Abstract: This research is conducted to investigate the factors that influence the financing of the agricultural sector on Islamic banking in Lampung Province. The data used in this research is time series data from Islamic Commercial Banks (BUS) and Islamic Business Units (UUS) in Lampung Province totaling 120 samples. The data are obtained from the statistical reports of the Financial Services Authority (OJK) on sharia banking in Indonesia, and data from the Indonesia Statistics (BPS). The method used is a quantitative analysis using multiple linear regression. This study shows that the variables of Financing to Deposit Ratio (FDR) and TPF have a positive and significant correlation. However, the SBIS variable has a negative and insignificant effect on Agricultural sector financing. On the other hand, the Non-Performing Financing (NPF) variable has a negative and significant correlation, and the variable Inflation has a positive and insignificant on the agricultural sector financing in Lampung province.

Keywords: Agricultural Sector Financing, Banking Risk, Macroeconomics Variables.

Introduction

Indonesia is known as an agricultural country where most people work in this sector. Based on data from the Indonesian Statistics (BPS), people work in the agriculture sector is the highest percentage 29.76%, compared to other sectors such as trade, 19.23 %, and the processing industry 13.61 % (BPS, 2020). It makes agriculture play an important role as a driver of the country's economy. The agricultural sector is a leading sector in Lampung Province. According to BPS Lampung (2020), the position of the agricultural sector dominates the contributors to the Gross Regional Domestic Product (GRDP) and it is also shows an increase year to year.
The position of the agricultural sector in Indonesia faces obstacles, with a lack of capital being the main barrier (Yoko, 2019). Farmers often turn to non-formal loans due to simpler procedures and no collateral requirement, but this practice is opposed by Islamic principles (Saragih, 2017). The practice of the interest system in Islam is prohibited because of the riba, and the interest system also increases the burden on farmers. According to Brahmantyo (2022); Manoori et al. (2018) and Anwar et al. (2020). Islamic financing banks, based on revenue and loss-sharing principles, are proposed as an alternative that could benefit farmers and avoid speculation. The aim is to improve the distribution of financing in the agricultural sector.

<table>
<thead>
<tr>
<th>Economic Sector</th>
<th>GRDP distribution at current prices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2016</td>
</tr>
<tr>
<td>Agriculture, Forestry and Fisheries</td>
<td>31.67</td>
</tr>
<tr>
<td>Mining and excavation</td>
<td>5.49</td>
</tr>
<tr>
<td>Processing industry</td>
<td>18.70</td>
</tr>
<tr>
<td>Procurement of Electricity and Gas</td>
<td>0.11</td>
</tr>
<tr>
<td>Water Procurement, Waste Management</td>
<td>0.10</td>
</tr>
<tr>
<td>Wholesale and Retail Trade</td>
<td>11.02</td>
</tr>
</tbody>
</table>

Source: Indonesia Statistics (BPS), 2020

Nurrochman & Mahfudz (2016) state that Third-party funds positively correlate with agricultural financing. Meanwhile, Non-performing financing (NPF) also impacts financial distribution in the agriculture sector, as indicated by the NPF ratio (Aryani et al., 2016). Increased NPF causes banks losses and reduces financing exposure (Nurjanah & Suryantini, 2019). Research by Shihabudin et al. (2021) supports the negative relationship between NPF and financing. Financing to Deposit Ratio (FDR) also affects agriculture financing. Pratiwi (2018), states that a positive relationship exists between FDR and financing, where higher FDR leads to more financing distribution.

Bank Indonesia Sharia Certificates (SBIS) are one of the monetary policy instruments to absorb liquidity from Islamic banks as an effort to control monetary and promise certain rewards for those participating in its implementation. SBIS bonuses received by BUS and UUS increase financing allocation, including in the agricultural sector, so that the greater the SBIS bonus received by BUS and UUS, the greater the allocation of funds for financing (Beik & Aprianti, 2013).

Inflation is a continuous increase in commodity prices. When it rises, the central bank raises interest rates, affecting consumer ability to pay and bank income. This impacts banking business and the allocation of funds. Banks practice prudential principles and a decrease in savings affects disbursed financing (Larasati et al., 2017; Nurjanah & Suryantini, 2019). The literature on Syariah financing banks has been well-studied. Research conducted by Hudaifah et al. (2016) explains found that ER and SBIS impact financing in the short term, while DPK and NPF have a significant impact in the long term. The IRF results indicate that DPK, NPF, and ER positively influence bank financing.
Based on previous research, this study want to determine the impact of inflation, NPF, DPK, FDR and SBIS variables on sharia bank financing in the agricultural sector at Lampung Province. The agricultural sector has always been a leading sector that contributes to the GDP of Lampung Province. This research is different from previous studies which looked at financing from banks in general, but this research focuses on financing distributed by Islamic banks to increase the GDP of Lampung province. It is hoped that the results of this research will reveal the potential and existence of Islamic banks in improving the regional economy, especially Lampung province. From this background, a hypothesis was formulated that it is suspected that NPF and inflation have a negative effect on financing the agricultural sector and DPK, FDR, SBIS have a positive effect on financing the agricultural sector by Sharia banking in Lampung Province.

