
Enhancing financial risk management in corporation – a case of some vietnam listed banks

TRAN DUC THANG^{1*}, DINH TRAN NGOC HUY², NGUYEN THI THU HA³, DUONG THI TINH⁴, NGUYEN THI TUYEN NGON⁵

¹National Economics University (NEU), Vietnam

²PhD candidate, Banking University HCMC, Ho Chi Minh city Vietnam – International University of Japan, Japan

³Thai Nguyen University of Economics and Business Administration (TUEBA), Vietnam

⁴Thai Nguyen University of Economics and Business Administration (TUEBA), Vietnam

⁵Duy Tan University, Vietnam

Email ID: tranducthang@neu.edu.vn, dtnhuy2010@gmail.com, ntthuha@tueba.edu.vn, duongthitinh@tueba.edu.vn, nngon@yahoo.com

Abstract: Saigon Hanoi bank (SHB) and Sacombank (STB) are two big listed banks who opened lots of branches and hold big market shares in Vietnam. This paper use quantitative and quantitative methods in order to estimate risks of these two banks and make comparison. Study findings show that market risk, beta CAPM of SHB bank higher than those of STB bank during pre-low (L) inflation stage, but lower during post low inflation time. Based on above results we can propose risk policies for banks, bank system, State bank and relevant agencies.

Keywords: risk management, risk measurement, Vietnam, listed banks
JEL: M21, G30

INTRODUCTION

Our paper organized with introduction, literature review, method and data, main results, discussion and conclusion.

LITERATURE REVIEW

There many researches done to explore macro effects on risks, however there are 2 new perspectives of our study including:

- first, we measure macro effects on beta CAPM, a traditional model, both internal and external impacts
- second, we estimate in special period post-low inflation (L) time until China-US commerce war 2015-2020

Wang et al (2014) presented results showing that firms with long-term institutional investors receive significantly positive abnormal returns around the offering announcement.

Then, Gunarathna (2016) revealed that whereas firm size negatively impacts on the financial risk, financial leverage and financial risk has positive relationship.

Hami (2017) showed that financial depth has been affected negatively by inflation in Iran during the observation period.

And Kumaresan (2019) Indicates that compared to internal corporate factors, macroeconomic factors (exchange rate) have a greater effect on firm performance.

MAIN RESULTS

Overall results

We can see from below charts that beta CAPM of SHB bank higher than those of STB bank during pre-low (L) inflation stage, but lower during post low inflation time.

Main findings

We can see: below table 1 tells us that mean of beta of SHB bank is lower than 1 during 2011-2015 period.

Then below table 2 and 3 tell us that mean of beta of SHB bank during 2015-2020 period even much lower than that in 2011-2015.

Table 1: Market risk of SHB bank during pre -L inflation stage

| | Variable | Variable | Beta SHB |
|----------|----------|----------|----------|
| Thg6-11 | 0.0017 | 0.0019 | 0.9035 |
| Thg12-11 | 0.0011 | 0.0009 | 1.2547 |
| Thg6-12 | 0.0016 | 0.0011 | 1.4567 |
| Thg12-12 | 0.0010 | 0.0006 | 1.6489 |
| Thg6-13 | 0.0007 | 0.0008 | 0.8252 |
| Thg12-13 | 0.0001 | 0.0002 | 0.3051 |
| Thg6-14 | 0.0007 | 0.0007 | 0.9483 |
| Thg12-14 | 0.0000 | 0.0005 | -0.0673 |
| Thg6-15 | 0.0004 | 0.0005 | 0.9652 |
| Thg12-15 | 0.0004 | 0.0006 | 0.6915 |
| | | Mean | 0.893 |
| | | Median | 0.926 |
| | | Max | 1.649 |
| | | Min | -0.067 |

