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INCUMBENT BANKS VS NEW ENTRANTS: THE IMPACT OF PEER-TO-PEER LENDING AND MARKET POWER ON THE STABILITY OF ISLAMIC COMMERCIAL BANKS

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Abstract

This study investigates the effect of Peer-to-Peer (P2P) lending and market power on the stability of Islamic Commercial Banks (BUS). Stability is measured by the Z-score, and market power is measured by the Lerner Index. This study uses aggregate data from BUS, conventional bank, and P2P lending from January 2018 to December 2021. This quantitative research employs the Autoregressive Distributed Lag (ARDL) model. The results show that P2P lending does not affect BUS stability, whereas BUS market power has a positive effect on their stability. The implications of these findings suggest that while P2P lending is a rapidly growing competitor in the financial sector, its presence does not destabilize existing Islamic banks (BUS). Instead, BUS stability is more significantly influenced by their market power. Therefore, BUS should focus on enhancing their market power through strategic initiatives such as innovation in financial products, improving customer service, and increasing operational efficiencies.

Keywords: P2P Lending, *Market power*, Islamic commercial bank stability

Abstrak

Penelitian ini menginvestigasi pengaruh pinjaman Peer-to-Peer (P2P) dan kekuatan pasar terhadap stabilitas Bank Umum Syariah (BUS). Stabilitas diukur dengan Z-score, dan kekuatan pasar diukur dengan Indeks Lerner. Penelitian ini menggunakan data agregat dari BUS, bank konvensional, dan pinjaman P2P dari Januari 2018 hingga Desember 2021. Penelitian kuantitatif ini menggunakan model Autoregressive Distributed Lag (ARDL). Hasil penelitian menunjukkan bahwa pinjaman P2P tidak mempengaruhi stabilitas BUS, sedangkan kekuatan pasar BUS berpengaruh positif terhadap stabilitasnya. Implikasi dari temuan ini menunjukkan bahwa meskipun pinjaman P2P merupakan pesaing yang berkembang pesat di sektor keuangan, kehadirannya tidak mengganggu stabilitas bank-bank syariah yang sudah ada. Sebaliknya, stabilitas BUS lebih dipengaruhi secara signifikan oleh

kekuatan pasar mereka. Oleh karena itu, BUS harus fokus untuk meningkatkan kekuatan pasar mereka melalui inisiatif strategis seperti inovasi dalam produk keuangan, meningkatkan layanan pelanggan, dan meningkatkan efisiensi operasional.

Kata Kunci: *Pinjaman Peer-to-Peer, Kekuatan pasar, Stabilitas Bank Umum Syariah*

Introduction

The industrial revolution 4.0 is growing rapidly, giving rise to Peer-to-Peer (P2P) Lending entities. This entity with online funding and lending services results from financial sector technological innovation. In general, P2P is a platform that connects lenders and borrowers through smartphone apps. People usually refer to P2P as an online loan application. P2P growth in Indonesia is taking place rapidly. Based on Financial Services Authority (OJK) data released in March 2022, there are 102 registered/licensed P2Ps, including 95 conventional providers and 7 sharia providers (OJK, 2022).

Third-party funds or P2P lenders have grown significantly. Accumulated bank accounts in December 2018 grew more than 100% YoY in Java and outside Java. In December 2019, P2P bank accounts in Java grew by 222.12% YoY. Meanwhile, outside Java and abroad, bank account growth reached 103.16% and 88.16% YoY. Until 2021, the accumulation of lender funds will increase to reach IDR 283.95 trillion (OJK, 2020).

The growth in lenders' funds on P2P lending platforms was accompanied by a significant increase in the distribution of loan funds. The loan disbursement figures have consistently risen each year. Notably, in 2019, the growth in distributed funds was extraordinary. The total funds distributed by P2P lending applications nationally amounted to IDR 22.67 trillion in 2018. By 2019, this number had surged to IDR 81.49 trillion, showcasing remarkable growth within a single year.

In 2020, despite the sluggish economy caused by the Covid-19 pandemic, P2P lending operations remained resilient. The accumulation of P2P lending loans in the first half of 2020 nationally reached IDR 113.46 trillion, reflecting a year-on-year growth of 153.23%. Loan funds disbursed in Java amounted to IDR 97.34 trillion, while those disbursed outside Java totaled IDR 16.12 trillion. The growth trend in P2P lending continued into 2021, with IDR 246.62 trillion in loan funds distributed in Java and IDR 49.22 trillion outside Java.

