

## The Influence of Macroeconomic Variables on Problematic Financing in the Sector of Manufacturing

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### Abstract:

This study intends to examine how Indonesia's problematic manufacturing industry sector funding in Islamic banking is affected by macroeconomic factors such exchange rates, inflation, BI rates, and export growth. Monthly time series data from January 2018 to December 2022 were used in this investigation. The multiple linear regression test is the statistical analysis employed in this investigation. The findings demonstrated that the troublesome financing of the Manufacturing Industry sector was significantly influenced by a combination of macroeconomic factors, including exchange rate, inflation, BI rate, and export growth. Partly, the difficult financing of the Manufacturing Industry sector is significantly impacted by both inflation and the BI Rate in both positive and negative ways.

**Keywords:** macroeconomic, banking, manufacturing, financing.

### Introduction

Financing is one of the functions of bank activities, especially Islamic banks as an intermediary institution between parties with excess funds and those who need funds. Therefore, it is very important for Islamic banks to analyze the financing provided as part of risk management. Unlike the case with conventional banking, which distributes a lot of funds to the financial sector through the placement of funds at Bank Indonesia and other banks along with the purchase of securities, the distribution of Third Party Funds (DPK) to Islamic banking should be shown to the real economic sector, namely sectors that are able to provide production output.

Most of the distribution of funds to Islamic commercial banks was channeled through financing, at 83%, compared to conventional commercial banks, which only disbursed credit funds at 63%. Most of the distribution of third-party funds to conventional banks is channeled into the financial sector, with transactions full of uncertainty and speculation. Most of the funds channeled by conventional banking have no impact on the real economy; this is the impact of channeling funds to risk-free sectors such as Bank Indonesia Certificates. Because Islamic banking financing products with a profit-and-loss sharing scheme and a partnership paradigm are seen as being particularly suitable for business development that produces production output, one of which is in the manufacturing industry sector, funds channeled by Islamic banking have a significant impact on the growth of the real sector (Astuti et al., 2023).

The increase in industrial sector financing shows that the growth of the manufacturing industry is increasing in Indonesia. This can have a positive impact because the industry has an important role as a leading sector. A leading sector is one that, as it develops industrially, encourages and supports the growth of other sectors, such as agriculture and services. Fast industrial expansion will encourage the expansion of the agricultural sector, which will supply the industrial sector with raw materials. As a result of this industrialization, the service industry has also grown, as evidenced by the creation of financial institutions, marketing, and advertising, among other things (Tannady & Purnamaningsih, 2023). Due to the creation of new work opportunities, people's income and demand (purchasing power) will ultimately rise, indicating that the economy is expanding and in sound condition (Parlina et al., 2022).

Increasing the productivity of the manufacturing industry will have a major impact on the economy. As a traded sector, the manufacturing industry sector will increase the competitiveness of the Indonesian economy in world markets. Almost all developed countries reach their level of economic maturity due to rapid industrial growth. Along with the increasing financing of the manufacturing industry, the bank must not be complacent in carrying out a feasibility analysis and supervision of financing in the manufacturing industry sector so as to minimize problematic financing that may occur in the future. The problem of financing itself occurs when the customer, as the recipient of the financing, is unable to fulfill his obligations to the bank (Ismail, 2011).

The improving economic situation in 2018 also affected the decline in the manufacturing industry's problematic financing. However, at the end of 2022, the manufacturing industry's problematic financing increased from May 2022s 78 billion Rupiah to 208 billion Rupiah in September 2022. This increase was in line with rising prices after the increase in fuel prices announced by the government in June 2022. Problematic financing According to Siswanto, it is caused by internal factors such as the low ability of the bank to carry out a financing feasibility analysis, the imperfect binding of financing guarantees, and the lack of experience of the customer receiving the financing in the line of business being undertaken (Basuki, 2014). However, these internal factors are not the only determinants that influence non-performing loans. Therefore, he added, there are other factors that cause problematic financing, namely external factors in the form of economic conditions.

## **Literature Review**

### **Exchange Rate**

The author concludes that the factors that cause exchange rates are not Exchange rates, or foreign exchange rates, are defined as the value of a unit of foreign currency when exchanged for domestic currency. The exchange rate system is commonly used in international trade. Therefore, the movement of the exchange rate will affect transactions using foreign currencies (Rahardja & Manurung, 2014).

