The impact of Economic Policy Uncertainty on firm performance in Vietnamese listed companies

Nguyen, Thi Hoa Hong[1] - Pham, Tuan Kien[2] - Ha, Gia Linh[3] - Nguyen, Vu Ha Thanh[4] - Nguyen, Le Tuan[5] - Phung, Duc Anh[6]

Foreign Trade University, Vietnam

Chronicle

Article history

Received 28th Mar 2024
Revised 19th May 2024
Accepted 20th May 2024

Keywords

Economic Policy Uncertainty (EPU),
Firm performance,
Listed companies,
Return on total assets,
Return on equity

DOI: 10.59276/JEBS.2024.12.2672

Abstract

This study examines the impact of economic policy uncertainty (EPU) on the performance of Vietnamese listed companies from 2010 to 2022. EPU is measured by standardizing the search volume index of relevant keywords using data from Google Trends and Glimpse. The findings from regression models show a negative relationship between economic policy uncertainty and both return on total assets and return on equity in Vietnam during the period of 2010-2022. This study provides additional evidence in emerging markets to reinforce the negative impact of EPU on firm performance and supplements a new measurement of EPU in Vietnam. Furthermore, the study suggests that the government should formulate strategies to leverage economic advantages, thereby enabling firms to sustain their economic activities.

1. Introduction

In recent years, the world has witnessed an unprecedented array of upheavals that have shaken the global economic landscape, ranging from trade tensions between the United States and China, the COVID-19 pandemic, to the Russia-Ukraine and most recently, the Israeli–Palestinian conflict. The interconnectedness of economies in the modern era means that economic shocks in one part of the world can have far-reaching implications for the global economy and trade (Yu et al., 2021; Dées & Galesi, 2021; Guenette et al., 2022). Vietnam, as a developing country with a high degree of integration and openness, is also impacted by these shocks (Anh & Gan, 2021; Tien et al., 2019; Tien & Anh, 2019; Nguyen, 2023; Riedel, 2009). The Vietnamese government has consistently introduced and revised various policies to cope with the changing domestic and international situations (Gates et al., 1995; Nguyen & Mort, 2016; Nguyen et al., 2017).

However, not all nations effectively improve and implement economic policies, resulting in unstable and inconsistent policy measures, known as "Economic Policy Uncertainty" (EPU) (Rodrik, 1991). EPU is a term that encompasses a cluster of items related to unpredictability in various economic policies and their impact on the economy, financial markets, and corporate behavior (Smales, 2020; Al-Thaqeb &

Corresponding Authors.

E-mail address: hongnth@ftu.edu.vn (Nguyen, T. H. H.), k59.2012280018@ftu.edu.vn (Pham, T. K.), k59.2013280019@ftu.edu.vn (Ha, G. L.), k59.2013280032@ftu.edu.vn (Nguyen, V. H. T.), k59.2012280041@ftu.edu.vn(Nguyen, L. T.), k59.2013280005@ftu.edu.vn (Phung, D. A.)

ISSN 2734 - 9853

Algharabali, 2019). EPU can arise from various sources, such as fiscal policy, monetary policy, national security, financial regulations, health care policy, entitlement programs, trade policy, sovereign debt, and currency crises (Baker et al., 2016). These inconsistencies can increase the probability and duration of recessions and reduce the probability of an economic recession ending (Nguyen, 2022).

Another important factor that affects the economic development and stability of a country is the performance of its business organizations. Firm performance can be briefly described as the efficient utilization of organizational resources to achieve objectives and results consistent with the set goals of the company (Peterson et al., 2003). It emphasizes a dynamic perspective, requiring judgment and interpretation, with indicators encompassing both financial and non-financial aspects. Firm performance can be measured by various indicators, notably Return on Total Assets (ROA), Return on Equity (ROE), Tobin's Q, Profit Margin (PM) ... These indicators capture different aspects of firm performance and can be used to compare firms across industries and countries. Due to its importance, researchers, policymakers, and regulators have always wanted to figure out the main drivers of and barriers to firm performance.

Firm performance can be influenced by both internal and external factors, such as information technology (Chen & Zhu, 2004; Wang et al., 1997; Kao & Hwang, 2010; Sabherwal & Jeyaraj, 2015), industry structure (Karabag & Berggren, 2014, Adetunji & Owolabi, 2016), organization-specific factors (Adetunji & Owolabi, 2016, Oerlemans & Meeus, 2005, Bae & Lawler, 2000). Among the external factors, EPU is a rising source of risk that firms face (Kang & Ratti, 2015). EPU can have negative impacts on firm performance by reducing investment, employment, revenue, and risk-taking (Feng et al., 2021; Iqbal et al., 2020; Liu et al., 2020; Wang et al., 2020). However, the effects of EPU on firm performance may vary depending on the ownership structure, governance mechanism, and institutional environment of firms (Feng et al., 2021; Liu et al., 2020). These factors can affect how firms cope with EPU and adjust their investment, employment, revenue, and risk-taking strategies. Therefore, it is important to examine how EPU affects firm performance in different contexts and settings. However, previous research on the relationship between economic policy uncertainty and firm performance has predominantly focused on developed economies. There is a limited body of research that specifically investigates this relationship in emerging markets, and Vietnam presents a unique context for such an analysis. The Vietnamese business environment is characterized by rapid changes in policies, a diverse economic structure, and a mix of state-owned and private enterprises. Therefore, understanding how these factors interact, and influence firm performance is of paramount importance. In this paper, we focus on the case of Vietnam, a developing country with a transition economy that has experienced rapid growth and integration in recent years.

