

SOLUTION AIM TO IMPROVE THE PROFIT OF VIETNAM SECURITIES CORPORATION

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1. Introduction

In recent years, the number of securities companies in Vietnam has tended to decrease in number, from 105 companies in 2009 to now, according to statistics from HOSE and HNX (VNX), the number the securities company still operates only about 70 companies. The main reason is the result of the competitive process in the market economy, many securities companies operate inefficiently, have suffered long-term operating losses for many years, leading to transformations, mergers, and acquisitions. withdraw from the market. The remaining securities companies focus intensively on strong customer segments and gradually increase the scale of operations.

2. Abstract

Researching the factors affecting the profitability of Vietnamese securities companies, through a linear regression model presented in the form of two-dimensional panel data: the time dimension (from 2012 to 2019).), the spatial dimension is the enterprise (48 securities companies), corresponding to 240 observations, using STATA 14 software (SPSS 20) to analyze and select the regression model, test and estimate the data regression model. array. The results found 7 factors affecting the profitability of Vietnam Securities Company, which are: Size of total assets (LnTTS); Cash flow growth (TLCT); Efficiency of using assets of securities companies (HSSDTS); Sustainable growth rate (Tbv); Cost of Goods Sold (HSGVHB); Macroeconomic factors are inflation (Inf) and Growth Rate (GDP).

3. Content

3.1 Theoretical basis

Profitability? According to the Vietnamese great dictionary (Nguyen Nhu Y, 1998), ability: that which can appear under certain conditions [2,882], profitable (profitable): to make a profit [2,1446] . Thus, profitability is an indicator reflecting the ability to bring maximum profit on the limited resources of a securities company. For an enterprise in general or a securities company in particular, profitability is both the business engine and the basis for each securities company to exist and develop. Usually profitability is measured by two metrics, ROA and ROE.

- Return on assets-ROA. The indicator reflects on average how much profit is generated per dollar of assets after a certain period of time. The higher this indicator is, the higher the efficiency of the business is, and vice versa [2, 240].

Return on assets (ROA)=	Profit after tax
	Total average assets

ROA reflects the efficiency of invested capital, the efficiency of management, exploitation and use of assets formed after investment.

- Return on equity (ROE). The indicator reflects how much net profit per dollar of equity used in the period. The higher the return on equity, the more capital the securities company can raise in the market. finance to finance business operations, and vice versa. ROE reflects an integrated way of planning and implementing financial policies and business strategies of an enterprise in each period. This is the target that owners and investors are interested in and expect when investing capital in securities companies.

Return on equity (ROE)=	Profit after tax
	Average equity

Profitability is the combined result of the securities company's capacity, organization, management level, operating results and final business performance in each period. Securities companies can only get profits after determining the optimal financial structure of the business and maintaining it in the course of business operations, most securities companies have not done this, when the ROA results and ROE is listed in the table below:

Descriptive Statistics					
YEAR	N	Minimum	Maximum	Mean	Std. Deviation
2012	48	-21.9%	21.6%	.491%	6.7446%
2013	48	-30.5%	42.8%	1.385%	9.2970%
2014	48	-34.9%	16.5%	2.216%	8.4618%
2015	48	-20.9%	27.6%	1.969%	6.6874%
2016	48	-34.4%	25.1%	.780%	8.7257%
2017	48	-20.3%	51.3%	6.464%	10.7809%
2018	48	-4.1%	34.2%	4.151%	6.3202%
2019	48	-13.1%	27.3%	3.681%	6.3255%
Valid N (listwise)	48				

Table 3.1. ROA results of Vietnamese securities companies from 2012 to 2019

(Source: PhD student in statistics on SPSS 20 software)

Observations (table 3.1) show that the average return on assets (ROA) of the sample of Vietnamese securities companies studied tends to increase, specifically over the years as follows: 2012 ROA was the lowest in the years research, with an average of 0.491%; In 2013 ROA increased to 1.385%; In 2014 ROA increased to 2.216%; In 2015 ROA decreased to 1.969%; In 2016 ROA decreased to 0.780%; In 2017 ROA increased to the highest over the years studied at 6.464%, in 2018 ROA was 4,151%; In 2019, the average ROA decreased to 3.681%. Statistical results show that the system of securities companies in Vietnam shows that the ROA (2017-2019) of securities companies tends to increase but is low (years are less than 6.5%) and the increase and decrease is unstable (Figure 3.1).

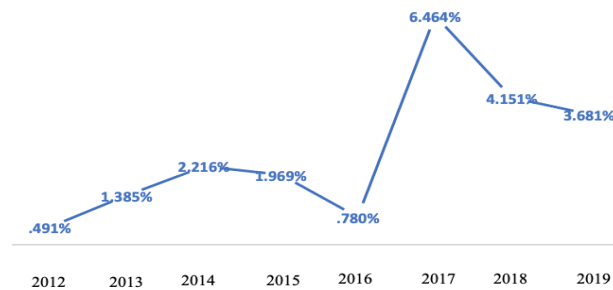


Figure 3.1. Change in ROA of Vietnamese securities companies from 2012 to 2019

(Source: The author drew the figure based on the data on excel 2010)

Especially, the difference in ROA of securities companies is quite large, there are securities companies with high positive ROA (51.3%), but there are securities companies with very low ROA (-34.4%).