Literature Review

Islamic Production Theory

Karim (2015) states the importance of capital that needs to be considered when doing business because capital sources are widely used by producers. The source of capital use is the character of the cost of capital itself. Cost analysis can be interpreted as a function of the relationship between the level of output and production costs in a certain period. The cost component can be divided into three, namely Fixed Cost (FC), Variable Cost (VC), and Total Cost (TC). The revenue component is total revenue (TR). And there are interest costs that producers must pay. The amount of interest paid by producers depends on the amount of loan given.

The interest system in production cost analysis is fixed. This means that no matter how much output is produced, interest must still be paid. The interest cost will increase the total cost. Unlike the interest system, in the profit-sharing system fixed costs are not affected, but the implementation of this system will affect total revenue. If in the interest system that changes is the total cost, while the profit sharing system that changes is the total revenue. The greater the profit-sharing ratio given to investors, the closer the TR curve is to the horizontal X-axis. When the TR curve intersects with the TC curve (TR=TC), turning the TR curve into TRa, will change the BEP point from the amount of output Q to Qa.

Islamic Bank

Islamic banking is a service in payment traffic that deals with Islamic provisions. The principle of Islamic banking is a component of the teachings of economic relations in Islam. The prohibition in Islamic economics relates to the system and form of usury. In the principle of profit sharing, Islamic banks can create a healthy and fair investment environment and establish a balanced position between the bank and its clients, because all parties can share the same interests and potential risks. In the long run, it will stimulate economic capital, because not only capital owners but also capital managers will benefit from these returns (Utama & Suwarsi, 2019).

Sudarsono (2015) Islamic bank is a financial institution whose main activity is to carry out financing and other services and circulate money that works based on Sharia principles. The role of Islamic Banks is as an intermediary institution between economic parties who...
experience excess funds (surplus units) and other economic parties who experience a shortage of funds (deficit units).

**Financing**

Financing is funding support for needs to run a business. In other words, the definition of financing is the provision of funds to business actors to support and run their businesses in terms of capital (Zamora, 2021). According to OJK, the principles of business activities in sharia financing include justice (‘adl), balance (tawazun), profit (maslahah), universalism (alamiyah), and no gharar, maisir, usury, zulm, risywah, etc. In addition, various types of contracts are used. In addition, different types of contracts are used in Islamic financing, depending on the business. In Islamic financing, there are muzara'ah, mukhabarah, and musaqqah financing contracts.

**Methods**

The main objective of this study is to Analyze the factors affected the financing in agricultural sector of syariah Bank in Lampung Province. This study used a time series approach on a monthly scale. This research uses non-probability sampling with the purposive sampling category, which is a sampling technique with certain considerations. The data used in this research is time series data from Islamic Commercial Banks (BUS) and Islamic Business Units (UUS) in Lampung Province totaling 120 samples. The data are obtained from the statistical reports of the Financial Services Authority (OJK) on sharia banking in Indonesia, and data from the Indonesia Statistics (BPS). The data collected is monthly data from January to December from 2011 to 2020.

This research also uses multiple linear regression analysis or Ordinary Least Square (OLS) to determine and analyze the effect of independent variables on the dependent variable. Before carrying out multiple linear regression, a classic assumption test was carried out which included the normality test, multicollinearity test, autocorellation test and heteroscedasticity test. The mathematical equation used in the research is as follows:

\[ PSP = 0 + 1 \text{NPF} + 2 \text{DPK} + 3 \text{FDR} + 4 \text{SBIS} + 5 \text{INF} + e \]

\[ \text{................. (1)} \]

Where PSP = Financing of the Agricultural Sector in Sharia (Dependent Variable) NPF = Non Performing Financing (Independent Variable) DPK = Third Party Funds (Independent Variable) FDR = Financing to Deposit Ratio (Independent Variable) SBIS = Sharia Bank Indonesia Certificates (Independent Variable) INF = Inflation (Independent Variable) 1, 2, 3, 4, 5 = Regression coefficients of independent variables e = Error