Table 2: Market risk of SHB bank during post -L inflation stage

| | Variable | Variable | Beta SHB |
|----------|----------|----------|----------|
| Thg6-15 | 0.00044 | 0.00046 | 0.96520 |
| Thg12-15 | 0.00042 | 0.00061 | 0.69153 |
| Thg6-16 | 0.00030 | 0.00036 | 0.83755 |
| Thg12-16 | 0.00040 | 0.00035 | 1.12624 |
| Thg6-17 | -0.00009 | 0.00006 | -1.45896 |
| Thg12-17 | 0.00024 | 0.00036 | 0.66306 |
| Thg6-18 | 0.00161 | 0.00150 | 1.07258 |
| Thg12-18 | 0.00054 | 0.00053 | 1.01044 |
| Thg6-19 | 0.00014 | 0.00021 | 0.68703 |
| Thg12-19 | 0.00014 | 0.00015 | 0.95598 |
| Thg6-20 | 0.00056 | 0.00308 | 0.18174 |
| Thg12-20 | 0.00049 | 0.00056 | 0.88630 |
| | | Mean | 0.6349 |
| | | Median | 0.8619 |
| | | Max | 1.1262 |
| | | Min | -1.4590 |

Table 3: Comparison of Market risk of SHB and STB banks during post and pre -L inflation stage

| Post – L inflation | Beta SHB | Beta STB | Pre-L inflation | Beta SHB | Beta STB |
|--------------------|----------|----------|-----------------|----------|----------|
| Thg6-15 | 0.965 | 0.936 | Thg6-11 | 0.903 | 0.170 |
| Thg12-15 | 0.692 | 0.835 | Thg12-11 | 1.255 | 0.156 |
| Thg6-16 | 0.838 | 0.850 | Thg6-12 | 1.457 | 0.686 |
| Thg12-16 | 1.126 | 0.560 | Thg12-12 | 1.649 | 0.730 |
| Thg6-17 | -1.459 | 2.654 | Thg6-13 | 0.825 | 0.516 |
| Thg12-17 | 0.663 | 1.108 | Thg12-13 | 0.305 | -0.180 |
| Thg6-18 | 1.073 | 1.115 | Thg6-14 | 0.948 | 0.621 |
| Thg12-18 | 1.010 | 1.434 | Thg12-14 | -0.067 | 0.008 |
| Thg6-19 | 0.687 | 1.050 | Thg6-15 | 0.965 | 0.170 |
| Thg12-19 | 0.956 | 0.894 | Thg12-15 | 0.692 | 0.156 |
| Thg6-20 | 0.182 | 0.855 | | | |
| Thg12-20 | 0.886 | 1.209 | | | |

Statistical chart results

We can infer from the below figure that: in Dec 2014 and June 2017 beta SHB goes down at lowest level while beta of STB goes up at highest number in June 2017.