Descriptive Statistics					
YEAR	N	Minimum	Maximum	Mean	Std. Deviation
2012	48	-44.5%	22.0%	.351%	10.6325%
2013	48	-84.1%	462.8%	9.383%	68.6857%
2014	48	-49.2%	27.1%	4.550%	12.3582%
2015	48	-33.7%	30.3%	3.182%	9.9362%
2016	48	-46.8%	27.7%	1.255%	12.5162%
2017	48	-20.8%	52.1%	9.505%	12.4600%
2018	48	-17.0%	42.9%	6.663%	9.5661%
2019	48	-14.5%	37.6%	5.957%	8.3445%
Valid N (listwise)	48				

Table 3.2. ROE results of Vietnamese securities companies from 2012 to 2019

(Source: PhD student in statistics on SPSS 20 software)

Similarly, ROE of Vietnamese securities companies is also not high (less than 10%), observed (table 3.2), specifically over the years as follows: 2012 ROE was the lowest in the research years, with an average of 0.351 %; In 2013 ROE increased to 9,383%; In 2014 ROE increased to 4,550%; In 2015 ROE decreased to 3,182%; In 2016 ROE decreased to 1.255%; In 2017 ROE increased to the highest over the years studied at 9,505%, in 2018 ROE was 6,663%; In 2019 the average ROE decreased to 5.957% (Figure 3.2).

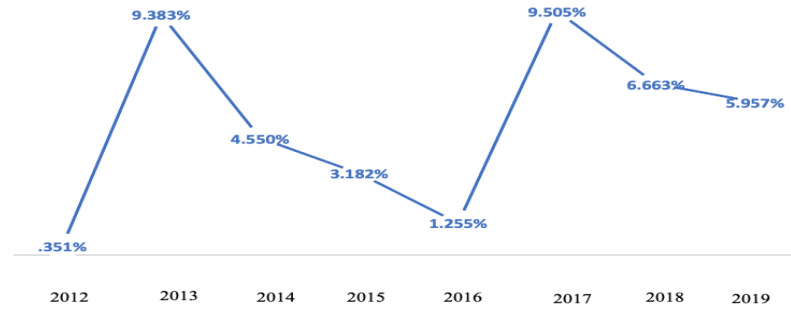


Figure 3.2. Change in ROE of Vietnamese securities companies from 2012 to 2019
(Source: The author drew the figure based on the data on excel 2010)

Thus, the results of production and business activities, profitability on assets and on equity (ROA and ROE) of securities companies during the research period (from 2012 to 2019) were relatively low. This result is the business process of the Securities Company in formulating strategies, and deciding in the organization, management and administration of securities trading activities. Therefore, securities companies need to systematically and comprehensively study the influencing factors in order to improve the profitability of the business.

Some factors affecting the ROE/ROA of securities companies:

First, the size of the securities company. According to Hua et al. (2020), in the study "A Context-dependent Efficiency Evaluation of Japanese Securities Firms" calculated the efficiency of 23 Japanese securities companies in the period 2010-2015 and evaluated online securities companies (small). focusing on effective brokerage operations, in contrast, large and medium-sized securities companies operating over-the-counter services tend to decrease in efficiency [8], so this researcher's point of view is that the size of securities companies is large. will have a much negative effect on ROE/ROA. In contrast to the study of Healy et al (1990), companies after merger, consolidation have significant improvements in profitability, operating cash flow leading to an increase in assets and stock return, expected Economic improvement is the basis for the revaluation of equity of the post-merger companies [9].

Elyasiani and partner (2007) profit and risk are significantly interdependent and vary in size, larger organizations are found to have stronger risk-related spillovers is volatile) while smaller institutions show a clearer association of returns with limited risk spillovers [4]. Lee et al (2014) argue that securities companies (especially large securities companies) have achieved economies of scale and benefited significantly from economies of scale [13]. My et al (2020) the size of securities companies affects the productivity and performance of securities companies [14].

Controversial view of the efficient market theory.

When the efficient market theory was newly established, a number of defects of the theory were studied and pointed out, including the Small Firm Effect. Small firms often have unusually high returns over a long period of time even in terms of corporate risk taken into account, which is typically higher for small firms than for large firms. large scale. Various theories have been developed to explain this phenomenon, with the main reasons explaining the phenomenon being that firms have rebalanced their investment portfolios, the lack of liquidity of their portfolios, and the lack of liquidity. small companies, issues related to the collection of information costs in operations, the appropriateness of risk assessment methods of small companies... However, this is a big challenge for efficient market theory.

+ *Second, sustainable growth rate (Tbv)*: For every investor, the growth and sustainability of the business is the expectation of any investor, the sustainable growth rate is associated with the increase equity from retained earnings. Research Shirata (1998) when the cumulative profit of the enterprise decreases (retained income on assets) strongly affects the financial status of the enterprise [15]. According to Pham Thi Van Anh (2012), the indicator shows how much VND 100 owner's equity can be taken from profits to reinvest, this indicator reflects the endogenous financial capacity of the owner of the enterprise [1], is the basis for increasing ROA/ROE of securities companies.

