Muqtasid: Jurnal Ekonomi dan Perbankan Syariah, 15(2), 2024:121-138
P-ISSN: 2087-7013 | E-ISSN: 2527-8304
https://ejournal.uinsalatiga.ac.id/index.php/muqtasid
http://dx.doi.org/10.18326/muqtasid.v15i2.121-138

Determinants of the proportion of investment financing in Islamic banking business units in Indonesia

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Abstract

Islamic banking in Indonesia has experienced rapid development, with Islamic Banking Business Units (UUS) offering an alternative Sharia-based financial system known as financing. However, the distribution of financing by Islamic banks remains predominantly consumptive rather than productive, with a direct connection to the real sector, such as investment financing, whose proportion or ratio to total financing disbursed diminishes annually. This study seeks to analyze the impact of internal and external factors on the proportion of investment financing in the UUS, including the Financing to Deposit Ratio (FDR), Investment Financing Margin, Non-Performing Financing (NPF), inflation, Gross Domestic Product (GDP), and the Certificate bonus Bank Indonesia Syariah (SBIS). The data period for this study spans from January 2018 to December 2023. The methodology employed in this study is the Vector Error Correction Model (VECM). The VECM analysis indicates that, in the short term, only the SBIS bonus variable significantly affects the proportion of investment financing. In the long term, GDP, inflation, and SBIS significantly influence the proportion of investment financing. UUS must develop strategies that are adaptive to external variables such as inflation, GDP, and SBIS. Additionally, UUS should promote accelerated growth in FDR and Margin.

Keywords: banking business units; proportion of investment; VECM.

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Introduction

In Indonesia, banks operate under a dual-banking system outlined by the Indonesian Banking Architecture (API), offering increasingly comprehensive alternative banking services to the public (Rusydiana et al., 2019). This dual-banking system has been in place since the enactment of Law Number 10 of 1998, which permits commercial banks to conduct business both conventionally and based on Sharia principles by establishing a separate unit dedicated to Sharia-compliant activities. Legislation also encourages conventional banks to establish Sharia branches or convert them into Islamic banks. Islamic banking is characterized by three types of operational principles: Islamic commercial banks (BUS), Islamic business units (UUS), and Islamic Rural Banks (BPRS) (Gunawan et al., 2020).

An Islamic Commercial Bank (BUS) operates by Islamic Sharia principles, necessitating that all banking activities and products adhere to Islamic law (Sharia). By contrast, the Islamic Banking Business Unit (UUS) is not autonomous; it functions as a work unit within the head office of a conventional commercial bank, serving as the central office for branches or units engaged in Sharia-based business activities (Sisca & Hadi, 2023). The evolution of Islamic business units in Indonesia commenced with the establishment of Bank Muamalat, which successfully navigated the monetary crisis through the Sharia system. This success led to the emergence of other Islamic banks that remained subsidiaries of conventional banks. Currently, 19 Islamic Business Units (UUS) operate in Indonesia (Otoritas Jasa Keuangan, 2024). The growth of the UUS is evidenced by the continuous increase in total assets, third-party funds, and financing amounts annually.

