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Determinants of Profitability in the Fintech Peer-to-Peer Lending: The Role of Liquidity, Efficiency, Interest Rates, and Inflation

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ABSTRACT

This study aims to analyze the influence of liquidity measured by the cash ratio, operational efficiency represented by the operating expense ratio, the policy interest rate, and inflation on the profitability of peer-to-peer (P2P) lending fintech companies registered with the Financial Services Authority during the study period. The population includes all registered and supervised P2P lending platforms, while the sample was selected based on predetermined criteria. The research employs a quantitative approach using panel data regression analysis processed with the E-Views 12 statistical software. The results indicate that, individually, the cash ratio and the policy interest rate do not have a significant effect on profitability, as measured by return on assets. In contrast, the Operating Expenses Ratio (OER) and inflation show a negative and significant influence on profitability within the P2P lending industry. All of the independent variables analysed in this research were found to significantly influence overall profitability. These findings highlight that internal operational performance and certain macroeconomic conditions, particularly inflation, play an essential role in shaping the profitability of P2P lending fintech companies in Indonesia. Therefore, firms are encouraged to enhance their operational efficiency while also considering broader economic dynamics when formulating strategic decisions.

Keywords: BI Rate, Inflation, Liquidity, Operational Efficiency, Profitability.

INTRODUCTION

The rapid advancement of technology has significantly impacted numerous sectors, including finance. Within this sector, the emergence of financial technology (fintech) has introduced various innovations that have reshaped the financial services landscape, particularly in the peer-to-peer (P2P) lending industry. As stated by the Financial Services Authority (OJK, 2024), Fintech Lending or Peer-to-Peer Lending refers to financial services that connect lenders and borrowers to facilitate loan agreements in Indonesian rupiah through an electronic platform.

In recent years, the fintech sector—especially P2P lending—has grown remarkably. This business model provides faster, more flexible, and technology-based access to financing, making it appealing to both individuals and businesses. Nevertheless, its rapid expansion also brings challenges, such as the need for P2P platforms to sustain profitability while facing intense competition, credit risk, and shifting macroeconomic conditions.

The Indonesian Joint Funding Fintech Association (AFPI, 2024) notes that the adoption of fintech accelerated during the COVID-19 pandemic, as mobile technology enabled people to conduct financial transactions without visiting physical branches, aligning with social distancing requirements. Over time, fintech evolved into a vital solution during the pandemic and has since become embedded in everyday activities. According to OJK, the significant rise in P2P lending in Indonesia is linked to previously low financial inclusion within the Information Technology-Based Lending and Borrowing sector. Financial inclusion in this industry increased from 0.11% in 2019 to 2.56% in 2022—still considerably lower than the national rate of 78% (OJK, 2023). This disparity reflects a substantial untapped market with strong potential for future expansion, especially if P2P lending platforms succeed in broadening access to financing for productive sectors and underserved populations.

Despite the increasing demand, the number of registered P2P lending companies has decreased due to stricter OJK regulations, such as the minimum capital requirement of IDR 2.5 billion under POJK No. 77/2016. Even so, user interest remains high. In 2024, OJK recorded 2.16 million lender accounts and 141.78 million borrower accounts. Amid this expansion, P2P lending platforms continue to face profitability challenges. OJK data show fluctuating profits: profitability was positive in 2021, negative in 2022, positive again in 2023, and temporarily negative in early 2024 before returning to profit in April and November. The proportion of loss-incurring platforms reached 48% in 2021, rising to 61% in 2022, and declining to 46% in 2023.

One of the key indicators of fintech platform stability and sustainability is profitability. Several factors influence profitability, including liquidity, operational efficiency, interest rates, and inflation. In Indonesian banking, liquidity has a positive effect on profitability, although the presence of P2P lending may weaken this relationship due to increasing competition (Atahau et al., 2025). P2P platforms need to implement effective liquidity management to maintain funding stability and their overall financial performance.

