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The Influence of Stock Market and Bond Market Performance on Mutual Fund Assets Under Management Growth in Indonesia

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Abstract

Background: The growth of the mutual fund industry in Indonesia over the last decade has shown significant development, driven by increased financial literacy, the development of financial technology, and the dominance of retail investors in the capital market.
Objective: This study aims to analyze the effect of stock market and bond market performance on the growth of mutual fund assets under management in Indonesia, as well as identify the most dominant factor influencing this growth.
Methods: The study uses a quantitative approach with monthly time series data from November 2010 to December 2025. The analysis was conducted using the Ordinary Least Squares (OLS) method with Newey-West correction and robustness checks through Robust Regression and Quantile Regression.
Results: Stock market performance has a robust and significant effect on the growth of mutual fund assets under management, with an asymmetric response in which the negative return component is the most consistent channel across all three specifications. Bond market performance has a positive effect with moderate empirical support. Stock market volatility is consistently negative in sign but does not reach statistical significance, while bond market volatility shows no systematic effect. The relative dominance test indicates that the difference between the two markets is not statistically significant, so their contributions to the growth of assets under management are relatively balanced.
Conclusion: This study contributes to the mutual fund literature in emerging markets through focus on the Indonesian market, which is dominated by retail investors within a fintech APERD ecosystem.

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INTRODUCTION

The global mutual fund industry has shown significant growth over the past two decades along with increasing financial literacy, digital technology advancements, and changes in investor behavior in conducting investment activities (Warther, 1995; Sirri & Tufano, 1998; Ferreira et al., 2012; Abudy et al., 2024). Mutual funds have developed into one of the main investment instruments used by the public because they offer portfolio diversification, management efficiency, and ease of access for retail investors, reflecting investors' efforts to reduce information search costs and the limits of their own portfolio management expertise (Sirri & Tufano, 1998; Warther, 1995). Mutual funds allow investors to obtain broad exposure to both the stock market and the bond market with better diversified risk, which has made them a principal vehicle for

household wealth accumulation in many countries (Ferreira et al., 2012; Abudy et al., 2024; Pavolová et al., 2021; Putriani, & Puspawati, 2025). Various studies show that mutual fund flows have a close relationship with financial market dynamics, both through the mechanism of investor response to market performance and through changes in investment sentiment (Warther, 1995; Edelen & Warner, 2001; Oh & Parwada, 2007). These conditions place mutual funds not only as an investment instrument but also as an indicator of investor behavior and aggregate financial market stability.

In Indonesia, the mutual fund industry has experienced rapid growth over the past decade. The increase in the number of investors, the emergence of digital investment platforms, and the wider access of the public to investment products are the main factors driving the growth of mutual fund assets under management. Based on data from the Indonesian Central Securities Depository (KSEI), the number of mutual fund investors has increased significantly since the introduction of technology-based Mutual Fund Selling Agents (APERD), reaching 19.17 million in the S-INVEST system by the end of December 2025. The presence of digital platforms such as Bibit and Bareksa allows the public to invest with relatively small amounts and easier processes. Additionally, stock market and bond market conditions also influence investors' decisions in allocating funds to mutual fund instruments. When the stock market shows positive performance, investors tend to increase their investment allocation in equity and balanced funds due to expectations of higher returns. Conversely, when market volatility increases or economic conditions are unstable, investors tend to shift their funds to instruments considered safer, such as fixed income and money market funds.

From a behavioral finance perspective, investment decisions are not always rational, as they are influenced by market sentiment, psychological biases, and limited information. Retail investors tend to engage in return chasing, allocating funds to instruments with high historical performance without fully considering the risks involved. Rising volatility in either the stock or bond market often triggers panic selling and redemptions that reduce assets under management. Cao et al. (2008) show that mutual fund investors adjust their risk exposure according to the level of market volatility and tend to withdraw funds when market uncertainty rises, so that shifts in sentiment can cause significant fund flow fluctuations that affect industry stability.

On the bond market side, Abudy et al. (2024) show that flows into bond mutual funds and the movement of government bond prices and yields influence one another, while Goldstein et al. (2017) find that outflows from bond mutual funds are far more sensitive to performance declines than inflows are to improving conditions. This indicates that changes in financial markets can affect the stability of assets under management and create higher volatility risk, particularly in a market with a strong retail investor presence such as Indonesia's, where fund flows have been shown to respond asymmetrically and more sharply to negative performance signals (Loeis & Prijadi, 2015).

