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Influence of cash holdings on return on total assets in listed securities firms

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Abstract

Holding cash will involve two types of costs, namely holding costs and opportunity costs, which exist simultaneously with three motives: transactional, hedging, and speculative (Dang, 2021) ^[5]. The study investigates the influence of cash holding rate (CASH) on return on total assets (ROA) in the securities firms listed on the Vietnam stock market. The study employs a set of aggregated data from 22 securities firms listed on the Vietnamese stock

market. The research uses both qualitative and quantitative research methods. For the quantitative research method, the supporting tool is Stata 13 software. The research results show that the factor CASH does not influence the ROA of securities firms listed on the Vietnam stock market. Based on the findings, some recommendations are given for improving ROA in the securities firms listed on the Vietnam stock market.

Keywords: Cash Holding (Cash), Return on Total Asséts (ROA), Securities, Financial, Accounting

JEL Classification codes: M41, M42, F65

1. Introduction

In the period 2020-2021, the COVID-19 pandemic maintained its detrimental influence on all business activities in the world in general and Vietnam in particular. In the context of the severe impact of COVID-19 on the economy, especially during quarter 3 in 2021, many key economic areas had to practice social distancing. However, many securities enterprises were fortunate to find their prospects for development in the new context.

According to Do (2021) ^[7], ROA is a very familiar concept in business, especially for securities investors. ROA measures the profitability of an enterprise compared to its assets. ROA shows how effectively an enterprise uses assets to make a profit and is a measure of the efficiency of converting invested capital into profit. The higher the ROA, the more efficient the ability to use the assets of the business is. A higher ROA also indicates that enterprises are making more money with less investment money. On the stock market, ROA is meaningful in evaluating the shares of enterprises. If the stock of an enterprise has a high ROA, the price is more expensive and is also preferred.

The cost of holding cash is the opportunity cost of investing in liquid assets. The opportunity cost of holding cash is often lower than the gain of potential investment investments (Martínez-Sola *et al.*, 2013) ^[16].

The liquidity preference theory (Keynes, 1936) ^[11] has shown the benefits of holding cash. In other words, this theory has shown three motives for holding cash, including: (i) the transaction motive, which is that holding large amounts of cash is to save on the transaction costs of external financing. The cost of raising funds in financial markets is often higher than the cost of holding cash (Opler *et al.*, 1999) ^[18]. (ii), The contingency motive indicates that firms facing limited external funding will not abandon potential investments if they hold large amounts of cash. In addition, large enough cash holdings provide more security for the company in the face of shocks such as financial crises (Ozkan & Ozkan, 2004) ^[17]. (iii) For speculative motives, companies raise cash to capture opportunities created by changes in macroeconomic and microeconomic policies such as rising interest rates and falling raw material prices.

The securities industry has its own characteristics and complexities, which require strict management and high-level application of updated information technology. As the trend of globalization is accompanied by fierce competition, it is necessary for securities firms to evaluate the influence of cash holdings on the return on total assets.

2. Literature review

Return on total assets (ROA)

Based on the results of previous studies, Trang and Anh (2018) [22] believe that financial performance is one of the most important components of business performance, and the indicators commonly used to evaluate financial performance are ROA and ROE. Financial performance is a very important issue and a premise to attract capital and minimize the cost of capital for firms. A firm with high financial performance will create credibility with investors (Lan & Anh, 2019) [14].

Cash holding (CASH)

Cash holding ratio = cash and cash equivalents divided by total assets (Phan, 2022) [19].

Holding cash will involve two types of costs, namely holding costs and opportunity costs, which exist simultaneously with three motives: transactional, hedging, and speculative (Dang, 2021) [5].

Almeida *et al.* (2004) [2] assert that when the company's cash flow increases, the amount of cash held decreases, and vice versa. Cash holdings allow companies to finance investments and other liabilities without the high costs of raising outside capital.

Acharya *et al.* (2007) [1] and Riddick and Whited (2009) [20] suggest that firms with increased cash flow tend to shift cash holdings into investments because positive cash flow shocks represent higher yields in financial assets. real produce. As a result, the company cuts its cash holdings to finance high-performing projects.