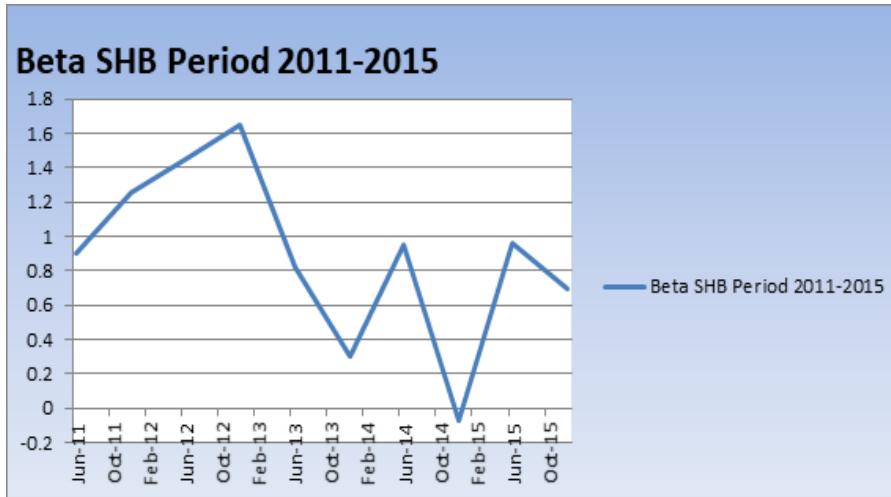


Chart 1: Volatility of beta of SHB during pre-L inflation period

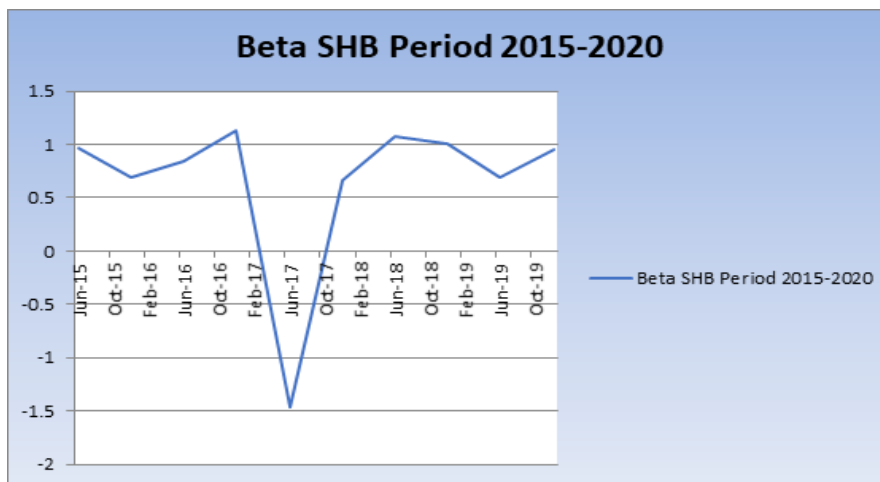


Chart 2: Volatility of beta of SHB during post-L inflation period

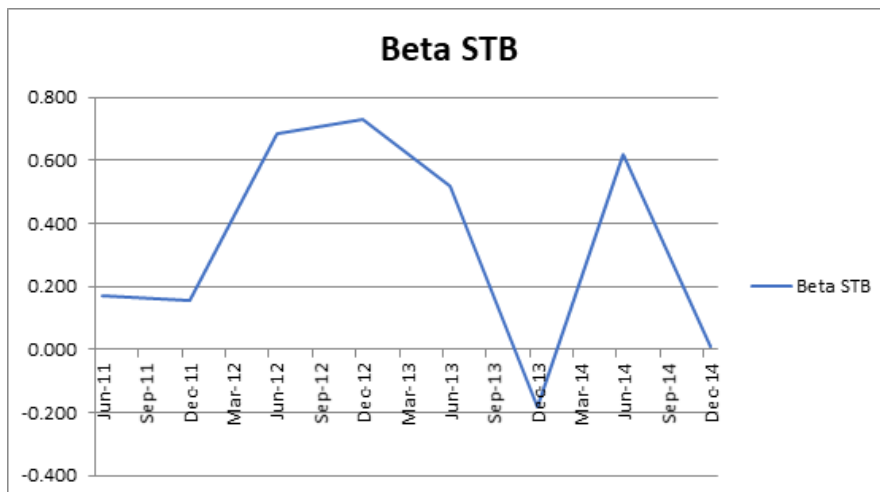
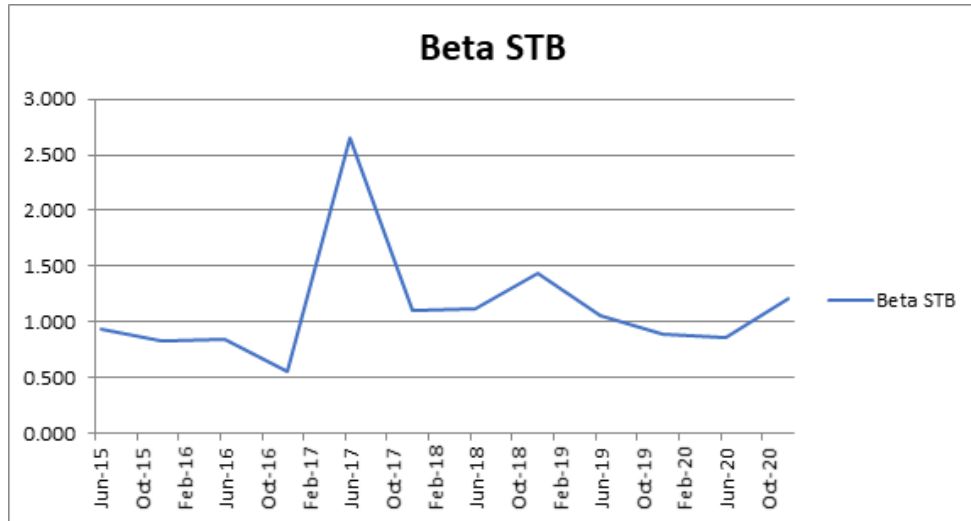