This study specifically analyzes the influence of stock market performance (measured by the Jakarta Composite Index/IHSG) and bond market performance (measured by the IBPA Indonesia Composite Bond Index/ICBI), as well as the volatility of both markets, on aggregate mutual fund AUM growth as the dependent variable. The use of aggregate assets under management is based on the argument that fund flows are a direct indicator of investor behavior in allocating and withdrawing funds, rather than a reflection of managerial skill (Sirri & Tufano, 1998; Cumming et al., 2019). The novelty of this study lies in three aspects: a focus on Indonesia as an emerging market dominated by retail investors and a fintech ecosystem; the simultaneous integration of stock and bond market performance with a separation of positive and negative components to capture response asymmetry; and the use of aggregate assets under management, which better captures collective investor behavior. The findings are expected to be useful academically as well as for investment managers, APERD, securities companies, the government, and regulators in maintaining the stability of the national mutual fund industry.

METHOD

This study uses a quantitative approach with time series regression analysis to measure the influence of stock and bond market performance and volatility on mutual fund AUM growth in Indonesia. The data used are secondary monthly time series data covering the period November

2010 to December 2025 (182 months). The inclusion of the AR(1) autoregressive term results in the loss of one initial observation, so the effective estimation sample is N = 181 monthly observations (December 2010 to December 2025). This period covers a range of economic conditions, including the August–October 2011 market crisis, the 2013 Taper Tantrum, the Covid-19 pandemic, and the growth of retail investors through digital platforms.

The study population consists of all mutual funds structured as Collective Investment Contracts (KIK) that are registered with and supervised by the Financial Services Authority (OJK). The sample uses aggregate monthly mutual fund AUM growth data obtained from OJK's Investment Management Industry Information Center. Supporting data - IHSG, ICBI, yield spread (the spread between 10-year and 2-year benchmark government bond yields), and monthly inflation (Consumer Price Index) - were obtained from the Bloomberg Database and Statistics Indonesia (BPS). The dependent variable is mutual fund AUM growth (MfundFlows), while the independent variables include stock and bond market performance (separated into positive and negative components), stock market volatility (EQMV) and bond market volatility (FIMV), with yield spread and inflation as control variables.

The main estimation uses Ordinary Least Squares (OLS) with HAC Newey-West robust standard errors (4 lags), supplemented by two robustness checks run in parallel: Robust Regression with a Huber M-estimator and Quantile Regression at the median (τ=0.5). A further robustness check redefines the dependent variable to net out contemporaneous passive revaluation, following the net-flow identity of Sirri and Tufano (1998) and Ferreira et al. (2012): MfundFlows_EQadj = MfundFlows − EQMktRet$_t$ and MfundFlows_FIadj = MfundFlows − FIMktRet$_t$, with the right-hand side held identical to the main model so that any change in the coefficients is attributable solely to the redefinition of the dependent variable. This multi-specification approach was chosen because financial time series data tend to be fat-tailed and contain idiosyncratic shocks, so cross-estimator triangulation ensures the conclusions do not depend on a single methodological choice. Three event dummies, whose periods were determined empirically through the structural break method, are included to isolate crisis shocks: D_Covid (January–March 2020), D_2011_Aug (August 2011), and D_2011_Sep (September 2011). The 2011 crisis was split into two monthly dummies because the two months show opposite directions of fund flow, so combining them would cancel each other out. The main model is formulated as follows:

$$MfundFlows_t = \alpha + \rho \cdot MfundFlows_{t-1} + \beta_1^{+} \cdot EQMktRet^{+}_{t-1} + \beta_1^{-} \cdot EQMktRet^{-}_{t-1} + \beta_2 \cdot EQMV_{t-1} + \beta_3^{+} \cdot FIMktRet^{+}_{t-1} + \beta_3^{-} \cdot FIMktRet^{-}_{t-1} + \beta_4 \cdot FIMV_{t-1} + \beta_5 \cdot YSpread_{t-1} + \beta_6 \cdot Inflation_{t-1} + \gamma_1 \cdot D\_Covid + \gamma_2 \cdot D\_2011\_Aug + \gamma_3 \cdot D\_2011\_Sep + \varepsilon \quad (1)$$