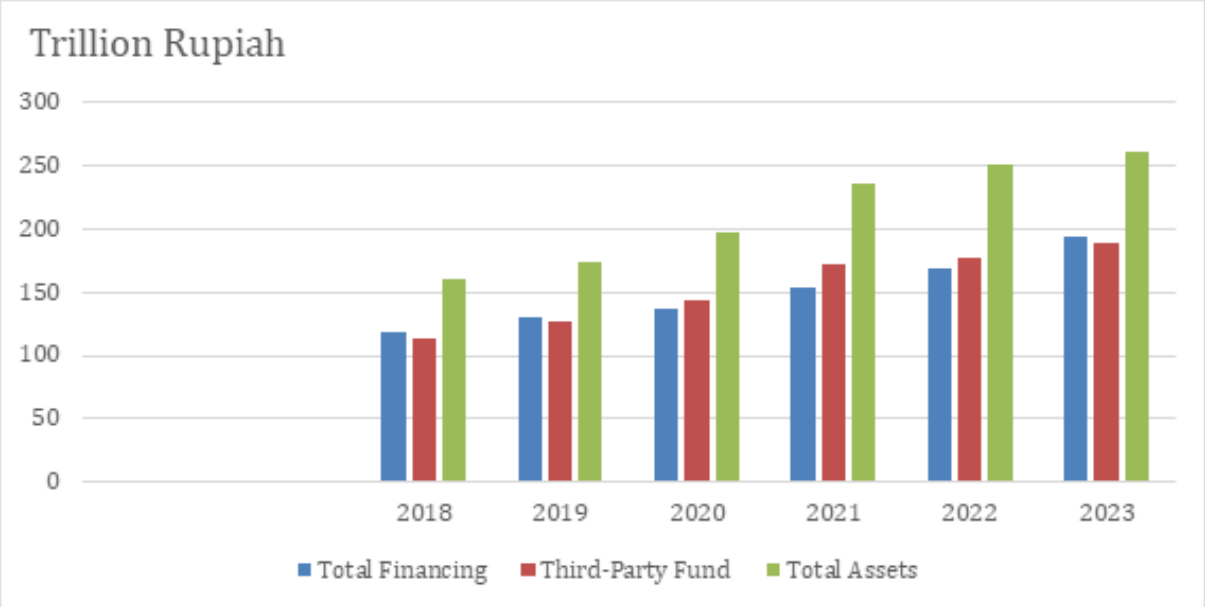

Figure 1. Development of total assets, third-party funds, and financing of UUS

The contemporary role of Islamic banking in the economy is to function as an intermediary institution bridging the financial and real sectors (Sitepu, 2017). Al Arif and Nurhikmah (2017) assert that Islamic banks significantly contribute to maintaining stability between the real and monetary sectors, particularly through financing facilities. Ideally, Islamic commercial banks, which are more closely aligned with the real sector, should prioritize productive financing over consumptive financing. Islamic banking aims to deliver economic benefits and promote a fair and equitable economy within society (Susilo & Ratnawati, 2015). The Islamic Banking System, akin to other facets of the Islamic worldview, serves as a mechanism to foster socioeconomic justice (Sobarna, 2021). This objective can be realized if Islamic banks effectively fulfill their role as intermediary institutions, including the provision of productive financing such as investment financing.

Investment financing is significant due to its long-term nature, distinguishing it from working capital and consumption financing, which are short-term and exhausted within a single business cycle. Investment financing extends beyond one cycle, allowing allocation to priority sectors like infrastructure, manufacturing, and agriculture for sustained economic benefits. While total financing, assets, and investment financing have increased annually, the proportion of UUS and investment financing has declined, while consumption financing has risen and working capital financing has remained stable.

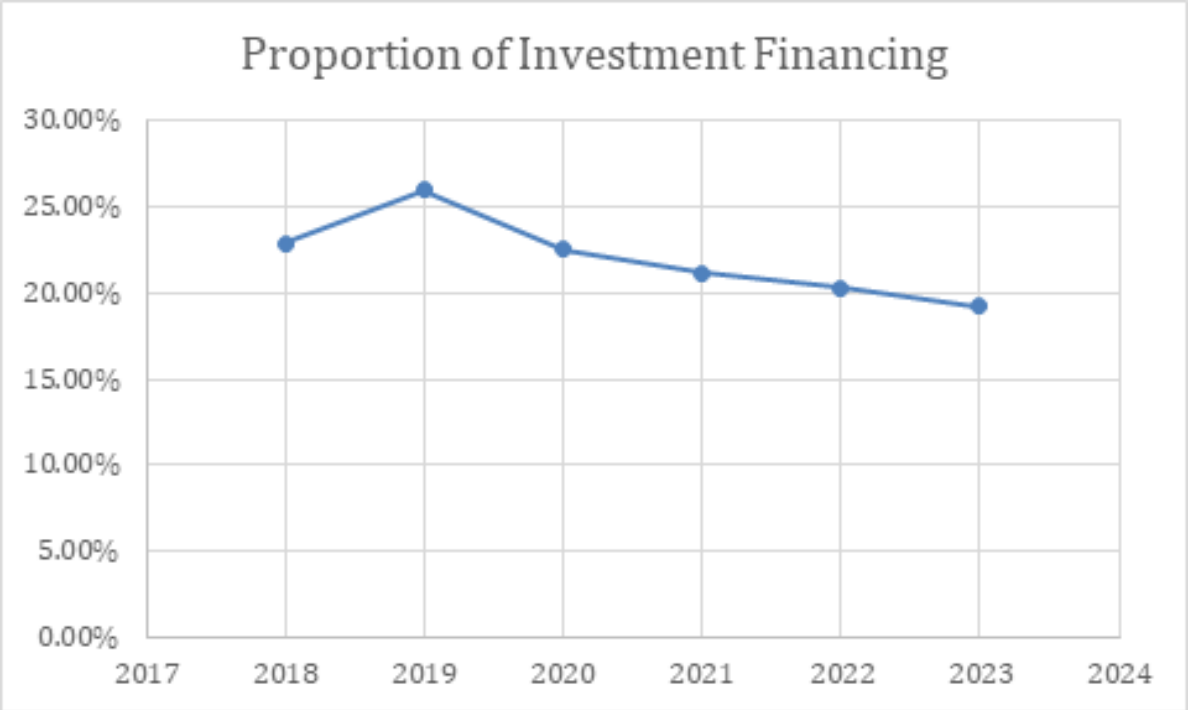

Figure 2. Development of Proportion of UUS Investment Financing

Banks serve as intermediaries for the aggregation and distribution of public funds (Harris et al., 2018). This theory emphasizes three primary functions performed by banks: fund collection, resource allocation, and risk management. Islamic banking similarly

executes these functions, which adhere to the Sharia principles in fund management (Kalunda & Ogada, 2021; Otoritas Jasa Keuangan, 2022).