Operational efficiency is another critical determinant. Inefficiencies in cost structures—particularly interest obligations on short-term borrowings—reduce fintech profitability, as shown in studies of the Indian fintech industry (Joy & Thomas, 2022). Fintech development also affects traditional financial institutions, where greater efficiency helps them withstand pressure from rising fintech activity (Putri et al., 2024). These findings emphasize that operational efficiency is a strategic component for sustaining profitability in P2P lending platforms.

Interest rates are an important external factor affecting P2P lending revenue. While higher interest rates may increase revenue, they also elevate default risks. In Indonesia, AFPI has set a maximum loan interest rate of 0.8% per day to protect consumers and maintain industry stability (Astutik & Soerodjo, 2023). Thus, interest rate regulation remains a significant challenge for maintaining competitiveness and profitability.

Inflation also influences profitability through changes in funding costs and consumer purchasing power. Although research specifically examining inflation in the P2P lending context is limited, economic theory suggests that rising inflation tends to increase interest rates, operating costs, and credit risk—factors that can suppress profitability.

In addition, credit risk management plays an essential role in maintaining profitability. Recent studies highlight the importance of machine learning technologies in predicting risks and the profitability of loan portfolios (Fitzpatrick & Mues, 2021; Nayaka et al., 2024). Implementing these technologies can help minimize losses and optimize revenues for P2P lending platforms.

These fluctuations in profitability indicate that multiple variables influence the financial performance of P2P lending firms. Prior studies show mixed findings: liquidity has been found to positively affect profitability (Su et al., 2020; Doan & Bui, 2021), though some report a

significant negative effect (Kosumi & Zharku, 2024). Operational efficiency also shows varied results, with some reporting positive effects (Lamothe et al., 2024) and others negative (Khan, 2022). Macroeconomic factors, such as interest rates and inflation, are also important. Interest rates may have long-term positive but short-term negative effects (Ariyadasa et al., 2017), while inflation has been identified as one of the most influential factors affecting banking profitability (Almaqtari et al., 2019; Lamothe et al., 2024).

Because of the lack of empirical evidence on profitability P2P lending in Indonesia, thus this study analyze the effect of liquidity, operational efficiency, interest rates and inflation to the profitability P2P lending platforms under supervision OJK. The resulted are intended to support platform managers in enhancing their financial performance, and also will provide reference suggestions for regulators to develop policy related to promoting long-term growth.

LITERATURE REVIEW

Signaling Theory

Signaling theory is a framework that explains how market participants convey information to reduce information asymmetry between companies and investors. When a company's internal information is not fully known to the public, signals communicated through financial reports, managerial policies, or performance indicators become crucial in shaping market perceptions (Elwisam et al., 2024; Koku, 2015). In the banking and financial sector, such signals are used to indicate financial soundness, stability, and future profitability prospects (Leventis et al., 2012).

In bank financial management, the application of signaling theory plays an important role in enhancing investor confidence. Banks that are able to provide positive signals regarding their performance and future outlook are more likely to attract investment, which in turn can improve profitability (Elwisam et al., 2024). Bank profitability itself is a key indicator of stability and resilience, and acts as a signal to investors about the bank's fundamental strength (Jurevičienė & Rauličkis, 2020). Indicators such as Return on Assets (ROA) and Return on Equity (ROE) are commonly used to assess this performance (Jurevičienė & Rauličkis, 2020).

The use of loan loss provisions (LLP) is one of the signals used in the banking sector to assess whether a bank is sufficiently prudent or not. LLPs are often used by banks to signal asset quality and expectations of future profitability, especially in times of financial distress (Leventis et al., 2012). This signaling practice tends to increase in the post-IFRS era, even though the space for accounting discretion becomes more limited.

Effective signals can strengthen market perceptions of a bank's stability and future growth potential. Banks that successfully communicate signals of financial stability are more likely to obtain funding, strengthen their market position, and enhance profitability (Elwisam et al., 2024; Leventis et al., 2012). Conversely, strong profitability itself can serve as a signal of operational soundness, risk management quality, and organizational efficiency (Marinković, 2009).