This study has two significant contributions to the extant literature. Firstly, it provides additional evidence in emerging markets to reinforce the negative impact of EPU on firm performance as shown in previous studies (Tran, 2019; Iqbal et al., 2020; Vural-Yavaş, 2020; Hou et al., 2021; Wen et al., 2021; Zhang et al., 2021; Afridi & Suleman, 2022; Ahsan et al., 2023; García-Gómez et al., 2023; Kong et al., 2022; Liu et al., 2022; Feng et al., 2023; Syed, 2023). Secondly, the study supplements a new measure of EPU by standardizing the search volume index of related keywords on popular search engines. A supplementary research data set on economic policy uncertainty from 2010 to 2022 in Vietnam was also introduced by the study.

The remainder of this paper is organized as follows. Section 2 reviews the previous studies and develops the hypothesis. The data collection, research models and methods are presented in Section 3. The empirical results are reported in Section 4. Finally, Section 5 summarizes major findings and provides some recommendations.

2. Literature review and hypothesis development

A consistent finding across previous studies is the negative relationship between EPU and firm performance. This is evidenced in the research conducted by Iqbal et al. (2020) on US-listed non-financial firms, Ahsan et al. (2023) on European firms, and García-Gómez et al. (2023) on US tourism firms. These studies collectively indicate that increased EPU tends to result in decreased firm performance, as measured by various indicators such as Return on Total Assets, Return on Equity, Net Profit Margin, and Tobin's Q. Moreover, existing literature also highlights the role of firm characteristics in moderating the impact of EPU on firm performance. For instance, García-Gómez et al. (2023) found that firm size and leverage can moderate the EPU-firm performance relationship. Similarly, Feng et al. (2023) found that the negative relationship between EPU and firm performance was less pronounced in state-owned enterprises compared to non-state-owned enterprises in China. In addition to findings about the impact of EPU on overall firm performance, various literature also found links between EPU and the impact on specific dimensions such as financial performance. Rjiba et al. (2020) found that Corporate Social Responsibility (CSR) can counterbalance the adverse effects of EPU on Corporate Financial Performance (CFP). In terms of financial stability, both Alam et al. (2023) and Phan et al. (2019) discovered that EPU has a detrimental impact. However, Alam et al. (2023) noted that political connections could mitigate this effect. More interestingly, Makosa et al. (2021) found that EPU initially reduces financial constraints but increases them over time. These findings suggest that while EPU can negatively impact firm financial performance, factors such as CSR, political connections, and the timeframe considered can significantly influence these effects.
Apart from a direct impact on a firm's overall performance and financial performance, EPU can impact various aspects of a firm's operations and financial decisions, which in turn can influence the firm's overall performance. For instance, Tran (2019), Wen et al. (2021), Vural-Yavaş (2020), and Zhang et al. (2021) discover a negative correlation between economic policy uncertainty and corporate risk-taking, emphasizing risk-averse behavior in uncertain economic climates. In the context of productivity, Li et al. (2023) find that economic policy uncertainty negatively affects productivity in China. Moreover, studies across various industries, including the hospitality sector (García-Gómez et al., 2023), reveal that economic policy uncertainty leads to increased firm-level investment inefficiency (Kong et al., 2022; Liu et al., 2022; Hou et al., 2021; Syed, 2023; Afridi & Suleman, 2022). Stock liquidity, an essential facet of firm performance, is adversely affected, with Wang et al. (2022), Mbanyele (2023), and Zhang et al. (2023) highlighting the negative impact of economic policy uncertainty on stock liquidity, particularly in opaque information environments.
Vietnam has undergone significant economic reforms since the late 1980s, such as privatization of SOEs, liberalization of trade and investment, deregulation of prices and interest rates, and stabilization of inflation and exchange rates. These reforms have improved the efficiency and competitiveness of Vietnamese firms and attracted foreign direct investment (FDI) from various countries. However, Vietnam also faces many challenges in its economic development process, such as high public debt, low productivity growth, environmental degradation, social inequality, and geopolitical tensions. These challenges create uncertainty about the future direction and sustainability of economic policies in Vietnam. Moreover, Vietnam is also exposed to external shocks from global events that affect its major trading partners or sources of FDI. For example, Vietnam was affected by the global financial crisis in 2008-2009, the US-China trade war in 2018-2019, and the COVID-19 pandemic in 2020-2021. These events increased the volatility and unpredictability of economic policies in Vietnam and other countries.
While some studies suggest positive outcomes, indicating adaptive governance mechanisms and enhanced ESG practices during uncertain economic times, the preponderance of evidence leans toward the negative consequences. Thus, the main hypothesis is: EPU has a negative impact on the performance of Vietnamese listed companies.