Classical assumption testing includes the Jarque-Bera normality test, multicollinearity (Variance Inflation Factor), autocorrelation (Durbin-Watson), and heteroskedasticity (Breusch-Pagan), as well as the Augmented Dickey-Fuller (ADF) stationarity test following MacKinnon (1994). Hypothesis testing is conducted through triangulation across the three specifications using a four-category decision matrix based on two dimensions: the consistency of the coefficient sign with theoretical expectations, and the number of specifications significant at the 10% level. A hypothesis is classified as Robustly Supported if the sign is consistent with theory and significant in at least two of the three specifications; Moderately Supported if the sign is consistent across all specifications and significance is achieved in exactly one; Limitedly Supported if the sign is consistent across all specifications but no specification reaches significance; and Not Supported if the sign is inconsistent across specifications, regardless of significance.

RESULTS AND DISCUSSION

Results

Before model estimation, all classical assumptions were examined. The Jarque-Bera test on the main model's residuals produced a statistic of 3.4653 (p-value 0.177), so H_0 fails to be rejected and the model residuals are not statistically different from a normal distribution; the separation of asymmetric components, the AR(1) term, and the three structural-break-based event dummies successfully absorbed the normality deviations caused by idiosyncratic shocks. The multicollinearity test shows all VIF values well below 10 (highest 2.7753), and a Durbin-

Watson statistic of 1.8731 indicates no serious autocorrelation. The Breusch-Pagan test detects heteroskedasticity (LM = 40.1953; $p < 0.001$), which is common in monthly financial data; this is addressed through HAC Newey-West robust standard errors so that inference remains valid. The ADF test confirms that all variables are stationary at an acceptable level, so the prerequisites for time series regression are satisfied.

Table 1
Pearson Correlation Matrix

Variable	MFF	MFF_{-1}	EQR^+	EQR^-	EQMV	FIR^+	FIR^-	FIMV	YSpd	Infl
MfundFlows (MFF)	1.000									
$MfundFlows_{t-1}$ (MFF_{-1})	-0.095	1.000								
$EQMktRet^+_{t-1}$ (EQR^+)	0.211***	0.415	1.000							
$EQMktRet^-_{t-1}$ (EQR^-)	0.099	0.507	0.407	1.000						
$EQMV_{t-1}$ (EQMV)	-0.077	-0.247	-0.045	-0.580	1.000					
$FIMktRet^+_{t-1}$ (FIR^+)	0.160**	0.317	0.369	0.240	-0.081	1.000				
$FIMktRet^-_{t-1}$ (FIR^-)	0.029	0.362	0.247	0.510	-0.351	0.368	1.000			
$FIMV_{t-1}$ (FIMV)	0.051	-0.124	0.010	-0.193	0.204	0.092	-0.446	1.000		
$YSpread_{t-1}$ (YSpd)	0.055	0.064	0.132	-0.058	0.292	-0.070	0.035	0.006	1.000	
$Inflation_{t-1}$ (Infl)	-0.048	0.025	-0.017	-0.059	0.087	-0.158	-0.212	-0.010	-0.040	1.000

*** significant at α=1%; ** significant at α=5%; * significant at α=10%.

The results of the Pearson correlation test in Table 1 reveal several patterns consistent with the study's theoretical framework. First, MfundFlows is positively and statistically correlated at the 1% level with $EQMktRet^+_{t-1}$ at r = 0.211 and significant at the 5% level with $FIMktRet^+_{t-1}$ at r = 0.160. Both correlation coefficients align with the expectation of the Flow-Performance Relationship theory, namely that positive stock and bond market performance drives inflows into mutual funds.

Second, the correlation of MfundFlows with $EQMktRet^-_{t-1}$ (r = 0.099) and $FIMktRet^-_{t-1}$ (r = 0.029) is much weaker and statistically insignificant relative to their positive components, indicating that the performance-flow relationship in the Indonesian market is empirically asymmetric at the bivariate correlation level. As shown in Table 2, once the AR(1) term and the event dummies are controlled for in the multivariate specification, the more robust channel is in fact the negative one. This pattern differs from the findings of Goldstein et al. (2017) for the US corporate bond market, where the asymmetry towards stronger outflows is already visible at the bivariate level. In the Indonesian data the outflow asymmetry emerges only once the model controls for flow inertia and idiosyncratic shocks; the multivariate result reported in Table 2 is therefore conceptually consistent with the first-mover dynamics documented by Goldstein et al. (2017), even though it arises in the equity rather than the corporate bond market.