+ *Coefficient of cost of goods sold (HSGVHB)*: The indicator indicates how much VND of net revenue earned by the securities company, the cost of goods sold, the smaller the coefficient of cost of goods sold, demonstrating the management of the assets. cost of goods sold as possible and vice versa. According to Hu et al. (2020) operating cost is one of the three inputs (Equity size, Operating costs and number of employees) affecting the output is revenue. Researcher Fang et al. (2009) specialized securities companies operate more efficiently than integrated securities companies due to cost savings [5].

+ *Asset utilization efficiency (HSSDTS)*: An index that evaluates the efficiency of use of all assets of a securities company, showing how much VND of revenue will be generated by 1 dong of assets involved in the business process. HSSDTS has a maturity proportional to ROE/ROA.

+ Growth in cash flow (T_{LCT}): The desire of securities company owners is that the company is growing, maximum and stable profitability, while ignoring other factors, especially cash flow growth of the business, which may put the company in jeopardy in the near future.

- **Group of macro variables affecting financial capacity**

+ *Growth rate (GDP)*: Economic growth is an important factor affecting the profitability of securities companies. During the period of high and stable economic growth, the risks and risks for securities companies tend to decrease, securities companies invest more in their fields, leading to high profitability. On the contrary, in the period of economic difficulties, the growth rate decreased, securities companies had to maintain a large amount of capital to ensure operations, leading to reduced profitability.

Inflation (Inf): Low or high inflation will indirectly affect the profitability of securities companies, increasing inflation will reduce the real value of income and assets, reduce investment opportunities and ability debt repayment capacity of securities companies.

In addition, in order to fully study, the author also hypothesized that the IPO event of securities companies and raising foreign ownership (from 51%) will affect the profitability of securities companies.

3.2 Research model

(1)*Objectives of quantitative research*. The author tests the impact of internal and external factors affecting the profitability of securities companies in the period 2012-2019, the results serve as a basis for accurately assessing the effects, helping securities companies have solutions. To increase profitability in production and business activities.

(2) *Research data*. The data used by the PhD student is secondary data, taken from the website (Vietstock.vn), from the annual reports of securities companies and the General Statistics Office (Gso.gov.vn). The data set includes financial statements of 48 securities companies for the period 2012-2019, 240 observations, the author will exclude newly established or consolidated securities companies, which makes financial data not comparable and securities companies are not fair. provide the necessary information for the study. According to Bollen (1989) when analyzing models with linear structure, the sample size is calculated according to the formula $n=5 \cdot 2i$ (i is the observed variable in the model). According to Tabachnick and Fidell (2007) the sample size in multiple linear regression analysis is calculated according to the formula $n= 50 + 8q$ (q is the number of independent variables in the model). Variables are represented as array data (Panel Data) with two dimensions: the time dimension (from 2012 to 2019), the space dimension is the business (48 securities companies).

(3) *Research method*. The author uses STATA 14 software to analyze and select regression models, test and estimate regression models of array data. For array data, there are three methods of regression: Pooled Ordinary Least Square - Pooled OLS, Fixed-Effects Model, Covariance model, and Within. Estimato, Individual Dummy Variable Model, Least Squares Dummy Variable Model- Fem), random effects regression (Radom-Effects Model, Random Intercept, Partial Pooling Model-Rem), Hausman test, to select the model Fits out of 3 models. The selected model continues to be tested for defects and corrected for defects in the model.

Applying descriptive statistical techniques and linear regression, the model to study the impact of factors affecting the sustainable growth of securities companies is based on the application of linear regression technique on array data with form

$$Y_{it} = \beta_1 X_{it1} + \beta_2 X_{it2} + \dots + \mu_{it}$$

$$Y_{it} = \beta_1 X_{it1} + \beta_2 X_{it2} + \dots + v_i + \varepsilon_{it} \text{ with } i = 1, 2, \dots, n \text{ and } t = 1, 2, \dots, t \text{ (*)}$$

Inside:

Yit : value of Y for object i at time t

Xit1: value of X1 for object i at time t

Xit2: value of X2 for object i at time t

$\mu_{it} = v_i + \varepsilon_{it}$, the model error is split into two parts: v_i represents unobservable factors that differ between subjects but do not change over time, ε_{it} represents those unobserved factors vary between subjects and change over time.

- Hypothesize the expected effects of factors on capital capacity:

No.	Variable names and symbols	Calculation formula	Expected impact
The dependent variable is ROA/ROE			
The independent variable includes			
1	Size of securities company (LnTTS)	Logarithm of total assets	+
2	Growth in cash flow (T _{LCF})	(Ending cash flow – Beginning cash flow)/Starting cash flow	+
3	Sustainable growth rate (Tbv)	Reinvested retained earnings/Earlier's equity	+
4	Cost of goods sold(HSGVHB)	Cost of Goods Sold/Net Revenue	+
5	Asset efficiency (HSSDTS)	Net Revenue/Total Assets	+
6	Securities company has IPO (DummyI)	Dummy variable takes the value 1 if IPO, 0 if not IPO	+

7	Foreign ownership ratio (Dummy2)	The dummy variable takes on a value of 1 if the foreign ownership rate is 51% or more, and 0 if the foreign ownership rate is less than 51%.	+
8	Growth (GDP)	Actual GPD Annual Growth Rate	+
9	Inflation (Inf)	Annual inflation rate	-

3.3. Results.

To perform panel data regression, regression of least squares (Pool-OLS), fixed effects regression method (FEM) and random effects regression method (REM) can be used. . The author uses Hausman test to choose between regression model (FEM) and (REM) for panel data of the research sample.