3. Research methodology

3.1. Data and sampling

The study includes an examination of data from 774 enterprises listed on Vietnam stock exchanges, namely the Ho Chi Minh Stock Exchange (HOSE) and the Hanoi Stock Exchange (HNX), covering the time frame from 2010 to 2022. Secondary data were collected from diverse sources, encompassing corporate financial statements, annual reports, and the FiinPro database.

A portion of the initially acquired data, roughly one-third, underwent exclusion during the analysis. Specifically, companies within the banking and finance sectors were omitted due to their unique scale and distinctive management practices, which had the potential to introduce bias. This selective measure was taken to uphold the research's objectivity. Furthermore, any firms failing to meet predetermined criteria for the disclosure of financial data within their statements or reports were also omitted, ensuring the uniformity and integrity of the data.

To fortify the rigor of our analysis, a stringent process of eliminating data points that fell outside the 5th and 95th percentiles for each variable was also applied, thereby mitigating the impact of outliers. Following this process, the final dataset consists of 556 companies, yielding a total of 6,172 observations in the period from 2010 to 2022.

Following the guidelines of the Industry Classification Benchmark (ICB) with modification in the Vietnam context, the final research sample is classified by sectors as presented in Table 2.

3.2. Research Models and Methods

To evaluate the effect of Economic Policy Uncertainty (EPU) on firm performance, the Ordinary Least Square (OLS), Fixed Effect Model (FEM), Random Effect Model (REM) regression models and other statistical tests

Table 1. Sample selection

Total number of listed companies	**774**
(1) Eliminate companies in the banking and finance industry	148
(2) Eliminate companies that do not have enough information on annual reports and financial statements	70
Total number of remaining companies	556
The ratio of the sample to the total number of original samples	71.83%

Source: Authors' compilation

Table 2. Distribution of samples by industry

Industry	**Number of firms**	**Number of firm-years**
Industrials	230	2,599
Basic Material	90	990
Consumer Goods	90	963
Consumer Services	55	596
Community Amenities	46	527
Health Care	23	252
Technology	17	182
Oil and gas	5	63
Final sample	556	6,172

Source: Authors' compilation

were applied for the Equation (1).

$$FP_{it} = \alpha_0 + \alpha_1 EPU_t + \alpha_2 SO_{it} + \alpha_3 LEV_{it} + \alpha_4 AGE_{it} + \alpha_5 REV_{it} + \alpha_6 BVPS_{it} + \alpha_7 LIQ_{it} + \alpha_8 RM_{it} + \varepsilon_{it} \quad (1)$$

The subscripts *i* and *t* represent firm *i* and year *t* respectively. The dependent variable FP (Firm Performance) is measured by two indexes: Return on Total Assets (ROA) and Return on Equity (ROE). EPU for each research year is measured by standardizing the search volume index of related keywords using tools such as Google Trends and Glimpse. The chosen keywords are diverse and categorized based on the synonym formula of "(1) economic + (2) policy + (3) uncertainty." In this investigation, EPU-related keywords include economic policies, fiscal regulations, trade agreements, and significant economic events. Table 3 depicts all variables used in the proposed empirical model.

4. Empirical results

4.1. Descriptive statistics and matrix correlation

Table 4 provides descriptive statistics of ten distinct variables, denoted as ROA, ROE, EPU, SO, AGE, REV, BVPS, LIQ, and RM. The total sample size for all variables is 6,172 observations.

ROA shows a wide spectrum of values, ranging from -0.625 to 0.812, with the mean stands at 0.069, and a standard deviation of 0.081. These statistics offer valuable insights into the profitability of the firms under our scrutiny. While, on average, companies exhibit a favorable return on total assets, the broad range of values underscores the substantial diversity in this aspect among the entities. This variation reflects the multifaceted nature of their business operations and financial performance. For the ROE variable, the range stretches from -1.514 to 2.27, with a computed mean of 0.116 and a corresponding standard deviation of 0.181. These figures exemplify the heterogeneity in return on equity among the firms in our sample. Even though certain firms report negative income, the overall mean remains in the positive realm, signifying that, on average, business activities are on an upward trajectory. As per EPU, it spans from 0.021 to 1 with a mean of 0.271, and the standard deviation is 0.277. These data patterns spotlight the relatively low emphasis placed on economic policy uncertainty by the firms in our sample during the 2010-2022 period. This is corroborated by the notably low proportion of search volume related to this topic, suggesting a decreased level of concern and attention among the firms. The SO variable ranges values from 0 to 1, with a mean of 0.252 and a standard deviation of 0.258. This variable implies the extent of government ownership in a company, with higher values showing a broader government stake. The mean value of the LEV variable is 1.519, considered a safe threshold for all firms. The AGE variable indicates the number of establishment years of the business, with an average of 3.138, which is relevant to 23 years. The youngest firm has been established for 5 years, while the oldest firm is 75 years old. Vietnamese listed companies are relatively young, in comparison to other economies, which are usually equitized from state-owned enterprises. The REV variable implies company revenue, which is 27.167 on average, corresponding to total assets of VND 754.257 billion. This variation can be supported by the diversity in industries and business fields. The LIQ variable ranges from 0 to 15.741, with a mean of 2.144 and a standard deviation of 1.987. This variable indicates a firm's capability to obligate its responsibility in the short term, with higher values implying enhanced liquidity and diminishing default risk. The BVPS variable ranges from -0.202 to 7.921, with a mean value of 0.757 and a standard deviation of 0.409. BVPS represents a firm's net asset value on a per-share basis. The variable's range and distribution inform about the relative undervaluation or overvaluation of the companies' stocks within the sample, with higher BVPS values indicating more undervalued stocks. The RM variable spans values from 0 to 1, with a mean of 0.183 and a standard deviation of 0.387. This shows that risk management activities in Vietnam are still underrated, and there is still much more potential to improve operations quality in the future.

