

IMPACT OF FINANCIAL CAPABILITY ON THE SUSTAINABLE GROWTH OF SECURITIES COMPANIES: A CASE STUDY

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Abstract

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Growth not compatible with the financial capacity of the business, uncontrolled growth, imbalance of resources, dependence on external funding, and financial risks may occur. That is the current situation of some securities companies, in the context of a volatile world economic context. Meanwhile, theoretical and empirical research on this special type of enterprise on the relationship between financial capacity and sustainable development is still limited, especially in countries with marginal stock markets, which are making emerging transformation efforts. The goal of the article is to clarify whether or not financial capacity has an impact on the sustainable development of securities companies. Data was collected by the authors from 78 securities companies, with 591 observations in the period from 2013 to 2022 operating on the Vietnam Stock Exchange. By using linear regression methods (OLS, FEM, REM, GLS regression models), the article has identified seven factors affecting the sustainable development of securities companies, those factors are 1) scale of total assets of securities companies; 2) self-financing coefficient; 3) financial leverage (debt ratio); 4) profitability of equity; 5) profitability of assets; 6) retained profits, and 7) financial safety ratio. With the experimental results obtained, the authors propose a number of solutions aimed at sustainable development for securities companies such as increasing equity capital, promoting debt capital mobilization, restructuring capital sources, and providing strengthened risk management capacity.

Keywords: Sustainable Growth, Capital Mobilization, Operational Efficiency, Financial Safety, Risk Management

Authors' individual contribution: Conceptualization — T.C.M. and M.N.T.; Methodology — T.C.M., M.N.T., and H.T.V.; Validation — L.V.T. and A.T.L.T.; Formal Analysis — T.C.M. and H.P.H.; Resources — L.V.T., H.H.V., and N.L.T.; Writing — Review & Editing — M.N.T. and H.T.V.; Supervision — T.C.M. and H.T.V.; Project Administration — T.C.M. and M.N.T.

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1. INTRODUCTION

In a market economy, the stock market is an important component, providing capital for the entire economy in the medium and long term. To ensure the effective operation of the market, the participation of intermediaries is essential, and among them, securities companies are significant financial intermediary institutions. These companies engage in securities business activities, which constitute a primary business sector.

In Vietnam's financial market, securities companies form and develop closely with the formation and development of the stock market. The birth of the stock market met the development requirements of the economy, so there was strong development through stages. Increased from seven companies in July 2000 to 105 companies in 2009, many times more than the initial time. The rapid development of securities companies has met the urgent needs of the market but also revealed certain limitations such as unsecured financial capacity, low-risk management capacity, and limited resources. Human resources do not meet requirements. Meanwhile, the business market is mainly concentrated in big cities, and not really widespread.

In a market economy, most consumer companies' growth targets profit maximization, and many companies even consider growth as a vital factor for the company. Because, when the company grows, the cash flow increases, and the company's money, revenue, capital, financial support, and reputation increase rapidly. The same goes for securities companies, however, as an important topic in the stock market, securities companies must always set the necessary goal of having high sustainability to minimize risks. Rapid development has two categories. When the company has a strategy to control funding sources, it will bring maximum benefits and the company will develop sustainably in the long term. On the contrary, if the company cannot control it, it leads to an imbalance of resources, the rapid growth rate of revenue is higher than the growth rate of cash flow, leading to dependence on external funding sources. This is happening in most securities companies in Vietnam, leading to many companies having to stop operating, merge, or dissolve in large numbers.

In the world, there are ratio researchers who have developed a sustainable growth model based on financial indicators (Higgins, 1977), based on the debt-to-equity ratio (Alam & Zahid, 2008; Amouzesh et al., 2011), based on current growth and return on assets (ROA) (Huang & Zhang, 2015; Hafid, 2016), and projected on retained earnings (Asgari et al., 2015; Romano et al., 2019; Kohansal et al., 2017; Law & Yuen, 2019; Rahman & Marjerison, 2020; Lucchese et al., 2020; Sahore & Verma, 2021). Reality shows that securities companies with low financial capacity will not be eligible to participate in business operations in a comprehensive and complete manner (International Organization of Securities Commissions [IOSCO], Technical Committee, 1998). Financial capacity is not high, it has a negative impact on the quality of service provision of securities companies, the ability to provide new products to the market is low, technology is outdated and there are no conditions

for improvement. As a result, it affects the interests of customers, investors, and the safety of the entire stock market.

Recent practice shows that scientists have paid a certain attention to the type of securities company. Scientists are focusing on aspects such as developing the activities of securities companies, the financial security of securities companies, the competitiveness of securities companies, or enhancing risk management in the business activities of securities joint stock companies. Studies have been conducted from many angles of securities companies such as marketing, accounting, finance, human resources, etc., but have not yet been studied. Research financial resources for sustainable growth of securities companies. Due to the specific nature of the securities industry, being an important intermediary financial institution in the capital market, the operating environment of securities companies is a combination of factors that regularly impact financial performance. These factors can be quantitative or qualitative. Therefore, when necessary, research must be carefully considered.