It is important to highlight that in 2021, the credit disbursed by P2P lending exceeded the financing disbursed by incumbent banks, specifically Sharia Commercial Banks (BUS). P2P lending credit distribution in 2021 reached IDR 295.85 trillion, surpassing BUS financing distribution, which stood at IDR 254.21 trillion. This trend of substantial P2P lending financing distribution has the potential to capture the financing market share of incumbent banks with relatively small market share and market power, such as BUS.

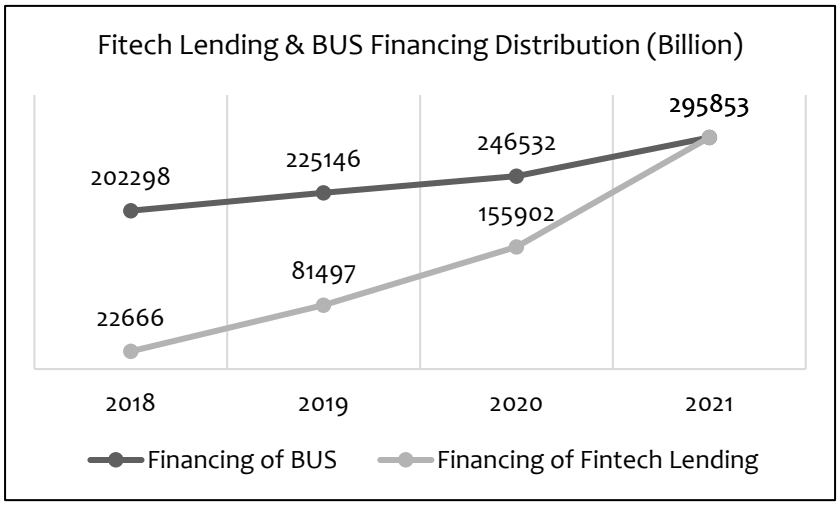

Figure 1.
P2P Lending & BUS Financing Distribution 2018-2021
Source: data processing results from the 2018-2021 OJK report

Research Mahendra & Prasetyo (2017) explains that the market power of BUS is relatively lower than of Islamic business unit (UUS) and conventional banks. This research revealed in detail that the Lerner BUS index was at the level of 0.28. Meanwhile UUS market power is at level 0.40. On the other hand, the market power of the top 10 conventional banks has a market power of 0.41. From the market power comparison between BUS, UUS and the top 10 conventional banks, it can be concluded that BUS does have relatively lower market power. Thus, BUS is relatively unable to reduce marginal costs and relatively unable to determine or increase output prices (financing) because competition is tighter. So the opportunity to increase profits is low, making BUS vulnerable to instability.

In research Berger et al., (2017a) provides an explanation that the Lerner index which is a proxy for bank market power has a positive and significant relationship with the Z-Score as a proxy for stability. This illustrates that high bank

market power makes banks more stable. On the other hand, low bank market power will encourage banks to experience instability.

Empirical evidence of significant P2P lending credit growth indicates that P2P lending is being well-received by the public. P2P lending institutions are becoming active participants in the financial intermediation market. As a result, competition between non-bank financial institutions and banks is intensifying. While some empirical literature suggests that the emergence of P2P lending as a new player in the financial intermediation industry will not affect the profitability and stability of incumbent banks, other research indicates that P2P lending can capture the niche market share of these institutions, potentially leading to decreased profits and increased instability for incumbent banks.

In FSB (2017) research explains that the presence of P2P lending which distributes financing to the community encourages incumbent intermediation institutions such as banks to be more stable. This is because banking and P2P lending business entities have different work patterns. For example, the requirements for applying for credit in banking are more complicated and stricter, while applying for P2P lending loans is looser. With identity card capital without any collateral, customers can get financing through P2P lending. In contrast, banks require collateral. Access to banking financing was closed then shifted to choosing loan access to P2P lending. So P2P lending institutions have high loan risks. If borrowers with risky portfolios prefer P2P lending, the presence of P2P lending entities as new players in the intermediation market will not take over credit or banking financing market share.

In contrast to previous research, Dyana & Sapulette (2020) reveals that the presence of P2P lending has a negative impact on the stability of BUKU I banks, which have smaller capital and market share characteristics. This means that banks with small capital and small consumption type financing have a financing market segment exactly like P2P lending. Thus, P2P lending is a substitute for small capital banks that operate in the small financing market segment. In line with the negative impact of P2P lending financing on the stability of banks with small capital, research (Phan et al., 2020) reveals that the presence of P2P lending entities in Indonesia has a negative effect on banking performance including Net Interest Margin (NIM), Return on Assets (ROA), Return on Equity (ROE) and Year Ending Actual (YEA).