Table 3. Definitions of the variables in the regression model (1)

Variables	Description	Source
Dependent variables		
ROA	Net income divided by total assets	Ahsan et al. (2023); García-Gómez et al. (2023)
ROE	Net income divided by total equity	Ahsan et al. (2023); García-Gómez et al. (2023)
Independent variable		
EPU	Economic Policy Uncertainty	Nguyen et al. (2024)
Firm-level controlling variables		
SO	Proportion of state ownership or state-controlled organizations in the firm	Feng et al. (2023)
LEV	Total debt divided by total equity	Ahsan et al. (2023); García-Gómez et al. (2023)
REV	Natural logarithm of revenue	Nguyen et al. (2024)
AGE	Natural logarithm of years since the business was established	Nguyen et al. (2024)
BVPS	The ratio of common equity divided by the number of shares outstanding	Nguyen et al. (2024)
LIQ	Current assets divided by current liabilities	Ahsan et al. (2023); García-Gómez et al. (2023)
RM	Risk Management - A dummy variable, taking the value of 1 in the following cases and 0 otherwise: (1) The firm has a Risk Management Board/Risk Committee (2) The firm has the position of Director of Risk Management/Chief Risk Officer (3) The firm has stated a clear Risk Map	Nguyen (2023); Nguyen et al. (2024)

Notes: Table 3 presents the detailed calculations for each variable identified in our model as discussed in the Research Models and Methods section above.

Source: Authors' compilation

Table 4. Descriptive Statistics

Variables	Obs	Mean	Std. Dev.	Min	Max
ROA	6,172	0.069	0.081	-0.625	0.812
ROE	6,172	0.116	0.181	-1.514	2.27
EPU	6,172	0.271	0.277	0.021	1
SO	6,172	0.252	0.258	0	1
LEV	6,172	1.519	1.682	0	13.751
AGE	6,172	3.138	0.687	0	4.357
REV	6,172	27.167	1.668	17.752	33.348
LIQ	6,172	2.144	1.987	0	15.741
BVPS	6,172	0.757	0.409	-0.202	7.921
RM	6,172	0.183	0.387	0	1

Note: Table 4 presents descriptive statistics of the variables used in the study. The definitions of these variables are provided in Table 3.

Source: Extracted from Stata 16

Table 5 presents the outcomes of Pearson correlation tests, revealing the correlation coefficients between variables in the models. It is evident that the EPU has a distinctly adverse effect on both the firm's ROA and ROE indices, aligning with our initial hypotheses. Additionally, all independent variables exhibited correlation coefficients below 0.3, indicating the absence of collinearity in the models.

4.2. Results and Discussion

To evaluate the impact of Economic Policy Uncertainty (EPU) on the performance of Vietnamese listed companies, we conducted regression analyses using Ordinary Least Squares (OLS), Fixed Effect Model (FEM), and Random Effect Model (REM). Return on total Assets (ROA) and Return on Equity (ROE) will be examined as part of the Hypothesis. The Variance Inflation Factor (VIF) values, all below 2, indicated the absence of multicollinearity issues. The results, presented in Table 6, outline how EPU influenced the performance of Vietnamese listed companies from 2010 to 2022. The F-test, with a Prob>F value below 5%, suggested that OLS was not suitable for the analysis. The Hausman test, with a Prob>chi2 value below 5%, led to the selection of FEM over REM for examining the impact of EPU on both ROA and ROE. In addition, the Wald test results also prove that there is no heteroscedasticity in our model.

Table 6. Regression results for the impact of economic policy uncertainty on the performance of Vietnamese listed companies from 2010 to 2022.