**Finding**

Based on table 2, it can be seen that the average of Agricultural Sector Financing (PSP) is 142,29 billion ranging from 10 to 317 billion. The standard deviation of 99.30 indicates moderate variability in PSP. On average, Non Performing Financing (NPF) is around 4.31 and the values range from 1 to 22,79, it shows diversity in the level of NPF faced by sharia banking from its customer. The low standard deviation of NPF is 2,69 shows that the NPF
that occurs in sharia banking is relatively consistent and can still be overcome. The mean of third-party funds (DPK) is 1886.54 billion, ranging from 582 to 3438 billion with standard deviation of 739.71 shows that customer deposits in sharia banks are quite varied and have the potential to increase financing activities by sharia banks.

<table>
<thead>
<tr>
<th></th>
<th>PSP</th>
<th>NPF</th>
<th>DPK</th>
<th>FDR</th>
<th>SBIS</th>
<th>INF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>142.29</td>
<td>4.31</td>
<td>1886.54</td>
<td>7.00</td>
<td>8323.44</td>
<td>0.35</td>
</tr>
<tr>
<td>Maximum</td>
<td>317.00</td>
<td>22.79</td>
<td>3438.00</td>
<td>14.39</td>
<td>14694.00</td>
<td>2.75</td>
</tr>
<tr>
<td>Minimum</td>
<td>10.00</td>
<td>1.00</td>
<td>582.00</td>
<td>0.66</td>
<td>2918.00</td>
<td>0.76</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>99.30</td>
<td>2.69</td>
<td>739.71</td>
<td>3.13</td>
<td>3153.13</td>
<td>0.55</td>
</tr>
<tr>
<td>Observation</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>120</td>
<td>120</td>
</tr>
</tbody>
</table>

Source: Author’s calculations, 2023

The average of Financing to Deposit Ratio (FDR) score is 7.00, showing a diverse range from 0.66 to 14.39 with standard deviation of 3.13 indicates that sharia banking has financing levels that vary over time which are adjusted to funds collected from third parties. Indonesian Sharia Banking Certificate (SBIS) on average 8323.44 billion with range 2918 to 14694 billion and standard deviation value of 3153.13 indicates that the development of sharia bank shares varies over time, thereby increasing the existence of sharia banks in financing economic sectors. The inflation has an average value 0.35 ranging from 0.76 to 2.75 with standard deviation of 0.55, it suggests moderate variability in inflation across observations.

Classical Assumption Test

Based on the results of the normality test, it can be seen that the Probability Jarque-Bera value is 0.374824 > 0.05 (JB-test prob = 0.829102 > = 5%). Thus, it is obtained that the results of the normality test are normally distributed, so this research can be accepted to continue. Based on the analysis of multicollinearity test that has been done, we obtained a value of Centered VIF between independent variables less than 10. From this, we can conclude that there is no problem of multicollinearity between the variables being studied. Based on the estimation results of autocorrelation test, the Probability value is 0.1857, so there is no autocorrelation in the observation model. This is because the value of Probability Chi-Square(2) = 0.1857 > 0.5, so it can be said that the model is free from autocorrelation problems. Based on Heteroscedasticity Test, the probability value shows that ^2 > (0.7356 > 0.05), so the model does not have a problem of heteroskedasticity. This means that the probability value is greater than the level = 5% (0.05), so it can be concluded that the model is not heteroskedastic.

Multiple Linier Regression Results

Based on the results of multiple linear regression estimation, it can be seen that the coefficient value of NPF is -1.715. The negative sign indicates that there is a negative relationship between the input value and the output NPF. The coefficient of the DPK variable is 0.081, which is positive, and the positive sign indicates that there is a positive relationship between the value of DPK and the output value. The coefficient of FDR is 19.388 and is positive. The coefficient value of SBIS is -0.000 with a negative parameter, which means that if it increases by 1 percent, it will decrease the output by -0.000. The
estimation results show that the coefficient value of Inflation is 0.655, which means that when inflation increases by 1 percent, it will cause the output value to increase by 0.655.