The Hausman test has the following hypotheses:

H₀: There is no correlation between the explanatory variables and the random component (i.e. the REM model is suitable)

H₁: There is a correlation between the explanatory variables and the random component (i.e. the FEM model is suitable)

Using SPSS 20 software to statistics the variables in the model ⁽ⁱⁱⁱ⁾, (Table 1) there are 416 observations of 48 research samples in 8 years, the profitability capacity (ROE/ROA) has an average value of 3,890%/1,715% where minimum value is -129,50%/-126,1%, maximum value up to 462,78%/51,3% standard deviation is 26,88312%/11,5054%.

Table 1. Statistical results of profitability through variables ROA/ROE

Descriptive Statistics					
Valid N (listwise)	N	Minimum	Maximum	Mean	Std. Deviation
ROA	240	-126,1%	51,3%	1,715%	11,5054%
ROE	240	-129,50%	462,78%	3,8930%	26,88312%

(Source: statistics research on SPSS 20 software)

It is easy to see that the STD Deviation/Mean has a value greater than 1, the standard deviation is larger than average, and the data fluctuates sharply on average

Check for multicollinearity. Researcher (NCS) is using the coefficient of variance VIF (variance inflation factor). If the VIF coefficient exceeds 10, there is a sign of multicollinearity in the research model.

Table 2. Results of multicollinearity test in the model⁽ⁱⁱⁱ⁾

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. vif
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Variable	VIF	1/VIF
HSGVHB	5.20	0.192244
TLCT	4.82	0.207627
TBV	1.73	0.578862
LnTTS	1.51	0.661730
DUMMY1	1.48	0.675993
DUMMY2	1.27	0.789857
HSSDTS	1.19	0.843412
GDP	1.12	0.892024
Inf	1.11	0.896894
Mean VIF	2.16	

(Source: statistics research on STATA 14 software)

The variables included in the model are related to rotation which have related characteristics, so when running the regression researcher conducted a separate regression to avoid multicollinearity. However, to see if the remaining independent variables have multicollinearity with each other, researcher conducts a multicollinearity test with the independent variables when included in the model at the same time. The data table (Table 3.4) shows that the VIF coefficients of the variables in the model are all less than 10. This shows that the research regression model does not have multicollinearity, independent variables does not affect the explanatory results of the model.

Choose an estimation model. To perform panel data regression, the least squares regression method (Pool-OLS), the fixed effects regression method (FEM) and the random effects regression method (FEM) can be used.

Researcher uses Hausman test to choose between regression model (FEM) and (REM) for panel data of the study sample.

The Hausman test has the following hypotheses:

H_0 :There is no correlation between the explanatory variables and the random component (i.e. the REM model is suitable)

H_1 : There is a correlation between the explanatory variables and the random component (i.e. the FEM model is suitable).

Hausman test results (Table 3), the author received p-value results of 0.0000 less than 0.05 (5%). Thus, at the 5% significance level, there is no basis to reject the hypothesis H_0 , the appropriate method chosen is fixed effect (FEM). Therefore, the study will use the model (FEM) to regress to find out the factors affecting the profitability of securities companies in the period 2012-2019.

Table 3. Results of Hausman Test for the model

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) FEM	(B) REM		
LnTTS	-.0417025	.0294839	-.0711863	.0192883
TBV	.0945518	.033244	.0613077	.0187255
TLCT	-.0006047	-.0005735	-.0000312	.
HSGVHB	-.0827625	-.0792686	-.0034939	.0004966
HSSDTS	.1985413	.353175	-.1546337	.0255336
GDP	3.072555	1.310505	1.762051	.4717561
Inf	-3.332663	-2.513606	-.8190573	.

b = consistent under H_0 and H_a ; obtained from xtreg
 B = inconsistent under H_a , efficient under H_0 ; obtained from xtreg

Test: H_0 : difference in coefficients not systematic

chi2(6) = (b-B)'[(V_b-V_B)^(-1)](b-B)
 = 32.98
 Prob>chi2 = 0.0000
 (V_b-V_B is not positive definite)

(Source:statistics research on STATA 14 software)

Check the fit of the model and remove redundant variables. To check whether the new model has the phenomenon of self-variance, use the LM test (Breusch and pagan Lagrangian Multiplier), if p-value < 0.05, reject H_0 Variance of variance, p- value>0.05, reject H_1 The variance of the error does not change, use the command xttest3.