The proportion of investment financing within Indonesia's Islamic Banking Business Unit (UUS) has declined despite an annual increase in nominal total financing. This situation prompts an inquiry into how the proportion of investment financing responds to internal and external shocks. Research by Pribadi (2018), Al Arif and Nurhikmah (2017), and Satrio (2019) indicates that internal factors, such as third-party funds, non-performing financing, and margins, influence the distribution of financing in Islamic banks. Additionally, the financing activities of Islamic banks are affected by external factors, specifically macroeconomic variables, including state sukuk, SBIS, inflation, and PUAS (Rasyid, 2018).

Modern Portfolio Theory (MPT), introduced by Markowitz in 1952, explains how returns can be optimized by minimizing risk through diversification. The theory states that risk is reduced by diversifying investments into uncorrelated assets. This applies to Islamic banking financing, where banks use MPT to balance risk and return in financing portfolios while following Sharia principles. The theory supports variables, including the non-performing financing (NPF) ratio indicating risk for Islamic business units. When NPF is too high, Islamic business units may redirect funds to other sectors (Kuswahariani et al., 2020). The SBIS bonus influences units to channel funds toward SBIS rather than investment financing.

The focus of this research on the Sharia business unit (UUS) is its distinct characteristics compared to Sharia commercial banks (BUS). Unlike these entities, the UUS operates as a work unit within the head office of a conventional commercial bank, serving as the central office for Sharia-based business activities (Sisca & Hadi, 2023). The UUS differs from Islamic and conventional commercial banks in investment financing proportion, showing yearly declines, while BUS and conventional banks remain stable. Given the limited existing literature, this unique aspect makes Islamic business units compelling for research.

Previous research has explored various aspects of Islamic banking. Satrio (2020) investigated the factors influencing the financing level of the MSME sector by Islamic commercial banks. Anggraini (2020) examined the impact of internal and external factors on the distribution of Islamic banking financing in Indonesia, focusing on Islamic commercial banks during the 2015-2018 period. Andiyansari (2021) analyzed the effects of DPK, NPF, and Sharia Bank Indonesia Certificates on the financing distribution of Islamic commercial banks and Islamic business units in Indonesia. This study is unique in both its subject and object of investigation. Few studies have concentrated on Islamic banking business units (UUS) operating within conventional banks. The research addresses the proportion of investment financing, a topic that has been insufficiently explored, particularly when considered as a singular object. Furthermore, this study introduces

a novel variable—the investment financing margin—which is seldom utilized in existing research. This study examines the response of investment financing proportion at UUS in Indonesia to various factors and assesses the contribution of internal and external factors in explaining these variations. The analysis aims to understand the influence of these variables and identify those with the most significant impact on investment financing proportion changes in Indonesian UUS.

Table 1. Proportion of investment financing in Islamic business units and Islamic commercial banks

Year	Islamic Business Units		Islamic Commercial Banks	
	Investment Financing (IDR Billion)	Proportion (Percent)	Investment Financing (IDR Billion)	Proportion (Percent)
2018	26.957	22.87%	48.773	24.11%
2019	33.765	25.97%	53.207	23.63%
2020	30.983	22.55%	56.203	22.80%
2021	32.488	21.14%	57.664	22.51%
2022	34.234	20.27%	77.021	23.80%
2023	37.279	19.22%	88.795	24.84%

Method

This study used secondary time-series data from January 2018 to December 2023. The data sources were Bank Indonesia, the Financial Services Authority, and the Central Bureau of Statistics. The variables examined include the proportion of investment financing, GDP, inflation, FDR, financing margin, SBIS bonus, and NPF.

Table 2. Data and data sources

Data	Source	Unit
Proportion of Investment Financing	SPS-OJK	Percent
GDP	BPS	Rupiah
Inflation	Bank Indonesia	Percent
FDR	SPS-OJK	Percent
Investment Financing Margin	SPS-OJK	Percent
SBIS	Bank Indonesia	Percent
NPF	SPS-OJK	Percent

This study employs a Vector Error Correction Model (VECM) to examine long- and short-term relationships between variables. Pre-estimation testing reveals that data are stationary at the first difference level, and variables exhibit a cointegration relationship. The VECM method was deemed appropriate as it accommodates these conditions and yields comprehensive results.