Table 3. Estimation Results

<table>
<thead>
<tr>
<th>No</th>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistik</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>C</td>
<td>-131.1293</td>
<td>3.381546</td>
<td>-38.77791</td>
<td>0.0000</td>
</tr>
<tr>
<td>2</td>
<td>NPF</td>
<td>-1.715718</td>
<td>0.398724</td>
<td>-4.303026</td>
<td>0.0000</td>
</tr>
<tr>
<td>3</td>
<td>DPK</td>
<td>0.081077</td>
<td>0.002343</td>
<td>34.61097</td>
<td>0.0000</td>
</tr>
<tr>
<td>4</td>
<td>FDR</td>
<td>19.38813</td>
<td>0.379384</td>
<td>51.10423</td>
<td>0.0000</td>
</tr>
<tr>
<td>5</td>
<td>SBIS</td>
<td>-0.000978</td>
<td>0.000590</td>
<td>-1.658264</td>
<td>0.1000</td>
</tr>
<tr>
<td>6</td>
<td>INF</td>
<td>0.655917</td>
<td>1.877109</td>
<td>0.349429</td>
<td>0.7274</td>
</tr>
<tr>
<td>7</td>
<td>Adj. R-Squared</td>
<td>0.988162</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>F-Statistik</td>
<td>1903.221</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Prob (F-Statistik)</td>
<td>0.000000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Author's calculations, 2023

Based on the data analysis multiple regression equations can be arranged as follows:

\[ \text{PSP} = -131.1 - 1.715 \text{NPF} + 0.081 \text{DPK} + 19.388 \text{FDR} - 0.000 \text{SBIS} + 0.655 \text{INF} + e \] ....(2)

Based on the results of the partial test (t-statistic test), the test is used to determine the partial effect of independent variables on the dependent variable, using a significant level of 5%. According to the critical value of the t-table for \( \alpha = 5\% \) at 0.05. If the probability value is less than 0.05, then the independent variable is individually influenced. The t-test results show that the variable NPF with a t-statistic value of -4.303026 and a significance value of 0.0000, where this probability value is below 0.05, as per the criteria for testing. The variable DPK obtained a probability value of the t-statistic 34.61097 and a significance value of 0.0000, the significance value is less than 0.000 < 0.05, which means that the DPK variable affects agricultural sector financing. On the FDR variable, a probability value of the t-statistic 51.10423 and a significance value of 0.0000 is obtained, which means that the significance value is less than 0.000 < 0.05, which means that the FDR variable affects agricultural sector financing. The estimation result of the SBIS variable obtained a probability value of the t-statistic -1.658264 and a significance value of 0.1000, which means that the significance value is greater than 0.05 or 0.1000 > 0.05, it is concluded that the SBIS variable does not affect agricultural sector financing.

The estimation result of the inflation variable with a t-statistic value of 0.349429 and a significance value of 0.7274, which means that the significance value is greater than 0.05 or 0.7274 > 0.05, it can be said that the inflation variable has a positive and insignificant effect on agricultural sector financing. The results of the F test show that the calculated F value is 1903.2 with a significance value of 0.0000 less than \( \alpha = 0.05 \). The results indicate that the research model in this study can be accepted and this result indicate that independent variables NPF, DPK, FDR, SBIS, and Inflation have a significant effect on agriculture sector financing in BUS and UUS in Lampung province.

Discussion

Estimation results show that NPF (Non-Performing Financing) affects the financing of the agricultural sector. The NPF variable negatively and significantly affects the financing
of the agricultural sector. The value of NPF indicates the level of problematic financing in Islamic banks. The higher the value of NPF, the higher the problematic financing. This is due to many customers who have been financed not making loan payments, thus causing NPF to increase. An increase in NPF results in an increase in funding risk for the bank. As a result, the bank becomes more selective in collecting funds, resulting in a decrease in financing. In addition to being more selective, the other effect is a low profit sharing and low profit between the bank and the Shahibul Maal. The bank’s profit decreases (Nur et al., 2022). This is also in line with the research of Mohamed & Shafiai (2021); Hamidi et al (2022); Lestari (2019) and Khotijah & Iswanaji (2020), which states that the amount of funds disbursed by the bank due to high NPF levels indicates the amount of bank funds that are problematic, high problematic financing causes some negative impacts for the bank, so the bank must be careful and more selective in disbursing financing.

The research results show that the DPK variable has a positive and significant effect on financing the agricultural sector. The research results show that the size of DPK affects the allocation of funds for Islamic banks. Adinda (2023); Mutmainah & Romadhon (2023) and Indrawan & Rahman (2020) concluded that the DPK variable has a positive effect on financing. This is due to the more funds collected from Islamic banks, the greater the disbursement of funds or funds typically provided by Islamic banks. A healthy bank can be seen from its assets, the financing issued, especially its liquidity. This research is in line with the research of Alam et al (2019) which states that DPK has a positive and significant effect on the disbursement of funds for Islamic banks, and the size of DPK causes the funds allocated as financing to increase. As a result, the prospect of Islamic bank savings will continue to increase from year to year. This is also reflected in the growth of public trust in Islamic banks.

