

Determining Factors Affecting MSME Financing: Efforts to Increase the Macroprudential Inclusive Financing Ratio

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Abstract. MSME players are critical engines for the economy in Indonesia. Therefore, this study aims to determine the factors that influence the distribution of MSME financing in Indonesia. This quantitative research uses secondary data from Islamic banking statistics and Bank Indonesia from 2021 to 2022. The data analysis method used is a multiple linear regression analysis methods using the Eviews 12 program, then explained descriptively. The results indicated that SBIS did not significantly impact the distribution of MSME financing in Indonesia. Similarly, inflation does not have a significant impact on MSME financing. However, NPF can significantly impact the distribution of MSME financing in Indonesia. In contrast to DPK, it is not able to have a significant impact on the distribution of MSME financing in Indonesia. This study implies that collaboration from various stakeholders is needed to increase the Macroprudential Inclusive Financing Ratio (RPIM). With the improvement of PBI, RPIM requires the fulfillment of RPIM by banks and the determination of RPIM targets based on self-assessment results outlined in the bank's business plan. However, it is necessary to pay attention to economic conditions that are still unstable due to the Covid-19 pandemic.

Keywords: SBIS, Inflation, NPF, DPK, MSME Financing

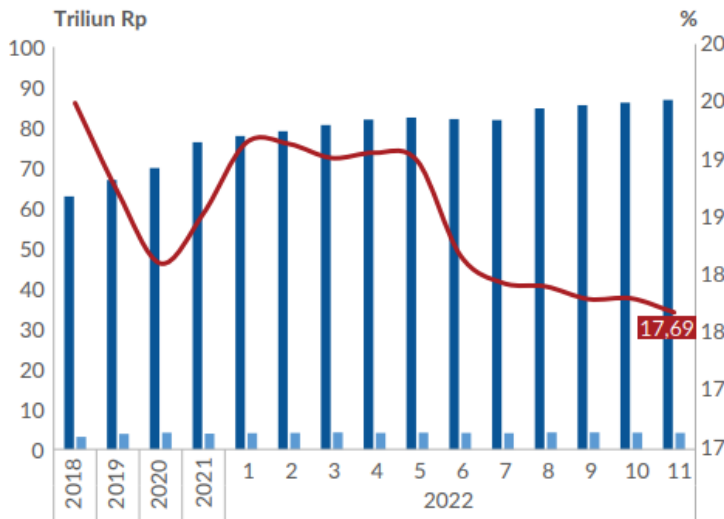
1. Introduction

MSMEs are part of an independent Indonesian economy and have great potential to improve people's welfare, as seen from the three roles of MSMEs in the Indonesian economy, including facilities for equitable distribution of the economic level of tiny people, facilities for alleviating poverty and means of foreign exchange income for the state (Nursini, 2020). MSMEs have demonstrated that they are unaffected by the crisis that struck in the 1997–1998 timeframe and that only MSMEs could remain strong amid the Covid-19 pandemic and contribute to economic growth and employment (Amah, 2013). The Ministry of Cooperatives and Small and Medium Enterprises indicates that the total MSMEs in Indonesia reached 8.71 million business units (Kominfo, 2023). Based on data submitted by the Ministry of Finance, MSMEs contributed to 90% of business activities and more than 50% of jobs worldwide (Kemenke, 2022). This possibility has made many parties aware of the importance of micro,

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small, and medium-sized enterprises. By issuing Bank Indonesia Regulation Number 23/13/PBI/2021 concerning the Macropurdenial Inclusive Financing Ratio, Bank Indonesia demonstrates its concern for MSMEs. Rasio for Sharia Commercial Banks and Sharia Business Units. This regulation illustrates Bank Indonesia's role in maintaining the stability of the financial system through macroprudential policy by promoting a balanced and high-quality intermediation function (Bank Indonesia, 2022).

The improvement of RPIM (Indonesia: Rasio Pembiayaan Inklusif Makropirdensial) provisions includes the obligation to fulfill RPIM by banks and the determination of RPIM targets based on self-assessment results outlined in the bank's business plan. Each bank can contribute optimally to the fulfillment of RPIM according to its expertise and business model while still applying the principles of prudence and risk management (Bank Indonesia, 2022). Improvements include extending the alternatives available to Islamic banks for providing direct and supply chain financing to MSMEs, expanding the bank partners for indirect financing, and expanding the financing choices available through Inclusive Financing Securities. This is consistent with the government's goal to reach a credit/financing ratio for MSMEs of 30% by 2024, including Islamic banking (Bank Indonesia, 2021). However, the share of MSME financing in 2022 is still below 20% of total Islamic banking financing.