Beyond internal signals, bank profitability is also influenced by several important factors, including capital adequacy ratio, credit risk, cost-to-income ratio, loan-to-deposit ratio, as well as macroeconomic conditions such as inflation and economic growth (Bojāre & Romānova, 2017). These factors can strengthen or weaken the signals conveyed to the market. Overall, signaling theory provides a strong foundation for understanding the relationship between bank information disclosure and profitability. By transmitting accurate signals regarding financial conditions and operational performance, banks can enhance investor trust and reinforce their profitability.

The Influence of Liquidity on the Profitability

Liquidity plays a crucial role in the fintech peer-to-peer lending industry because it determines the platform's ability to meet short-term obligations and ensure smooth fund flows between lenders and borrowers. Adequate liquidity enables platforms to manage withdrawals, disburse loans, and maintain transaction stability. However, excessive liquidity may indicate inefficient asset utilization, as funds held in cash do not generate returns.

Earlier studies offer inconsistent findings on the link between liquidity and profitability. According to Kosumi and Zharku (2024), liquidity negatively and significantly impacts profitability because an excess of liquid assets can restrict revenue generation. Bao et al. (2024) also observed that P2P platforms inherently face liquidity risk, which can disrupt operations and diminish profits.

Additional literature also supports this perspective. Atahau et al. (2025) emphasized that the rapid growth of P2P lending in Indonesia has affected the liquidity structure of banking institutions, where increased competition for funding may pressure profitability. Although the context differs, their findings reinforce that liquidity management is critical to sustaining financial performance. Joy & Thomas (2022) further explained that fintech ecosystems require efficient liquidity strategies to remain competitive and profitable, as idle funds hinder platform optimization. In the same vein, Putri et al. (2024) demonstrated that fintech lending activities influence the operational efficiency of Islamic local banks during the COVID-19 pandemic, suggesting that liquidity allocation decisions directly shape financial performance.

Moreover, studies focusing on the technological and analytical aspects of P2P lending also show the importance of liquidity optimization. Nayaka et al. (2024) discussed advancements in portfolio optimization and credit scoring that help platforms allocate funds more efficiently to improve profitability. Fitzpatrick & Mues (2021) also found that profitability in P2P lending can be enhanced through better loan selection strategies, again underscoring that effectiveness in deploying funds—rather than holding them in liquid form—is essential to achieving higher returns.

Collectively, these studies strengthen the argument that while liquidity is vital for operational stability, excessively high liquidity may constrain profitability because resources are not being maximized for loan distribution.

H1: Liquidity has a significant negative effect on the profitability of fintech peer-to-peer lending.

The Influence of Operational Efficiency on the Profitability

Operational efficiency reflects how effectively a company manages its operating expenses in relation to the revenue it generates. The Operating Expenses Ratio (OER) is commonly used to measure a firm's efficiency and operational capability. A lower OER indicates better efficiency because the company is able to generate higher revenue with relatively lower operating costs. Research by Khan (2022) shows that operational efficiency exhibits a negative and significant relationship with profitability, implying that increased operational costs relative to revenue will reduce a firm's ability to generate returns.

Findings from other studies also support this relationship. Atahau et al. (2025) demonstrated that the rise of P2P lending activities in Indonesia has implications for banking profitability, particularly because operational efficiency becomes a key determinant of financial performance when competition intensifies. Putri et al. (2024) similarly found that fintech lending influences operational efficiency in Islamic local banks during the COVID-19 pandemic, emphasizing that technological reliance requires firms to maintain cost-effective operations to remain profitable.

Broader fintech ecosystem studies also highlight the importance of operational efficiency. Joy and Thomas (2022) explained that as fintech platforms expand, operational structures become increasingly complex, making efficiency an essential factor in sustaining competitiveness and financial performance. Astutik (2023) further noted that regulatory interventions—particularly interest rate regulations by the Financial Services Authority—shape the operational landscape of fintech lending, indirectly affecting cost structures and efficiency.