Third, the correlation of MfundFlows with $EQMV_{t-1}$ is -0.077 and with $FIMV_{t-1}$ is 0.051, both statistically insignificant. The negative sign of EQMV is consistent with the expectation of H3, but its magnitude is small. The positive sign of FIMV contradicts the expectation of H4 but is also statistically meaningless. The correlation of MfundFlows with the control variables YSpread (0.055) and Inflation (-0.048) are both insignificant, indicating that these macroeconomic variables play more of a role as controls to isolate market effects rather than as dominant predictors.

Among independent variables, the highest correlation is found between $EQMktRet^-$ and EQMV (r = -0.580), which is a manifestation of the '*leverage effect*' common in the finance literature. The correlation between $EQMktRet^-$ and $FIMktRet^-$ of 0.510 indicates co-movement of stock and bond markets during periods of stress, while $FIMktRet^-$ and FIMV are correlated at -0.446, reflecting a surge in bond volatility associated with large losses in the bond market. All correlations between independent variables remain below the threshold of 0.8 considered problematic, consistent with the VIF test results.

Multiple Regression Results

The main model estimation was conducted using Ordinary Least Squares (OLS) with robust HAC Newey-West standard errors with 4 lags. The estimation results of the adjusted specification are presented in Table 2, accompanied by two robustness checks run in parallel: Robust Regression with a Huber M-estimator and Quantile Regression at the median (τ=0.5), both estimated on an identical specification.

Table 2

Regression Estimation and Robustness Checks Results

Variable	Main Model (OLS-HAC)	Robust (Huber)	QReg (τ=0.5)
Constant	0.0015 (0.8087)	0.0022 (0.7318)	0.0000 (0.9950)
$MfundFlows_{t-1}$	0.0604 (0.6817)	0.0891 (0.3066)	0.0520 (0.5974)
$EQMktRet^{+}_{t-1}$	0.1846 (0.1219)	0.2306 (0.0607)*	0.1480 (0.2868)
$EQMktRet^{-}_{t-1}$	-0.2534 (0.0591)*	-0.3204 (0.0080)***	-0.2550 (0.0627)*
$EQMV_{t-1}$	-0.1343 (0.5316)	-0.2431 (0.2331)	-0.3492 (0.1306)
$FIMktRet^{+}_{t-1}$	0.2865 (0.2402)	0.3109 (0.1029)	0.4129 (0.0563)*
$FIMktRet^{-}_{t-1}$	0.2089 (0.5549)	0.1764 (0.5186)	-0.1632 (0.5968)
$FIMV_{t-1}$	0.4133 (0.4448)	0.3275 (0.5905)	-0.1997 (0.7713)
$YSpread_{t-1}$	0.4464 (0.2485)	0.4398 (0.2213)	0.9041 (0.0271)**
$Inflation_{t-1}$	0.0473 (0.9379)	0.2845 (0.5356)	0.7617 (0.1429)
D_Covid	-0.0848 (<0.001)***	-0.0614 (<0.001)***	-0.0583 (0.0017)***
D_2011_Aug	0.1787 (<0.001)***	0.1760 (<0.001)***	0.1733 (<0.001)***
D_2011_Sep	-0.2191 (<0.001)***	-0.2237 (<0.001)***	-0.2125 (<0.001)***
N	181	181	181
R^2	0.4552	—	0.1636 (Pseudo)
Adj R^2	0.4162	—	—
F-statistic (p)	2.710 (0.003)	—	—

Note: Values in parentheses are p-values. Standard errors for the main model are computed using the HAC Newey-West method (4 lags). *** significant at α=1%; ** significant at α=5%; * significant at α=10%.