With the presence of P2P lending entities that make accessing funds as easy as the click of a button on a smartphone, competition in the financing market is becoming even tighter. Sharia Commercial Banks (BUS), which have only a small

market share and market power, must now compete for the financing market with Islamic Business Units (UUS), conventional banks, and new players like P2P lending platforms. Therefore, this study aims to analyze the effect of rapid P2P lending growth amidst the relatively small market power of BUS on the stability of BUS in Indonesia during the period 2018-2022.

Methodology

The research approach uses quantitative analysis. Time series secondary data is the type of data used in this research. The research data is a monthly time series. Starting from January 2018 to December 2021. Used for BUS internal financial reports and P2P lending is not stationary. As a result, it produces a spurious regression. Therefore, the appropriate approach for analysis is an ARDL model with data that is stationary at the first difference resulting in robust output.

The ARDL model includes the previous data of the dependent and independent variables in the regression process. However, the dependent variable does not respond to the independent variable at the same time but responds often with a lag. The advantage of the ARDL approach is to generate both short-run and long-run estimates. The ARDL equation in research follows previous researchers (Allen & Gale, 2000; Albaity et al., 2019) as follows:

$$Zscore_{it} = \beta 0 + \beta 1 Zscore_{t-1} + \beta 2 Lerner\ Index_{t-1} + \beta 3 LogP2P_{t-1} + \beta 4 NOM_{t-1} + \beta 5 NPF_{t-1} + \beta 6 BOPO_{t-1} + \beta_t \quad (1)$$

The dependent variable in this study is Z Score, the ratio to measure BUS stability. The Z Score formula is ROA plus Capital Adequacy Ratio (CAR) divided by the standard deviation of ROA. The greater the ROA and CAR, the more stable the BUS. This means that the greater the Z-Score ratio, the more stable the BUS becomes, and vice versa. While the dependent variable consists of the Lerner index, P2P lending, Net Operating Margin (NOM), Non-Performing Financing (NPF), and Operating Costs to Operating Income (BOPO). The BOPO ratio is a measure of BUS efficiency. When the BOPO ratio decreases from previous years, it means that BUS operations are more efficient. Conversely, if the BOPO value increases compared to previous years, it means that BUS operations are increasingly inefficient.

Then, Net operating margin (NOM) is a ratio measuring the Bank's ability to manage productive assets into net income. The higher the NOM percentage value, it indicates that the productive assets managed can generate maximum net profit. Meanwhile, NPF is a ratio that describes the level of default by recipients

of BUS financing, both in returning the principal and in return for services. If the NPF value is high or customer defaults are large, the bank's stability will decrease.

The realization of P2P lending financing is measured by aggregate data on loans disbursed by conventional and sharia P2P lending companies. Calculation of the level of distribution of P2P lending financing starts from the founding of the company.

The Lerner index is a proxy for calculating BUS market power. The Lerner index represents a bank's market power as evidenced by the level of price mark-up above additional costs (marginal costs). The Lerner index value is a series of numbers between 0-1. The higher the BUS Lerner Index value is close to 1, it means that the market structure situation is very concentrated or could also be called a monopoly (Louati et al., 2015).

Next, to get the Lerner Index value, you must calculate additional costs or marginal costs (MC). To get the MC value, the approach used is the Cobb Douglas model. The Cobb-Douglas cost function equation used in this research is based on research (Jasmina & Goeltom, 1995) with slight variable modifications. The Cobb-Douglas cost function used is as follows:

$$TC = \beta_0 . \ W^{\beta 1} . \ R^{\beta 2} . Q^{\beta 3} \quad (2)$$

Where W is the relative wage obtained from the ratio of total labor costs to the number of BUS workers. Then the relative funding burden (R) is the ratio of the total profit-sharing distribution burden to the total third party funds (DPK) of the BUS. Meanwhile, Q is BUS output with a proxy for total BUS financing. Some of these input ratios follow research (Albaity et al., 2019; Mahendra & Prasetyo, 2017). Meanwhile β0 is the constant. β1 is the input coefficient for labor costs, β2 is the input coefficient for funding costs and β3 is the output coefficient.