The regression results presented in Table 6 reveal that Economic Policy Uncertainty (EPU) has a negative impact on both ROA and ROE within listed companies in Vietnam during the period spanning from 2010 to 2022. These findings align with prior studies conducted by Tran (2019), Iqbal et al. (2020), Vural-Yavaş (2020), Hou et al. (2021), Wen et al. (2021), Zhang et al. (2021), Afridi & Suleman (2022), Ahsan et al. (2023), García-Gómez et al. (2023), Kong et al. (2022), Liu et al. (2022), Feng et al. (2023), and Syed (2023), which lend partial support to the hypothesis positing a negative correlation between the Economic Policy Uncertainty (EPU) and firm performance in Vietnam. The regres-

Table 5. Pearson Correlation

	ROA	ROE	EPU	SO	LEV	AGE	REV	BVPS	LIQ	RM
ROA	1									
ROE		1								
EPU	-0.090**	-0.063**	1							
SO	0.064**	0.014**	-0.062**	1						
LEV	-0.332**	-0.014**	-0.042**	0.05**	1					
AGE	-0.016***	0.018***	0.062***	0.018***	0.119***	1				
REV	0.078***	0.078***	0.085***	0.08***	0.221***	0.158***	1			
BVPS	0.292***	0.123***	0.017***	-0.007***	-0.118***	0.167***	0.221***	1		
LIQ	0.288***	0.001***	0.044***	-0.003***	-0.377***	-0.059***	-0.293***	0.08***	1	
RM	0.029***	0.012***	0.117***	0.033***	-0.034***	0.141***	0.087***	0.067***	0.018***	1

Note: Table 5 presents the correlation coefficient results of the variables used in the study. The definitions of these variables are provided in Table 3.

Source: Extracted from Stata 16

sion coefficient between the two variables, EPU and ROA, stands at -0.036, signifying a remarkably high level of statistical significance at 1%. The same situation happens to ROE with a coefficient of -0.044. This finding indicates that firm performance will strongly alter in the opposite direction as long as EPU changes.

In the Vietnamese context, the observed negative correlation between Economic Policy Uncertainty (EPU) and listed companies' financial performance (ROA, ROE) suggests a significant interplay. This inverse relationship indicates that as EPU fluctuates, companies in Vietnam may exhibit a more cautious approach. Such caution could manifest in delayed investments or expansions, contributing to lower Return on Total Assets and Return on Equity. The correlation might also reflect broader market dynamics, with investors and consumers responding defensively to uncertain economic policies. In a nation where government policies hold substantial influence, this negative correlation may describe companies adjusting strategies in anticipation of regulatory changes. Overall, the findings emphasize the various impacts of economic policy uncertainty on corporate performance in the Vietnamese business landscape, offering valuable insights for both academic inquiry and practical considerations for policymakers and businesses.

On the other hand, additional research conducted in other emerging markets, including China, also supports the findings. For example, a study by Ou et al. (2023) in China revealed that EPU is detrimental to improving business performance. Another by Kong et al. (2022) reckoned that macro EPU inhibits the increase of firms' investment scale and efficiency while exacerbating the risk of overinvestment or underinvestment. This evidence creates a solid basis for the hypothesis set above.

Besides, table 6 also reveals that companies in the sample exhibit enhanced performance when they have higher levels of liquidity and revenue. Conversely, entities characterized by longer operational cycles or elevated financial leverage appear to adopt a more cautious approach to deploying capital. Therefore, their Return on Assets (ROA) or Return on Equity (ROE) might not be as high as other firms'.

5. Conclusion and recommendations

The research focused on the impact of economic policy uncertainty (EPU) on the performance of Vietnamese listed companies from 2010 to 2022. Three regression methods, namely OLS, FEM, and REM are applied to a sample of 556 enterprises, with 6,172 observations during the research period. The findings highlight the negative impact of economic policy uncertainty on firm performance among Vietnamese listed companies. Vietnam's well-regarded grand political position and the growing focus on the Party's foreign policy initiatives might be the causes of this tendency. Vietnam has an open economy, and the Party rigorously controls internal policy, this impact is highlighted even more.

This study provides additional evidence in emerging markets to reinforce the negative impact of EPU on firm performance that has been shown in previous studies and supplements a new measure of EPU by standardizing the search volume index of related keywords on popular search engines. The research findings carry significant implications for both managers and regulators. For managers, understanding the impact of EPU on firm performance can help in strategic decision-making. In periods of high EPU, managers might need to adopt conservative strategies, such as reducing investment in risky projects, increasing cash holdings for potential economic downturns, or diversifying business operations to mitigate risks. They may also need to invest more in information gathering and lobbying activities to better anticipate and influence policy changes. Furthermore, managers could consider developing contingency plans to quickly respond to various potential policy changes. For regulators, the findings suggest that policy uncertainty can have real, negative effects on the economy. Regulators might need to strive for policy stability and predictability to foster a favorable business environment. This could involve improving policy transparency, providing clear guidance about policy changes, and ensuring consistent enforcement of policies. In addition, regulators could consider providing support

Table 6. Regression results for the impact of economic policy uncertainty on the performance of Vietnamese listed companies from 2010 to 2022