The estimation results in Table 2 show several main findings:

1) First, regarding overall model feasibility, the main model records an R^2 of 0.4552 and an Adjusted R^2 of 0.4162 with an F-statistic of 2.710 (p-value 0.003), significant at the 1% level. The model's ability to explain approximately 45.5% of the variation in MfundFlows is high for monthly mutual fund flow data in an emerging market, and confirms that the asymmetric specification combined with the AR(1) term and the structural-break-based event dummies successfully captures the dynamics of investor behavior.
2) Second, the coefficient of $EQMktRet^{+}_{t-1}$ is positive and consistent in sign across all three specifications: 0.1846 (p=0.122) in the main OLS-HAC model, 0.2306 (p=0.061) in Robust Regression, and 0.1480 (p=0.287) in Quantile Regression. Significance is achieved in Robust Regression, while in OLS-HAC and Quantile Regression the coefficient remains positive but does not reach the 10% threshold. The consistency of sign across specifications supports the interpretation that positive stock market performance drives the growth of mutual fund assets under management.
3) Third, the coefficient of $EQMktRet^{-}_{t-1}$ is negative and significant consistently across all three specifications: -0.2534 in OLS-HAC (p=0.059, significant at 10%), -0.3204 in Robust Regression (p=0.008, significant at 1%), and -0.2550 in Quantile Regression (p=0.063, significant at 10%). The negative sign means that when stock market performance deteriorates, mutual fund flows decline in the following month. Stock market performance therefore affects MfundFlows through two channels simultaneously: an inflow channel when

the market strengthens (positive component) and an outflow channel when the market weakens (negative component), with the negative component being the more consistently significant of the two.

4) Fourth, the coefficient of $FIMktRet^{+}_{t-1}$ is positive across all specifications (0.2865 in OLS-HAC, 0.3109 in Robust Regression, 0.4129 in Quantile Regression) and reaches 10% significance in Quantile Regression (p=0.056), approaching the threshold in Robust Regression (p=0.103). This supports the previous Pearson correlation findings that positive bond market performance drives mutual fund inflows. By contrast, $FIMktRet^{-}_{t-1}$ is insignificant and its sign is not consistent across specifications, indicating that losses in the bond market do not have a systematic effect on mutual fund flows in Indonesia, possibly because periods of large losses in the bond market are quite rare in this sample.
5) Fifth, the coefficient of $EQMV_{t-1}$ is negative across all three specifications (-0.1343; -0.2431; -0.3492) as expected by H3 and by the volatility timing mechanism, but none of the estimates reaches 10% significance. The coefficient of $FIMV_{t-1}$ is inconsistent in sign across specifications (0.4133; 0.3275; -0.1997) and insignificant throughout, indicating that bond market volatility does not have a systematic effect on MfundFlows.
6) Sixth, the three structural-break-based event dummies are strongly and consistently significant at the 1% level across all specifications. D_2011_Aug carries a large positive coefficient (0.1787 in OLS-HAC, $p < 0.001$), capturing the flight-to-safety inflow surge that followed the downgrade of the United States sovereign credit rating. D_2011_Sep carries a large negative coefficient (-0.2191, $p < 0.001$), capturing the reversal into outflows at the peak of global liquidity pressure. D_Covid is negative (-0.0848, $p < 0.001$), isolating the initial pandemic crash. The uniform 1% significance of all three dummies confirms the accuracy of the structural-break-based dummy windows and justifies splitting the 2011 crisis into two monthly dummies with opposite signs.
7) Seventh, the inertia coefficient $MfundFlows_{t-1}$ is small, positive, and insignificant across all specifications (0.0604 in OLS-HAC; 0.0891 in Robust Regression; 0.0520 in Quantile Regression). Once the 2011 and Covid-19 idiosyncratic shocks are precisely isolated through the three structural-break dummies, the residual inertia in flow behaviour becomes weak, indicating that most of the persistence apparent in specifications without event dummies is an artifact of consecutive shocks rather than structural persistence.

Finally, an additional robustness check redefines the dependent variable to net out contemporaneous passive revaluation, holding the right-hand side identical to the main model. The key result concerns $FIMktRet^{+}_{t-1}$: positive but insignificant in the main model (0.2865; p=0.240), it strengthens to 0.3180 and becomes significant at the 1% level (p=0.008) in the FI-adj version. $EQMktRet^{-}_{t-1}$ likewise remains negative and strengthens to -0.2652 (p=0.008) under FI-adj. In the EQ-adj version, $EQMktRet^{-}$ weakens to insignificance (-0.0416; p=0.734), as expected, since it is precisely the contemporaneous stock performance component that has been removed from the dependent variable. Explanatory power remains stable across the three versions (R^2 of 0.4552, 0.4407, and 0.4905 respectively), confirming that the performance-flow relationship reflects genuine investor reallocation rather than a mechanical revaluation artifact.