The impact of cash holdings on performance is explained by liquidity preference theory (Keynes, 1936) [11] and free cash flow theory (Jensen, 1986) [10].

Under static conditions, Wang (2002) [23] finds a negative relationship between cash holdings and performance for firms in Japan and Taiwan, while La Rocca and Cambrea (2019) [13] show a positive relationship between cash holdings and performance for large Italian firms. Doan (2020) [8] uses a static model to show the positive impact of cash holdings on performance with a sample of 186 companies listed on Vietnam's stock market in the period from 2008 to 2018.

Under dynamic conditions, Alnori (2020) [3] and Yun *et al.* (2021) [25], respectively, show a positive relationship between cash holdings and performance for companies in Saudi Arabia and China.

The impact of cash holdings on performance can be either positive or negative (Keynes, 1936; Jensen, 1986) [11, 10].

3. Research methodology

3.1 Context and sample

Currently in Vietnam, there are 22 securities firms listed on the Vietnamese stock market. Securities firms listed on the Vietnamese stock market were listed at different times, have different numbers of outstanding shares, and different current equity.

Sample of research: This study employs a balance sheet whose data is categorized according to objects and time. Secondary data was collected from audited financial statements of 22 operating securities firms listed on the Vietnamese stock market as of the end of the accounting year 2022 from the website <https://finance.vietstock.vn/> [24], which is a prestigious website. The study involved 22 firms over five years, with a total of 110 observation variables. All

110 observations are included in the analysis through synthesis and data cleaning.

3.2 Research model and research hypothesis

Inheriting the above studies and experts' opinions, we built the research model as shown below (see Fig 1):

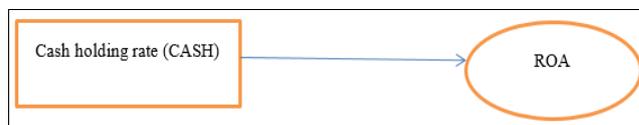


Fig. 1: Research model

Hypothesis H1: Cash holding rate (CASH) has a positive influence on ROA in securities firms listed on the Vietnamese stock market.

3.3 Analysis approach

To test the research hypotheses, we used Stata software to perform the following analysis: Descriptive statistics; correlation analysis; regression

4. Research Results

4.1 Descriptive statistic

Table 1 shows that the dependent variable includes one observed variable, and the independent variable includes one observed variable. Each observed variable is described by 110 observations. Basic indicators such as mean, max, min, standard deviation (std), variance, skewness coefficient of variation, sum of variables, range, coefficient of variation (p50), and coefficient of variation of each observed variable (cv) has been identified and these basic indices accurately reflect the current state of ROA and the influence of cash holding rate on the ROA of listed securities firms.

Table 1: General descriptive statistics and detail descriptive statistics

General descriptive statistics					
Variable	Obs	Mean	Std. Dev.	Min	Max
Dependent variable					
ROA	110	.0648736	.0783612	-.1296	.5561
Independent variable					
Cash holding (CASH)	110	.0801466	.10326	.0001814	.4844138
Detail descriptive statistics					
stats	CASH	ROA			
N	110	110			
sum	8.816131	7.1361			
range	.4842324	.6857			
variance	.0106626	.0061405			
cv	1.288389	1.207906			
skewness	2.323905	2.442625			
kurtosis	8.397189	17.13777			
p50	.0369778	.0569			

4.2 Correlation analysis results

Table 2: Correlation analysis results of independent variable

	CASH	ROA
CASH	1.0000	
ROA	-0.1033	1.0000

Table 2 shows the results of correlation analysis, also known as multicollinearity analysis. The results show that the absolute value of each correlation coefficient between two

variables is less than 0.8; therefore, no multicollinearity occurs (Bryman & Cramer, 2001; Kohler & Kreuter, 2005; Torres-Reyna, 2007; Ditzen, 2018) [4, 12, 21, 6]. The remaining regression model has 1 independent variable with 1 observed variable and 1 dependent variable with 1 observed variable.