Variables	Exp	ROA	ROE	
		FEM	FEM	VIF
EPU	-	-0.036*** (-4.68)	-0.044*** (-6.44)	1.04
SO	+	0.002 (0.40)	0.009 (1.06)	1.05
LEV	-	-0.012*** (-15.23)	-0.002 (-1.51)	1.23
AGE	-	-0.059*** (-14.30)	-0.050*** (-7.72)	1.11
REV	+	0.027*** (20.62)	0.018*** (8.68)	1.23
BVPS	+	0.040*** (13.36)	0.059*** (12.27)	1.13
LIQ	+	0.005*** (8.12)	0.002* (1.90)	1.25
RM	+	0.003 (0.93)	0.005 (1.03)	1.04
Const	-	-0.500*** (-14.89)	-0.253*** (-4.75)	
No of Obs.		6,172	6,172	
R2		0.193	0.111	

*Notes: Table 6 presents regression results for the impact of EPU on the performance of Vietnamese listed companies in Eq. (1). The definitions of these variables are provided in Table 3. The symbols *, **, *** indicate statistical significance at 10%, 5%, and 1%, respectively.*

Source: Extracted from Stata 16

for firms during periods of high EPU, such as offering financial assistance or advisory services to help firms navigate the uncertain policy environment. Moreover, the negative impact of EPU on firm performance underscores the importance of sound macroeconomic management. Regulators might need to coordinate closely with other policy institutions to manage macroeconomic conditions, as macroeconomic instability can often exacerbate policy uncertainty. Finally, the findings also highlight the need for further research on this topic. For instance, future research could explore the mechanisms through which EPU affects firm performance, examine the differential impacts of EPU on different types of firms, or investigate how firms can effectively manage the risks associated with EPU. Such research provides valuable insights for both managers and regulators, helping them to better understand the challenges posed by EPU. ■

References

Adetunji, O. M., & Owolabi, A. A. (2016). Firm performance and its drivers: How important are the industry and firm-level factors?. *International Journal of Economics and Finance, 8*(11), 60-77. http://dx.doi.org/10.5539/ijef.v8n11p60

Afridi, I., & Suleman, M. T. (2022). Economic Policy Uncertainty and Investment Efficiency. *Available at SSRN 4062720* http://dx.doi.org/10.2139/ssrn.4062720

Ahsan, T., Qureshi, M. A., Gull, A. A., & Muhammad, F. (2023). The relevance of national culture to policy uncertainty and firm performance: European evidence. *Journal of Economic Studies, 50*(5), 947-966. https://doi.org/10.1108/JES-01-2022-0012

Alam, A. W., Farjana, A., & Houston, R. (2023). State-level economic policy uncertainty (EPU) and firm financial stability: Is there any political insurance?. *Economics Letters, 225*, 111027. https://doi.org/10.1016/j.econlet.2023.111027

Al-Thaqeb, S. A., & Algharabali, B. G. (2019). Economic policy uncertainty: A literature review. *The Journal of*