The research objective of the article is to use econometric models to find evidence for the effects of financial capacity on the sustainable development of securities companies to help analysts find the role of operational financial capacity in enhancing sustainability and at the same time have a multi-dimensional view of the main capacity of company securities.

The article used a computational linear research recovery model based on synthetic ordinary least squares (OLS) panel data, fixed effects model (FEM), random effects model (REM), and generalized least squares (GLS) to examine the operation of solar energy to a solid maturity stage to create solid foundations. to evaluate the financial capacity of securities companies.

The structure of this article is as follows. In Section 2, the authors explore relevant documents, as well as learn about previous research methods on financial capacity and sustainable development of securities companies, as well as the relationship between them. Section 3, based on the article's documents, provides methods and proposes a research model. In Section 4 through experimental research, the authors analyze the research results. Section 5 discusses the results of the research model. Section 6 concludes the paper.

2. LITERATURE REVIEW

In a market economy, most growth-oriented companies function to maximize profitability, with many even considering growth as a vital survival factor. The reason is that, as the company grows, its business results and reputation increase rapidly. The same applies to securities companies. However, due to their significant role in the stock market, securities companies must target sustainable growth to minimize risks. Development has two aspects: firstly, when the company controls and ensures the stability of the funding source for growth, sustainable development will bring maximum profits to the company. Conversely, if a company experiences uncontrolled growth, and imbalances between resources and financial needs, the growth rate of revenue exceeds the growth rate of available

cash flow, the company depends on external funding sources, and risks arise. Meanwhile, some companies with slow growth might miss out on development opportunities. Therefore, the challenge lies in achieving growth while ensuring its sustainability and alignment with the company's financial capacity, which is a fundamental principle of corporate management aiming for long-term profitability (Hai, 2023).

According to Higgins (1977), there are four financial indicators that affect the sustainable development model of companies: dividends, profitability, asset turnover, and mobilized capital structure.

According to Alam and Zahid (2008), a company decides to use the level of financial leverage that affects sustainable development, which is the structure between debt and equity, which shows the ability of the finances of securities companies to be limited and depend on the decision to use the level of debt financing.

Amouzesht et al. (2011), based on research of data from 54 public companies listed on the Iranian financial market from 2006 to 2009, clarify the deviation of actual development speed with sustainable development, and at the same time consider ROA, solvency. Empirical results show that the deviation of the actual growth rate from the sustainable growth rate has a relationship with ROA and has no relationship with current solvency (Amouzesht et al., 2011).

Thanatawee (2011) examined the relationship between retained earnings (sustainable growth) and dividend policy using a sample of listed companies in Thailand from 2002 to 2008. The results indicated that companies with higher profits, higher free cash flows, and higher retained earnings tended to have higher dividend payouts. Thanatawee (2011) suggested that there is a positive relationship between sustainable growth and the dividend payout of a company

In their research, Huang and Zhang (2015) analyzed the current status of financial sustainable growth of companies listed on the Growth Enterprise Market (GEM) and identified key factors affecting sustainable growth. Huang and Zhang (2015) identified factors influencing sustainable growth, including profitability, cash generation ability, debt repayment ability, and operational capability.

According to Asgari et al. (2015), there is evidence that there is an inverse relationship between a company's growth opportunities and retained profits. Company size has an impact on retained profits, and the larger the scale, the larger the profit, the higher the retained earnings. Asgari et al.'s (2015) research results were based on reliable data from 101 public companies in the period from 2006 to 2011.

Hafid (2016) examined the company's sustainable development rate in five years (2010-2014), using analysis of each component, the author conducted quantitative analysis. Research results show that the factors that cause a company's profits to gradually decrease due to the increase in the composition of operating costs. The relationship between the variable reflected in the profit margin and the total asset return ratio (TATO) that generally affects the sustainable development (SGR) of

the company shows the relationship between the factors (Hafid, 2016).

Mukherjee and Sen (2018) examined the relationship between liquidity, profitability, leverage, and sustainable growth rate using a 5-year sample period (2010-2011 to 2014-2015). Mukherjee and Sen (2018) found a significantly positive relationship between liquidity, profitability, leverage, and sustainable growth rate of companies.

According to Junaidi et al. (2019), there is evidence that there is a negative relationship between liquidity and the loan-to-funding ratio based on asset quality, which was demonstrated by a group of scientists studying 22 banks trading in the period from 2012 to 2017.