Source : Bank Indonesia, 2022

Figure 1. Development of Sharia Banking MSME Financing 2022

The decline in MSME financing distribution is undoubtedly caused by internal and external factors (Hanggraeni et al., 2019). Several researchers have proven that external factors that can affect the distribution of MSME financing are Islamic monetary instruments (Muhfiatun et al., 2021; Ramadhan & Beik, 2013; Soemitra et al., 2021). Indonesia adheres to a dual monetary system; in addition to issuing Bank Indonesia Certificates (Indonesia: SBI), Bank Indonesia also issues Bank Indonesia Sharia Certificates (Indonesia: SBIS) (Harahap & Tambunan, 2022). SBIS is a Sharia monetary instrument created by Bank Indonesia (Muwazir & Anwar, 2018). SBIS is a short-term Sharia security denominated in rupiah (Wahyudi & Sani, 2014). Bank Indonesia's issuance of SBIS aims to enhance the effectiveness of monetary mechanisms with sharia principles (Agussalim et al., 2017). SBIS plays a role in the transmission of monetary policy to the real sector, where this instrument influences the amount of financing disbursed by financial institutions (Warjiyo & Agung,

2002). When monetary disruptions occur, MSME financing from Islamic banks can be restored and stabilized more effectively than MSME loans from conventional banks. FEVD analysis indicates that SBIS has a more significant impact on MSME financing than SBI (Soemitra et al., 2021).

The following external factor that can affect the distribution of MSME financing is inflation (Hansen, 1941; Umar et al., 2014). Inflation is the average price level increase, which is the rate at which money is needed to obtain goods and services (Juraev & G'Ofurjon, 2020). Inflation will affect macro and microeconomic activities, including investment (Highfield & Smiley, 1987; Lamont, 2002). Inflation also causes a decrease in people's purchasing power, resulting in a decrease in sales and increasingly inappropriate installment payments (Hamilton, 2009). Some researchers prove that inflation affects financing (Boyd et al., 2001; Hansen, 1941; Khan et al., 2006; Umar et al., 2014). If inflation rises, it will cause the actual value of money to fall (Sidrauski, 1967). This situation results in the behaviour of people who prefer to allocate their funds for speculation, for example, property investment. This will result in losses in Islamic banking due to the potential for people to withdraw their existing funds from banks (Kawiryawan & Hapsari, 2015).

Internal factors also play a role in the distribution of financing, in addition to external factors. Non-performing financing (NPF) and third-party funds (Indonesia: DPK) can influence the distribution of MSME financing (Accornero et al., 2017; Isaga, 2018). NPF is a financing risk that arises if the bank cannot recover principal or interest installments from the provided financing or investments (Supriyatni & Nurjamil, 2021). NPF is also commonly referred to as credit risk; if the NPF value is high, meaning that financing at the bank has problems, the bank will reduce the amount of financing to minimize risk. So NPF negatively influences MSME financing (Priyadi et al., 2021). Prior research revealed that a high NPF would decrease funding and vice versa. If the NPF decreases, the distribution of funding will increase. A high NPF indicates that the bank's ability to raise funds that have been distributed needs to be improved, resulting in suboptimal bank turnover in operating its funds, thereby reducing the opportunity for banks to earn revenue and reducing financing distribution (Cucinelli, 2015; Serrano, 2021; Thornton & Di Tommaso, 2021; Vithessonthi, 2016).

After gathering funds from the community, the bank redistributes them to needy individuals through loans and credit (Widiyono, 2022). The credit distributed by banks to MSMEs will improve the standard of living of MSMEs because the credit can be used for business activities and consumption purposes (Muliadi et al., 2020). The number of DPK effectively collected by a bank will impact its capacity to disburse credit, as empirical studies have shown that DPK have the most significant contribution of various sources of funds (Azizah & Astuti, 2019; Pradesyah & Triandhini, 2021; Sri et al., 2013). DPK as a source of bank funds are significant and influence the bank's decision to channel financing. The greater the amount of Third Party Funds, the greater the distribution of working capital financing (Hubbard et al., 2002). Based on the presented phenomena and the research lacuna, this study aims to determine to what extent the distribution of MSME financing and its influencing factors can contribute to an increase in the Macroprudential Inclusive Financing Ratio (RPIM).