Economic Asymmetries, 20, e00133. https://doi.org/10.1016/j.jeca.2019.e00133
Anh, D. L. T., & Gan, C. (2021). The impact of the COVID-19 lockdown on stock market performance: evidence from Vietnam. *Journal of Economic Studies, 48*(4), 836-851. https://doi.org/10.1108/JES-06-2020-0312
Bae, J., & Lawler, J. J. (2000). Organizational and HRM strategies in Korea: Impact on firm performance in an emerging economy. *Academy of Management Journal, 43*(3), 502-517. https://doi.org/10.5465/1556407
Baker, S.R., Bloom, N., & Davis, S.J. (2016). Measuring economic policy uncertainty. *The Quarterly Journal of Economics, 131*(4), 1593-1636. https://doi.org/10.1093/qje/qjw024
Chen, Y., & Zhu, J. (2004). Measuring information technology's indirect impact on firm performance. *Information Technology and Management, 5*, 9-22. https://doi.org/10.1023/B:ITEM.0000008075.43543.97
Dées, S., & Galesi, A. (2021). The Global Financial Cycle and US monetary policy in an interconnected world. *Journal of International Money and Finance, 115*, 102395. https://doi.org/10.1016/j.jimonfin.2021.102395
Feng, X., Luo, W., & Wang, Y. (2021). Economic policy uncertainty and firm performance: evidence from China. *Journal of the Asia Pacific Economy, 28*(4), 1476-1493. https://doi.org/10.1080/13547860.2021.1962643
Feng, X., Luo, W., & Wang, Y. (2023). Economic policy uncertainty and firm performance: evidence from China, *Journal of the Asia Pacific Economy, 28*(4), 1476-1493. https://doi.org/10.1080/13547860.2021.1962643
García-Gómez, C. D., Demir, E., Díez-Esteban, J. M., & Popesko, B. (2023). Investment inefficiency in the hospitality industry: The role of economic policy uncertainty. *Journal of Hospitality and Tourism Management, 54*, 383-391. https://doi.org/10.1016/j.jhtm.2023.01.006
Gates, C., Noerlund, I., & Vu, V.C.D. (1995). *Vietnam in a Changing World (1st ed.).* Routledge. https://doi.org/10.4324/9781315026145
Guenette, J. D., Kenworthy, P. G., & Wheeler, C. M. (2022). Implications of the War in Ukraine for the Global Economy. https://doi.org/10.1596/37372
Hou, F., Tang, W., Wang, H., & Xiong, H. (2021). Economic policy uncertainty, marketization level, and firm-level inefficient investment: Evidence from Chinese listed firms in energy and power industries. *Energy Economics, 100*, 105353. https://doi.org/10.1016/j.eneco.2021.105353
Iqbal, U., Gan, C., & Nadeem, M. (2020). Economic policy uncertainty and firm performance. *Applied Economics Letters, 27*(10), 765-770. https://doi.org/10.1080/13504851.2019.1645272
Kang, W., & Ratti, R. A. (2015). Oil shocks, policy uncertainty, and stock returns in China. *Economics of Transition and Institutional Change, 23*(4), 657–676. https://doi.org/10.1111/ecot.12062
Kao, C., & Hwang, S.N. (2010). Efficiency measurement for network systems: IT impact on firm performance. *Decision Support Systems, 48*(3), 437-446. https://doi.org/10.1016/j.dss.2009.06.002
Karabag, S. F., & Berggren, C. (2014). Antecedents of firm performance in emerging economies: Business groups, strategy, industry structure, and state support. *Journal of Business Research, 67*(10), 2212-2223. https://doi.org/10.1016/j.jbusres.2014.01.004
Kong, Q., Li, R., Wang, Z., & Peng, D. (2022). Economic policy uncertainty and firm investment decisions: Dilemma or opportunity?, *International Review of Financial Analysis, 83*, 102301. https://doi.org/10.1016/j.irfa.2022.102301
Li, Y., Deng, J., Hu, Z., & Gong, B. (2023). Economic policy uncertainty, industrial intelligence, and firms' labor productivity: empirical evidence from China. *Emerging Markets Finance and Trade, 59*(2), 498-514. https://doi.org/10.1080/1540496X.2022.2096433
Liu, Y., Zhang, J., & Zhang, X. (2020). Economic policy uncertainty and firms' investment and financing decisions: Evidence from China. *China Economic Review, 63*, 101279. https://doi.org/10.1016/j.chieco.2019.02.007
Liu, Z., Zhou, J., & Liu, S. (2022). The Influence of Economic Policy Uncertainty on Enterprise Investment Efficiency: Based on Stochastic Optimal Control Model. In: Xu, J., Altiparmak, F., Hassan, M.H.A., García Márquez, F.P., Hajiyev, A. (eds) *Proceedings of the Sixteenth International Conference on Management Science and Engineering Management* – Volume 2. ICMSEM 2022. *Lecture Notes on Data Engineering and Communications Technologies, vol 145.* Springer, Cham. https://doi.org/10.1007/978-3-031-10385-8_29
Makosa, L., Sun, J., Bonga, W. G., Jachi, M., & Sitsha, L. (2021). Does economic policy uncertainty aggravate financial constraints?, *South African Journal of Accounting Research, 35*(2), 151-166. https://doi.org/10.1080/10291954.2021.1885233
Mbanyele, W. (2023). Economic policy uncertainty and stock liquidity: the role of board networks in an emerging market. *International Journal of Emerging Markets, 18*(1), 122-147. https://doi.org/10.1108/IJOEM-05-2020-0492
Nguyen, A. (2023). The Impacts of Russia's Invasion of Ukraine on Vietnamese Economic Development. Available at SSRN 4556234. https://dx.doi.org/10.2139/ssrn.4556234
Nguyen, H. T., Nguyen T. H., Nguyen, T. V. & Bui, X. B. (2019). Risks of Vietnamese enterprises in trade relations with China. I*nternational Journal of Research in Finance and Management, 3*(1), 1-6. https://doi.org/10.33545/26175754.2020.v3.i1a.45
Nguyen, H. T. & Dinh, B. H. A. (2019). Vietnam's international trade policy in the context of China-US trade war. *International Journal of Commerce and Management Research, 5*(3), 92-95.

Nguyen, Q. A. & Mort, G. S. (2016). *Economic reform and entrepreneurship in Vietnam: A policy perspective. Economic development and entrepreneurship in transition economies: Issues, obstacles and perspectives,* 109-127. https://doi.org/10.1007/978-3-319-28856-7_7

Nguyen, T. C. (2022). Economic policy uncertainty: The probability and duration of economic recessions in major European Union countries. *Research in International Business and Finance, 62*, 101701. https://doi.org/10.1016/j.ribaf.2022.101701

Nguyen, T. H. H. (2023). The Effects of Enterprise Risk Management on the Performance and Risk of Vietnamese Listed Firms: Evidence from Abnormal Enterprise Risk Management Index. *Global Business & Finance Review, 28*(5), 122-136. https://doi.org/10.17549/gbfr.2023.28.5.122