The financial structure of equity has a strong influence on the sustainable development of securities companies, while retained profits in the financial structure do not make a significant contribution (Rubunda et al., 2019). Regardless of the sustainable development of companies, this guides companies in building dividend policies consistent with sustainable development. Research results from 868 small and medium-sized companies, collected 273 observations during the period 2011 to 2017.

According to Nugroho (2020), profitability on equity is the only factor that affects the sustainable development of companies. With public companies listed during the period from 2011 to 2019, sustainable development depends on profits. The company has profits, which means it has a retained portion that increases the company's financial capacity, thereby being able to withstand adverse conditions, the worst of the environment as well as being proactive in short and long-term payment activities (Nugroho, 2020).

Meanwhile, according to Akhtar et al. (2022), short-term debt financing is the cause of risks for non-financial enterprises in Pakistan in the period 2001 to 2017 with a total of 424 non-financial companies under study. Non-financial companies use a high proportion of short-term debt. The limitation of this source of funding is that they have to pay both principal and interest to creditors in a short time, which is a great pressure given economic conditions. business is not guaranteed. In return, mobilizing short-term debt is relatively easy for non-financial companies (Akhtar et al., 2022).

In Mubeen et al.'s (2021) research, a regression analysis was conducted using data from seven emerging economies over a 16-year period from 2000 to 2015 to examine the differences in sustainable growth between companies that issue secondary equity and those that do not. As a result, companies with secondary equity problems are more likely to develop sustainably than companies without secondary equity problems. According to Mubeen et al. (2021), the factors that must be considered in the growth model are the size of the company and the level of financial leverage used by that company.

Additionally, some related theories include the following:

- Financial theory by Modigliani and Miller (1958): The dividend policy does not affect the value of the firm (under conditions of no taxes, no transaction costs, no issuance costs, fixed investment, and financing policy), suggesting that

dividend policy may not impact sustainable growth under certain conditions.

- The passive dividend retention principle: This principle states that a company should retain earnings when it has promising investment opportunities with higher expected returns than demanded by shareholders (Grubert, 1998). Growing firms often have lower dividend payout ratios compared to mature firms.

- Pecking order theory: Managers prioritize funding investment opportunities through retained earnings, followed by debt, and equity financing is the last resort (Frank & Goyal, 2008).

Based on the research of fundamental theories and previous empirical studies, it is shown that previous studies mostly focused more on solving the relationship between financial capacity and sustainable growth. Sustainability of simple businesses, research on sustainable growth of securities companies based on financial capacity is still limited. Due to the specific nature of the securities industry, being an important intermediary financial institution in the stock market, the operating environment of securities companies is a combination of factors that regularly impact financial performance. Therefore, when studying the influencing factors, it is necessary to consider them carefully and systematically.

The study suggests the following hypotheses:

H1: The size of a securities company (Size) is positively correlated with the sustainable development of a securities company (SGR).

H2: The self-financing coefficient (Sfa) of securities enterprises is positively correlated with the sustainable development of securities companies (SGR).

H3: Debt-to-equity ratio (Leverage) of securities enterprises is positively correlated with the sustainable development of securities enterprises (SGR).

H4: The short-term debt ratio (Stdta) of securities enterprises is positively correlated with the sustainable development of securities enterprises (SGR).

H5: The investment rate of short-term assets (Investment) of securities enterprises is positively correlated with the sustainable development of securities enterprises (SGR).

H6: The operational efficiency (Inefficiency) of securities enterprises is positively correlated with the sustainable development of securities enterprises (SGR).

H7: Margin loan balance of securities enterprises is positively correlated with the sustainable development of securities enterprises (SGR).

H8: Solvency (Cr) of securities enterprises is positively correlated with the sustainable development of securities enterprises (SGR).

H9: Return on assets (ROA) of securities businesses is positively correlated with the sustainable development of securities businesses (SGR).

H10: Return on equity (ROE) of securities enterprises is positively correlated with the sustainable development of securities enterprises (SGR).

H11: The ratio of receivables (Receivables) of securities enterprises is positively correlated with the sustainable development of securities enterprises (SGR).

H12: The capital addition coefficient from profits (RER) of securities enterprises is positively correlated with the sustainable development of securities enterprises (SGR).

H13: The available capital ratio (Caps) of securities enterprises is positively correlated with the sustainable development of securities enterprises (SGR).

H14: The age of the securities company (Age) of a securities enterprise is positively correlated with the sustainable development of a securities enterprise (SGR).

3. QUANTITATIVE RESEARCH METHODS AND RESEARCH MODELS

The article uses quantitative research, linear regression models are used by the authors, based on time data combining fiscal years and observations, the models used are OLS, FEM, REM, and GLS to examine the impact of financial capacity on sustainable development of Vietnamese securities companies.