Hypothesis Testing

Hypothesis testing was conducted based on the estimation results of the main model (OLS with Newey-West HAC) with triangulation against two robustness checks (Huber Robust Regression and Quantile Regression), following the four-category decision matrix set out in the Method section. A hypothesis is said to be robustly supported if the coefficient shows a sign consistent with theoretical expectations and is significant in at least two of the three specifications at the 10% significance level.

Hypothesis 1: Effect of Stock Market Performance (EQMktRet) on Mutual Fund Asset Growth

H_1 states that there is a positive and significant effect between stock market performance and the growth of mutual fund assets under management in Indonesia. Because the specification decomposes stock market performance into positive and negative components, both are tested. The positive component $EQMktRet^{+}_{t-1}$ is positive across all specifications (0.1846; 0.2306;

0.1480), with significance achieved in Robust Regression (p=0.061). More notably, the negative component $EQMktRet^{-}_{t-1}$ is negative and significant consistently across all three specifications (0.2534, p=0.059; -0.3204, p=0.008; -0.2550, p=0.063). With the negative component significant in three of three specifications and the positive component consistent in direction with theoretical expectations, the effect of stock market performance on fund flows is robustly significant. H_1 is robustly supported. This finding confirms the Flow-Performance Relationship mechanism in the Indonesian mutual fund market, but with an important asymmetric nuance: the most robust channel is the downside channel, in which deteriorating stock market performance reflected by the IHSG is followed by declining fund flows in the following month.

Hypothesis 2: Effect of Bond Market Performance (FIMktRet) on Mutual Fund Asset Growth

H_2 states that there is a positive and significant effect between bond market performance and the growth of mutual fund assets under management in Indonesia. This hypothesis is tested through the coefficient of $FIMktRet^{+}_{t-1}$. The estimation results show coefficients of 0.2865 (p=0.240) in the main model, 0.3109 (p=0.103) in Robust Regression, and 0.4129 (p=0.056) in Quantile Regression. The positive sign is consistent across all specifications, with significance at the 10% level achieved in exactly one specification and approaching the threshold in Robust Regression. H_2 is moderately supported. This finding aligns with the literature by Chen and Qin (2017) and Choi and Kronlund (2018), which found that bond market performance drives fund flows into bond mutual funds. Given the significant proportion of fixed income mutual funds in the Indonesian mutual fund industry, this positive relationship has important practical relevance, and its strength becomes clearer in the FI-adj standardised version of the dependent variable, where the coefficient rises to 0.3180 and is significant at the 1% level.

Hypothesis 3: Effect of Stock Market Volatility (EQMV) on Mutual Fund Asset Growth

H_3 states that there is a negative and significant effect between stock market volatility and the growth of mutual fund assets under management in Indonesia. The estimation results show coefficients of $EQMV_{t-1}$ of -0.1343 (p=0.532) in the main model, -0.2431 (p=0.233) in Robust Regression, and -0.3492 (p=0.131) in Quantile Regression. The negative sign is consistent across all three specifications, but none of them reaches significance at the 10% level. H_3 is limitedly supported. The consistently negative sign aligns with the expectation of the volatility timing mechanism, where investors tend to reduce mutual fund allocations when stock market uncertainty increases. The weak statistical significance is likely because the effect of extreme volatility has already been absorbed by the event dummies, leaving the residual variation in EQMV outside crisis periods too weak to move fund flows systematically.

Hypothesis 4: Effect of Bond Market Volatility (FIMV) on Mutual Fund Asset Growth

H_4 states that there is a negative and significant effect between bond market volatility and the growth of mutual fund assets under management in Indonesia. The estimation results show coefficients of $FIMV_{t-1}$ that are inconsistent in sign across specifications: positive in the main model (0.4133; p=0.445) and in Robust Regression (0.3275; p=0.591), but negative in Quantile Regression (-0.1997; p=0.771), and statistically insignificant throughout. Because the direction of the coefficient changes across specifications, H_4 is not supported. This finding is interesting because it deviates from the hypothesis based on Goldstein et al. (2017) about first-mover advantage in the bond market. Possible explanations include: (i) in the Indonesian market, bond volatility often moves together with stock volatility, so its effect on MfundFlows is captured through other variables; (ii) the composition of fixed income mutual funds in Indonesia largely uses government bonds, which are considered relatively safe, so mutual fund investors are not as responsive to fluctuations in bond market volatility as hypothesized.

