





“The participation of investment funds and stock price volatility: An investigation on fund type, size, and ownership”

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THE PARTICIPATION OF INVESTMENT FUNDS AND STOCK PRICE VOLATILITY: AN INVESTIGATION ON FUND TYPE, SIZE, AND OWNERSHIP

Abstract

This study investigates how investment funds influence the stock price volatility of the firms in which they invest. Using a sample of 196 companies listed on the Vietnamese stock market during the period 2016–2022, the analysis captures the presence and influence of investment funds through their key proxies: the ownership ratio that each fund holds in a particular firm, the fund's size, and the type of investment fund. These proxies and other vital control variables of stock price volatility are investigated using pooled OLS, fixed effects model, random effects model, and generalized linear squares (GLS) models, along with essential tests for model validity. The empirical results reveal that the fund ownership ratio mitigates stock price volatility, whereas fund size potentially exacerbates volatility. The type of investment fund does not significantly impact the stock price. This study offers important theoretical and practical insights for firm managers and investors, providing recommendations to optimize fund management strategies and contributing to the stability and sustainable development of the Vietnamese stock market.

Keywords

investment fund, volatility, Generalized Linear Squares (GLS), listed firms

JEL Classification

G10, G11, G23

INTRODUCTION

Over more than two decades of development, the Vietnamese stock market has increasingly affirmed its role as a vital channel for capital mobilization, contributing to economic restructuring and improvements in enterprise performance. By the end of 2021, the market capitalization had surpassed VND 9.3 trillion, equivalent to 149.84% of the national GDP, achieving the Government's target under Decision 242/QĐ-TTg four years ahead of schedule. This remarkable expansion highlights not only the market's growing scale but also its increasing diversity and complexity, with a wide range of investment instruments, ranging from equities and bonds to fund certificates and derivatives, drawing heightened participation from both domestic and foreign investors.

Along with this expansion, the presence and influence of investment funds and fund management companies have become more pronounced. By August 2024, Vietnam had recorded 43 fund management companies and 110 investment funds, five times higher than in 2011, with total equity capital exceeding VND 74 trillion (SSC, 2024). This growth reflects the rising importance of professional investment institutions, which are expected to support capital mobilization, enhance liquidity, and contribute to greater stability in stock prices.

Prior studies have provided substantial evidence regarding the beneficial role of institutional investors in financial markets in general and in stock markets in particular. The presence of investment funds enhances market efficiency, improves the accuracy and timeliness of information updates, and improves corporate governance. In the Vietnam context, Vo (2016) emphasized that investment funds help stabilize the profitability of listed companies, thereby reducing market volatility. However, most of these studies have primarily focused on analyzing the impact of investment fund ownership on corporate performance, without deeply examining investment funds' impact on stock price volatility – a crucial factor in assessing companies' market value.

Despite growing recognition of the influence of investment funds, the empirical evidence in Vietnam regarding how institutional investors such as investment funds affect stock price volatility remains limited. Most current research has approached this research interest from the perspective of the ownership structure of investment funds without offering a comprehensive analysis of fund size, fund type, and how these factors exert heterogeneous effects on price fluctuations. This academic gap calls for more in-depth studies to clarify the relationship between funds' holdings of firm shares and these shares' price volatility, thereby providing important theoretical and practical arguments for managers, businesses, and investors.

In practice, stock price volatility holds particular significance for corporate management, as it directly affects firms' market capitalization, their ability to attract capital. Given their informational advantages and cost-efficient trading, investment funds have the potential to either mitigate volatility by stabilizing prices or amplify it through active trading. The increased participation of investment funds during the 2018–2022 period contributed to market stabilization and helped buffer the market against negative economic shocks (Tran et al., 2021; Ngo, 2024). This underscores the importance of studying the impact of investment funds on stock price volatility, especially given that the number of relevant empirical studies in Vietnam has remained limited and that these studies lack other vital drivers of stock price volatility other than investment funds' transactions.

Therefore, this study aims to fill the research gap by analyzing how investment fund participation interacts with the stock price volatility of listed companies on the Vietnamese stock market.

1. LITERATURE REVIEW

Investment funds and fund management companies have experienced explosive growth globally, especially in the United States, where nearly 8,000 investment funds are currently active. This growth has spurred numerous studies examining the impact of investment funds on financial markets from various perspectives. These studies often focus on evaluating the impact of investment funds on macroeconomic indicators, financial market stability, and company performance. However, direct research on the impact of investment fund participation on stock price volatility remains limited and has not been fully explored. Most existing studies provide only indirect conclusions through various impacts of investment funds.

Previous studies have statistically discovered three key factors that significantly affect the stock price

volatility of companies in an investment fund's portfolio: the fund's ownership ratio within the company's capital structure, the fund's asset size, and the type of investment fund.