Research Model

The VECM research model used in this study involves the variables of investment financing proportion, GDP, inflation, FDR, margin, SBIS bonus, and NPF.

$$\begin{bmatrix} \Delta PI_t \\ \Delta LnPDB_t \\ \Delta INF_t \\ \Delta FDR_t \\ \Delta SBIS \\ \Delta MARGIN_t \\ \Delta NPF_t \end{bmatrix} = \begin{bmatrix} a_0 \\ \vdots \\ h_0 \end{bmatrix} + \begin{bmatrix} a_{11} & \cdots & a_{17} \\ \vdots & \ddots & \vdots \\ a_{71} & \cdots & a_{77} \end{bmatrix} \begin{bmatrix} \Delta PI_{t-1} \\ \Delta LnPDB_{t-1} \\ \Delta INF_{t-1} \\ \Delta LnFDR_{t-1} \\ \Delta SBIS_{t-1} \\ \Delta MARGIN_{t-1} \\ \Delta NPF_{t-1} \end{bmatrix} + \begin{bmatrix} e_{1t} \\ e_{2t} \\ e_{3t} \\ e_{4t} \\ e_{5t} \\ e_{6t} \\ e_{7t} \end{bmatrix}$$

Description:

PI	: Proportion of UUS Investment financing (Percent)
LN_PDB	: Total of national income of goods and services (rupiah)
INF	: Inflation (percent)
FDR	: ***Financing to Deposit Ratio*** (Percent)
SBIS	: SBIS Bonus (percent)
NPF	: ***Non-Performing Financing*** (percent)
MARGIN	: Average margin of Investment financing (percent)
Ln	: Natural logarithm

Result and Discussion

The Financing to Deposit Ratio (FDR) showed a stable trend, with a slight decline during the study period. The FDR was 98.18 percent in January 2018, rising to 98.4 percent by December 2023. The ratio reached its lowest at 89 percent in January 2022. This trend reflects Islamic banks' capacity to disburse financing relative to funds received. Furthermore, Non-Performing Financing (NPF) declined from 2.15 percent in January 2018 to 1.34 percent in December 2023, suggesting improved financing quality by the Islamic Banking Business Unit. However, NPF increased significantly to 3.10 percent in mid-2020, likely due to economic destabilization from the COVID-19 pandemic.

Investment financing margins fluctuated but stabilized at 9 percent. Initially, the margin was 9.38 percent, reaching 10.07 percent in November 2019 and falling to 7.7 percent in February 2021. The decline in financing margins may indicate increased competition among financial institutions to provide competitive investment financing options. Meanwhile, Indonesia's GDP showed consistent growth. In Q1 2018, GDP was IDR2,498,697 billion, rising to IDR3,139,084 billion by Q4 2023. This expansion suggests a positive capacity of the Indonesian economy to absorb Islamic financial sector investment.

The Bank Indonesia Syariah Certificate (SBIS) bonus decreased from 5.26 percent in January 2018 to 3.65 percent in December 2023. The highest SBIS bonus, 6.97 percent, occurred between October 2018 and May 2019. This decline aligns with global decreasing interest rates, impacting Islamic banks' incentive to retain funds. During the study period, inflation increased notably, particularly between September 2022 and February 2023, reaching 5.95 percent. This rise was attributed to higher global commodity prices and supply chain disruptions from the pandemic. Nevertheless, by late 2023, inflation was managed and reduced to below 4 percent.

Stationarity Test Result

The initial procedure in estimating the VAR/VECM model involves testing stationarity to determine if each variable is stationary, using the Augmented Dickey-Fuller (ADF) method at 5 percent significance. Data is deemed stationary if the ADF test probability value is below 5 percent. The ADF method tests the null hypothesis that data has a unit root (is not stationary), and this hypothesis is rejected if the probability is less than 5 percent, indicating stationarity. The ADF test results show all other data are stationary at the first difference level.

Table 3. Stationarity test result

Variable	Level Prob	First difference Prob*
PI	0,7101	0,0000
FDR	0,1848	0,0000
NPF	0,4852	0,0000
Margin	0,1173	0,0000
LN_PDB	0,9845	0,0000
SBIS	0,8728	0,0000
INF	0,4882	0,0000

Note: The sign (*) indicates significance at the five percent real level

Optimum Lag Test

This assessment determines the duration required for a variable to respond to stimuli from other variables. The criteria used for optimal lag testing include the Likelihood Ratio (LR), Final Prediction Criterion (FPE), Akaike Information Criterion (AIC), Schwarz Information Criterion (SIC), and Hannan-Quinn Information Criterion (HQ). The optimal lag determination is based on the most consistently selected outcome across these five tests. As shown in Table 4, the results indicate that the optimal lag for this study is lag two.