Table 4. Result of variance test of variation error in FEM⁽ⁱⁱⁱ⁾

. xttest3

Modified Wald test for groupwise heteroskedasticity
 in fixed effect regression model

H_0 : $\sigma(i)^2 = \sigma^2$ for all i

chi2 (49) = 6.8e+05
 Prob>chi2 = 0.0000

(Source:statistics research on STATA 14 software)

Autocorrelation test, xtserial command

Table 5. Autocorrelation test results in FEM

. xtserial ROE LnTTS TBV TLCT HSGVHB HSSDTS GDP Inf

Wooldridge test for autocorrelation in panel data

H_0 : no first-order autocorrelation

F(1, 47) = 20.112
 Prob > F = 0.0000

(Source:statistics research on STATA 14 software)

Multicollinearity test, collin command

Table 6. Results of multicollinearity test in FEM model

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. collin ROE LnTTS TBV TLCT HSGVHB HSSDTS GDP Inf
(obs=240)

Collinearity Diagnostics

Variable      VIF      SQRT      Tolerance      R-
              VIF      VIF              Squared
-----
      ROE      2.69      1.64      0.3716      0.6284
     LnTTS      1.33      1.15      0.7531      0.2469
      TBV      1.72      1.31      0.5812      0.4188
      TLCT      6.32      2.51      0.1581      0.8419
     HSGVHB      7.71      2.78      0.1296      0.8704
     HSSDTS      1.53      1.24      0.6520      0.3480
      GDP      1.12      1.06      0.8964      0.1036
      Inf      1.12      1.06      0.8941      0.1059
-----
Mean VIF      2.94
    