Investment fund's ownership ratio

The ownership ratio of investment funds within a company's capital structure has been widely studied in both developed and emerging markets. However, research findings about the relationship between ownership ratio and stock price volatility have not been entirely consistent.

Some studies suggest that a high ownership ratio by investment funds is negatively correlated with stock price volatility, implying that greater investment fund involvement in a single firm could reduce stock price volatility. Friedman (1953) emphasized the role of investment funds

in stabilizing assets, while Fama (1965) argued that, due to their superior information-processing capabilities, investment funds can eliminate poor-quality securities, thereby narrowing the gap between a stock's intrinsic value and its market value, contributing to lower price fluctuations.

Investment funds' trades of firm shares on the secondary market tend to reduce the stock price volatility. This positive contribution of investment funds to market stability has been observed and proven in Aggarwal and Rao (1990), Brennan (1995), Voronkova and Bohl (2005), and Kaniel et al. (2008). The proactive participation of those funds can limit irrational trades by individual investors, thereby helping maintain market stability with less price volatility. This reinforces the crucial role of investment funds as «smart investor,» capable of mitigating unreasonable stock price volatility.

Similarly, a long-term investment horizon, coupled with intensive analysis-driven investment decisions, and the participation of investment funds on days of significant market volatility, did not exacerbate stock price volatility (Lipson & Puckett, 2006).

On the other hand, another strand of literature provides evidence highlighting that the behavior of institutional investors and individual investors differs markedly on days when the market experiences high volatility (Dennis & Strickland, 2002; Davis & Hu, 2004). In particular, listed firms with higher shares of institutional investors, including investment funds, experience higher fluctuations in share prices. This could result from investment funds trading in line with market momentum, causing short-term stock price fluctuations, especially during periods of heightened volatility.

In Vietnam, the involvement of investment funds in the operation of businesses has helped stabilize their stock prices on secondary stock markets (Vo, 2014). However, the data in this study is outdated and no longer reflects the current market context, as the Vietnamese stock market has been rapidly evolving in both scale and quality.

Investment fund's asset size

The empirical evidence on the linkage between fund size and stock price volatility has remained inconsistent. Volkman and Wohar (1995) conducted a study on 332 investment funds from 1980 to 1989 but found no clear relationship between fund size and stock price volatility. They argued that small to medium-sized funds did not significantly affect fund performance and thus had no substantial influence on stock price volatility. In contrast, larger funds tended to have an inverse effect on fund performance and on stock prices, although this effect was not highly statistically significant.

Examining the effects of variations in fund size on stock prices, Shleifer (1986) and Harris and Gurel (1986) claimed that an increase in the fund value correlates positively with heightened short-run stock price volatility. Lynch and Mendenhall (1977), sharing a similar view, discovered that abnormal returns on stock prices arise from substantial changes in fund size, especially on days when significant market information is disclosed.

In Vietnam, the size of investment funds has a significant impact on stock price volatility (Vo & Dang, 2016). Specifically, larger funds tend to exert greater pressure on stock prices, leading to higher stock price volatility compared to smaller funds. This study also confirmed that changes in fund size can create short-term stock price fluctuations, although the long-term effects remain under investigation.

Types of investment funds

Previous studies hold different views on the nexus between investment fund types and stock price volatility. While some research finds no significant linkage between the two factors (Ippolito, 1989; Hassan et al., 2010), other studies find that different types of investment funds may have differing effects on the stock prices of companies within their portfolios (Ahmed, 2008; Abdullah et al., 2007). Ahmed (2008) demonstrated that balanced investment funds can influence stock price volatility in specific regions, particularly in Islamic markets. In contrast, Abdullah et al. (2007) found that growth-oriented funds tend to lead to lower stock price volatility during periods of economic crisis.

Throughout the above discussion of prior literature, it is apparent that while most studies have focused on the association between investment funds' holdings and stock price volatility in developed markets, similar empirical evidence in emerging markets such as Vietnam remains limited. There is not yet enough evidence to draw firm conclusions on the studied topic.

One of the studies in Vietnam, Vo (2014), has provided first insights into the impact of investment fund ownership on stock price volatility (SPV), yet the data is outdated and no longer reflects the current context of the Vietnamese stock market. Moreover, factors such as asset size and the type of investment fund have not been thoroughly examined in research in Vietnam, leaving a substantial research gap for further studies, which our study addresses.

Specifically, this paper aims to test following hypotheses:

- H1: *The investment fund ownership ratio positively affects stock price volatility.*
- H2: *The fund size has a positive impact on stock price volatility.*
- H3: *The type of investment fund affects stock price volatility.*

The research findings will not only add more value to the research field of investment funds and stock price volatility but also provide policymakers and investors with more reliable and valuable information for informed decisions on particular stock investments and fund choices.