The Cobb-Douglass cost function equation is nonlinear. To overcome this nonlinear equation, an iterative linearization approach is used. So the linearized Cobb-Douglass equation is then estimated using the Ordinary Least Square (OLS) approach so that the coefficient value can be obtained (Gujarati & Porter, 2015). The coefficients from the OLS estimation results are then used to calculate the marginal cost (MC) of BUS. To determine the marginal cost of producing output, the basic rules for the first derivative of the Cobb-Douglas equation are used as follows:

$$MC = \frac{d'TC}{d'Q} = \beta 3.\ \beta o.\ W^{\beta 1}.\ R^{\beta 2}.Q^{\beta 3-1} \quad (3)$$

After the *marginal cost value* is calculated, the MC value is used to calculate the Lerner Index value. Apart from the MC value, to calculate the Lerner Index you also need the price variable (P) of financing funds which is calculated using the following ratio:

$$P = \frac{TR}{Q} \quad (4)$$

Where TR is BUS operational income, while Q is output, namely the total financing disbursed by BUS. Meanwhile P is the financing price level. So to get the P value, BUS operating income is divided by Q. This calculation is different from previous research, the majority of which used P as a symbol for total asset prices (Berger et al., 2017b ; Mahendra & Prasetyo, 2017 ; Louati et al., 2015). In this research, P is a proxy for the financing price (output) or financing rate charged to the recipient of the financing.

This is because BUS as an intermediation institution creates profits by distributing financing. The BUS profit level is measured from the interval between the rate of return given to third parties and the financing rate charged to the borrower. The higher P or financing rate compared to the marginal cost level (P>MC) means the bank is at the point of maximum profit. Once the MC and P values are known, these two variables are used to measure BUS *market power* using the following Lerner index formula:

$$LI_{it} = \frac{(Pit - MCit)}{Pit} \quad (5)$$

Based on the description above, estimation formula (1) can be rewritten with the ARDL formula as follows:

$$\Delta Zscore_{it} = \alpha 0 + \alpha 1 \Delta Zscore_{t-i} + \alpha 2 \Delta (LogP2P)_{Pt-1} + \alpha 3 \Delta Indeks\ Lerner_{Pt-1} + \alpha 4 \Delta BOPO_{Pt-1} + \alpha 5 \Delta NPF_{Pt-1} + \alpha 6 \Delta NOM_{Pt-1} + \sum i = 1 p \gamma i \Delta Zscore_{t-i} + \sum i = 0 q \delta i \Delta LogP2P_{t-i} + \sum i = 0 r \theta i \Delta Indeks\ Lerner_{t-i} + \sum i = 0 s \emptyset i \Delta BOPO_{t-i} + \sum i = 0 u \psi i \Delta NPF_{t-i} + \sum i = 0 v \omega i \Delta NOM_{t-i} + \epsilon_t \quad (6)$$

Table 1.
Description of Variables and Hypotheses

Variable	Description	Hypothesis

Dependent Variable		
Z-Score	(ROA+CAR)/SD(ROA)	
Independent Variable		
Lerner Index	$LI_{it}=\frac{(Pit-MCit)}{Pit}$	+
P2P Lending (LogP2P)	Natural log of P2P loans	–
BOPO	The ratio of operating income to operating expenses	–
NOM	The ratio of net profit to average productive assets	+
NPF	Default ratio	-

Results and Discussion

Results

The mean and median Z-Score is approximately 69.55 and 67.26. Z-Score varies between 55.92 to 82.81, with a standard deviation of around 6.74. Then the average P2P lending is 124.21 trillion Rupiah, with large variations from 3.10 to 362.12 trillion Rupiah. The average and median BOPO ratio is around 86.15% and 85.72%. The BOPO ratio ranged from 79.44% to 97.01%, with relatively low variation (standard deviation 3.31%). Meanwhile, the average net operating margin is 1.73%, with variations from 0.45% to 2.57%. The standard deviation is about 0.41%. Then the average Lerner index is 0.40, with variations from 0 to 0.65. Furthermore, the average non-performing loan ratio is 3.45%, with variations from 2.58% to 5.21%. BUS's bad credit ratio is still maintained below 5%.

Table 2.
Descriptive Statistics

Variable	Mean	Median	Maximum	Minimum	Std. Dev
ZSCORE	69.55	67.26	82.81	55.92	6.74
P2P Lending	124.21	102.54	362.12	3.10	109.00
BOPO	86.15	85.72	97.01	79.44	3.31
NOM	1.73	1.72	2.57	0.45	0.41
Lerner Index	0.40	0.43	0.65	0	0.19
NPF	3.45	3.34	5.21	2.58	0.60

Source: results of data processing using Eviews 10

Several test steps must be carried out to estimate the ARDL model to produce unbiased estimates. The first step is to perform a unit root test using the ADF approach. In table 4.2 below, the BOPO and NOM variables do not contain

unit roots or are stationary at level. Meanwhile, the variable values of Z-Score, P2P lending, Lerner index, and NPF are not stationary at level. As a result, the stationarity test steps at the first difference level. As a result, all variables are stationary so you can proceed to the next step.

Table 3.