4.3 Regression Results

Regression results without control variables

Table 3: OLS regression results

OLS regression results for observed variable ROA of the dependent variable (regress ROA CASH)					
Source	SS	df	MS	Number of obs = 110	
Model	.007136048	1	.007136048	F(1, 108) = 1.16	
Residual	.662176725	108	.006131266	Prob > F = 0.2831	
Total	.669312774	109	.006140484	R-squared = 0.0107	
				Adj R-squared = 0.0015	
				Root MSE = .0783	
ROA	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
CASH	-.078358	.0726323	-1.08	0.283	[-.2223277, .0656117]
_cons	.0711538	.0094671	7.52	0.000	[-.0523884, .0899192]

With 95% confidence degree, Table 5 shows: The value of F is equal to 1.16 < 1.96, and the value of Prob is larger than the value of F (Prob > F) by 0.2831 (> 0.05). Thus, the model is not consistent and statistically significant (Bryman & Cramer, 2001) [4]. Therefore, the research results are not accepted (Bryman & Cramer, 2001; Kohler & Kreuter, 2005; Torres-Reyna, 2007; Ditzen, 2018) [4, 12, 21, 6]. Not define the regression equation of how cash holding rate (CASH) affects ROA. The observed variable CASH does not influence ROA. Therefore, hypothesis H1 was not partially accepted.

ROA

ROA is synthesized and analyzed in detail according to Tables 4 and 5 as follows:

Table 4: ROA of listed securities firms during the period 2017-2021

Stock code	2017	2018	2019	2020	2021	Average
AGR	3,80%	3,67%	3,39%	4,40%	15,53%	6,16%
APG	5,62%	4,91%	8,92%	6,30%	33,81%	11,91%
BSI	9,23%	9,43%	5,47%	4,80%	8,00%	7,39%
CTS	6,74%	6,82%	4,27%	3,62%	7,05%	5,70%
FTS	9,98%	19,59%	8,53%	5,76%	13,17%	11,41%
HCM	10,76%	11,32%	6,79%	5,31%	6,22%	8,08%
SSI	7,26%	6,13%	3,57%	4,00%	6,23%	5,44%
TVB	7,32%	8,83%	3,86%	8,44%	21,60%	10,01%
TVS	11,30%	6,54%	3,89%	6,75%	9,32%	7,56%
VCI	13,77%	12,74%	10,08%	9,84%	11,98%	11,68%
VDS	6,48%	3,64%	1,64%	6,17%	12,90%	6,17%
VIX	6,48%	15,18%	7,06%	16,92%	21,50%	13,43%
VND	7,14%	4,02%	3,46%	5,22%	9,15%	5,80%
APS	2,71%	0,50%	-9,15%	14,71%	55,61%	12,88%
BVS	6,04%	4,04%	5,09%	4,56%	6,20%	5,19%
HBS	0,72%	0,66%	1,92%	1,15%	2,04%	1,30%
IVS	0,10%	0,19%	-11,41%	1,39%	4,59%	-1,03%
MBS	0,62%	4,41%	5,39%	4,57%	6,50%	4,30%

PSI	2,76%	0,82%	0,82%	0,64%	2,01%	1,41%
SHS	9,92%	7,95%	4,65%	11,60%	15,65%	9,95%
VIG	0,50%	0,70%	-10,78%	-1,65%	0,67%	-2,11%
WSS	2,68%	7,21%	-12,96%	1,97%	1,68%	0,12%

Sources: <https://finance.vietstock.vn/> and authors synthesized [24]

Table 5: Average return on total assets (ROA) over the years of listed securities firms

Unit: %

Description	2017	2018	2019	2020	2021	Average 2017-2021
ROA	6.00	6.33	2.02	5.75	12.34	6.49

Sources: <https://finance.vietstock.vn/> and authors synthesized [24]

Financial experts say that an enterprise is assessed as having sufficient financial capacity when its ROA is greater than 7.5% for at least three consecutive years. Enterprises that maintain ROA >= 10% per year for three consecutive years will be good ones with stable finance and will be highly appreciated by professionals and investors. The ROA of a company whose stock code (VCI) for 3 consecutive years is above 10% shows that the company's business is efficient and financially stable. This is the reason why VCI stocks are always at the top of the list of the most stable stocks in the market, have stable growth, and are highly appreciated by professionals and investors. The ROA of the company with stock code FTS has been greater than 7.5% for at least 3 consecutive years, proving that the enterprise has sufficient financial capacity.