The article uses Stata 14 software for analysis. For panel data, regression can be conducted according to 3 methods: OLS, FEM, REM, and testing. The research team used the Hausman test to choose the FEM or REM. On this basis, if the new model selected (FEM or REM) still has defects in variance, or multicollinearity, the GLS will be the last choice. After choosing the appropriate model, the authors perform tests to check the model's defects and correct the model with those defects.

The data used by the authors is taken from the website, Vietstock.vn (<https://vietstock.vn/>), from the annual reports of securities companies and the General Statistics Office (<https://www.gso.gov.vn/>). The dataset comprises financial reports of securities companies in Vietnam from 2013 to 2022. Companies that are newly established or merged are excluded from the study to ensure data comparability and to address instances where financial data is not sufficient for analysis. The sample size calculation follows Bollen's (1989) formula of $n = 5 \cdot 2_i$ (where i is the number of observations in the model) for linear structural models, and Tabachnick and Fidell's (2007) formula of $n = 50 + 8q$ for multiple linear regression analysis.

Before data analysis, the authors perform data cleaning procedures to ensure the accuracy of processing results that reflect the authenticity of the research subject, specifically:

Step 1: After importing data into an Excel sheet, the authors examine any signs of data anomalies and calculate the values of the variables under study.

Step 2: Missing values are supplemented and adjusted using methods such as keeping the missing values as they are (when the analysis software automatically assigns default missing values), assigning missing values using the mean or median, and assigning missing values as 0.

Step 3: Pairwise correlation analysis is conducted for each variable to detect data errors that might lead to unexplainable analysis results. Outliers in data that distort the relationship between variables are removed if signs of data anomalies are present.

The dependent variable is sustainable development denoted by *SGR* (sustainable growth rate). The independent variables are factors that constitute the financial capacity of the securities company.