Advancements in technology also reinforce the role of operational efficiency. Nayaka et al. (2024) showed that improvements in credit scoring and portfolio optimization help P2P lending platforms reduce operational burdens and enhance profitability by minimizing default risk and streamlining internal processes. Fitzpatrick and Mues (2021) found that profitability in P2P lending can be enhanced through machine-learning-based decision systems, which reduce operational inefficiencies by improving loan selection accuracy.

Collectively, these studies highlight that operational efficiency is a critical determinant of profitability in fintech peer-to-peer lending. High operating expenses, particularly in technology, compliance, and risk management, can significantly erode profit margins, whereas efficient cost management enhances the platform's financial sustainability.

H2: OER has a significant negative effect on the profitability of fintech peer-to-peer lending.

The Influence of Interest Rates on the Profitability

As a major macroeconomic indicator, interest rates can impact the profitability of fintech P2P lending platforms. Findings by Ariyadasa et al. (2017) indicate that interest rates positively affect bank profitability in the long run but negatively in the short run, reflecting how policy rate adjustments may influence institutions differently across time horizons and business structures. In P2P lending, interest rates influence borrower and lender choices since changes in benchmark rates affect funding costs, lending activity, and risk incentives.

Several studies further support the significance of interest rates in the fintech and banking ecosystem. Atahau et al. (2025) highlighted that P2P lending activities indirectly impact bank profitability through competition and the adjustment of interest rate policies, emphasizing that interest rates remain a critical market mechanism for financial firms. Joy and Thomas (2022) explained that within the broader fintech ecosystem, interest rate dynamics play an essential role in shaping user preferences, platform strategies, and long-term industry sustainability.

Regulatory perspectives also underline the importance of interest rate setting. Astutik (2023) discussed how the Financial Services Authority (OJK) regulates maximum lending rates in fintech to protect consumers, noting that interest rate restrictions influence platform profitability by limiting revenue potential while encouraging operational discipline. In addition, Putri et al. (2024) revealed that changes in interest rate environments during the COVID-19 pandemic affected the efficiency of Islamic local banks, which share similarities with fintech lenders in terms of their reliance on digital operations.

Technological advancements also interact with interest rate effects. Nayaka et al. (2024) emphasized that improved credit scoring and portfolio optimization systems enable P2P lending platforms to adapt more efficiently to interest rate fluctuations by managing risk and optimizing loan pricing. Fitzpatrick and Mues (2021) found that machine learning approaches can enhance lenders' profitability by identifying more attractive loan investments, helping platforms mitigate uncertainty arising from interest rate changes.

H3: Interest rates have a significant negative effect on the profitability of fintech peer-to-peer lending.

The Influence of Inflation on the Profitability

Inflation represents another macroeconomic variable with the potential to affect fintech peer-to-peer lending profitability. Almaqtari et al. (2019) noted that inflation affects bank profitability. Consistent with this, Jigeer and Koroleva (2023) found a significant negative relationship between inflation and ROA. For P2P lending users, rising inflation can weaken purchasing power and influence their engagement with fintech lending platforms.

Research related to fintech and lending performance also highlights how macroeconomic stability, including inflation, can shape lending outcomes. Atahau et al. (2025) explain that the growth of P2P lending in Indonesia can indirectly affect banking profitability, especially in conditions where macroeconomic pressures such as inflation weaken credit performance. Similarly, Putri et al. (2024) find that changes in the economic environment—including inflation—affect the efficiency and competitive dynamics between fintech lenders and Islamic local banks, particularly during disruptions like the pandemic of COVID-19.

From a broader fintech ecosystem perspective, Joy and Thomas (2022) emphasize that macroeconomic uncertainty, including rising inflation, may alter consumer behavior and increase reliance on digital financial services. This shift can influence demand for fintech lending, which ultimately impacts profitability both for fintech firms and traditional financial institutions. Regulatory perspectives also underscore the importance of maintaining market stability during inflationary pressures. Astutik and Soerodjo (2023) highlight that regulatory intervention—such as setting interest rate limits in fintech lending—is essential to protect consumers during periods of rising prices, ensuring lending activity remains sustainable and profitable.