Nguyen, T. H. H., Pham. T. K., Linh, Ha. G. L., Nguyen, V. H. T., Nguyen, L. T., & Phung, D. A. (2024). Do climate policy uncertainty and economic policy uncertainty promote firms' green activities? Evidence from an emerging market. *Cogent Economics & Finance, 12*(1), 2307460. https://doi.org/10.1080/23322039.2024.2307460

Nguyen, T. T., Pittock, J., & Nguyen, B. H. (2017). Integration of ecosystem-based adaptation to climate change policies in Viet Nam. *Climatic change, 142*(1-2), 97-111. https://doi.org/10.1007/s10584-017-1936-x

Oerlemans, L., & Meeus, M. (2005). Do organizational and spatial proximity impact firm performance? *Regional studies, 39*(1), 89-104. https://doi.org/10.1080/0034340052000320896

Ou, L., Zhang, Z., Li, R., & Chen, Z. (2023). Economic policy uncertainty and business performance: The moderating role of service transformation, *International Review of Economics & Finance, 88*, 531-546, https://doi.org/10.1016/j.iref.2023.06.038

Peterson, W., Gijsbers, G., & Wilks, M. (2003). An organizational performance assessment system for agricultural research organizations: concepts, methods, and procedures. http://dx.doi.org/10.22004/ag.econ.310698

Phan, H. V., Nguyen, N. H., Nguyen, H. T., & Hegde, S. (2019). Policy uncertainty and firm cash holdings. *Journal of Business Research, 95*, 71-82. https://doi.org/10.1016/j.jbusres.2018.10.001

Riedel, J. (2009). The global economic crisis and its long-run implications for Vietnam. *United Nations Development Programme*.

Rjiba, H., Jahmane, A., & Abid, I. (2020). Corporate social responsibility and firm value: Guiding through economic policy uncertainty. *Finance Research Letters, 35*, 101553. https://doi.org/10.1016/j.frl.2020.101553

Rodrik, D. (1991). Policy uncertainty and private investment in developing countries. *Journal of Development Economics, 36*(2), 229-242. https://doi.org/10.1016/0304-3878(91)90034-S

Sabherwal, R., & Jeyaraj, A. (2015). Information technology impacts on firm performance. *MIS Quarterly, 39*(4), 809-836. https://www.jstor.org/stable/26628653

Smales, L.A. (2020). Examining the relationship between policy uncertainty and market uncertainty across the G7. *International Review of Financial Analysis, 71*, 101540. https://doi.org/10.1016/j.irfa.2020.101540

Syed, W. H. K. (2023). The Impact of Economic Policy Uncertainty on Investment Efficiency. *Available at SSRN 4432983*. https://ssrn.com/abstract=4432983

Tran, Q. T. (2019). Economic policy uncertainty and corporate risk-taking: International evidence. *Journal of Multinational Financial Management*, 52-53, 100605. https://doi.org/10.1016/j.mulfin.2019.100605

Vural-Yavaş, Ç. (2020). Corporate risk-taking in developed countries: The influence of economic policy uncertainty and macroeconomic conditions. *Journal of Multinational Financial Management, 54*, 100616. https://doi.org/10.1016/j.mulfin.2020.100616

Wang, C. H., Gopal, R. D., & Zionts, S. (1997). Use of data envelopment analysis in assessing information technology impact on firm performance. *Annals of Operations Research, 73*(0), 191-213. https://doi.org/10.1023/A:1018977111455

Wang, F., Mbanyele, W., & Muchenje, L. (2022). Economic policy uncertainty and stock liquidity: The mitigating effect of information disclosure. *Research in International Business and Finance, 59*, 101553. https://doi.org/10.1016/j.ribaf.2021.101553

Wang, Y., Zhang, J., & Liang, Q. (2020). Economic policy uncertainty and firms' labor investment decision. *China Finance Review International*, https://doi.org/10.1108/CFRI-02-2020-0013

Wen, F., Li, C., Sha, H., & Shao, L. (2021). How does economic policy uncertainty affect corporate risk-taking? *Evidence from China. Finance Research Letters, 41*, 101840. https://doi.org/10.1016/j.frl.2020.101840

Yu, Z., Razzaq, A., Rehman, A., Shah, A., Jameel, K., & Mor, R.S. (2021). Disruption in global supply chain and socio-economic shocks: a lesson from COVID-19 for sustainable production and consumption. *Operations Management Research, 15*, 233-248. https://doi.org/10.1007/s12063-021-00179-y

Zhang, L., Chen, W., & Hu, N. (2023). Economic policy uncertainty and stock liquidity: evidence from China. *International Journal of Emerging Markets, 18*(1), 22-44. https://doi.org/10.1108/IJOEM-06-2020-0625

Zhang, W., Zhang, X., Tian, X., & Sun, F. (2021). Economic policy uncertainty nexus with corporate risk-taking: the role of state ownership and corruption expenditure. *Pacific-Basin Finance Journal, 65*, 101496. https://doi.org/10.1016/j.pacfin.2021.101496