```

(Source: statistics research on STATA 14 software)

VIF coefficient < 10, so the new model does not have multicollinearity (Table 3.8).

To overcome the variable variance defect, Researcher uses Feasible Generalized Least Squares (FGLS) model to obtain a robust and efficient estimate. xtgls command.

The results of the regression analysis

The new model after removing the variable has a p-value greater than 0.05, and corrects the autocorrelation defects and variable variance. Removing the non-significant variable from the model due to P-value>0.05, The final model overcomes the defects and is selected as GLS, and at the same time to compare the models OLS, GLS, FEM, REM, then researcher executes the esttab command, the results are as follows:

Table 7. Results of regression model of factors affecting profitability of securities companies

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. esttab OLS GLS FEM REM, r2 star(* 0.1 ** 0.05 *** 0.01) brackets nogap compress
    
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	(1) ROE	(2) ROE	(3) ROE	(4) ROE
LnTTS	0.0295*** [2.84]	0.0400*** [8.82]	-0.0417* [-1.90]	0.0295*** [2.84]
TBV	0.0332** [2.49]	0.0236* [1.92]	0.0946*** [4.11]	0.0332** [2.49]
TLCT	-0.000574*** [-9.59]	-0.000512*** [-7.50]	-0.000605*** [-10.31]	-0.000574*** [-9.59]
HSGVHB	-0.0793*** [-11.97]	-0.0742*** [-12.34]	-0.0828*** [-12.46]	-0.0793*** [-11.97]
HSSDTS	0.353*** [7.59]	0.364*** [16.16]	0.199*** [3.74]	0.353*** [7.59]
GDP	1.311 [1.00]	1.032** [2.45]	3.073** [2.20]	1.311 [1.00]
Inf	-2.514* [-1.66]	-1.437*** [-3.05]	-3.333** [-2.31]	-2.514* [-1.66]
_cons	-0.357** [-2.48]	-0.484*** [-8.39]	0.417* [1.75]	-0.357** [-2.48]
N	240	240	240	240
R-sq			0.643	

t statistics in brackets

* p<0.1, ** p<0.05, *** p<0.01

(Source: statistics research on STATA 14 software)

Based on the regression results in (Table 7), the independent variables explained 64.3% of the variation of the dependent variable, of which 2 factors did not affect the dependent variable ROA/ROE of securities companies, including: Foreign ownership (DUMMY1) and IPO activities (DUMMY2) of securities companies. At the same time, respectively, 7 variables (significant level P<0.01) are 7 factors affecting profitability coefficient (variable ROE/ROA) of securities companies in the period 2012-2019, those variables include: Size of securities company (LnTTS); Income growth rate,

total net turnover (TCT); Efficiency of using assets of securities companies (HSSDTS); Sustainable growth rate (Tbv); Cost of Goods Sold (HSGVHB); The macroeconomic factor is inflation. As follows:

- **Size of securities company (LnTTS)**. There is a positive impact on the profitability of securities companies. The results of the regression are consistent with the research results of Healy et al (1990), Elyasiani et al (2007), Lee et al (2014), My et al (2020). When the size of securities companies increases, there will be many advantages in marketing, finance, human resources, technology and other factors that increase the profitability of securities companies.

- **Growth in cash flow (T_{LCT})**: Having a negative impact on the profitability of securities companies. The growth of cash flow of securities companies does not guarantee the profitability of securities companies. The reason is that enterprises grow uncontrollably, unbalance financial resources with financial needs, leading to dependence on external funding sources, the risk of financial imbalance, increasing costs. offset, i.e. rapid growth causes a debt burden that cannot be repaid.

- **Sustainable growth rate (Tbv)**. There is a positive impact on the profitability of securities companies. The estimated results are consistent with the study of Cindy Yoshiko Shirata (1998) When the accumulated profit of a company (Retained earnings over total assets) affects the financial capacity of the business and is an important indicator assess financial hardship.

That's right, when securities companies increase the value of retained earnings, operating efficiency will increase profitability. Therefore, securities companies need to carefully review to find inactive assets, ie assets that do not directly or indirectly contribute to sales, sell them, businesses will increase profits. Especially assets that are not formed from debt or have little debt, when liquidating, securities companies will receive more cash, then working capital, leading to increased profitability. In the case of assets formed from debt, when liquidating working capital may not increase immediately but costs will decrease. Obviously, selling non-performing assets will have a very good effect on profitability. However, it is necessary to classify assets, so as not to affect sales.

- **Cost of goods sold (HSGVHB)**. There is a negative impact on the profitability of securities companies. The smaller the COGS, the better the company's management of COGS, and vice versa, is not good, affecting ROE/ROA

- **Asset utilization efficiency (HSSDTS)**. There is a positive impact on the profitability of securities companies.

- **Growth rate (GDP)**: Although the statistical significance is low, GDP has a positive impact on the profitability of securities companies with the significance level of 5%. With high economic growth, the subjects participating in the stock market have large capital sources (due to savings) for investment due to good production and business activities, which is the basis for increasing income for securities companies.

- **Inflation (Inf)**. Similarly, Inf has a low level of statistical significance (5%), but the results show that Inf has a negative impact on the profitability coefficient of securities companies. High inflation is often accompanied by high nominal interest rates and can lead to the allocation of resources of securities companies, leading to a negative impact on ROE/ROA of securities companies.

4. Implications of solution management to improve profitability of Vietnamese securities companies

The first is to increase retained earnings (increasing the size of equity).

Securities companies can raise new shareholder's capital by issuing more common shares, when shareholders' capital increases, it will strengthen the capacity of securities companies to improve profitability, or in case the securities companies cannot or do not want to. increase equity by raising capital and issuing shares, and want to maintain the policy with the optimal financial structure achieved. Then the policy of retaining profits is the only option, which is sustainable growth.

Sustainable growth is the expectation that any manager with interests associated with a securities company wishes to achieve, sustainable growth is the maximum growth in assets in accordance with the growth rate of total net turnover. and net cash flows from operating activities without depleting the financial resources of the business.

It is clear that the growth rate of equity from retained earnings is always equal to the growth rate of debt, the financial structure does not change, so the growth rate of equity and debt capital determines the increase in assets. asset growth rate is the limit to the growth rate of total net turnover.

In general, shareholders' concern about dividend payout ratio is negatively related to their perception of the investment opportunities of the firm, if retained earnings can be effectively used to generate income. more attractive offers they are willing to put aside future profits and vice versa they will not be satisfied. When the dividend yield does not meet the investor's expectations they may sell the stock, thereby reducing the share price in the market. This is a difficulty for the management of securities companies, it is necessary to make reasonable decisions in the income distribution structure.