On the operational side, advancements in credit scoring technologies have been shown to help fintech lenders maintain portfolio quality even under adverse economic conditions. Nayaka et al. (2024) demonstrate that improved profit scoring and optimization models support profitability despite macroeconomic fluctuations. Fitzpatrick and Mues (2021) further show that machine learning–based loan selection techniques can help lenders identify profitable loan opportunities, serving as a buffer when inflation heightens borrower risk.

H4: Rising inflation tends to reduce the profitability achieved by fintech P2P lending providers

METHODOLOGY

This study employs a quantitative approach with descriptive and verificative methods aimed at analyzing the influence of liquidity, operational efficiency, interest rates, and inflation on the profitability of fintech peer-to-peer (P2P) lending companies registered and supervised by the Financial Services Authority (OJK) during the period 2021 to 2023. The data used in this research are secondary data obtained from the financial statements of each P2P lending company through the official OJK website and other relevant publications.

This research includes 98 fintech P2P lending firms as its population. The criteria in purposive sampling used in this study are as follows:

1. Fintech P2P lending companies registered with OJK
2. Companies that have financial statements available from 2021 to 2023

Based on these criteria, 38 out of 98 companies were selected as the final sample.

Table 1. *Operational Definitions*

	Definition	Indicator	Scale	Source
ROA	the company's ability to utilize its assets to generate profit	$ROA = \frac{Earning\ Before\ Tax}{Total\ assets}$	Ratio	OJK, (2020)
Cash Ratio	To measure the amount of cash available to pay its debts.	$Cash\ Ratio = \frac{Cash + bank}{Current\ Liabilities}$	Ratio	OJK, (2020)

	Definition	Indicator	Scale	Source
OER	A benchmark comparing operational expenses to operational income, used to calculate the level of efficiency and operational capability of a company.	$OER = \frac{Operating\ Expenses}{Operating\ Revenue}$	Ratio	OJK, (2020)
BI Rate	The interest rate set by Bank Indonesia (BI),	BI Rate	Ratio	OJK, (2020)
Inflation	Inflation of all goods and services whose prices are monitored periodically.	IHK BI	Ratio	OJK, (2020)

Source: Data processed by the researcher

This study uses financial statement data from P2P lending companies registered with the OJK. The data were analyzed using EViews 12 with a panel data regression method, which had previously passed the classical assumption tests. Panel data combine cross-sectional and time-series characteristics (Baltagi & Badi, 1975; Fitriani et al., 2024). The study conducted three diagnostic tests to determine the most optimal model among the common effect, fixed effect, and random effect models (Basuki, 2021). After the optimal model was identified, the analysis proceeded with the t-test, F-test, and R^2 to evaluate the significance and explanatory power of the independent variables on ROA.

RESULTS AND DISCUSSION

Diagnostic Test

In the Chow Test, the probability value of 0.0000 confirms that the Fixed Effect model is the appropriate choice. However, a follow-up test using the Hausman Test is necessary to determine whether the Fixed Effect or Random Effect model is more suitable. The Hausman Test result shows a value of 1.0000, indicating that the Random Effect model is more appropriate for this study. The Lagrange Multiplier (LM) Test was also conducted, yielding a BP value of 0.0000, which further confirms that the Random Effect model is the most suitable model

Hypothesis Testing

Table 2. *T Test Result*

Variable	Coefficient	Std Error	t-Statistic	Prob.
C	6.624036	20.44484	0.323996	0.7466
Cash Ratio	-0.013820	0.059780	-0.231186	0.8176
OER	-0,058179	0.007553	-7.703060	0.0000
BI Rate	3.707911	3.820786	0.970458	0.3340
Inflation	-8.384419	4.124427	-2.032869	0.0445

Source: Data processed by the researcher

Table 2 indicates that the Cash Ratio and BI Rate do not significantly affect profitability ($p > 0.05$), leading to the rejection of both hypotheses. In contrast, OER and Inflation show a significant negative influence on profitability ($p < 0.05$), meaning these hypotheses are supported. Thus, only operational efficiency and inflation are demonstrated to impact the profitability of fintech P2P lending firms as measured by ROA.