Cash holding (CASH)

CASH is synthesized and analyzed in detail according to Tables 6 and 7 as follows:

Table 6: CASH of listed securities firms during the period 2017-2021

Stock code	2017	2018	2019	2020	2021	Average
AGR	11,50%	1,30%	5,41%	5,58%	0,99%	4,96%
APG	11,01%	3,91%	0,40%	0,90%	0,32%	3,31%
BSI	3,35%	7,75%	2,96%	3,28%	9,71%	5,41%
CTS	0,82%	3,19%	0,62%	0,51%	5,03%	2,03%
FTS	9,49%	18,31%	1,99%	6,08%	19,76%	11,13%
HCM	2,94%	2,23%	12,11%	1,66%	29,54%	9,69%
SSI	1,84%	2,57%	3,85%	1,02%	2,19%	2,29%
TVB	43,41%	11,14%	3,56%	9,58%	8,28%	15,19%
TVS	0,68%	3,20%	0,83%	3,33%	4,87%	2,58%
VCI	0,68%	17,58%	10,97%	7,67%	6,80%	8,74%
VDS	0,68%	3,20%	0,83%	3,33%	4,87%	2,58%
VIX	1,05%	0,26%	8,61%	2,63%	1,70%	2,85%
VND	1,05%	0,26%	8,61%	2,63%	1,70%	2,85%
APS	2,47%	1,61%	8,80%	14,54%	9,87%	7,46%
BVS	10,39%	15,91%	7,27%	2,60%	1,16%	7,47%
HBS	48,44%	44,46%	28,94%	43,81%	45,11%	42,15%
IVS	15,66%	24,23%	14,98%	1,78%	0,02%	11,34%
MBS	6,13%	12,14%	8,73%	1,38%	1,07%	5,89%
PSI	7,92%	9,89%	3,70%	1,06%	2,37%	4,99%
SHS	2,08%	17,41%	17,33%	9,42%	5,98%	10,44%
VIG	0,24%	0,43%	0,85%	0,57%	3,69%	1,16%
WSS	26,84%	10,47%	13,54%	4,51%	3,69%	11,81%

Sources: <https://finance.vietstock.vn/> and authors synthesized [24]

Table 7: Average cash holding (CASH) over the years of listed securities firms

Unit: %

Description	2017	2018	2019	2020	2021	Average 2017-2021
CASH	9.48	9.61	7.5	5.81	7.67	8.01

Sources: <https://finance.vietstock.vn/> and authors synthesized

Holding large amounts of cash makes managers not feel much pressure related to performance and leads to overinvestment in projects that serve self-interest (Phan, 2022) ^[19].

5. Discussion and implications

Corporate managers often tend to hold a lot of cash to invest in profitable projects for the company (Hoang & Dang, 2019) ^[9].

Financial constraints will push businesses to hold more cash. This is true for both positive and negative cash flow businesses. Difficulty accessing external capital is a good reason for businesses to actively hold a lot of cash to cope with unforeseen fluctuations or future demand.

Companies holding a lot of cash will have certain advantages, such as meeting capital needs to implement profitable investment projects in the future and preventing bad risks from occurring in the process. operations, increasing liquidity, being able to fulfill financial obligations, and thereby having easy access to financial markets.

In the last 20 years since it first went into operation, Vietnam's stock exchange market has witnessed many fluctuations, as have the profits of securities firms. However, as a result of firm restructuring since 2013, their profits have become more and more stable. However, of the 22 securities firms (<https://cophieu68.vn>) ^[24] listed in Vietnam's stock market, there are still firms with modest profit in comparison with others.

After 20 years of the stock market's development, securities firms have made major progress and have become an important intermediary in the market, providing almost all services, including brokerage, underwriting, issuance, consulting, etc. However, firms with low capacities or that suffered too much loss would be dissolved or merged. Hence, only resourceful securities firms that can provide the best services to meet customers demand could remain to compete.