2. RESEARCH METHOD AND DATA

2.1. Research method

To address the research question and test the aforementioned hypotheses using the most appropriate model, the authors have run several model specifications with Pooled OLS, Fixed effect, and Random effect models to facilitate the selection

of the most suitable model. Consequently, if the selected regression model appears to contain any regression defects, the Generalized Least Squares (GLS) will be applied.

Besides, the study, through a thorough review of literature, has incorporated new important variables such as firm size, profitability, financial leverage, and foreign investment in accurately evaluating the impact of investment funds' traits on stock price volatility. The complete research equation is constructed as follows:

$$\begin{aligned} SPV_{i,t} = & \beta_0 + \beta_1 \cdot INSF_{i,t} + \beta_3 \cdot SZF_{i,t} \\ & + \beta_4 \cdot SIZE_{i,t} + \beta_5 \cdot ROA_{i,t} + \beta_6 \cdot LEV_{i,t} \\ & + \beta_7 \cdot AGE_{i,t} + \beta_8 \cdot FDI_{i,t} + \beta_9 \cdot FII_{i,t} \\ & + \beta_{10} \cdot CPI_{i,t} + \beta_{11} \cdot GDP_{i,t} + \beta_{12} \cdot USE_{i,t} \\ & + \varepsilon_{i,t}, \end{aligned} \quad (1)$$

where $SPV_{i,t}$ is the stock price volatility of firm i in year t ; $INSF_{i,t}$ is the ownership ratio of investment funds in firm i in year t ; $SZF_{i,t}$ is the asset value of a specific investment fund in firm i in year t ; $SIZE_{i,t}$ is the size of firm i in year t ; $ROA_{i,t}$ is the profitability of firm i in year t ; $LEV_{i,t}$ is the financial leverage ratio of firm i in year t ; $AGE_{i,t}$ is the number of years of operation of firm i in year t ; $FDI_{i,t}$ is the total value of foreign direct investment in Vietnam in year t ; $FII_{i,t}$ is the total value of foreign indirect investment in Vietnam in year t ; $CPI_{i,t}$ is the inflation rate in Vietnam in year t ; $GDP_{i,t}$ is the economic growth rate in Vietnam in year t ; $USE_{i,t}$ is the type of investment fund that has invested in firm i in year t ; $\varepsilon_{i,t}$ is the error term or residual for firm i in year t ; $\beta_0, \beta_1, \dots, \beta_{12}$ are the intercepts or coefficients for the respective variables in the model.

Stock price volatility

Adopting stock price volatility proxy of Parkinson (1980), Baskin (1989), and Allen and Rachim (1996), the construction of stock price volatility (SPV) in this study is presented as follows:

$$SPV_{i,t} = \frac{H_{i,t} - L_{i,t}}{(H_{i,t} + L_{i,t}) / 2}, \quad (2)$$

where $H_{i,t}$ is the highest stock price of firm i in year t ; $L_{i,t}$ is the lowest stock price of firm i in year t ; t is the period from 2016 to 2022.

To assure the goodness of fit as well as the validity of the research model, other than primary independent variables, the study also incorporates important control variables including firm size (SIZE – natural logarithm of market value of firm), profitability (ROA), financial leverage (LEV), firm age (AGE), foreign direct investment (FDI) and foreign indirect investment (FII), inflation (CPI), and GDP growth. Foreign capital flows, such as FDI and FII, are expected to have a strong influence on domestic trading behavior, causing market volatility. Macroeconomic factors like inflation (CPI) and GDP growth directly affect stock price volatility: high inflation often increases volatility, while stable growth tends to reduce risk.

2.2. Data

The dataset includes historical transaction statistics and the data extracted from consolidated financial statements of 196 listed firms on the two largest stock exchanges in Vietnam, the Ho Chi Minh City Stock Exchange (HSX) and the Hanoi Stock Exchange (HNX), during the period from 2016 to 2022, covering a total of 1,372 observations. The dataset is gathered from the official websites of securities companies, Vietstock (Vietstock.vn) – a leading professional provider of market data in Vietnam, and from annual reports of companies in the research sample.

The selection of listed firms and the research period are accomplished concerning the following aspects:

- (i) Only non-financial companies are examined. Financial companies are excluded due to their

unique characteristics of ownership structure, governance systems, and businesses, which could significantly affect the research results. Besides, firms that lacked sufficient data or exhibited abnormal data during the study's timeframe are excluded.

- (ii) The studied period is from 2016 to 2022 due to changes in the institutional environment under Vietnam's capital structure policies. After 2015, foreign investors were allowed to own up to 100% in certain industries, and after 2020, under the Securities Law of 2019, the government provided guidelines on procedures and documentation for foreign investors, along with a list of industries restricted from receiving foreign investment.

3. RESULTS AND DISCUSSION

Table 1 presents the descriptive statistics of the collected data, calculated and summarized by the author using STATA 17.0.