### **Inflation**

Inflation is a symptom of rising prices of goods that are general in nature and take place continuously. When this is going on, Sadono Sukirno argues that inflation simply refers to an increase in the cost of products and services as a result of rising market demand oversupply. In other words, there are too many people pursuing too few resources. With a distinct inflation rate each time, inflation is one of the economic issues that every nation consistently faces. As inflation cannot be prevented, macroeconomic policies such as stabilizing prices and anticipating inflation are necessary to combat it. so that everyone can properly prepare everything (Siswanto, 2008).

## BI Rate

The cost that banks and/or customers must pay as compensation for transactions between banks and customers is referred to as interest rates. The term "spread" refers to the price differential imposed by the variance in credit interest rates in traditional banking and deposits (Handayani et al., 2023). The BI Rate is an interest rate policy set forth by Bank Indonesia through its monthly Board of Governors' Meeting. Subsequently, to attain monetary policy operational goals, this policy would be applied through monetary operations carried out by Bank Indonesia through money market liquidity management (Sukirno, 2000).

## Export Growth

Physically, exports are defined as shipments and sales of goods made domestically to other countries (Tannady et al., 2023). Exports are part of the economy of a country with an open economic system because, in an open economic system, some of the output produced is sold domestically and some is exported abroad (Sukirno, 2007).

## Methodology

The research method employed in this study is a parametric statistical method, and the type of research used is quantitative research. The population of Indonesia at the time of this study is Islamic, and a parametric statistical approach is used in the research. In this report, Indonesia's current population is accounted for as Islamic. Purposive sampling is the method of sampling that is employed. The two methods of data collection used in this study are online publication and literature review. Multiple linear regression analysis is used in this work. The analytical procedure used in this study was conducted in phases, including the traditional assumption test, the multicollinearity test, the autocorrelation test, the heteroscedasticity test, the t test, the f test, and the determination stage.

## Case studies

The f-count value was derived using the f test results, and it was 26.869,  $\alpha$  5%. The Numerator is (number of independent variables – 1) or  $4-1 = 3$  and the Denominator is (number of cases – number of independent variables) or  $60-4 = 56$  then f-table is 2.77. Although alpha ( $0.000 < 0.05$ ) is larger than the sig value of 0.000. This suggests that the troublesome financing of the manufacturing industry sector in Islamic banking in Indonesia is being influenced simultaneously (together) by macroeconomic variables (exchange rate, inflation, BI rate, and export growth). The study's findings confirm the first hypothesis's H1 hypothesis, which argues that there is a relationship between the exchange rate, BI rate, inflation, exports, simultaneously on the problematic financing of the manufacturing industry sector in Islamic banking.

According to the results of the t test, the variable exchange rate's computed t value is  $1.328 < 2.004$ , and the significance level of 0.190 is higher than the significance level of 5% (0.05) ( $\text{sig} < \alpha$ ). Hence, hypothesis H0 is partially accepted whereas hypothesis H1 is denied. This indicates that the ratio of problematic financing in the manufacturing industry sector is not significantly impacted by the exchange rate. While a positive relationship is indicated by the regression coefficient of 0.001. The significance level is 0.000, which is less than the threshold of 5% (0.05), and the inflation t-value > the t-table ( $-6.019 > 2.004$ ). As a result, hypothesis H1 is supported and hypothesis H0 is partially rejected. This indicates that the ratio of has a major impact on inflation problematic financing in the manufacturing industry sector. While the regression coefficient of -1.979 shows a negative relationship. This means that if there is an increase in inflation of 1%, the ratio of problematic financing in the manufacturing industry sector will decrease by 1.979%.

The t value of the BI Rate > t-table ( $9.094 > 2.004$ ) and the significance level of 0.000 are smaller than the  $\alpha$  level of 5% (0.05) ( $\text{sig} < \alpha$ ). Thus, partially the hypothesis H0 is rejected and hypothesis H1 is accepted. This indicates that the ratio of problematic financing in the manufacturing industry sector is significantly impacted by the BI Rate. While a positive correlation is indicated by the regression coefficient of 8.195. This implies that the ratio of problematic financing in the manufacturing industry sector will increase by 8.195% if the BI Rate rises by 1%. The significance level of 0.564 is higher than the significance level of 5% (0.05) ( $\text{sig} > \alpha$ ), and the t value of the variable export growth is t-table ( $0.581 < 2.004$ ). Hence, hypothesis H0 is partially accepted whereas hypothesis H1 is denied. This indicates that the ratio of problematic financing in the manufacturing industry sector is not significantly impacted by export expansion. While a positive

correlation is indicated by the regression coefficient of 0.023. According to the results of the t test, the BI rate, which has a coefficient value of 8.195, has the biggest impact on the manufacturing industry sector's difficult financing. The inflation variable, which has the second-largest impact, has a coefficient value of -1.979.