Second, good management of cost of goods sold. Cost price is a measure of the cost of providing services, a basis for determining the efficiency of production and business activities, as well as controlling the business situation. Therefore, securities companies need to review technical organizational measures, plan and implement pricing policies for each type of service to balance revenue and costs.

Third, increase the efficiency of using assets. Securities companies need to scrutinize carefully to find inactive assets, that is, assets that do not directly or indirectly generate sales should sell them. For assets that are not formed from debt or have little debt, when selling securities, the securities company will receive cash, then working capital will increase ROE/ROA. In the case of assets formed from debt, when selling them working capital may not increase immediately, but total debt will decrease, costs will also decrease, the rate of return will therefore increase. up. If managed well, working capital will increase accordingly. Of course, not all assets are sold, but securities companies need to classify assets, and effectively re-evaluate each type of asset.

Fourth, maintain a reasonable growth rate. Securities companies re-evaluate the situation of growth in relation to profitability, the issues of note are that growth is two-sided, growth is too high (hot growth) associated with risks and financial risks, but also for businesses to have a great leap forward; Slow growth, no growth or recession may cause enterprises to lag far behind enterprises in the same industry, some options that the PhD student proposes are as follows:

For securities companies with charter capital of less than VND 1,000 billion (small and medium-sized securities companies): Growth creates opportunities to increase accumulation and increase competitiveness, but to ensure stability, attention must be paid to limiting excessive growth. fast. Because, growth of small and medium-sized securities companies cannot completely rely on internal resources but must come from external funding sources to maintain growth, if uncontrolled growth leads to short-term insolvency. maturity, other consequences will reduce the profitability of securities companies and loss of safety.

For securities companies with sufficient charter capital of VND 1,000 billion or more (large securities companies), they can rely on both external and internal funding sources to ensure growth. These securities companies need to ensure stability and balance between equity and short-term debt to reduce financial risks. Growth only creates long-term advantages when the enterprise has high profitability and net cash flow to meet short-term debt spending needs combined with the positive impact of financial leverage.

In the context of limited financial capacity, as well as the unusual fluctuations of the business environment, a temporary solution to preserve the force is necessary but should not take risks to receive unexpected results.

In case the actual growth is greater than the sustainable growth rate. Let's first consider how long this situation lasts. If this rate slows down in the near future because the business has reached saturation, it means that the rapid growth rate is only temporary, so it can be solved by mobilizing more debt, when the growth rate is low. Real growth falls to less than or equal to sustainable growth, at which point the business moves from making money and being able to repay debt. Securities companies have long-term rapid growth, need to mobilize new shareholders and reduce the dividend rate.

In case the actual growth is lower than the sustainable growth rate. In this case, a securities company that needs to restructure its management organization, restructure its finances and implement a stimulus policy will have to consider implementing it when the risk of recession is obvious. Some options are to return capital to the owners through an increase in the dividend payout ratio and the purchase of the company's own stock. Accelerate growth by researching other investment opportunities.

Fifth, adjust business strategy, form investment banks and specialized securities companies.

The investment banking model is a model to upgrade the competitiveness and increase the profitability of securities companies. In countries with developed stock markets such as the US and Europe, investment banks have appeared and formed along with the growth of the market. capital market development. The first investment banking was born in the US, when American commercial banks were not allowed to participate in the underwriting of securities. Investment banks play an important role in the financial market, by bringing together capital investors and people with capital needs, which can be businesses, governments and households. Providing corporate capital is the core activity of investment banking, helping clients raise capital in capital markets and providing important advice for mergers and acquisitions.

According to Iannotta (2010), investment banking encompasses a rather complex and heterogeneous set of activities, including advisory and underwriting services, trading and brokerage, and asset management. However, advisory and underwriting activities are still considered as core functions of investment banking [11]. In the same vein, Goodhart et al. (2016) investment banks play an important role in the capital market by bringing together capital providers (i.e. investors) and those with capital needs (i.e. investors). are businesses, government) [7]. Researcher Gemici et al (2019) conclude that investment banks provide advisory and management services for complex financial transactions and capital generation to corporations, institutions and governments. The two main activities are underwriting (borrowing and issuing equity securities) and mergers and acquisitions (M&A) [6].

Thus, it can be seen that the activities of Investment Bank are more diverse and potential than that of securities companies, specifically some activities such as:

Firstly, the underwriting service of the Investment Bank (Underwriting).

Underwriting is the process by which banks act on behalf of companies and institutions in raising capital through the sale of shares or bonds to investors (initial public offering). Thus, through IPO activities, banks will help companies and organizations get capital by marketing to investors.

Once the bank begins marketing the offering, the following bookkeeping steps are taken to value and complete the transaction.

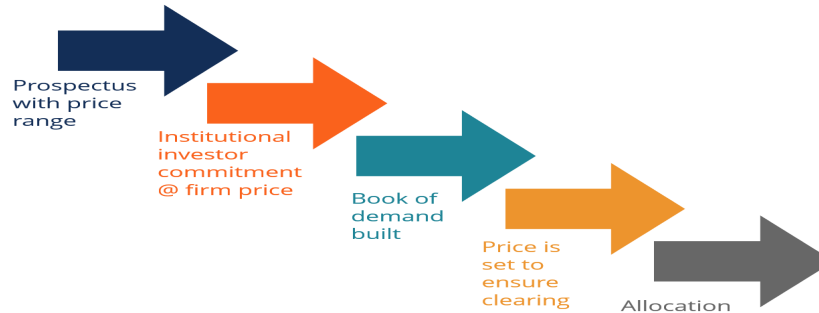


Figure 3. Bookkeeping process
(Source: <https://corporatefinanceinstitute.com>)

Second, M&A consulting services (Mergers and acquisitions).

It is a process that helps companies and organizations find, evaluate and complete mergers and acquisitions with other businesses to increase the scale and efficiency of production and business activities, as well as other goals of the parties. Banks through the extensive network and relationships of banks, the banks on behalf of their customers quickly find and help the deal take place, the bank will advise both parties for the M&A transaction.

A merger and acquisition transaction usually occurs in 10 steps, as shown in the figure below.



Figure 3. M&A process
(Source: <https://corporatefinanceinstitute.com>)