Table 4. Optimum Lag test result

Lag	LR	FPE	AIC	SC	HQ
0	NA	4.05e-06	7.449026	7.675674	7.538945
1	816.1072	2.61e-11	-4.509492	-2.696304*	-3.790140*
2	87.21221*	2.24e-11*	-.704243*	-1.304516	-3.355458
3	59.83385	2.91e-11	-4.557014	0.429253	-2.578795

Note: The sign (*) is the optimum lag based on the criteria

VAR Stability Test

The next phase assesses VAR system stability at the optimal lag five. If the VAR model is unstable, IRF and VD test results cannot be deemed valid. The VAR test examines the AR Root Table under stable conditions, where all modulus values are less than one. According to Table 5, the VAR system is stable at lag two.

Table 5. VAR Stability Test Results

Root	Modulus
0.967791	0.967791
0.946618 - 0.107391i	0.952690
0.946618 + 0.107391i	0.952690
0.675340 - 0.309389i	0.742836
0.675340 + 0.309389	0.742836
0.604472 - 0.399798i	0.724724
0.604472 - 0.399798i	0.724724
0.645388	0.645388
-0.310623 - 0.102332i	0.327045
-0.310623 - 0.102332i	0.327045
0.255699 - 0.144300i	0.293606
0.255699 + 0.144300i	0.293606
-0.103698 - 0.152392i	0.184328
-0.103698 + 0.152392i	0.184328

Granger Causality Test

The Granger causality test determines whether one variable's historical values can predict another's future values. This test is particularly relevant for Vector Error Correction Model (VECM) estimation, where all variables can function as both endogenous and exogenous variables.

Table 6. Granger Causality Test Result

MARGI do***es not Granger Cause*** PI	0.24273	0.7852
PI ***does not Granger Cause*** MARGI	4.44199	**0.0156**
INF ***does not Granger Cause*** PI	3.76367	**0.0284**
PI ***does not Granger Cause*** INF	1.45918	0.2399
FDR ***does not Granger Cause*** PI	4.15143	**0.0201**
PI ***does not Granger Cause*** FDR	0.31220	0.7329
SBIS ***does not Granger Cause*** PI	6.29169	**0.0032**
PI ***does not Granger Cause*** SBIS	10.2600	**0.0001**
MARGI ***does not Granger Cause*** NPF	0.06219	0.9398
NPF ***does not Granger Cause*** MARGI	5.92158	**0.0043**
INF ***does not Granger Cause*** NPF	0.12870	0.8795
NPF ***does not Granger Cause*** INF	3.29042	0.0435
LN_PDB ***does not Granger Cause*** MARGI	0.08452	0.9191
MARGI ***does not Granger Cause*** LN_PDB	3.77925	**0.0280**
INF ***does not Granger Cause*** MARGI	7.44347	**0.0012**
MARGI ***does not Granger Cause*** INF	0.86639	0.4253
SBIS ***does not Granger Cause*** FDR	3.94302	**0.0242**
FDR ***does not Granger Cause*** SBIS	0.32861	0.7211

VECM Analysis

The Vector Error Correction Model (VECM) reveals distinct short- and long-term outcomes. Inflation significantly influences investment financing proportion in the short term, with a coefficient of 5.361428. Conversely, other variables, including Financing to Deposit Ratio (FDR), Non-Performing Financing (NPF), Gross Domestic Product (GDP), and Islamic Bank Indonesia Certificates (SBIS) bonuses, do not significantly impact short-term investment financing.

Long-term: Inflation, GDP, and SBIS bonuses significantly influence investment financing. Inflation contributes positively to investment financing, as increased inflation raises banks' ability to disburse financing. GDP and SBIS bonuses contribute negatively to investment financing, indicating high economic growth and SBIS bonuses suppress investment financing demand, aligning with the findings of Putri and Kunawangsih (2014), Nahar and Sarker (2016), and Dwijaya and Wahyudi (2018).

Table 7. VECM Estimation Results

Long Term		
Variables	**Coefficient**	**T-statistic**
INF(-1)	21.00928	3.92170*
LN_PDB(-1)	-7.115330	-4.51727*

Long Term		
Variables	**Coefficient**	**T-statistic**
SBIS(-1)	-3.449358	-6.73130*
Short Term		
INF(-2)	-5.361428	-2.32468*

Note: The sign (*) indicates significance at the five percent level.

Impulse Response Function (IRF)

IRF analysis revealed the following:

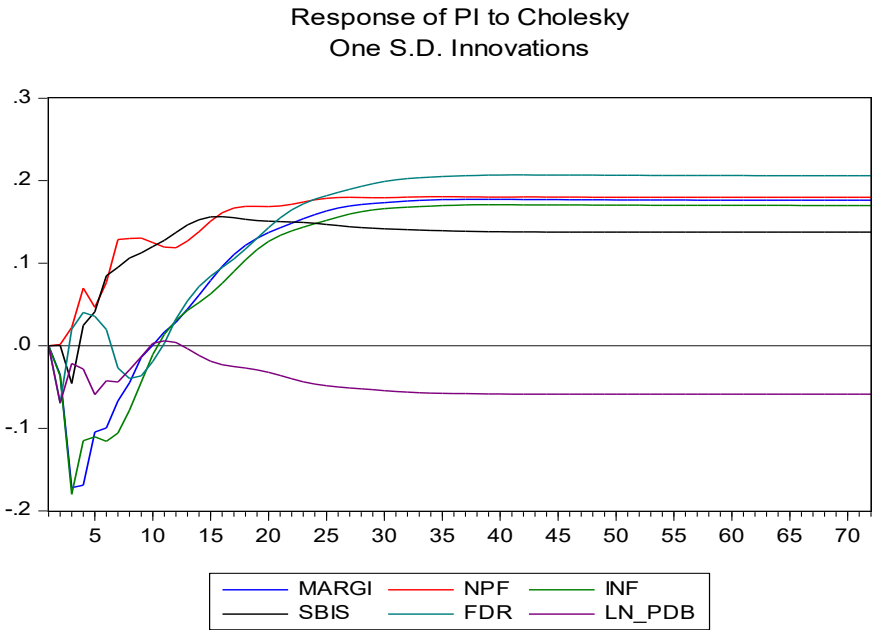

Figure 3. IRF analysis results

Source: Secondary Data processed (2024)

The Impulse Response Function (IRF) analysis shows that a one standard deviation shock in the Financial Development Ratio (FDR) during the first period does not impact the investment financing proportion. In the second period, the FDR shock causes a negative response of -0.074169 percent. By the third month, this response moderates to -0.005016 percent. From the fourth to sixth period, the FDR shock prompts a positive response in investment financing. However, from the seventh to tenth period, the response becomes negative. From the eleventh period onward, the FDR shock elicits a positive response in investment financing, showing an increasing trend. Equilibrium occurs in the 31st period, with a response of 0.222158 percent. Fluctuations in the Financing to Deposit Ratio (FDR), inversely related to investment capital financing, suggest that higher FDR leads to increased investment financing distribution. Banks aggregate funds from savers and direct them towards productive sectors. As FDR increases, banks allocate more deposits

to various financing avenues. Consequently, a higher FDR corresponds to increased financing allocation, including investment financing. These findings are consistent with studies by Adzimatinur et al**.** (2015), Pribadi (2018), and Satrio (2019).

The Impulse Response Function (IRF) results show that initially, a Margin shock of one standard deviation does not impact the proportion of investment financing. In the second period, the Margin shock causes a negative response of -0.035208 percent. By the third month, this response intensifies to -0.171982 percent. The negative response persists until the ninth period, reaching -0.013982 percent. In the tenth period, the response turns positive at 0.000795 percent. From then onward, the Margin shock elicits a positive response from investment financing, with an increasing trend. Equilibrium in investment financing proportion occurs in the 29th period, with a response of 0.172416 percent. Margin shocks correlate positively with investment financing proportion, indicating that higher margins increase investment financing distribution. As margins rise, banks gain greater profits from financing activities. This profitability motivates banks to expand financing efforts, including investment financing, given the high returns of long-term investments. With larger margins, banks are more likely to assume risks in financing lucrative investment projects. The findings align with those of Nurrahmawati et al**.** (2020).

The Impulse Response Function (IRF) results show that a Non-Performing Financing (NPF) shock of one standard deviation initially does not impact investment financing proportion. From the second month, the NPF shock elicited a positive response in the proportion of investment financing. In the second period, this response amounts to 0.001475 percent, increasing to 0.069845 percent by the fourth period. In the fifth month, the response decreases to 0.046711 percent. From the sixth period until the study's end, the investment financing proportion's response to NPF shocks continues to rise. Equilibrium is observed in the 26th month, with a response of 0.179707 percent. The proportion of investment financing responds positively to NPF shocks. This stems from the bank's decision to allocate funds to alternative financing options despite declining NPF investment financing. These decisions are shaped by governmental policies, including the credit restructuring policy issued by OJK through POJK No. 11/POJK.03/2020, extended by POJK No. 48/POJK.03/2020. This policy allows banks, including Islamic banks, to restructure financing impacted by the pandemic without classifying it as Non-Performing Financing (NPF). Islamic banks can thus preserve asset quality and mitigate rising NPF risk. The government also introduced stimulus packages for economic recovery, notably the National Economic Recovery (PEN) program. This stimulus provides fiscal incentives and promotes Islamic financing for strategic sectors like MSMEs, whose risks become manageable with fiscal support. The findings align with Andiyansari's (2021) and Ningrum and Kustiningsih's (2023) findings.