Figure 1. Research models

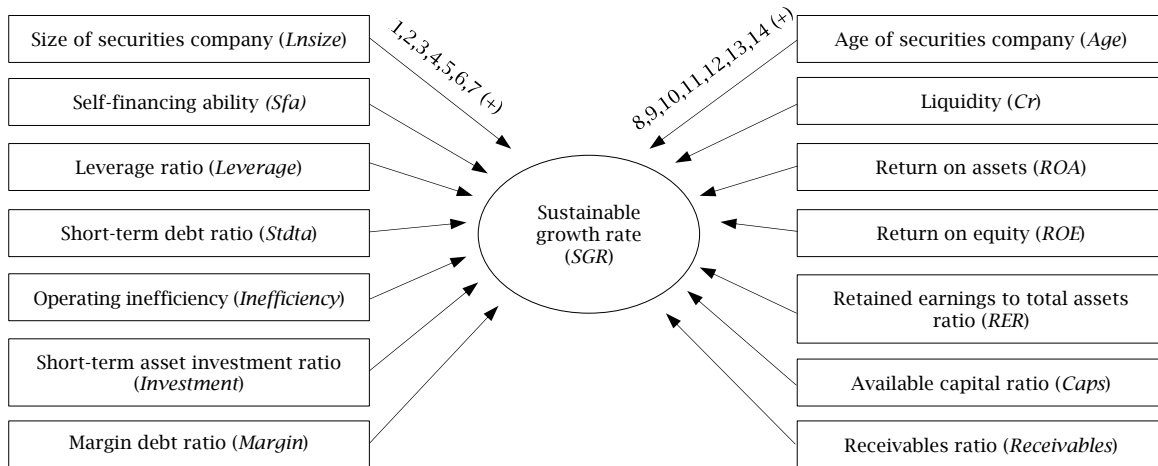


Table 1. Statistical results of variables in the model

No.	Variable and symbol	Calculation method	Research
<i>Dependent variable of the regression model: SGR</i>			
<i>Independent variables of the regression model</i>			
1	Size of securities company (Size)	Ln (Total assets)	Asgari et al. (2015), Healy et al. (1990), Goldberg et al. (1991), Elyasiani et al. (2007), Lee et al. (2014), Taikai (2017), Hai (2023), Hu and Fang (2010), Mubeen et al. (2021)
2	Self-financing ability (Sfa)	Equity/Total capital	Yeh et al. (2010), Taikai (2017), Samuels (2017), Hai (2023)
3	Leverage ratio (Leverage)	Total debt/Equity	Akhtar et al. (2022), Alam and Zahid (2008), Higgins (1977), Mubeen et al. (2021), Masood (2017), Wang and Wang (2017), Mukherjee and Sen (2018), Rubunda et al. (2019), Hai (2023)
4	Short-term debt ratio (Stdta)	Short-term debt/Total liabilities	Hai (2023)
5	Short-term asset investment structure (Investment)	Short-term assets/Total capital	Zhe et al. (2017), Samuels (2017)
6	Operating inefficiency (Inefficiency)	Operating expenses/Net revenues	Huang and Zhang (2015), Hafid (2016), Junaidi et al. (2019), Shirata (1998), Fang and Hu (2009), Wang and Wang (2017), Zhe et al. (2017), Hua and Shaw (2020), Hai (2023)
7	Margin debt ratio (Margin)	Margin debt/Equity	Junaidi et al. (2019), Wang (2020), Hai (2023)
8	Available capital ratio (Caps)	Available capital level/Risk value	McCauley and Zimmer (1991), Herring and Schuermann (2003), Samuels (2017)
9	Receivables ratio (Receivables)	Receivables/Total assets	Hai (2023)
10	Liquidity (Cr)	Current assets/Current liabilities	Amouzesh et al. (2011), Masood (2017), Huang and Zhang (2015), Mukherjee and Sen (2018), Akhtar et al. (2022); Wang and Wang (2017), Zhe et al. (2017), Samuels (2017), Hai (2023)
11	Return on assets (ROA)	Profit after tax/Total capital	Claessens and Perotti (2007), Nugroho (2020), Hafid (2016), Mukherjee and Sen (2018), Samuels (2017), Zhe et al. (2017), Huang and Zhang (2015), Hai (2023)
12	Return on equity (ROE)	Profit after tax/Equity	Higgins (1977), Thanatawee (2011), Masood (2017), Huang and Zhang (2015), Hafid (2016), Mukherjee and Sen (2018), Shirata (1998), Nugroho (2020), Wang and Wang (2017), Zhe et al. (2017), Samuels (2017), Hai (2023)
13	Retained earnings to total assets ratio (RER)	Retained profits/Total capital	Higgins (1977), Thanatawee (2011), Masood (2017), Asgari et al. (2015), Rubunda et al. (2019), Hai (2023)
14	Age of each securities company (Age)	Ln (Get data year - Year of establishment of the company)	Hai (2023)

The research model takes the following form:

$$SGR = \beta_0 + \beta_1 * Size_{it1} + \beta_2 * Sfa_{it2} + \beta_3 * Leverage_{it3} + \beta_4 * Stdta_{it4} + \beta_5 * Investment_{it5} + \beta_6 * Inefficiency_{it6} + \beta_7 * Margin_{it7} + \beta_8 * Cr_{it8} + \beta_9 * ROA_{it9} + \beta_{10} * ROE_{it10} + \beta_{11} * Receivables_{it11} + \beta_{12} * RER_{it12} + \beta_{13} * Caps_{it13} + \beta_{14} * Age_{it14} + \mu_{it} \quad (1)$$

in which:

β_0 : Intercept coefficient.

$\beta_1 \dots \beta_{14}$: Slope coefficients of independent variables.

μ_{it} : The error of the model.

4. RESULTS

The study employed Stata 14 software to conduct statistical analysis on the dataset variables within the model. The results in Table 2 encompass 591 observations over eight years from 2013 to 2022.

Table 2. Statistical results of variables in the model

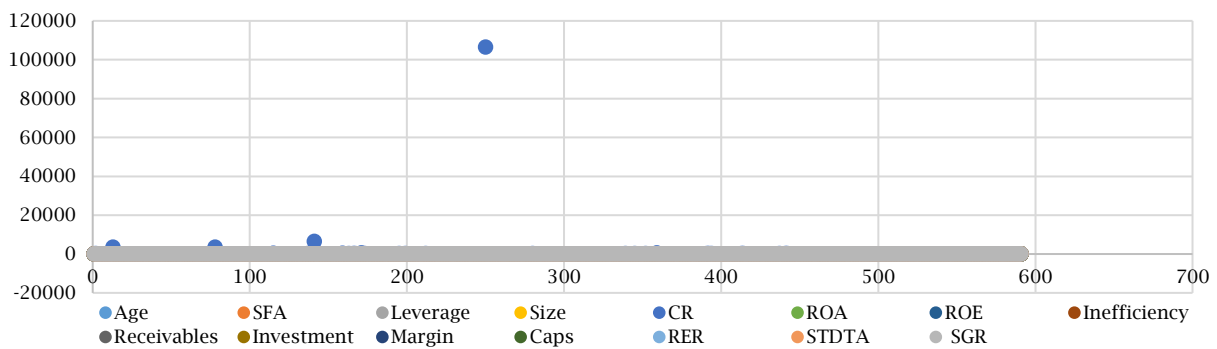
Variable	Mean	Std. Dev.	Min	Max
SGR	-0.493	173	-1.631	0.895
Size	1.158	0.708	9.983	1.355
Sfa	0.7494	0.240	0.007	1.001
Leverage	0.931	6.357	9.390	1.337
ROA	0.010	0.114	-0.838	0.513
ROE	0.019	0.174	-1.578	0.520
Inefficiency	0.659	1.080	-342	1.933
Receivables	0.135	0.209	0	0.872
Investment	0.880	0.146	0.118	1
Margin	0.283	0.568	0	495
Caps	4.052	3.443	-0.76	428
RER	-0.387	1.361	-1.610	0.551
Age	0.993	0.145	0.602	1.322
Stdta	0.940	0.172	0.011	1
Cr	2.312	4.390	1.002	106

Obs. = 591

Source: Statistical research conducted using Stata 14 software.