2. Research Method

This research is quantitative. Data collected for two years, from January 2021 to December 2022, was sourced from Sharia Banking Statistics and Bank Indonesia. The multiple linear regression analysis approach was utilised to analyse the study's data. Based on the independent variable, the approach is used to forecast the impact of a dependent variable. Using the Eviews 12 program, the data were subjected to multiple regression analysis and

descriptive explanations. The following research was tested with a classical assumption model test. Then, test the coefficient of compound determination (R^2), Test t, and Test f.

Table 1. Description of data and sources

| Variable | Measurement | Source |
|---|-------------|---------------------------|
| Bank Indonesia Sharia Certificates (SBIS) | IDR total | Sharia Banking Statistics |
| Inflation | Percent | Bank of Indonesia |
| Non-performing financing (NPF) | IDR total | Sharia Banking Statistics |
| Third-party funds (DPK) | IDR total | Sharia Banking Statistics |
| MSME Financing | IDR total | Sharia Banking Statistics |

3. Result and Discussion

3.1 Result

Table 2. Descriptive Statistics

| | SBIS | Inflation | NPF | DPK | MSME FIN |
|--------------|-----------|-----------|----------|----------|----------|
| Mean | 4.166667 | 4.205833 | 4.166667 | 4.167500 | 4.166250 |
| Median | 5.180000 | 4.520000 | 4.135000 | 4.205000 | 4.030000 |
| Maximum | 6.510000 | 5.950000 | 5.560000 | 4.930000 | 4.920000 |
| Minimum | 0.100000 | 2.060000 | 3.060000 | 3.660000 | 3.730000 |
| Std. Dev. | 1.985646 | 1.364325 | 0.885603 | 0.376116 | 0.403246 |
| Skewness | -0.928127 | -0.331760 | 0.138509 | 0.435858 | 0.432502 |
| Kurtosis | 2.539517 | 1.684469 | 1.365951 | 2.102900 | 1.773348 |
| Jarque-Bera | 3.657726 | 2.170879 | 2.746854 | 1.564679 | 2.252906 |
| Probability | 0.160596 | 0.337753 | 0.253238 | 0.457335 | 0.324181 |
| Sum | 100.0000 | 100.9400 | 100.0000 | 100.0200 | 99.99000 |
| Sum Sq. Dev | 90.68413 | 42.81178 | 18.03873 | 3.253650 | 3.739963 |
| Observations | 24 | 24 | 24 | 24 | 24 |

Source: Eviews Output 12, 2023

The SBIS variable has a mean value of 4.166667, a maximum value of 6.510, a minimum value of 0.10, and a standard deviation of 1.928127, according to the preceding data test. The variable inflation has a mean of 4.205833, a maximum of 5.950, a minimum of 2.060, and a standard deviation of 1.364325. The mean value of NPF is 4.166667, with minimum and maximum values of 3.0600 and 5.560, respectively, and a standard deviation of 0.885603. The average value of DPK is 4.167500, with minimum and maximum values of 3.660 and 4.930, respectively, and a standard deviation of 0.376116. Minimum value of the variable distribution of MSME financing is 3.7300 and maximum value is 3.7300, with a standard deviation of 0.403246.

Table 2 Multicollinearity Test Results

| Variable | Coefficient Variance | Un centered VIF | Centered VIF |
|-----------|----------------------|-----------------|--------------|
| C | 1.085414 | 2190.782 | NA |
| SBIS | 0.000435 | 18.55834 | 3.317127 |
| INFLATION | 0.000626 | 24.60445 | 2.253907 |
| NPF | 0.003787 | 138.4502 | 5.745194 |
| DPK | 0.037615 | 1328.897 | 8.292545 |

Source: Eviews Output 12, 2023

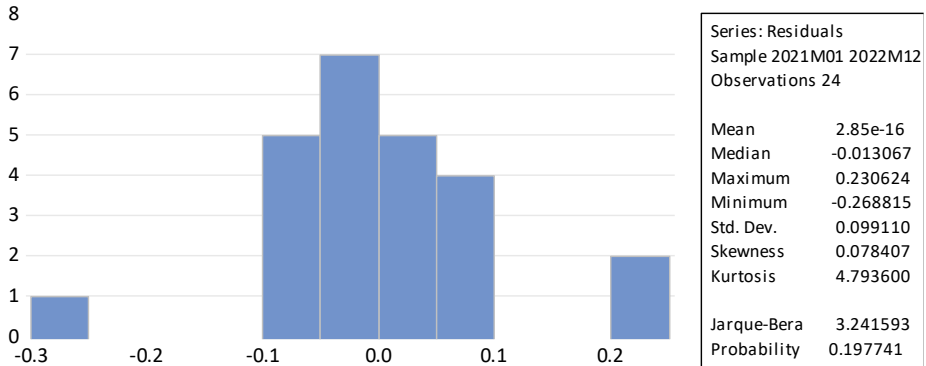
From the regression model estimation result table, it can be seen that $VIF < 10$. Therefore it can be stated that the results of the regression model estimation in this study do not contain symptoms of multicollinearity.