Hypothesis 5: Relative Dominance of Stock Market Performance over Bond Market Performance

H_5 states that stock market performance has a more dominant influence compared to bond market performance on the growth of mutual fund assets under management in Indonesia. Testing this hypothesis was conducted through a comparison of standardized coefficients

(standardized beta) between $EQMktRet^{+}$ and $FIMktRet^{+}$ as components representing the primary response of the Flow-Performance Relationship. Applying the standardized beta formula $\beta\_std = b \times (SD\_x / SD\_y)$ on the effective estimation sample (N = 181), the raw coefficients $b(EQMktRet^{+}) = 0.1846$ and $b(FIMktRet^{+}) = 0.2865$, together with $SD(EQMktRet^{+}) = 2.0273\%$, $SD(FIMktRet^{+}) = 1.2447\%$, and $SD(MfundFlows) = 3.5227\%$, yield $\beta(EQMktRet^{+}) = 0.1062$ and $\beta(FIMktRet^{+}) = 0.1012$. Although the raw bond market coefficient is larger than the stock market coefficient, the two become nearly equal once standardised, because the stock market performance variable has a much wider dispersion. The Wald test for the null hypothesis $\beta(EQMktRet^{+}) = \beta(FIMktRet^{+})$, estimated on a fully standardised (z-score) regression with HAC Newey-West robust standard errors, yields a chi-square statistic of 0.0019 with one degree of freedom and a p-value of 0.9655, which means the difference in magnitude of the standardized coefficients between the two markets is not statistically significant.

H_5 is not statistically supported in the sense of significant stock market dominance over the bond market. Although the magnitude of the stock market's standardized beta (0.1062) is marginally larger than that of the bond market (0.1012), the difference of 0.0050 does not exceed the threshold of statistical significance. Triangulation across estimators reinforces this conclusion: in Robust Regression the standardised beta for the stock market (0.1327) is slightly larger than for the bond market (0.1098), whereas in Quantile Regression the bond market (0.1459) exceeds the stock market (0.0852). The inconsistent direction of dominance, combined with an insignificant difference, indicates that both markets have relatively equal contributions to the movement of mutual fund assets under management in Indonesia, consistent with the fact that fixed income mutual funds occupy a substantial portion of the Indonesian mutual fund industry.

Table 3 presents a summary of the test results for all research hypotheses along with their empirical support status. Support status is categorized as 'Robustly Supported' if the coefficient sign is consistent with theoretical expectations and significant at the 10% level in at least two of the three specifications; 'Moderately Supported' if the sign is consistent across all specifications and significance is achieved in exactly one; 'Limitedly Supported' if the sign is consistent across all specifications but no specification reaches significance; and 'Not Supported' if the sign is inconsistent across specifications, regardless of significance.

Table 3

Summary of Hypothesis Testing Results

Hypothesis	Statement	Main Variable	Estimation Result	Status
H_1	EQMktRet (+) significant	$EQMktRet^{+}/^{-}$(t-1)	$EQMktRet^{-}$ negative and significant in 3/3 specifications; $EQMktRet^{+}$ positive in 3/3 (significant in 1/3)	Robustly Supported
H_2	FIMktRet (+) significant	$FIMktRet^{+}$(t-1)	β = 0.2865; positive in 3/3 specifications; significant at 10% in 1/3 (QReg)	Moderately Supported
H_3	EQMV (-) significant	EQMV(t-1)	β = -0.1343; negative in 3/3 specifications; not significant in any	Limitedly Supported
H_4	FIMV (-) significant	FIMV(t-1)	β = 0.4133; sign inconsistent (+ / + / −); not significant	Not Supported
H_5	EQMktRet > FIMktRet (dominance)	Std. β $EQMktRet^{+}$ vs Std. β $FIMktRet^{+}$	β std EQ^{+} = 0.1062, FI^{+} = 0.1012; Wald χ^2 = 0.0019, p = 0.9655	Not Supported

Discussion

The robust support for H_1 confirms that the Flow–Performance Relationship holds in the Indonesian mutual fund market, with a new finding regarding the direction of its asymmetry. Contrary to initial expectations emphasizing the inflow channel, the most robust channel is

actually the downside channel: the negative and significant EQMktRet⁻ coefficient across all specifications (-0.2534 to -0.3204) shows that Indonesian mutual fund investors react more strongly and consistently to deteriorating stock market performance.