The Impulse Response Function (IRF) results show that a one standard deviation GDP shock in the first period does not impact the proportion of investment financing. In

the second period, the GDP shock causes a negative response of -0.069272 percent in investment financing proportion. The GDP shock continues to elicit negative responses from the second month through the ninth period. However, from the tenth to the twelfth period, the GDP shock yielded positive responses in proportion to investment financing. From the thirteenth period onward, the GDP shock again produces negative responses. Equilibrium in investment financing proportion response begins in the 37th period, with a response range of -0.058025 percent. GDP shock negatively correlated with investment financing proportion, indicating increased GDP associated with decreased distribution. This may occur because, in growing economies, consumers tend to increase consumption, reducing demand for Islamic bank investment products. The findings align with Dwijaya and Wahyudi (2018) and Apriliyani and Taufiq (2022).

The Impulse Response Function (IRF) results show that an initial inflation shock of one standard deviation does not impact the proportion of investment financing. In the second period, the shock elicits a negative response of -0.026615 percent from the investment financing proportion. The investment financing proportion continues responding negatively to the inflation shock from the second to ninth period. However, from the tenth period, the response becomes positive. The response reaches its lowest at 0.001147 percent in the twelfth month. Equilibrium in investment financing proportion response occurs in the 28th period, at 0.144393 percent. The positive response of investment financing to inflation shocks shows that increased inflation leads to higher investment financing distribution. Despite inflation, the rise in Islamic banking investment financing suggests Islamic banks are not greatly concerned about inflation in financing distribution. Islamic banks must maintain financing distribution to mitigate financial distress risk, where banks cannot pay investment returns to customers due to ineffective fund management for generating sufficient profits, given limited alternative liquidity placements (Saekhu, 2015). The findings align with those of Putri and Kunawangsih (2014), Nahar and Sarker (2016), and Dwijaya and Wahyudi (2018).

The Impulse Response Function (IRF) results show that a one standard deviation shock to the SBIS bonus in the first period does not influence investment financing proportion. In the second period, the SBIS bonus shock elicits a positive response of 0.002190 percent. The shock continues to elicit a positive response from the second period onward, except in the third period, where a negative response of -0.032152 percent occurs. The response reaches equilibrium in the 34th month, with a range of 0.129542 percent. The positive response of investment financing to the SBIS bonus increase stemmed from the bank's decision to prioritize fund allocation as financing despite the rising SBIS bonus. This was influenced by government policies that introduced stimulus packages for economic recovery, including the National Economic Recovery (PEN) program. This stimulus provided fiscal incentives and promoted Islamic financing for strategic sectors like MSMEs, whose risks decreased with fiscal support. Additionally, the government

implemented credit restructuring across banks to maintain MSME stability, resulting in reduced investment financing as the SBIS bonus decreased. The findings align with those of Putri and Kunawangsih (2014), Beik and Aprianti (2013), and Hawa and Rosyidi (2019).

Forecast Error Variance Decomposition (FEVD)

FEVD analysis is used to determine the contribution of variables such as FDR, NPF, Financing Margin, GDP, SBIS Bonus, and Inflation to the variability of the investment financing proportion.