The correlation matrix reveals that 80% of the relationships between variables are statistically significant. Among these, the strongest positive correlation is between the variables SZF and FDI, with a correlation coefficient of 0.7895 at the 5% significance level. The weakest positive correlation is between LEV and CPI, with a coefficient of 0.0073, but this relationship is not statistically significant. On the other hand, the strongest negative correlation is between INSF and USE, with a coefficient of -0.6290 at the 5% significance level, while the weakest negative correlation is between FDI and

Table 1. Descriptive summary of observed variables

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
SPV	1,372	0.6593	0.3213	0	1.7568
INSF	1,372	17.8701	18.8560	0	92.1910
SZF	1,372	43.5771	29.9590	7.7590	84.9600
USE	1,372	0.3455	0.4757	0	1
SIZE	1,372	8.7929	0.9070	6.6349	11.5766
ROA	1,372	6.4199	7.4137	-48.3408	46.7896
LEV	1,372	47.5285	20.8236	1.2027	96.6925
AGE	1,372	28.9745	15.9004	6	148
FDI	1,372	19.2709	1.9622	15.8	22.3960
FII	1,372	3715.812	11385.6500	-6666.529	27369
GDP	1,372	5.8157	2.0201	2.56	8.12
CPI	1,372	3.1314	0.8961	1.48	4.74

Table 2. Correlation matrix between variables

	SPV	INSF	SZF	USE	SIZE	ROA	LEV	AGE	FDI	FII	GDP	CPI
SPV	1											
INSF	-0.129*	1										
SZF	0.362*	-0.081*	1									
USE	0.114*	-0.629*	0.096*	1								
SIZE	0.075*	0.239*	0.167*	-0.287*	1							
ROA	-0.130*	0.119*	-0.079*	-0.153*	0.227*	1						
LEV	0.085*	0.019	-0.028	0.011	0.067*	-0.355*	1					
AGE	-0.039	-0.145*	0.122*	0.049	0.090*	0.128*	-0.088*	1				
FDI	0.243*	-0.061*	0.789*	0.084*	0.115*	-0.061*	-0.032	0.115*	1			
FII	0.034	0.024	-0.104*	-0.004	-0.018	0.014	-0.005	-0.007	0.068*	1		
GDP	-0.078*	0.039	-0.386*	-0.039	-0.096*	0.054*	-0.010	-0.032	0.058*	0.489*	1	
CPI	0.018	0.019	-0.179*	-0.045	-0.045	-0.006	0.007	-0.042	-0.514*	-0.002	-0.101*	1

Note: * Significance level at 5%.

CPI, with a coefficient of -0.0009 , which is not statistically significant. The dummy variable USE is significantly correlated with three variables in the research model: SIZE, ROA, and FDI.

The dependent variable SPV generally shows significant correlations with both the independent and control variables. Notably, SZF has the strongest positive correlation with SPV (0.3621), while ROA has the strongest negative correlation with SPV (-0.1304), both at the 5% significance level.

Upon observation, none of the correlation coefficients between the research variables exceeds 0.8, implying that multicollinearity is unlikely to arise in the regression analysis. However, to ensure that the model is free of multicollinearity, the authors further reconfirmed with the Variance Inflation Factor (VIF) results (Table 3).

As shown in Table 3, all VIF values in the model are below 10, indicating low multicollinearity among

the variables. This evidence shows that the model does not suffer from severe multicollinearity.

To proceed with the model selection process as presented earlier, we first employ the Pooled Ordinary Least Squares (Pooled OLS) regression, and its result is reported in Table 4.

The results indicate that the investment fund ownership ratio (INSF) is inversely related to stock price volatility (SPV). On the other hand, the asset value of the investment fund (SZF) shows a positive relationship with SPV. Subsequently, the authors tested heteroskedasticity and autocorrelation in the Pooled OLS model. The results are summarized in Table 4.

The results show that the Pooled OLS model exhibits heteroskedasticity, as indicated by the heteroskedasticity test ($\text{Prob} > \chi^2 = 0.0000 < 5\%$). However, there is no evidence of autocorrelation in the model ($\text{Prob} > F = 0.0089 < 5\%$). In this re-

Table 3. Variance inflation factor (VIF) test results

Variable Name	VIF	1/VIF
FDI	7.98	0.125383
SZF	7.43	0.134586
GDP	2.75	0.363869
CPI	1.89	0.528647
USE	1.74	0.575376
INSF	1.71	0.583975
FII	1.35	0.742075
ROA	1.29	0.777816
SIZE	1.25	0.802037
LEV	1.19	0.841241
AGE	1.07	0.932903
Average VIF	2.69	