Stationarity Test Results for Level and First Difference Data

Variable	Unit Root Test (*Constant and trend*)					
	Levels			First Difference		
	ADF	Prob	Information	ADF	Prob	Information
Z-score	-2.436	0.357	Not stationary	-7.292	0.0000	Stationary
P2P Lending	-0.871	0.951	Not stationary	-3.241	0.0881	Stationary
BOPO	-4.047	0.013	Stationary	-5.132	0.0006	Stationary
NOM	-3.309	0.076	Stationary	-7.170	0.0000	Stationary
Lerner Index	-2.845	0.188	Not stationary	-7.917	0.0000	Stationary
NPF	-2.361	0.393	Not stationary	-8.948	0.0000	Stationary

Source: results of data processing using Eviews 10

The second stage is a cointegration test to identify long-term balance relationships between variables. To test the existence of cointegration in the ARDL model, a bounds test was carried out. In the bounds test, the cointegration indicator between variables is validated with a calculated F value greater than or exceeding I (1). In table 4.3 the results of the bounds test show that the model has a calculated F value of 7.06 which is greater than I (1) at the 1% level. As a result, it can be concluded that the Z-Score, *P2P lending*, Lerner Index, BOPO, NOM, and NPF variables have long-term balance.

Table 4.

Bounds Test-Integration Test

F Statistics	K	Significant	I(0)	I(1)
7,064,845	5	1%	3.06	4.15
		2.5%	2.7	3.73
		5%	2.39	3.38
		10%	2.08	3

Source: results of data processing using Eviews 10

The third stage is the optimal lag test. The ARDL model estimates must meet the best or optimal degree criteria. The approach to selecting the optimal lag length uses the Akaike Information Criterion (AIC). In applying the optimal lag test using the AIC approach, there are 20 AIC models presented. The best optimal Lag indicator from the 20 AIC model criteria is the one with the smallest value. In

Figure 4.1, the AIC test results produce the smallest value -4.90. As a result, to get estimates with the best results, it was decided to use the optimal lag model (2.4.0.4.5.3).

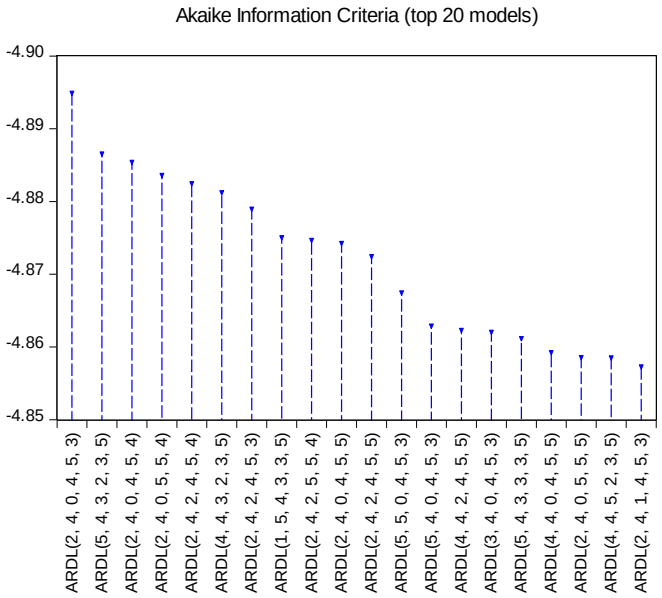

Figure 1.
Data Lag Selection Results
Source: results of data processing using Eviews 10

In short-term tests using the ARDL ECM estimation approach, the results are considered valid when the Cointeq coefficient or Error Correction Term (ECT) is negative and significant. In Table 5 the ECT coefficient value is negative and significant at the 1% level. This implies that there is a short-term and long-term relationship between the Z-Score stability proxy and the P2P lending variables, Lerner index, BOPO, NOM, and NPF.

Short-term estimates indicate disequilibrium conditions. The short-term estimation results in Table 5 below show that all independent variables influence BUS stability (Z-score). The P2P lending variables in the previous period (-2) and (-3) had a significant effect on the Z-Score at the 1% level. With positive coefficients of 0.38 and 0.68 respectively. This means that the financing distributed by P2P lending makes BUS more stable.

The BOPO variable in the same period had a significant effect on the BUS Z-Score at the 1% level, with a negative coefficient value of 2.25. This means that the larger the BOPO ratio, the more inefficient it is, thus having a negative impact on

BUS stability. The greater the NOM variable in the short term also has a significant effect on the BUS Z-Score at the 1% level. The NPF variable in the same period influences the Z-score in the short term, with a significance level of 10%. The coefficient has a negative sign of 0.1, meaning that the higher the NPF, the bank experiences instability or shocks.