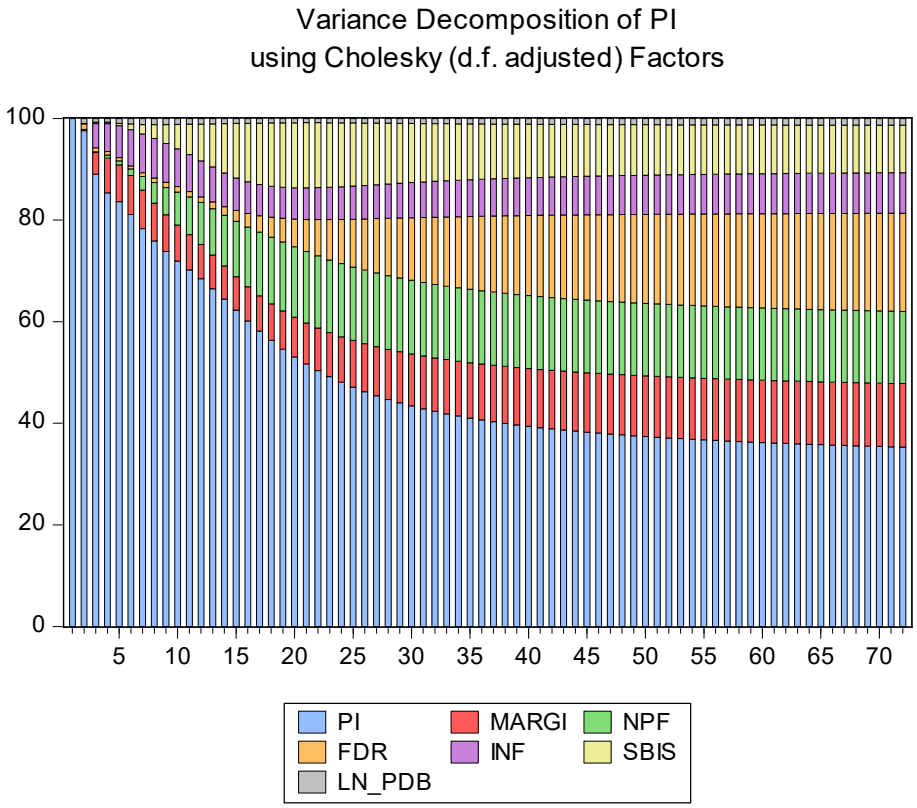

Figure 4. FEVD analysis results

Figure 4 presents analysis results, showing variable contributions over the 72-month observation period. These findings provide insights for policymakers in evaluating financing strategies and managing risks. Figure 4 also indicates that the initial fluctuation in investment financing proportion is entirely due to shocks within itself, accounting for 100 percent. From the second period, this percentage declines to 97.58989 percent. By the third period, the investment financing proportion decreases to 89.02901 percent. This trend continues until the seventy-second period, reaching 35.30684 percent. This decline results from other variables impacting investment financing fluctuations from the second period onward.

The FEVD analysis shows that FDR significantly contributes to the proportion of investment financing. FDR's impact on explaining investment financing fluctuations

becomes evident in the second period, accounting for 1.081882 percent. This contribution rises, reaching 10.07372 percent by the twenty-sixth period and further increasing to 19.32864 percent by the end. The result of this study is in line with Retnasih (2023) and Ibrahim and Rosniar (2024). These findings underscore FDR's critical role in influencing investment financing allocation decisions.

The NPF variable significantly explains fluctuations in investment financing proportion alongside the FDR. In period three, the NPF's contribution amounts to 0.069590 percent. The NPF's contribution continues to increase, reaching 10.89521 percent by period fifteen. By the period's end, the NPF's contribution has risen to 14.18966 percent, with a continued increase in FDR's contribution. This result is in line with research findings from Tho'in (2022) and Pradesyah and Triandhini (2021), which found a relationship between investment financing and NPF in Islamic commercial banks.

The margin variable significantly explains fluctuations in the proportion of investment financing. This is evidenced in the third period, where the margin's contribution is 4.355282 percent. The contribution rises to 10.05091 percent by the twenty-ninth period. By the end, the margin's contribution increases to 12.51329 percent. Some studies found that margins affect investment and the proportion of investment (Andrianto & Amin, 2023).

The inflation variable, shown by Consumer Price Index (CPI) data, influences investment financing proportions. Initially minimal, inflation's contribution to investment financing rises to 0.140249 percent by the second period. This contribution increases to 7.128718 percent by the sixth period, reaching 8.000301 percent by the end. The finding is in line with the previous research that inflation will affect the proportion of investment (Soukotta et al., 2023; Suhendra et al., 2022).

Despite a minimal initial impact, the SBIS Bonus variable influences the fluctuation of investment financing proportions. In the third period, its contribution to the investment financing proportion was 0.295006 percent. The contribution rose, reaching 10.73112 percent by the fifteenth period. SBIS Bonus contribution peaked between the eighteenth and twenty-first periods at 12.81774 percent. The contribution declined from the twenty seconds onward, reaching 9.338243 percent by the period end. Previous research found that SBIS or SBI affects investment (Harahap & Tambunan, 2022).

The variable LN_PDB has a minor role in explaining the variability of investment financing proportions. In the second period, LN_PDB's contribution was 0.943753 percent. This increased to 1.215331 percent by the eighth period, then declined to 0.839699 percent by the twenty-first period. LN_PDB's contribution rose steadily from the twenty-second period, reaching 1.323017 percent by period end. This is in line with previous research where GDP affects investment (Fathia et al., 2021; Syarif, 2024).

Conclusion

Results indicate that GDP and inflation increased during the study period, while NPF, margin, FDR, and SBIS bonuses declined. VECM model estimation shows that inflation only significantly affects the proportion of investment financing in the short term. Inflation, GDP, and SBIS bonus exert substantial influence in the long term. Furthermore, the Impulse Response Function (IRF) results show that the investment financing proportion responds negatively to GDP shocks but positively to inflation, Non-Performing Financing (NPF), Financing to Deposit Ratio (FDR), margin, and SBIS bonus. The Forecast Error Variance Decomposition (FEVD) analysis shows FDR, NPF, margin, SBIS bonus, and inflation as key factors affecting investment financing variation. This study highlights these economic variables that influence investment financing.

Based on the findings, several recommendations can be proposed. UUS should formulate strategies responsive to external factors like inflation, GDP, and SBIS, influencing investment financing. As a policy implication, UUS should enhance macroeconomic surveillance, improve risk management, and adjust investment portfolios according to economic conditions to ensure sustainable financing performance. UUS is advised to expedite FDR and margin expansion and conduct regular margin policy assessments to remain competitive in fluctuating economies. As a policy implication, UUS should adopt proactive pricing strategies, enhance fund utilization efficiency, and benchmark margin structures against market standards to sustain profitability while ensuring Sharia compliance.

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