The level of analysis of the data is evaluated based on the average value of the surrounding observations, if the deviation/average of the surrounding observations is greater than 1, the deviation is less than the average, then the transaction The dynamic data is small, the data included in the research model has not high variation (Figure 2).

Figure 2. Sample data dispersion



Source: Statistical research conducted using Stata 14 software.

The study employed the variance inflation factor (VIF) to examine multicollinearity. If the VIF values are below 10, there is no significant multicollinearity present in the research model.

Table 3. Results of multicollinearity assessment in the model

Variable	VIF	1/VIF
Size	2.86	0.349
Sfa	2.35	0.426
Age	1.62	0.618
Leverage	1.52	0.656
RER	1.43	0.697
Caps	1.42	0.705
Receivables	1.37	0.730
Margin	1.36	0.737
Investment	1.20	0.833
Inefficiency	1.19	0.838
Stdta	1.13	0.882
CR	1.03	0.972
ROE	5.20	0.192
ROA	5.07	0.197
Mean VIF	2.05	

Statistical research conducted using Stata 14 software.

The variables included in the regression model have characteristic properties but are more or less correlated with each other, so when testing VIF, the authors carefully considered each pair to avoid the problem of multicollinearity affecting the experimental results. The results in Table 3 show that the VIF coefficient of the variables is less than 10, this meets the testing requirements, the variables included in the model are of good

quality, and there is no multicollinearity phenomenon in the linear model.

Hausman test for pairs of assumptions that are correlated (choose the REM model) and uncorrelated (choose the FEM model) was conducted.

As a result of the Hausman test (Table 4), the article received a prob result of 0.0000, less than 0.05 (5%), which means that the appropriate method chosen is fixed effect (FEM).

Table 4. Hausman test results for model selection

Variable	Coefficients			
	(b)	(B)	(b-B)	sqrt(diag(V _b -V _B))
Size	0.3775004	0.2200647	0.1574357	0.1042099
Sfa	0.6898585	0.731565	-0.0417066	0.1056218
Leverage	-0.0389132	-0.037109	-0.0018042	0.0017773
ROA	-7.308535	-7.778803	0.4702688	0.2297976
ROE	4.631514	5.099034	-0.4675204	0.1854689
Inefficiency	0.0694546	0.067297	0.0021576	0.0070403
Receivables	-0.271041	-0.1981694	-0.0728716	0.0665759
Investment	-0.4080692	-0.3163608	-0.0917084	0.1267196
Margin	-0.028954	-0.0467619	0.0178079	0.0600199
Caps	0.0412683	0.0346447	0.0066236	0.0056138
RER	0.9798904	1.076737	-0.096847	0.0223993
Age	-0.8788944	-0.613007	-0.2658874	0.1620377
Stdta	-0.2533794	-0.2913844	0.0380051	0.0717997
Cr	4.30e-06	5.26e-06	-9.63e-07	1.04e-06

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg
 Test: H₀: Difference in coefficients not systematic
 chi2(13) = (b-B)'[(V_b-V_B)⁻¹](b-B)
 = 33.07
 Prob > chi2 = 0.0017

Source: Statistical research conducted using Stata 14 software.

Testing for heteroscedasticity, the result in Table 5 of the FEM model (xtttest3 command) indicates that prob = 0.0000 < 0.05, suggesting the presence of heteroscedasticity in the FEM model.

Table 5. Heteroscedasticity test results in the fixed effects model

. xtttest3
Modified Wald test for groupwise heteroskedasticity in fixed effect regression model
H ₀ : Sigma(i)^2 = sigma^2 for all i
chi2 (85) = 2.0e+35
Prob > chi2 = 0.0000

Source: Statistical research conducted using Stata 14 software.

Autocorrelation test (xtserial command) result is shown below. Table 6 reveals that the FEM model has prob = 0.0039 < 0.05, indicating the presence of autocorrelation in the FEM model.

Table 6. Autocorrelation test results in the fixed effects model

Wooldridge test for autocorrelation in panel data
H ₀ : No first-order autocorrelation
F(1, 76) = 6.053
Prob > F = 0.0162

Source: Statistical research conducted using Stata 14 software.

The authors continue to check for multicollinearity and heteroscedasticity errors with the collin command. Table 7 shows the results of variables with VIF coefficients less than 10, meeting the requirement that the final model does not have multicollinearity.