Table 4. Regression results using the Pooled OLS model

Variable Name	Coefficient	Standard Error	t-Stat	p-Value	[95% Confidence Interval]
INSF	-0.0018***	0.0005	-3.33	0.001	[-0.0028, -0.0007]
SZF	0.0071***	0.0007	9.98	0.000	[0.0057, 0.0085]
USE	0.0204	0.0217	0.94	0.347	[-0.0222, 0.0629]
SIZE	0.0263***	0.0096	2.73	0.006	[0.0074, 0.0452]
ROA	-0.0033***	0.0012	-2.75	0.006	[-0.0056, -0.0009]
LEV	0.0009**	0.0004	2.15	0.032	[0.0001, 0.0017]
AGE	-0.0018***	0.0005	-3.45	0.001	[-0.0026, -0.0008]
FDI	-0.0495***	0.0113	-4.39	0.000	[-0.0715, -0.0274]
FII	0.0000	0.0000	1.17	0.242	[-0.0006, 0.000025]
GDP	0.0309***	0.0064	4.82	0.000	[0.0183, 0.0435]
CPI	0.0012	0.0120	0.10	0.920	[-0.0223, 0.0248]
_cons	0.9411***	0.2157	4.36	0.000	[0.5179, 1.3642]

Table 5. Wooldridge test for autocorrelation

H_0 : No first-order autocorrelation	
F (1, 195)	6.989
Prob > F	0.0089

Table 6. White test for heteroskedasticity diagnosis

H_0 : Homoskedasticity H_a : Unrestricted heteroskedasticity	
Chi2 (62)	180.35
Prob > Chi2	0.0000

gard, as suggested by Wooldridge (2016), the Fixed Effects Model (FEM) and Random Effects Model (REM) are more appropriate than Pooled OLS because they account for the panel data nature and unobserved heterogeneity (Table 7).

To choose between FEM and REM, the Hausman test is applied, and the result (Table 7) indicates that the Fixed Effects Model (FEM) is more suitable than the Random Effects Model (REM). The authors further test for the potential presence of autocorrelation and heteroskedasticity in the chosen FEM, which ultimately diagnoses the existence of those two potential econometric issues. These are finally addressed by the Generalized Least Squares (GLS) model (Table 7).

According to the chosen GLS specification, the results indicate that, among the 3 independent variables, INSF and SZF significantly explain the stock price volatility of listed firms on the Vietnamese stock market (P-value < 5%), while the dummy variable USE does not show any significant relationship. Additionally, among the control variables, only foreign indirect investment (FII) and

inflation (CPI) do not convey a particular relationship with SPV, while the remaining control variables' estimates are significant (P-value < 5%). The estimated results also show the consistency across the model specifications (Table 7).

Specifically, as for the impact of investment fund participation on stock price volatility (SPV) in Vietnam from 2016 to 2022, aligning with previous research by Brennan (1995), and Vo (2014), our study provides reliable evidence on the inverse links between the ownership of investment funds (INSF) in a particular listed firm with its share price volatility, implying that the hypothesis $H1$ is rejected. This reflects the stabilizing influence of investment funds in corporate governance, as they tend to invest in more stable and less risky companies. Moreover, with their information advantage, cautious decision-making, and long-term investment horizon, investment funds help minimize stock price volatility on the stock market.

Additionally, the total asset value of investment funds (SZF) has a positive relationship with SPV at the 1% significance level, proving the hypoth-

Table 7. Model specifications: Pooled OLS, FEM, REM, GLS

	Pooled OLS	FEM	REM	GLS
INSF	-0.00181*** (-3.33)	-0.00404*** (-3.91)	-0.00253*** (-3.71)	-0.00189*** (-4.64)
SZF	0.00710*** (9.98)	-0.482*** (-7.24)	0.00697*** (10.89)	0.00754*** (13.26)
USE	0.02 (0.94)	0.04 (1.50)	0.03 (1.12)	0.01 (0.49)
SIZE	0.0263*** (2.73)	0.206*** (5.94)	0.0399*** (2.95)	0.0232*** (3.01)
ROA	-0.00329*** (-2.75)	0.00 (0.01)	0.00 (-0.72)	-0.00268*** (-2.70)
LEV	0.000880** (2.15)	0.00239*** (2.62)	0.00126** (2.32)	0.00161*** (4.59)
AGE	-0.00176*** (-3.45)	12.00*** (7.33)	-0.00205*** (-2.68)	-0.00114*** (-2.61)
FDI	-0.0495*** (-4.39)	-5.433*** (-7.39)	-0.0477*** (-4.74)	-0.0506*** (-5.63)
FII	0.00 (1.17)	0.00000375*** (4.66)	0.00 (1.32)	0.00 (1.21)
GDP	0.0309*** (4.82)	0.438*** (7.87)	0.0306*** (5.33)	0.0324*** (6.32)
CPI	0.00 (0.10)	-0.179*** (-6.40)	0.00 (0.30)	0.01 (1.07)
_cons	0.941*** (4.36)	-225.2*** (-7.35)	0.775*** (3.59)	0.866*** (4.99)
N	1372	1372	1372	1372
Hausman	Test of H_0 : Difference in coefficients not systematic Chi2(9) = (b-B)'[(V_b-B_B)^(-1)](b-B) = 94.98, Prob > chi2 = 0.0000			

Note: ***, **, and * are significance levels at 1%, 5%, 10%; t-statistics are in parentheses.

esis *H2* and implying that as the asset value of investment funds increases, stock price volatility also rises. This can be explained by the tendency of individual investors to engage in herd behavior, being strongly influenced by the buying and selling decisions of large investment funds, which in turn leads to more active trading and greater stock price volatility.