Table 5.
Short Term ARDL Model Estimation Results

Variable	Stability Z-Score	
	Coefficient	**T Value Calculate**
CointEq(-1)*	-0.232*	-7,862,404
D(LOGZ_SCORE(-1))	-0.257**	-218,624
D(LOGP2P LENDING)	-0.285***	-1,873,411
D(LOGP2P LENDING(-1))	-0.0164	-0.115471
D(LOGP2P LENDING(-2))	0.384*	2,809,725
D(LOGP2P LENDING(-3))	0.683*	5,070,982
D(LOGBOPO)	-2.253*	-1,088,991
D(LOGBOPO(-1))	1.8427*	7,096,483
D(LOGBOPO(-2))	1.870*	681,894
D(LOGBOPO(-3))	0.771*	3,161,642
D(LOGNOM)	0.111*	4,122,857
D(LOGNOM(-1))	0.283*	5,482,288
D(LOGNOM(-2))	0.246*	5,877,716
D(LOGNOM(-3))	0.131*	3,934,362
D(LOGNOM(-4))	0.099*	3,954,546
D(LOGNPF)	-0.106***	-1,895,278
D(LOGNPF(-1))	0.043	0.77132
D(LOGNPF(-2))	-0.224*	-3,643,223

Note: The symbols *,**,*** are signs of significance at 1%, 5%, and 10%
Source: results of data processing using Eviews 10

The next stage is long-term estimation as the basis for the core analysis of the research model. In the long-term estimation presented in Table 6, the P2P lending variable has a coefficient of -0.07 with a calculated T value of -0.55. The calculated T value is less than the T Table 1.677 value at α 10%. This means that P2P lending has no effect on BUS stability. So it can be concluded that the increase in P2P lending loans every year has no impact on BUS stability. Then the Lerner index variable has a coefficient of 0.08 with a calculated T value of 2.35. The calculated

T value is more than the table T value at α 5%. So the Lerner index has a positive effect on BUS stability. As a result, increasing the Lerner index by 1% can increase BUS stability by 0.08%.

The BOPO variable has a coefficient of -16 with a calculated T value of -2.08. The calculated T value is greater than the T table at α 5%. This shows that BOPO has a negative effect on BUS stability. This means that a 1% increase in BOPO can reduce BUS stability by 16%. Then, the NOM variable also has a negative effect on BUS stability with a coefficient of -1.19 at a significance level of 10%. The NPF variable has a calculated T value of -1.39, less than the T table value at α 10%. As a result, NPF has no effect on BUS stability.

Table 6.
Long Term ARDL Model Estimation Results

Variable	Z-Score	
	Coefficient	**T Value Calculate**
LOG P2P LENDING	-0.078611	-0.551
LOGLI	0.088584**	2,357,667
LOGBOPO	-16.09992**	-2,087,071
LOGNOM	-1.19031***	-1,920,512
LOGNPF	-1,197,659	-124,722
C	-4,834,497	-1,397,943

Note: The symbols *,**,*** are signs of significance at 1%, 5%, and 10%
Source: results of data processing using Eviews 10

Discussion

Short-term estimation results show that P2P lending has a positive effect on the Z-Score. Then, long-term estimates show that P2P lending has no effect on the Z-Score even though the coefficient is -0.07. The estimated output does not match the hypothesis built. This means that in the long term, P2P lending, which is still far behind BUS financing, has not shaken the stability of BUS. These estimation results are in line with research (Haddad & Hornuf, 2021).

Several Islamic Commercial Banks (BUS) with substantial capital have also undergone digital transformation in the savings market, making their services comparable to those of P2P lending platforms. Consequently, P2P lending is no longer the sole player in the savings market supported by smartphone application ecosystems. By saving funds in BUS via a smartphone application, customers

benefit from the additional security of having their deposits guaranteed by the Deposit Insurance Corporation (LPS).

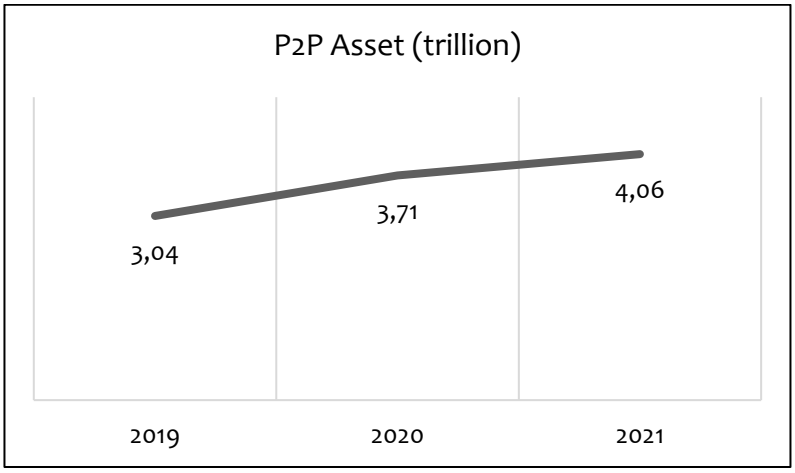

Figure 2.
P2P Asset 2018-2021
Source: data processing results from the 2018-2021 OJK report