The significance level for the exchange rate variable is  $0.190 > 0.05$ . To infer that the exchange rate has no bearing on the challenging financing of the manufacturing industry sector, it is necessary to accept  $H_0$ . In light of the fact that Islamic banks typically channel funds through financing, which tends to reduce the risks associated with fluctuating foreign exchange rates, it can be concluded that the factors that influence exchange rates have little bearing on the problematic financing of the manufacturing industry sector. So that in the operational activities of Islamic Banks that are directly related to the risk of exchange rate fluctuations are treasury activities, namely fulfilling the bank's liquidity needs. As stated by Karim, Islamic banks cannot be separated from the risk of positions in foreign exchange. This exchange rate risk will increase if the number of positions taken is large (both long and short positions) and market fluctuations are high.

The significance level for the inflation variable is  $0.000 > 0.05$ . Accepting  $H_1$  is necessary to get the conclusion that inflation significantly affects the challenging financing of the manufacturing industry sector. The relationship between inflation and problematic financing in the manufacturing industry sector is negative, i.e., if there is an increase in inflation, the problem financing in the industrial sector will decrease. The author comes to the conclusion that industrial enterprises that receive funding from Islamic banks benefit from an increase in the inflation rate. This is because inflation does not interfere with the production process of businesses run by customers. Factor costs of production that must be borne by the customer, such as the cost of raw materials for production, so that workers' wages or salaries do not experience an increase. According to Arif, producers might profit from inflation if their income rises more than their cost of production. Producers will be urged to quadruple their output if this occurs. On the other hand, producers will suffer if inflation drives up manufacturing costs.

The significance level for the BI Rate variable is  $0.000 > 0.05$ . Accepting  $H_1$  is necessary in order to draw the conclusion that the BI rate significantly affects the challenging financing of the manufacturing industry sector. The BI Rate and the challenging financing of the manufacturing industry sector are positively correlated, therefore if the BI Rate rises, the challenging financing of the industrial sector will also rise. This is consistent with the theory of profit margins and profit-sharing ratios for Islamic bank financing, where in setting margins and ratios, the ALCO (Asset Liabilities Committee) of Islamic banks in this case refers to standard banking interest rates (the BI Rate). The parallel banking system that exists in this nation is inextricably linked to the use of the BI rate as a benchmark when determining margins and profit-sharing ratios. So that Islamic Banking can compete effectively with Conventional Banking.

The significance value for variable export growth is  $0.564 > 0.05$ . Accepting  $H_0$  is required in order to reach the conclusion that export growth has no bearing on the challenging financing of the manufacturing industry sector. As previously explained, the management of Islamic Bank funds in the form of channeling funds through financing tends to avoid the risks associated with foreign currency values. Therefore, Islamic banks provide financing to customers who carry out industrial business activities whose market segmentation is not export-oriented. So, this also causes export growth to have no effect on the problematic financing of the manufacturing industry sector.

An increase in the number of problems with financing can result in a decrease in the level of public trust, especially among bank customers. Besides that, it can also reduce the profit of Islamic banks. Therefore, the author tries to see how the impact of troubled financing in the manufacturing industry sector that occurred during the observation period affected the profit and loss of national Islamic banking. increase in profits of Islamic banks every year, Islamic Business Units (UUS), Islamic People's Finance Banks, and Islamic Commercial Banks (BUS) (BPRS), with BUS, UUS, and BPRS profits of 832 billion Rupiah and 67.19 million Rupiah, increasing to 4364 billion Rupiah and 156.18 million Rupiah in the last year of the observation period. Because the authors conclude that the troubled financing of the manufacturing industry sector that occurs in Islamic banking does not affect the performance of national Islamic banking in generating profits.

## Conclusion

The F test results demonstrate that over the 2009–2013 period, the exchange rate, BI rate, inflation, and export growth variables all have an impact on the challenging financing of the manufacturing industry sector in Islamic banking. The

adjusted R square value in this study is 0.637, which indicates that 63.7% of the variance in the problematic financing of the manufacturing industry sector in Islamic banking in Indonesia is caused by macroeconomic variables (exchange rate, inflation, BI rate, and export growth). The remaining 36.3% is caused by variables outside of this research model. The t test findings reveal that the inflation and BI Rate variables partially have a substantial adverse and favorable impact on the problematic financing of the manufacturing industry sector in Islamic Banking for the 2009-2013 period, with the BI Rate having the greatest influence on the problematic financing of the manufacturing industry sector at a coefficient value of 8.195, while the inflation variable has the second largest effect at a coefficient value of -1.979.

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