The F-statistic yields a probability value of 0.000000, which is below the 0.05 threshold. This confirms that the independent variables, when assessed together, significantly influence the dependent variable, indicating that the model is appropriate for analyzing their relationship. The coefficient of determination (R-squared) is 0.378831, implying that 38% of the variation in profitability (ROA) can be explained by the variables Cash Ratio, OER, BI Rate, and Inflation. The remaining 62% is attributed to factors not included in the model.

Effect of Liquidity on Profitability

The T-test results indicate that the Cash Ratio does not have a significant effect on profitability. Therefore, the hypothesis stating that liquidity negatively influences the profitability of peer-to-peer lending fintech companies cannot be accepted. These results align with Sembiring & Matusin (2025), who reported that liquidity has no significant impact on ROA, evidenced by a coefficient of –0.0122 and a probability of 0.435. Similar conclusions were reached by Twairesh & Bata (2024), who also found liquidity to be insignificant, with a coefficient of –0.002 and a probability of 0.795.

In this study, liquidity does not affect profitability because the data indicate that all fintech P2P lending companies have met the Bank Indonesia regulation requiring a minimum Cash Ratio of 3% (0.03). Meanwhile, the average CR of fintech P2P lending companies is 12.71, which reflects very high liquidity, yet the ROA values among these companies vary widely—some are in healthy categories while others fall into very unhealthy categories. This supports the findings of Twairesh & Bata (2024), who noted that liquidity did not significantly affect Qatari banks, as they maintained an average annual current ratio of 53.00 from 2009 to 2021. A high current ratio indicates abundant cash on hand, but also represents a missed opportunity to earn profits because idle funds are not utilized.

The findings are also supported by Nangur & Pamungkas (2020), who found that the cash ratio did not affect ROA because most of the observed data were collected during the COVID-19 pandemic, a period marked by a significant decline in economic activity. The slowdown in business operations across various sectors reduced the overall demand for credit, as both consumers and firms adopted a more cautious stance in response to heightened uncertainty. Despite the decline in loan demand, banks and financial institutions—including fintech lenders—continued to maintain relatively high levels of cash to safeguard liquidity and mitigate potential risks. This situation created a mismatch: profitability decreased due to lower lending activity and reduced interest income, yet the cash ratio remained relatively stable. As a result, liquidity levels did not exhibit a meaningful relationship with profitability, reinforcing the conclusion that the cash ratio did not influence ROA during periods of economic contraction.

Furthermore, Champaca (2024) also explains that during times of heightened uncertainty—such as the pandemic and the early developmental phase of fintech—cash holdings do not have a clear or direct impact on company profitability. Fintech firms typically prioritize channelling their cash into operational and revenue-generating activities, particularly loan disbursement, instead of maintaining large idle cash balances. Although the pandemic led some institutions to hold additional precautionary liquidity due to increased financial risk, these defensive measures did not immediately translate into changes in short-term profitability. Thus, during crises or uncertain economic conditions, the cash ratio becomes a less relevant indicator for assessing profitability, as firms' liquidity strategies are driven by risk management rather than profit optimization.

The Effect of Operational Efficiency on Profitability

The t-test results show that the OER variable (X2) has a significant negative effect on ROA. Therefore, the hypothesis stating that operational efficiency has a negative and

significant influence on the profitability of peer-to-peer (P2P) lending fintech companies is supported. An increase of one unit in operational efficiency (OER) results in a 0.058-unit decrease in the profitability of P2P lending firms.

These findings align with the study by Haryati et al. (2024), which also reported a negative and significant association between OER and profitability. Similar evidence is provided by Karamoy & Tulung (2020), who found that OER significantly reduces ROA, as reflected in a coefficient of –4.798 and a significance value of 0.000 < 0.05.