Therefore, BUS is more trusted by the public compared to channeling funds to P2P where there is no guarantee institution. Plus, P2P credit interest is higher than BUS financing prices. The maximum interest rate for P2P lending loans is 0.8% per day (Novita & Imanullah, 2020). In addition, BUS that operates digitally ultimately caters to two types of customers. Namely old customers who are strong and loyal and then new customers who prefer digital financial transactions. As a result, BUS stability is maintained. This is in line with research (Li et al., 2017).

Other empirical facts also show that *P2P* lending as a new player is still inferior in terms of operational income compared to incumbent banks such as BUS. BUS operational income has reached IDR 30 trillion in December 2021. Meanwhile, P2P lending operational income is only 4.5 trillion. On the other hand, empirical data on total fintech lending operational income which continues to increase in the second semester of 2021 is proof that P2P lending is a new player that has succeeded in capturing the funding and financing market niche in the financial intermediation industry. The position of P2P lending in the intermediation market is competing for funding and financing funds with incumbent banking institutions. The following is comparative data on the operational income of BUS and P2P lending institutions during semester 2 of 2021 in billions.

The Z-score is a measure of bank stability, calculated by adding the Return on Assets (ROA) and the Capital Adequacy Ratio (CAR) and then dividing by the standard deviation of ROA. In real banking operations, the risk of a bank going bankrupt arises when its profit and capital levels are insufficient to meet obligations to third parties. The Z-score provides a simplified theoretical measure of this bankruptcy risk. Profitability is reflected by ROA, capital adequacy by CAR, and risk by the standard deviation of ROA, which represents the volatility of returns from asset management.

The Z-score value increases when profitability (ROA) and capitalization (CAR) rise, accompanied by a decrease in yield volatility. This indicates that the bank is more stable, as the ROA and CAR can cover the risks associated with yield volatility. Conversely, the Z-score decreases when ROA and CAR decline and yield volatility increases, leading to reduced bank stability and a higher probability of bankruptcy.

The short-term estimation results show that the Lerner index variable is not tied to a short-term relationship. However, the Lerner index variable, which reflects BUS market power, has a long-term relationship. Long-term estimation results show that BUS market power has a positive effect on the Z-Score. With a coefficient of 0.08 and significant at the 5% level. The estimated output shows that 1% increase in market power can increase the Z-Score by 0.08%. As a result, it can be concluded that increasing market power will encourage BUS to be more stable. The high mark-up of output prices compared to BUS marginal costs encourages increased profits as reflected by ROA and capitalization as reflected by CAR. On the one hand, ROA volatility has decreased. Thus, the Z-Score increases, and the BUS operates more stably. In other words, the opportunity for BUS to go bankrupt is smaller when its market power increases. The estimation results are in accordance with research (Berger et al., 2017b) and (Ariss, 2010).

This finding is also in line with the competition-fragility view which relies on the argument that a competitive banking industry can dimisnish market power, then reduce profit margins, and banks will tend to take risks. Thus, the chance of a bank going bankrupt will be high because it cannot cover the volatility of profits and obligations to third parties. In this research it can be concluded that the average BUS market power as reflected by the Lerner index from the research period January 2018 to May 2022 reached 0.40. This shows that the Lerner index is more than zero so that in short it can be concluded that the BUS industrial structure is not competitive. Then, after the merger of Mandiri Syariah, BNI Syariah, and BRI Syariah into Bank Syariah Indonesia (BSI), which started on

January 27 2021, BSI's market share level based on asset size reached 60%. Meanwhile, Bank Muamalat has a market share of 13%. This means that the market share of the Islamic banking industry is dominated by BSI and Bank Muamalat thus not competitive or having market power to grow.

Increasing BUS market power contributes to a higher Z-score, driven by an increase in bank capitalization (CAR) over the long term, aligning with the competition-fragility hypothesis. Thus, greater market power can enhance capital, serving as a cushion to absorb losses from loan risks. In other words, increasing CAR can cover the risks faced by BUS. Additionally, when BUS enjoys high profitability due to increased market power, not all banking risks rise correspondingly. BUS can implement policies to hedge against loan risks, such as increasing equity capacity to cover leverage risk or purchasing sukuk issued by the government. Consequently, BUS operates more stably, and the likelihood of bankruptcy decreases as market power increases.