Table 3 White Test Results

| | | | | |
|-------------|---------------|----------|---------------------|--------|
| F-statistic | Obs*R-squared | 3.370116 | Prob.F(14,9) | 0.0363 |
| squared | explained SS | 20.15533 | Prob.Chi-Square(14) | 0.1253 |
| | | 23.96052 | Prob.Chi-Square(14) | 0.0463 |

Source: Eviews Output 12, 2023

Table 3 indicates that the NR² (Obs*R-squared) test statistics give a value of 20.15533, and the p-value for this statistic is 0.0463, lower than the significance level of 5%. Thus, it can be concluded that from the results of the White Test, the estimation results of the regression model in this study do not contain autocorrelation.



Source: Eviews Output 12, 2023

Figure 1. Jarque-Bera Normality Test (J-B Test)

Figure 1 demonstrates that the Probability value is 0.197741. Given that the Probability value is more significant than 0.05, it can be concluded that the data follows a normal distribution. From the researcher's investigation, the following conclusions can be drawn regarding the regression model's estimation:

Table 4. Regression Model Estimation Results

| Variable | Coefficient | SW. Error | t-Statistic | Prob. |
|--------------------|-------------|-----------|-------------|--------|
| C | 2.418004 | 1.041832 | 2.320915 | 0.0316 |
| SBIS | -0.013504 | 0.020855 | -0.647507 | 0.5251 |
| INFLATION | -0.018942 | 0.025020 | -0.757065 | 0.4583 |
| NPF | 0.452750 | 0.061539 | 7.357077 | 0.0000 |
| DPK | -0.000547 | 0.193946 | -0.002819 | 0.9978 |
| R-squared | 0.939592 | | | |
| Adjusted R-squared | 0.926875 | | | |
| F-statistic | 73.88205 | | | |
| Prob(F-statistic) | 0.000000 | | | |

Source: Eviews Output 12, 2023

The regression model estimation result table indicates an R square value of 0.939592. This indicates that SBIS, inflation, NPF, and DPK can explain the variation in MSME financing disbursement by 93.95%. Other variables outside the model explain the remaining 6.04%. The R² value above is large enough that the variables of SBIS, inflation, NPF, and DPK can explain the variables of MSME financing. Judging from the estimation results above, the probability value is 0.0000, and the calculated F value is 73.88205. The basis for decision-making is a significance level of 5% or 0.05. Because the probability value is smaller than 0.05, H₀ is rejected, and this indicates the simultaneous influence of SBIS, inflation, NPF, and DPK on the distribution of MSME financing.

While the t-test results in this study indicate that the probability value of SBIS of 0.5251 is greater than the actual level of 0.05, then H_0 is accepted. This indicates that there is no significant influence between SBIS on MSME financing. For the inflation variable, if the probability value of 0.4583 is less than the actual level of 0.05, then H_0 is accepted. This indicates that there is no significant influence between inflation and MSME financing. The NPF variable has a probability value of 0.0000, less than the actual level of 0.05, therefore H_0 is rejected. This indicates that there is a significant influence between NPF and MSME financing. SBIS has a probability value of 0.5251, more significant than the actual level of 0.05; hence H_0 is accepted. This indicates there is a significant influence between SBIS and the distribution of MSME financing.

3.2 Effect of SBIS on MSME Financing Distribution

Table 4's analysis shows that the SBIS probability value is 0.5251, more significant than 0.05. These findings indicate that SBIS cannot substantially impact SMB financing at Sharia Commercial Banks. The study's findings contradict the findings of previous studies (Muhfiatun et al., 2021; Ramadhan & Beik, 2013; Soemitra et al., 2021). However, the findings of this investigation are consistent with those of (Muhfiatun et al., 2021; Nasution & Sudiarti, 2023). When viewed from the monetary side, the decrease in SBIS is less beneficial to the economy from a monetary standpoint because it will increase the money supply. On the other hand, Islamic banks stand to gain from this because funds not stored in SBIS are anticipated to be utilized for production financing. MSME loans will decrease as a result of an increase in SBI. If the Bank Indonesia Certificate experiences an increase, then it will decrease the credit distributed by conventional banking to MSMEs.