Table 7. Multicollinearity test results in the fixed effects model

Variable	VIF	SQRT VIF	Tolerance	R-squared
Leverage	1.60	1.30	0.604	0.396
ROA	7.80	2.80	0.128	0.872
ROE	8.00	2.80	0.124	0.876
Inefficiency	1.20	1.10	0.830	0.170
Receivables	1.40	1.10	0.730	0.280
Investment	1.20	1.10	0.832	0.168
Margin	1.40	1.20	0.736	0.264
Caps	1.50	1.20	0.695	0.305
RER	8.80	3.00	0.114	0.886
Age	1.60	1.30	0.614	0.385
Stdta	1.10	1.10	0.876	0.126
Cr	1.00	1.00	0.970	0.030
SGR	9.20	3.00	0.108	0.892
Size	2.90	1.70	0.345	0.655
Sfa	2.40	1.60	0.404	0.596
Mean VIF	3.42			

Source: Statistical research conducted using Stata 14 software.

The FEM model does not have multicollinearity defects. To overcome two defects of the model, autocorrelation and heteroskedasticity, the authors use the GLS model to obtain good results, besides, to visually compare the results of the models with each other (Table 8).

Table 8. Regression results of the financial capability model's impact on the sustainable growth of Vietnamese securities companies

Variable	OLS	FEM	REM	GLS
Size	0.158***	0.378***	0.220***	0.038**
Sfa	0.851***	0.690***	0.732***	0.340***
Leverage	-0.03***	-0.03***	-0.037***	-0.011***
ROA	-8.230***	-7.309***	-7.779***	-4.054***
ROE	5.539***	4.632***	5.099***	2.992***
Inefficiency	0.057**	0.069***	0.067***	0.008
Receivables	-0.096	-0.271*	-0.198	-0.032
Investment	-0.190	-0.408*	-0.316*	-0.0281
Margin	-0.046	-0.029	-0.047	0.007
Caps	0.024***	0.041***	0.035***	0.006*
RER	1.138***	0.980***	1.077***	1.075***
Age	-0.382*	-0.879***	-0.613***	-0.058
Stdta	-0.309**	-0.253	-0.291*	-0.073*
Cr	0.000	0.000	0.000	0.000
_cons	-1.783**	-3.676**	-2.143**	-0.597***
N			591	
R-squared			0.892	

Note: * p < 0.1, ** p < 0.05, *** p < 0.01.

Source: Regression analysis conducted using Stata 14 software.

5. DISCUSSION

The regression results of the model (Table 8) can be found below:

$$SGR = 0.038 * Size + 0.340 * Sfa - 0.011 * Leverage - 0.073 * Stdta + 0.006 * Caps - 4.054 * ROA + 2.992 * ROE + 1.075 * RER \quad (2)$$

The coefficient of determination (R²) is a measure to assess the goodness of fit of the regression model. The value of the coefficient (R²) indicates the percentage of variance in the dependent variable that can be explained by the regression model. Based on the regression results (Table 8), including eight independent variables, it is found that they collectively explain 89.2% of the variance in the dependent variable SGR (sustainable growth rate). These variables include: size of the securities firm; self-financing ratio (Sfa); debt-to-equity ratio (Leverage); return on equity (ROE); return on assets (ROA); retained earnings ratio (RER); and capital adequacy ratio (Caps). Specifically, the impact results are shown in Table 9.

Table 9. Hypothesis testing results

Hypothesis	Impact	Coefficient	P	Conclusion
H1	SGR <--- Size	0.0383	**	Accept
H2	SGR <--- Sfa	0.340	***	Accept
H3	SGR <--- Leverage	-0.0113	***	Accept
H4	SGR <--- Stdta	-0.0730	*	Accept
H5	SGR <--- Investment	-0.0281	> 0.05	Rejected
H6	SGR <--- Inefficiency	0.00809	> 0.05	Rejected
H7	SGR <--- Margin	0.00708	> 0.05	Rejected
H8	SGR <--- Cr	0.00000166	> 0.05	Rejected
H9	SGR <--- ROA	-4.054	***	Accept
H10	SGR <--- ROE	2.992	***	Accept
H11	SGR <--- Receivables	-0.0325	> 0.05	Rejected
H12	SGR <--- RER	1.075	***	Accept
H13	SGR <--- Caps	0.00575*	*	Accept
H14	SGR <--- Age	-0.0577	> 0.05	Rejected

Note: Statistically summarized results from the regression model. * p < 0.1, ** p < 0.05, *** p < 0.01).

Based on research, the article proposes financial solutions aimed at sustainable growth for the following securities companies.

Firstly, increase the size of equity capital: 1) increase the proportion of retained profits, reduce annual dividends paid to shareholders; 2) increase equity from issuing additional shares from existing shareholders; 3) increase shareholder equity through admitting new members; 4) increase equity by issuing new shares; 5) attract capital from foreign investors; 6) acquisition or merger with other securities companies.