BUS stability or instability is influenced not only by external factors such as market concentration, the presence of new players in the financial intermediation industry, and BUS market power but also by internal factors. To test the impact of internal variables on BUS stability, three variables were chosen to reflect performance: BOPO as a proxy for BUS efficiency, NOM as a proxy for BUS profitability, and NPF as a proxy for financing risk. The following describes the influence of these three internal variables on BUS stability based on short-term and long-term estimation results.

First, consistent with expectations, BOPO has a negative effect on BUS stability in both the short and long term, with coefficients of -2.2 and -16, respectively. An increase in the BOPO ratio indicates increasing operational inefficiency, which negatively impacts BUS stability. Therefore, greater operational inefficiency raises the likelihood of BUS bankruptcy. The BOPO estimation results for the Z-score are consistent with the developed hypothesis.

BOPO which has a negative effect on BUS stability is in line with research (Dwinanda & Sulistyowati, 2021) & (Mawardi, 2005). BOPO is a ratio that describes banking efficiency. The smaller the BOPO ratio shows that the additional costs incurred by the bank are controlled and simultaneously the additional bank income is higher. Therefore, inefficient bank operations have great potential to disrupt stability. With negative coefficient results on BUS stability, BUS is obliged to keep costs under control and simultaneously achieve higher revenues so that BUS operates more stably.

Second, an increase in NOM or profit margin in the short term makes BUS more stable. With a coefficient of 0.11 and significant at the 1% level. Thus, the

higher the BUS profit margin encourages higher capitalization so that the BUS is more stable. NOM describes operational income minus profit sharing funds and operational costs. The NOM results in the short term with a positive coefficient on the Z-Score are in line with research (Irawan & Kharisma, 2020) and (Zahrah et al., 2019) that NOM has a positive effect on the profitability of Sharia banks. Banks that are able to increase operational income while reducing operational expenses will see bank profitability creep up. On the other hand, in the long term an increase in profit margins has a negative effect on BUS stability. Increased profit margins should be followed by increased BUS stability. The long-term estimation results are not in line with the Hypothesis. Covid-19 which lasted from the end of 2019 to 2021 caused the BUS NOM to slow down resulting in low capitalization while the volatility of returns from financing increased. This has an impact on decreasing the Z-Score or BUS stability.

Third, increasing NPF influences decreasing Z-Score in the short and long term. This is in accordance with the hypothesis. However, in the long term the effect is not significant. A negative NPF coefficient on the Z-Score indicates that the greater the credit risk in the form of borrower default, the BUS stability will decrease. This is in line with research (Nur Ajizah & Agus Widarjono, 2023). Thus, increasing NPF encourages low capitalization so that the opportunity for BUS instability increases. The greater the NPF, the higher the chance of a bank experiencing bankruptcy. Therefore, BUS must take steps to mitigate financing risks so that capital is not eroded, and BUS operations are more stable.

The implications of these findings suggest that while P2P lending is a rapidly growing competitor in the financial sector, it does not destabilize existing Islamic banks (BUS). Instead, the stability of BUS is more significantly influenced by their market power. Therefore, BUS should focus on enhancing their market power through strategic initiatives such as innovation in financial products, improving customer service, and increasing operational efficiencies. Policymakers should take these dynamics into account when designing regulations to ensure a balanced and competitive financial environment that supports both traditional banks and emerging P2P platforms.

Conclusion

This research analyzes the impact of rapidly growing P2P lending credit distribution on the stability of Islamic Commercial Banks (BUS), given their relatively small market power. The analysis reveals that, in the short term, P2P lending positively affects BUS stability. However, in the long term, P2P lending

does not significantly influence BUS stability. This suggests that public trust in BUS remains strong, partly because the higher interest rates associated with P2P lending platforms lead consumers to prefer incumbent financial institutions. Additionally, BUS's operational income exceeds that of P2P lending institutions, which helps maintain their stability.

Furthermore, BUS market power, as measured by the Lerner Index, positively affects the BUS Z-score in the long term. The increase in BUS market power and industry concentration is attributed to the merger of Mandiri Syariah, BRI Syariah, and BNI Syariah into Bank Syariah Indonesia (BSI). This finding supports the competition-fragility theory, which posits that banks with higher market power tend to be more stable. Thus, the analysis indicates that while P2P lending is growing, it has not significantly impacted the stability of incumbent banks like BUS. Instead, market power and internal bank variables play a crucial role in maintaining stability.

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