6. References

- Acharya VV, Almeida H, Campello M. Is cash negative debt? A hedging perspective on corporate financial policies. *Journal of financial intermediation*. 2007; 16(4):515-554. Doi: <https://doi.org/10.1016/j.jfi.2007.04.001>
- Almeida H, Campello M, Weisbach MS. The cash flow sensitivity of cash. *The Journal of Finance*. 2004; 59(4): 1777-1804. Doi: <https://doi.org/10.1111/j.1540-6261.2004.00679.x>
- Alnori F. Cash holdings: Do they boost or hurt firms' performance? Evidence from listed non-financial firms in Saudi Arabia. *International Journal of Islamic and Middle Eastern Finance and Management*. 2020; 13(5):919-934.
- Bryman A, Cramer D. *Quantitative data analysis with SPSS release 10 for windows: A guide for social scientists*, 2001.
- Dang NH. Cash flow, earnings quality and cash holdings: The case in Vietnam, *Journal of Economics and Development*. 2021; 284:53-62.
- Ditzen. Estimating dynamic common-correlated effects in Stata. *The Stata Journal*. 2018; 18(3):585-617. Doi: <https://doi.org/10.1177/1536867X1801800306>
- Do DT. A study on financial performance of transport & warehouses firms listed on the Hanoi stock exchange. *The Economics and Finance Letters*. 2021; 8(1):44-52. Doi: 10.18488/journal.29.2021.81.44.52
- Doan T. The effect of cash holdings on firm performance: Evidence from Vietnam listed firms. *Accounting*. 2020; 6(5):721-726.
- Hoang DVA, Dang HM. Corporate governance and cash holding policy in Vietnam. *Journal of Economic Research*. 2019; 1(488):69-79. [Vietnamese]
- Jensen MC. Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*. 1986; 76(2):323-329.
- Keynes JM. *The General Theory of Employment, Interest and Money*. Palgrave Macmillan, London, 1936.
- Kohler U, Kreuter F. *Data Analysis Using Stata*. College Station, TX: Stata Press, 2005.
- La Rocca M, Cambrea DR. The effect of cash holdings on firm performance in large Italian companies. *Journal of International Financial Management & Accounting*. 2019; 30(1):30-59.
- Lan, NTN, Anh NH. Impacts of audit quality on financial performance of industrial enterprises in the Red River Delta. *Industry and Trade Magazine*. 2019; 18:296-301. [Vietnamese]
- Margaritis D, Psillaki M. Capital structure, equity ownership and firm performance. *Journal of Banking & Finance*. 2010; 34(3):621-632.
- Martínez-Sola C, García-Teruel PJ, Martínez-Solano P. Corporate cash holding and firm value. *Applied Economics*. 2013; 45(2):161-170.
- Ozkan A, Ozkan N. Corporate cash holdings: An empirical investigation of UK companies. *Journal of Banking & Finance*. 2004; 28(9):2103-2134
- Opler T, Pinkowitz L, Stulz R, Williamson R. The determinants and implications of corporate cash holdings. *Journal of Financial Economics*. 1999; 52(1):3-46.
- Phan TMH. The influence of cash-holdings on corporate performance for firms listed on Vietnamese stock exchanges – a dynamic approach. *Journal of Economics and Development*. 2022; 300:74-84.
- Riddick LA, Whited TM. The corporate propensity to save. *The journal of finance*. 2009; 64(4):1729-1766. Doi: <https://doi.org/10.1111/j.1540-6261.2009.01478.x>
- Torres-Reyna O. *Panel Data Analysis Fixed and Random Effects Using Stata (v. 4.2)*. Data & Statistical Services, Priceton University, 2007.
- Trang PT, Anh, NTN. Discussing the concept of business performance to determine criteria for evaluating business performance of enterprises. *Industry and Trade Magazine*. 2018; 7:288-293.
- Wang YJ. Liquidity management, operating performance, and corporate value: Evidence from Japan and Taiwan. *Journal of Multinational Financial Management*. 2002; 12(2):159-169.
- Website: : <https://finance.vietstock.vn/>; cophieu68.vn; cafef.vn; <https://vietnambiz.vn/>; <https://phantichtaichinh.com/>; <https://www.vCBS.com.vn/>
- Yun J, Ahmad H, Jebran K, Muhammad S. Cash holdings and firm performance relationship: Do

firmspecific factors matter? Economic Research-
Ekonomiska Istraživanja. 2021; 34(1):1283-1305.