Second, build a debt capital mobilization strategy suitable for securities companies: 1) increase capital mobilization through bond issuance; 2) increase capital mobilization through banks and credit institutions.

Third, restructure capital sources in accordance with the business plan and development goals of the securities company. Each securities company can use one or more capital sources to finance business activities, and can use short-term capital or long-term. Using debt capital or equity depends on the securities company itself and objective factors. Due to the specific nature of securities business activities, a large proportion of a securities company's assets are financial investments (short-term and long-term financial investments) and receivables account for a large proportion are loans that securities companies lend to customers to invest in securities when using margin buying services. This is the basis for the securities company to restructure its capital sources appropriately.

Fourth, strengthen risk management for securities companies. Securities companies' business activities contain many risks such as self-trading activities or securities companies with loans that are financial assets with fixed payments, or identifiable and not listed on the market. Loans from securities companies are loans for margin transactions under margin contracts or contracts to advance customers' securities sales.

In order for the above solutions to be implemented with the highest results, coordination between management agencies and relevant agencies is needed. The limitation of the study is that there is no classification of the size of securities companies. In a subsequent study, the authors will clarify the scale of each group of securities companies in improving financial capacity to serve sustainable growth.

6. CONCLUSION

Results from the attribution model show the impact of financial capacity on the sustainable development of securities companies in the period 2013-2022, thereby contributing to a deeper understanding of the sustainable development of a specific type of business that is securities companies. The article has identified 7 financial factors affecting the sustainable growth of securities companies, including the larger the scale of a securities company, the higher its ability to develop and grow. This is consistent with reality in Vietnam, when a securities company with large capital will help them be financially independent and have many opportunities to conduct business activities as well as easily respond when risks occur, improving risk management

capacity for companies. Large capital also helps securities companies expand business opportunities and increase their business portfolio with capital conditions. Companies with large equity capital will have the opportunity to invest in core technology and facilities first, enhancing the company's financial strength. Equity is the basis for a securities company to operate its business, and is the initial premise to attract other sources of financial support and expand operations regardless of market conditions, interest rates or other factors. Other unfavorable factors. In conditions of strong market fluctuations and limited stability in business operations, jobs that use too much debt, especially short-term debt, will create too great a risk for the company. Debt securities and short-term loans must be paid in a short period of time, both principal and interest. When the company takes back the short-term debt account for character lending activities, this is an activity with many hidden risks. Securities companies operate effectively, increasing profitability per equity owner, thereby benefiting a sustainable financial source and the financial strength of these companies be increased. This is appropriate because with proper regulation, securities in Vietnam are currently too small and not strong enough to pay dividends in a short period of time, so retaining profits will be good for companies. in the recent period. Profitability on total assets (ROA), during the research period, securities companies have not used the securities company's assets well and have not contributed to improving the company's financial capacity. When the company achieves stock performance, part of it will help to return profits, the rest will be distributed as dividends, increasing the profit-to-profit ratio will improve the financial capacity of stock shares. In today's volatile conditions, if companies do not retain profits, they must mobilize debt capital to finance business activities, which will lead to risks and sustainable development. Securities companies need to balance increasing profitability with ensuring financial safety and risk management, which is reflected in financial safety indicators, reasonable available capital ratio, and quality of capital. The amount of assets is improved and enhanced, the level of risk is maintained at a concentrated level, the efficiency of capital use is enhanced, from which the securities company develops sustainably. On the contrary, failure to maintain a financial safety ratio inevitably puts the securities company at risk and becomes insolvent. In addition, research shows that activities such as improving payment capacity, maintaining low receivables, improving operational efficiency, and enhancing securities credit have not really contributed significantly to the strengthening of the financial capacity as well as sustainable development of securities companies in the recent period. Unexpectedly, no significant relationship was found between age variables of securities companies and sustainable development and financial capacity. Then companies that have been in operation for a long time will have better sustainability. The company has been operating for a long time, has a lot of management and operating experience, has advantages in market share, and profits to help the securities company grow sustainably, but the results of testing the model recovery process

show that end result is the opposite. Research results have found the importance of consolidation capabilities for the sustainable development of securities companies. In addition, it is necessary to strengthen the capital owner model, develop appropriate debt capital mobilization strategies, restructure assets and capital sources, and improve risk management capacity. These findings provide strategic plans for Vietnamese securities companies to improve financial capacity and develop steadily. Lessons learned from the research model provide solutions for these companies in their work to address the complexities of the financial sector and

exploit sustainable growth opportunities. However, the research limitation still does not include securities companies by size or ownership criteria, because this factor more or less affects the financial capacity and sustainable growth of the securities company.

The research team's next studies will focus on improving the risk management capacity of securities companies, optimal capital structure, operational efficiency and forms of mergers and acquisitions between companies. securities companies to improve the financial capacity of securities companies.

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