Notably, the variable representing the type of investment fund (USE) is not statistically significant in the model, suggesting that the impact of fund type on stock price volatility (hypothesis *H3*) remains unclear in this study, which aligns with the findings of Hassan et al. (2010).

Aside from investigating the key nexus between the investment fund's involvement and the stock price volatility, our study has successfully revealed the association between other vital control variables and the stock price volatility, as discussed below.

Regarding the relationship between firm size (SIZE) and stock price volatility, the regression result explores a positive correlation, with a regression coefficient of 0.25438 at the 5% significance level. This indicates that larger firms experience higher stock price volatility, contrary to the initial hypothesis and findings from studies such as Rashid and Rahman (2008). This difference may stem from specific characteristics of the sample used in Vietnam.

Profitability (ROA) shows a negative correlation with SPV, with a regression coefficient of -0.00212 at the 10% significance level, suggesting that higher profitability is associated with lower stock price volatility. This finding aligns with the real-world observation that highly profitable firms generally offer stable expectations, leading investors to hold their stocks for the long term.

The financial leverage ratio (LEV) shows a positive correlation with stock price volatility, with a re-

gression coefficient of 0.0015306 at the 1% significance level. This finding is consistent with the initial hypothesis, suggesting that when a company has a higher debt ratio, the increased financial risk leads to greater stock price volatility. However, the relatively small impact of LEV on SPV indicates that financial leverage is not the most critical factor determining price fluctuations.

The firm life (AGE) has a negative correlation with SPV, with a regression coefficient of -0.0012718 at the 5% significance level. Older companies tend to have lower stock price volatility, reflecting the stability and investor confidence in well-established businesses.

Regarding foreign direct investment (FDI), the study finds its inverse relationship with stock

price volatility, with a regression coefficient of -0.0478048 at the 1% significance level. This result contradicts the initial hypothesis, suggesting that as foreign investors increase their ownership in companies, stock price volatility decreases. This could be due to the stringent control and long-term strategies implemented by foreign investors.

GDP growth rate shows a positive relationship with stock price volatility, with a regression coefficient of 0.0300416 at the 1% significance level. This result, unlike Prymachenko (2003), indicates that during periods of strong economic growth, the stock market tends to experience greater volatility, driven by heightened investor expectations, proactive participation in the market, and the leveraging of market liquidity and volatility.

CONCLUSION

This study analyzed how investment funds shape the stock price volatility of listed companies on the Vietnamese stock market during the period 2016–2022, using data from 196 non-financial companies listed on the two major Vietnamese stock exchanges, HSX and HNX. Through the synthesis and analysis of previous research and the regression and data analysis, the study has successfully developed a theoretical framework and an empirical model to assess the influence of investment fund's participation, reflected and assessed via the fund's ownership ratio, the fund's size, and the fund type, on the stock price volatility of listed companies in which the funds allocated their investments.

In this study, to facilitate the investigation of investment funds' involvement in the stock price volatility of listed firms, the authors deploy three different proxies representing investment funds, including investment fund ownership ratio (INSF), the total asset value of the investment fund (SZF)-representing the fund size, and the dummy variable for the type of investment fund (USE).

The empirical results support the conclusion that the investment fund's ownership ratio in a listed firm (INSF) has an inverse effect on stock price volatility, while the total asset value of the fund (SZF) has a positive effect, both with a 1% significance level. However, the type of investment fund did not show statistical significance. These findings provide a deeper understanding of the impact of investment funds on stock price volatility with updated and detailed data, highlighting the important role of investment funds in the development and expansion of Vietnam's stock market. However, Vietnam's stock market still experiences high levels of information asymmetry (Nguyen, 2016), so with the advantages of scale, professionalism, and access to information, investment funds can better assess companies and hold long-term stakes. Additionally, the study found evidence that firm size, profitability, financial leverage, foreign direct investment, and GDP growth rate influence the stock price volatility of listed companies.

Those findings lay a firm foundation for the following measures aimed at improving the operational efficiency of listed companies on Vietnam's stock market through the proactive investment activities of investment funds. These measures also help foster a more stable and transparent stock market environment while ensuring that investment funds contribute positively to the growth and development of Vietnam's stock market.