This evidence aligns with the theory of operational efficiency, which states that the more efficiently a company manages its operational costs, the greater the potential increase in its profitability (Husnan & Pudjiastuti, 2012). Efficient management allows firms to allocate resources more effectively, reduce waste, and minimize unnecessary expenses, ultimately supporting stronger financial performance. This finding is also reinforced by Karamoy & Tulung (2020), who emphasize that the level of efficiency in managing daily operational activities significantly influences the income or profit earned by a bank. When operations run smoothly and costs are controlled, profits tend to rise. Furthermore, Nangur & Pamungkas (2020) assert that any increase or decrease in operational expenses will directly correspond to a rise or fall in company profits. This indicates that operational efficiency plays a central role in determining financial outcomes, making it a critical factor in the sustainability and competitiveness of financial institutions, including fintech peer-to-peer lending companies.

The Effect of Interest Rates on Profitability

The t-test results indicate that the BI Rate (X3) variable does not have a significant effect on ROA. Consequently, the hypothesis stating that interest rates have a negative and significant influence on the profitability of peer-to-peer (P2P) lending fintech companies cannot be accepted. This finding is consistent with the results of Edin et al. (2025), who observed that central bank policy rates do not significantly affect the profitability of banks in Sweden. Similar conclusions were reported by Sutomo & Manda (2021), who found that the BI Rate does not have a meaningful impact on ROA. Likewise, Simatupang & Naibaho (2025) showed that the BI Rate does not exert a statistically significant influence on ROA. Sabelia & Sufina (2023) also documented that the BI Rate had no effect on the financial performance of conventional commercial banks during the period 2017–2021.

These findings collectively suggest that fluctuations in policy interest rates may not directly translate into changes in profitability for financial institutions, including fintech P2P lenders. One possible explanation is that fintech firms and banks often adjust their lending strategies, interest margins, or operational policies to cushion the impact of interest rate shifts. Additionally, the structure of P2P lending—where lending rates are often determined by platform algorithms and borrower risk profiles—may further insulate profitability from changes in the BI Rate. As a result, the BI Rate becomes a less sensitive indicator of performance within the fintech P2P lending sector, reinforcing the conclusion that interest rates do not significantly influence their profitability.

In fintech lending, interest rates on loans are regulated by the Indonesian Joint Funding Fintech Association (AFPI) (2021), which sets a maximum limit of 0.8% per day for loan interest, service charges, and other related fees. Therefore, BI Rate fluctuations on the revenue structure of P2P lending firms tends to be indirect or even insignificant. This is also supported by the researcher's processed data, which shows that even during periods of high interest rates, many P2P lending fintech companies remained profitable.

These findings are consistent with Sutomo & Manda (2021), who stated that although the BI Rate fluctuated during 2012–2019, the ROA of state-owned banks was not affected by these fluctuations and often increased even when the BI Rate increased, as bank management had

anticipated rising interest rates and adjusted loan interest income accordingly. Furthermore, because BI Rate fluctuations tend to be relatively small, the BI Rate does not exert a significant influence on ROA. As the central bank, Bank Indonesia must maintain interest rate stability to safeguard the country's external economic stability, which contributes to minimal BI Rate volatility (Fitriany & Nawawi, 2021).

The Effect of Inflation on Profitability

The t-test results for the Inflation variable (X4) indicate that inflation significantly reduces the profitability of peer-to-peer (P2P) lending fintech companies. The regression coefficient of –8.83 further demonstrates that a one-unit increase in inflation leads to an 8.83-unit decline in the ROA of P2P lending firms. This finding is consistent with the study of Fitriany & Nawawi (2021), which reported that inflation has a negative effect on ROA. Similar evidence is provided by Jigeer & Koroleva (2023), who identified a significant negative relationship between inflation and profitability. Ghafel & Bougatef (2024) also reached comparable conclusions, showing that rising inflation weakens the financial performance of banks in Iraq.

These results collectively suggest that inflation exerts substantial pressure on the operational and financial stability of financial institutions, including fintech P2P lenders. Higher inflation generally leads to increased operational costs, reduced purchasing power, and greater uncertainty in the financial markets. For lending platforms, inflation may also influence borrower behavior, potentially raising default risks and reducing loan repayment capacity. Additionally, inflation can erode the real value of interest income if lending rates do not adjust proportionally. As a result, inflation becomes a critical macroeconomic factor that can undermine profitability across the financial sector. The consistent findings across multiple studies reinforce the conclusion that inflation poses a significant challenge to maintaining financial performance, particularly in emerging and rapidly evolving fintech industries.