The research results show that FDR (Financing to Deposit Ratio) affects financing in the agricultural sector. The FDR variable has a positive and significant effect on financing the agricultural sector. This research is in line with the survey of Pratiwi (2018) and Mubarok (2021) which states that FDR has a positive and significant effect on funding Islamic banks. FDR shows the level of liquidity of a bank when paying back third party withdrawals by relying on funding as a liquidity source. The higher the FDR, the more money the bank will use and the less liquid the bank is. The more money, the higher the income. The higher your income, the higher your profit. The higher the value of FDR, the more money the agricultural sector will flow to customers. The higher the FDR, the greater the possibility that the bank will make a profit, so next year the bank will be interested in expanding the financing of the agricultural sector.

Research conducted shows that SBIS affects financing in the agricultural sector. The results of this study indicate that the SBIS variable has a negative impact on agricultural sector financing with a small effect. Banks are more interested in redirecting funds to SBIS rather than directing them to relatively risky financing. Consistent with the research of Lestari (2019); Kazak et al. (2023); Ledhem & Mekidiche (2022) and Adinda (2023) that SBIS does not affect funding of Islamic banks, Islamic banks are interested in channeling funds through the purchase of SBIS because SBIS increases and provides more returns. And it brings higher risk than directing money to the agricultural sector. This research is in line with Hudaifah et al (2016) in the SBIS variable that has a negative impact on agricultural financing. This means that as SBIS compensation increases, the amount of money paid by Islamic banks to the agricultural sector decreases.
Research conducted shows that inflation affects financing in the agricultural sector. The results of this study indicate that the inflation variable has a small positive effect on agricultural sector financing. Inflation does not have a significant impact on agricultural sector financing, because inflation is fluctuating, but agricultural entrepreneurs need capital to improve their funding to support farming activities. This capital can be obtained from bank loans. Consistent with the research by Tampubolon et al (2021) inflation does not have a significant impact on sharia bank financing because sharia banks use the principle of profit sharing. This condition is automatically more stable compared to interest rates which are micro interest rates.

The results of this research show that the increasing amount of sharia bank financing channeled to the agricultural sector will increase the amount of production in the agricultural sector and will increase the income received by farmers. This increase in income is due to the profit sharing system that is implemented and is in accordance with Islamic production theory which does not apply the interest system, so that in its implementation all parties involved are not harmed. The results of this research are in accordance with research conducted by Moh’d & Mualley (2022) that revealed that the Salam mode of finance is appropriate for financing agriculture in Sudan due to its significant effects on agricultural production, with a significant and positive relationship. In addition, the agricultural sector contributed highly to the country’s economy during the study period and was positively elastic to bank financing. Setiawan (2019) stated that financing of Islamic banks provides a positive role for economic growth in all sectors of the economy. Through financing, Islamic banks can encourage output growth and field job creation in the economic sectors.

**Conclusion**

Based on the analysis of this research, it can be obtained that the variables NPF, DPK, FDR, SBIS, and inflation have a significant effect on the financing of the agricultural sector in Lampung, as shown by the significance of 0.000 and the value of F 1903.221. Partially, the variables FDR DPK have a positive and significant effect on the financing of the agricultural sector in Lampung. The variable SBIS has a negative effect on the financing of the agricultural sector in Lampung. Meanwhile, the variable NPF has a negative and significant effect on the financing of the agricultural sector in Lampung. The inflation variable has a positive effect on the financing of the agricultural sector in Lampung. If prices naturally increase and are still within a certain range, it will increase production enthusiasm. This becomes an opportunity for Islamic banks to allocate their funds to the agricultural sector. The need for community support to use Islamic banking products for both savings and financing, especially financing in the agricultural sector. So far, many players in the agricultural sector still prefer conventional banking to help their capital. If many people are interested in cooperating with Islamic banks related to financing to the agricultural sector, then Islamic banks will pay more attention to financing to the agricultural sector.

The limitation in this research is that there are still limited financing funds specifically for the agricultural sector, because sharia bank financing is still prioritized for the MSME sector. For parties who determine policies to pay attention to agricultural sector financing to increase agricultural sector financing in accordance with the increase in the number of
TPF collected. For further research, it is recommended to increase the research period and add other sharia variables, for example Return On Assets (ROA) and other variables that contribute enough to financing the agricultural sector so as to be able to develop future research.

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