RECOMMENDATIONS FOR FURTHER RESEARCH

This study offers some recommendations for further research.

Optimizing the investment fund ownership ratio: The study concludes that the investment fund ownership ratio has an inverse effect on stock price volatility. Therefore, the recommendation is to consider optimizing the ownership ratio to reduce negative volatility caused by SPV, which affects not only the company but also the entire market. The ownership ratio should align with the company's management strategy to avoid over-dependence on investment funds.

Reevaluating investment fund structure and strategy: Given that the investment fund's total asset value positively affects stock price volatility, it is necessary to review the fund's structure and investment strategy. This implies that potential adjustments to the fund's investments or resource allocation may be required to achieve the desired balance. Investors should consider purchasing stocks expected to be added to the fund's portfolio, as their prices tend to increase in the short term. Likewise, they should consider selling stocks likely to be removed from the portfolio and re-purchasing them after the removal, as stock prices tend to decrease temporarily.

Further comprehensive research on the nexus between different fund types and stock price volatility: In this study, the effect of fund types on stock price volatility could not be conclusively determined due to a lack of statistical significance. Therefore, further research is needed to clarify the influence of different types of funds on stock price volatility, thereby enhancing understanding and leading to more effective investment decisions. Moreover, investors should not equate changes in a fund's portfolio weight with a company's operational performance, as these changes are often driven by the fund's objectives regarding profit, risk, and liquidity, rather than by the company's performance indicators.

Strengthening regular monitoring and adjustments: The study also highlights that investment funds significantly influence Vietnam's stock market and can sometimes lead to herd behavior among other investors. Therefore, regulatory bodies should enhance oversight efforts and promptly detect and address any misconduct, such as market manipulation or the creation of artificial supply and demand in listed shares for unlawful gains, to protect the interests of all market participants in Vietnam's stock market.

Although the study is grounded on a solid theoretical foundation, drawing on an extensive review of empirical studies both globally and in Vietnam, certain limitations remain. The first is a limited research sample. The study's sample consists of only 196 companies and 1,372 observations, which may not effectively represent the population of firms with investment funds' capital. The second is the lack of a separate analysis for different types of investment funds. The study does not distinguish the effects of different types of investment funds on stock price volatility. The authors believe that each type of investment fund, with its unique characteristics and investment strategies, may have varying operational impacts, which could influence the stock price volatility differently. These limitations suggest further research to deepen insights into the multifaceted contributions of investment funds to stock price volatility, providing grounds for more effective and valuable policy recommendations.