These findings can be explained through Keynes' Theory of Inflation, which states that inflation arises when aggregate demand in an economy exceeds its productive capacity. This condition creates an *inflationary gap*, leading to a general and sustained increase in prices (Meiriza et al., 2024). When inflation is high, purchasing power declines, resulting in lower loan demand and higher default risk among P2P lending borrowers. This is supported by Muhammad & Arif (2024), who stated that reduced purchasing power affects both the willingness and ability of individuals to repay loans, especially in fintech firms that generally charge higher interest rates with shorter repayment periods.

Furthermore, Fitriany & Nawawi (2021) noted that higher inflation leads to lower ROA because rising prices reduce the real value of savings, prompting individuals to prioritize living expenses rather than saving, which ultimately affects banking profitability. Jigeer & Koroleva (2023) also supported this view, explaining that unexpected inflation makes it more difficult for borrowers to maintain financial stability, increasing the likelihood of loan defaults and consequently raising credit loss risks.

The Influence of Liquidity, Operational Efficiency, Interest Rates, and Inflation on Profitability

Based on the results of the F-test in the panel data regression, the variables of liquidity (Cash Ratio), operational efficiency (OER), interest rates (BI Rate), and inflation jointly have a significant effect on the profitability (ROA) of peer-to-peer lending fintech companies. The coefficient of determination (R^2) of 0.378 indicates that these four independent variables are able to explain 37.8% of the variation in ROA.

This finding implies that macroeconomic conditions and internal financial management factors together play an important role in shaping the profitability of P2P lending firms. Liquidity reflects the platform's ability to meet short-term obligations, operational efficiency shows how well costs are managed, interest rates represent the broader monetary environment, and inflation captures the stability of purchasing power and economic conditions.

These results indicate that in addressing fluctuating profitability, peer-to-peer lending fintech companies need to comprehensively consider various internal and external factors to maintain profitability stability. Internally, liquidity management and operational efficiency play an important role in ensuring cash flow continuity and cost stability. Externally, the benchmark interest rate (BI Rate) and inflation also exert an influence that cannot be overlooked. Although the partial test results show that the BI Rate does not have a significant effect on ROA, it is evident that this variable, when assessed simultaneously with the others, does contribute to profitability.

These findings are supported by Lamothe et al. (2024), whose study demonstrated that the variables examined simultaneously affect bank profitability, as shown by an F-test value of $0.0000 < 0.05$. The results are also reinforced by Almaqtari et al. (2019), who found that the variables in their model had a simultaneous significant effect on profitability, indicated by an F-test probability value of $0.00 < 0.05$.

CONCLUSION AND SUGGESTION

Based on the Random Effect Model (REM) regression analysis examining the impact of Liquidity (Cash Ratio), Operational Efficiency (OER), Interest Rates (BI Rate), and Inflation on the Return on Assets (ROA) of peer-to-peer lending fintech firms registered with OJK for the 2021–2023 period, several key conclusions emerge.The findings indicate that liquidity does not have a meaningful impact on ROA. This implies that holding a larger cash balance does not automatically improve profitability, particularly in times of heightened uncertainty, such as during the COVID-19 pandemic, when cash is more likely to be allocated toward maintaining day-to-day activities instead of enhancing financial performance. In contrast, operational efficiency shows a significantly negative relationship with ROA. An increase in OER, which signals declining efficiency, results in lower profitability. This outcome is especially relevant for fintech firms, whose earnings depend largely on streamlined and effective digital operations.

Interest rates were found to have no significant effect on ROA, as the fintech lending business model is relatively flexible and not strongly dependent on the benchmark interest rate. Conversely, inflation has a significant negative effect on ROA, as high inflation reduces purchasing power and increases borrowers' default risk, which ultimately decreases fintech revenues.

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