Third, brokerage and investment (Sales & Trading).

Investment banks connect buyers and sellers of securities on the secondary market, investment banks act as agents for clients and can also trade the company's own capital.

Fourth, research profession (Equity Research).

Research on securities listed on the market in order to determine the rising and falling trend of securities, help investors make investment decisions and support stock trading.

Research products are relatively diverse, including general research reports such as industry research, investment strategy research and product research. Research reports are the basis for investors to make timely trading decisions.

Fifth, Asset management (Asset management).

Asset management – managing investments, managing portfolios for institutional and individual investors in many different ways, this is a business that is low in risk and nature stable source of income for investment banks, and at the same time this income does not depend on market fluctuations.

Today, investment funds have diversified to form different types of investment funds with different investment objectives and levels of risk to meet the diverse needs of customers. Common types of investment funds include mutual funds, pension funds, hedge funds, private equity funds, venture funds, and several others.

Sixth, wholesale banking (Merchant Banking).

This is a business whose products are not securities but substitutes such as real estate, leveraged loans, large credit agreements, etc., in order to diversify investment portfolios and reduce risk and promote the main activities of the bank.

An investment bank engaged in an unlisted (or listed but divested) enterprise that has the potential to grow and add value through financial and operational restructuring. Two common forms of capital investment are venture capital or

leveraged buy-out (LBO). The investment transaction ends with divestment through listing the invested business on the market or selling to a third party.

Seventh, Main Broker Operation (Prime Brokerage).

Investment banking provides support services, catering to hedge funds. This business has been around since the 1980s and has flourished since the 1990s and has now evolved into a separate business due to the growth of hedge funds and institutional investors.

An Investment Bank Global Market Report 2021: Covid-19 Impact and Recovery to 2030 shows that the global investment banking market is expected to grow from \$102.84 billion in 2020 to \$111.45 billion in 2021 at a compound annual rate (CAGR) of 8.4%. The growth is mainly due to companies restructuring their operations and recovering from the impact of Covid-19, the market is expected to reach \$137.97 billion by 2025 at a CAGR is 5% [10,1]

In Vietnam at present, commercial banks are not allowed to directly participate in the securities sector but are allowed to establish independent securities companies, however, it is time to encourage commercial banks to participate in the securities industry. this sector as an investment bank to improve financial capacity.

Securities company specializing in small and medium enterprises (SME); Online securities company.

In recent years, Vietnam's business environment has changed positively, creating favorable conditions for small and medium enterprises to develop, the number of enterprises is increasing continuously, accounting for 96.7 % of total enterprises nationwide. In the field of capital markets, the Government should create conditions for specialized securities companies for this group of businesses. At the same time, the government needs to have incentives to create conditions for specialized SME securities companies to actively support customers, the Government can appoint securities companies to participate and strengthen their role in supporting listing on VNX.

5. Discussion

Securities companies are an important intermediary financial institution in the modern economy, closely associated with services related to stock market operations and capital markets. However, the operating results in the period 2012-2019 are not really high, the results of return on equity (ROE) and return on assets (ROA) are relatively low. Securities companies need to have timely solutions to improve economic and financial profitability, some solutions such as: Increasing retained earnings (increasing the size of equity); Good management of cost of goods sold; Increase the efficiency of using assets; Adjust business strategies, form specialized investment banks and securities companies and maintain reasonable growth, thereby helping securities companies develop sustainably and satisfy investors as well as improve quality and efficiency, effective, safe for the stock market.

6. References

Pham Thi Van Anh (2012), *Solutions to improve the financial capacity of SMEs in Vietnam today*, Academy of Finance.

Nguyen Trong Co, Nghiem Thi Tha (2010), *Corporate Financial Analysis*, Financial Publishing House

Nguyen Nhu Y (1998), *Vietnamese Great Dictionary*, Culture and Information Publishing House

Elyasiani, E. and Mansuar, I. and Pagano, M.S. (2007), *Convergence and risk-return linkages across financial service firms*, Journal of banking & Finance 31(2007) 1167-1190, <https://doi.org/10.1016/j.jbankfin.2006.10.006>

Fang, C. Y, and Hu, J.L (2009), *A metafrontier study of securities broker and dealer efficiency under zero-sum gains*, Investment Management and Financial Innovations, Volum 6, Issue 3,2009.

Hua, J.L. and Honmab, S. and Leea, Y.H. (2020), *A Context-dependent Efficiency Evaluation of Japanese Securities Firms*, Journal of Economics and Management 16 (2020) 101-123.

Healy, P. M. and Palepu, K. G and Rubak, R.S (1990), *Does corporate performance improve after mergers*, National bureau of economic research, 1050 massachusetts avenue Cambridge, MA 02138, May 1990

Lee, D. G and Kim, J. and Kang, H. (2014), *Do larger brokerage firms enjoy larger economies of scale and scope?*, Seoul Journal of Economics 2014, Vol.27, No.4

My, Tran. and Abbott, M. (2020), *The productivity and efficiency of Vietnamese securities firms, 2009 to 2017*, Applied Economics and Finance Vol.7, no.4; July 2020, <http://doi.org/10.11114/aef.v.7i4.4910>

Shirata, C.Y. (1998), *Financial Ratios as Predictors of Bankruptcy in Japan: An Empirical Research*, Associate Professor of Accounting, Tsukuba College of Technology Japan

Wang, P. (2020), *Research on the impact of Margin Financing and Margin Trading on the stock price fluctuation of listed companies*, Social Medicine and Health Management (2020) Vol. 1: 1-3, DOI: 10.23977/socmhm.2020.020103 Clausius Scientific Press, Canada ISSN 2616-2210.

Jian, C. and Yanzhen, X. and Siru, W. and Yiheng, Y. (2021), *How does Fin-Tech affect the profitability growth of Securities Firms? Take brokerage investment consulting business as Example*, Canadian Social Science, Vol.17, No.2,2021, pp. 47-51 DOI: 10.3968/12064

Investments global market report 2021: *Covid-19 impact and Recovery to 2030*

Iannotta, G.(2010), *Investment Banking A guide to underwriting and Advisory services*, ISBN: 978-3-540-93764-7, Doi 10.1007/978-3-540-93765-4.

Gemici, K., Lai, K.P.Y.(2019), *How global are investment banks? An analysis of investment banking networks in Asian equity capital market's*, Durham University, <https://doi.org/10.1080/00343404.2019.1584393>.

Goodhart, C., Schoenmaker, D. (2016), *The global investment banks anre now all becoming American: does that matter for Europeans?* Journal of Financial Regulation, ISSN 2053-4833 Doi: 10.1093/jfr/fjw012.