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REFERENCES

1. Abdullah, F., Hassan, T., & Mohamed, S. (2007). Investigation of Performance of Malaysian Islamic Unit Fund Trusts, Comparison with Conventional Unit Fund Trusts. *Managerial Finance*, 33(2), 142-153. <https://doi.org/10.1108/03074350710715854>
2. Aggarwal, R., & Rao, R. P. (1990). Institutional ownership and distribution of equity returns. *Financial Review*, 25(2), 211-229. [10.1111/j.1540-6288.1990.tb00793.x](https://doi.org/10.1111/j.1540-6288.1990.tb00793.x)
3. Ahmed, S. (2008). Aggregate economic variables and stock market in India. *International Journal of Finance & Economics*, 14, 144-64. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1693544
4. Allen, D. E., & Rachim, V. S. (1996). Dividend policy and stock price volatility: Australian evidence. *Applied Financial Economics*, 6(2), 175-188. <https://doi.org/10.1080/096031096334402>
5. Baskin, J. (1989). Dividend policy and the volatility of common stocks. *Journal of Portfolio Management*, 15(3), 19-25. <https://doi.org/10.3905/jpm.1989.409203>
6. Brennan, M. J. (1995). The individual investor. *Journal of Financial Research*, 18(1), 59-74. <https://doi.org/10.1111/j.1475-6803.1995.tb00211.x>
7. Davis, E. P., & Hu, Y. (2004). *Is there a link between pension-fund assets and economic growth? – A cross-country study* (Public Policy Discussion Papers 04-23). Economics and Finance Section, School of Social Sciences, Brunel University. Retrieved from <https://bura.brunel.ac.uk/bitstream/2438/978/1/04-23.pdf>
8. Dennis, P. J., & Strickland, D. (2002). Who blinks in volatile markets, individuals or institutions?. *The Journal of Finance*, 57(5), 1923-1949. Retrieved from <https://www.jstor.org/stable/3094500>
9. Fama, E. F. (1965). The Behavior of Stock-Market Prices. *The Journal of Business*, 38(1), 34. <https://doi.org/10.1086/294743>
10. Friedman, M. (1953). *Essays in Positive Economics*. University of Chicago Press, Chicago.
11. Harris, L., & Gurel, E. (1986). Price and volume effects associated with changes in the S&P 500 list: New evidence for the existence of price pressures. *The Journal of Finance*, 41(4), 815-829. <https://doi.org/10.2307/2328230>
12. Hassan, M. K., Rashid, M., & Abdullah, A. R. (2010). Performance of Islamic and Conventional Mutual Funds in Malaysia: An Empirical Analysis. *Journal of Islamic Economics, Banking and Finance*, 6(2), 52-67.
13. Ippolito, R. A. (1989). Efficiency with Costly Information: A Study of Mutual Fund Performance, 1965-1984. *The Quarterly Journal of Economics*, 104(1), 1-23. Retrieved from <https://ideas.repec.org/a/oup/qjecon/v104y-1989i1p1-23.html>
14. Kaniel, R., Saar, G., & Titman, S. (2008). Individual investor trading and stock returns. *The Journal of Finance*, 63(1), 273-310. <https://doi.org/10.1111/j.1540-6261.2008.01316.x>
15. Lipson, M., & Puckett, A. (2006). *Volatile markets and institutional trading* (Unpublished working paper). University of Missouri. Retrieved from http://faculty.bus.olemiss.edu/bvanness/Fall%202006/FIN%20650/Blink_2006.pdf
16. Lynch, A. W., & Mendenhall, R. R. (1997). New Evidence on Stock Price Effects Associated with Changes in the S&P 500 Index. *Journal of Business*, 70(3), 351-383. <https://doi.org/10.1086/209722>
17. Ngo, H. T. (2024). Investment Funds Landscape in Vietnam. *Journal of Economics, Finance, and Management Studies*, 7(5), 2954-2963. <https://doi.org/10.47191/jefms/v7-i5-68>
18. Parkinson, M. (1980). The extreme value method for estimating the variance of the rate of return. *Journal of Business*, 53(1), 61-65. Retrieved from <https://www.jstor.org/stable/2352357>
19. Prymachenko, I. (2003). *Stock Price Volatility and Its Determinants on the Emerging Financial market of Ukraine*. Retrieved from <https://kse.ua/wp-content/uploads/2019/02/Prymachenko.pdf>
20. Rashid, A., & Rahman, A. Z. M. A. (2008). Dividend policy and stock price volatility: Evidence from Bangladesh. *Journal of Applied Business and Economics*, 8(4), 71-81. Retrieved from <http://www.na-businesspress.com/jabe/rashid-web.pdf>
21. Shleifer, A. (1986). Do demand curves for stocks slope down? *The Journal of Finance*, 41(3), 579-590. <https://doi.org/10.2307/2328486>
22. SSC – State Securities Commis-

- sion. (2024). *Market Statistics*. Retrieved from https://ssc.gov.vn/webcenter/portal/ubck/pages_r/m/thngtinthtrng/thngk-thtrng
23. Tran, A. X. T., Nguyen, T. Q., & Ngo, H. T. (2021). Investment Fund Volatility during the Covid-19 crisis in Vietnam. *Banking Science & Training Review*, 23(1), 24-39. Retrieved from <https://vjol.info.vn/index.php/HVNH-KHDAOTAONH/article/view/61658/51875>
24. Vo, V. X. (2014). Dividend Policy and Stock Price Volatility in the Vietnamese Stock Market. *Journal of Economics & Development*, 20(3), 48-55. Retrieved from <https://vjol.info.vn/index.php/JED/issue/view/3220>
25. Vo, V. X. (2014). Ownership Structure, Operational Efficiency, and Corporate Value in the Vietnamese Stock Market. *Journal of Economics & Development*, 16(26), 28-32. Retrieved from <https://static-cdn.uef.edu.vn/newsimg/tap-chi-uef/2014-05-06-16/4.pdf>
26. Vo, V. X., & Dang, K., B. (2016). The Market's Reaction to Changes in FTSE Portfolio Constituents on the Vietnamese Stock Market. *Journal of Economics & Development*, 22(3), 41-50. <https://js.vnu.edu.vn/EAB/article/view/3603>
27. Vo, X. V. (2016). Does institutional ownership increase stock return volatility? Evidence from Vietnam. *International Review of Financial Analysis*, 45, 54-61. <https://doi.org/10.1016/j.irfa.2016.02.006>
28. Volkman, D. A., & Wohar, M. E. (1995). Determinants of Persistence in Relative Performance of Mutual Funds. *Journal of Financial Research*, 18(4), 415-430. <https://doi.org/10.1111/j.1475-6803.1995.tb00575.x>
29. Voronkova, S., & Bohl, M. T. (2005). Institutional Traders' Behavior in an Emerging Stock Market: Empirical Evidence on Polish Pension Fund Investors. *Journal of Business Finance & Accounting*, 32(7), 1537-1560. <https://doi.org/10.1111/J.0306-686X.2005.00639.X>