The moderate support for H_2 shows that bond market performance also drives mutual fund growth, with its strength becoming very apparent once the dependent variable is standardized against the passive revaluation of bond portfolios (FI-adj, significant at 1%). This reflects the substantial share of fixed-income mutual funds and confirms that this response represents active investor reallocation rather than a purely mechanical effect.

The weak support for H_3 and the lack of support for H_4 indicate that the volatility-timing mechanism in Indonesia is not as strong as the Flow–Performance Relationship, partly because the effect of extreme volatility has already been absorbed by the event dummies. Meanwhile, the statistical rejection of H_5 shows that the contributions of the stock and bond markets to total AUM movement are relatively balanced — contrary to initial expectations based on the IHSG's visibility, but consistent with the structure of the Indonesian mutual fund industry, in which fixed-income funds are among the largest categories by assets under management.

Methodologically, the specification integrating the asymmetric decomposition of market performance, the AR(1) term, and three structural-break-based event dummies produces a model that explains 45.5% of the variation in MfundFlows (R^2 = 0.4552), with residuals that satisfy the normality assumption (Jarque-Bera 3.4653; p=0.177). Splitting the 2011 crisis into two monthly dummies with opposite signs (D_2011_Aug positive, D_2011_Sep negative) captures the reversal in fund flow direction that would otherwise cancel out if combined. Triangulation through Robust Regression and Quantile Regression ensures the findings do not depend on a single estimator, and this multi-specification approach should become the standard in mutual fund flow analysis in emerging markets that frequently experience idiosyncratic shocks.

CONCLUSION

This study analyzes the influence of stock and bond market performance and volatility on mutual fund AUM growth in Indonesia using monthly data from November 2010 to December 2025 (effective estimation sample N = 181). The estimation uses OLS with HAC Newey-West robust standard errors, supplemented by Huber Robust Regression and Quantile Regression, designed to handle the fat-tailed characteristics and idiosyncratic shocks present in the data. First, stock market performance robustly and significantly affects AUM growth with an asymmetric response pattern; the negative component (EQMktRet⁻) is the most robust channel, with a magnitude of 0.2534 to 0.3204, meaning that every 1% decline in stock market performance is associated with a 0.25% to 0.32% decline in MfundFlows in the following month. Second, bond market performance has a positive effect with moderate support, becoming significant at the 1% level in the FI-adj standardized version. Third, there is an asymmetric response pattern to stock market performance, in which the outflow response to negative performance is stronger and more consistent than the inflow response, consistent with Prospect Theory (Kahneman & Tversky, 1979) and the findings of Loeis and Prijadi (2015). Fourth, stock market volatility shows a negative effect with a consistent sign but is not significant, while bond market volatility has no systematic effect. Fifth, the relative dominance test results show that although the magnitude of the stock market's effect is slightly larger, the difference is not statistically significant, so the contributions of both markets to the movement of assets under management are relatively balanced.

This study contributes to the mutual fund literature in emerging markets through three novel aspects: a focus on the Indonesian market, which is dominated by retail investors within a fintech APERD ecosystem; the simultaneous integration of stock and bond market performance with a separation of positive and negative components to capture asymmetry; and the use of aggregate assets under management with a multi-specification approach. The study's limitations include the use of aggregate data without separating specific mutual fund categories. Future research is recommended to develop analyses based on mutual fund type, incorporate deeper investor behavior approaches, and consider global economic variables and investment digitalization factors.

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AUTHOR CONTRIBUTION STATEMENT

All authors contributed to the conceptualization, methodology development, data analysis, interpretation of results, manuscript preparation, and final revision of this article. All authors have read and approved the final version of the manuscript

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