3.3 The Effect of Inflation on MSME Financing

Based on the results of Table 4 analysis, the probability value of inflation is 0.4583, more significant than 0.05. These results indicate that inflation cannot significantly affect the distribution of MSME financing for Islamic Commercial Banks. The results of this study reject research conducted by (Christianti, 2020; Riani et al., 2018; Syamni et al., 2021) but support research conducted by (Azizuddin, 2022; Hafizh et al., 2020). Inflation has a vertical relationship with interest rates used by conventional banks but is not a reference margin used by Islamic banks. As a result, inflation cannot affect the costs incurred by the MSME sector. Even though the rate of inflation changed throughout the study, it will not affect the lack of financing for MSMEs; all in all, in any event, when the expansion rate is high, and individuals around that time need assets for business exercises, they will, in any case, require financing. Alongside the further development of RPIM, banks keep supporting MSMEs even when the expansion rate increases.

3.4 The Effect of NPF on MSME Financing Distribution

Based on the results of Table 4 analysis, the probability of NPF is 0.000, which is smaller than 0.05. These results indicate that NPF significantly affects the distribution of MSME financing for Sharia Commercial Banks. This study's results align with research conducted by (Cucinelli, 2015; Serrano, 2021; Thornton & Di Tommaso, 2021; Vithessonthi, 2016). Banks with high NPFs will select financing more carefully. NPF is getting higher because Islamic banking financing to MSMEs grows consistently amid support for MSME recovery from the impact of Covid-19. This improvement is a type of Islamic financial obligation to support MSMEs which is likewise essential for applying Islamic monetary qualities. As a result, RPIM has improved, with banks lending more to the business community to support the national economic recovery while maintaining the financial system's stability. In terms of financing quality, the government's extension of the Financial Services Authority's (OJK) implementation of financing and credit restructuring policies affected by Covid-19, which is

valid until March 31, 2024, can keep the NPF of MSMEs in the corridor below 5% by the provisions.

3.5 The Effect of DPK on MSME Financing Distribution

The probability of DPK is 0.9978, more significant than 0.05. These results indicate that DPK cannot significantly affect the distribution of MSME financing for Sharia Commercial Banks. The results of this study are contrary to the results of research conducted by (Azizah & Astuti, 2019; Pradesyah & Triandhini, 2021; Sri et al., 2013) however support the research undertaken by (Annisa et al., 2021). This is due to the number of DPK distributed to MSME financing compared to non-MSMEs is much less, with a ratio of 25%: 75%; this changes the number of DPK that do not affect the distribution of MSME financing. Bank Indonesia continues to normalize liquidity policy by gradually increasing rupiah reserve requirements while maintaining liquidity conditions and banks' ability to disburse financing. This normalization step is carried out by providing rupiah reserve requirement incentives for banks that channel credit/financing to priority sectors and meet the RPIM target. This is alongside the economic recovery due to the Covid-19 pandemic; people have begun to gradually save so that DPK will increase.

4. Conclusion

This study investigates the impact of SBIS, inflation, NPF, and DPK on the disbursement of MSME financing by Sharia Commercial Banks. The results indicated that SBIS had no appreciable effect on the distribution of financing for micro, small, and medium-sized enterprises (MSME) at Sharia Commercial Banks. Then, inflation cannot have a significant impact on the distribution of financing for MSMEs by Sharia Commercial Banks. Unlike NPF, it can have a significant effect on the distribution of MSME financing at Sharia Commercial Banks. DPK has no significant impact on the distribution of financing for small and medium-sized businesses at Sharia Commercial Banks. This study implies that to increase the Macprudential Inclusive Financing Ratio (RPIM), various stakeholders need to collaborate. Capital is a problem for MSMEs in their business development; the role of financial institutions, especially Islamic banks, is vital in fulfilling MSME capital. With the improvement of PBI, RPIM requires the fulfillment of RPIM by banks and the determination of RPIM targets based on self-assessment results outlined in the bank's business plan. This study suggests that in order to increase the Macprudential Inclusive Financing Ratio (RPIM), multiple stakeholders must work together. Capital is an issue for MSMEs in their business development; financial institutions, particularly Islamic banks, play a crucial role in capitalising MSMEs. RPIM necessitates the implementation of RPIM by banks and the determination of RPIM targets based on self-assessment results specified in the bank's business plan as PBI improves.

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