and Management Review. 2018; 9(3):44-64.
 28. Zhang D, Cai J, Dickinson DG, Kutan AM. Non-performing loans, moral hazard and regulation of the Chinese commercial banking system, Journal of Banking & Finance. 2016; 63(1):48-60.