Chart 3: Volatility of beta of STB during pre-L inflation period



Chat 4: Volatility of beta of STB during post-L inflation period

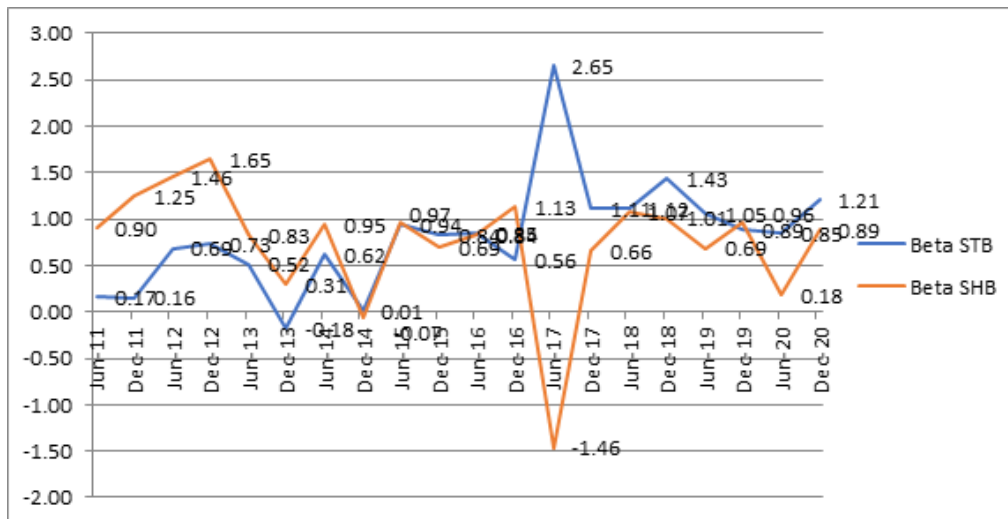


Chart 5: Comparing Volatility of beta of SHB and STB during 2 special stages

DISCUSSION

During pre-L inflation stage, market risk of 2 banks SHB and STB move in the same trend, and beta of SHB higher than those of STB.

However, during post-L inflation time from 2016, beta of SHB lower than beta of STB (see above chart 5).

CONCLUSION

For specific banks, we need to make comparative analysis of bank competitors and draw conclusions. For instance, STB need to identify reasons make beta CAPM higher than beta of SHB during post-L inflation stage and vice versa.

MANAGEMENT IMPLICATIONS

For bank system:

- Building a model to analyze the impact of macro variables on Beta CAPM for the financial services sector as described above.

Moreover, the government and relevant bodies such as Ministry of Finance and State Bank of Vietnam need to consider proper policies (including a combination of fiscal, monetary, exchange rate and price control policies) aiming to reduce the risk volatility and hence, help the bank system as well as the whole economy become more stable in next development stage.

ACKNOWLEDGEMENTS

I would like to take this opportunity to express my warm thanks to Board of Editors, my family, colleagues, and brother in assisting convenient conditions for my research paper.

REFERENCES

1. Eugene FF, French KR. (2004). The Capital Asset Pricing Model: Theory and Evidence, *Journal of Economic Perspectives*.
2. Gunarathna, V. (2016). How does Financial Leverage Affect Financial Risk? An Empirical Study in Sri Lanka, *Amity Journal of Finance*, 1(1), 57-66.
3. Gunarathna V. (2013). The Degree of Financial Leverage as a Determinant of Financial Risk: An Empirical Study of Colombo Stock Exchange in Sri Lanka, 2nd International Conference on Management and Economics Paper.
4. Huy, D.T.N. (2012). Estimating Beta of Viet Nam listed construction companies groups during the crisis, *Journal of Integration and Development*, 15 (1), 57-71
5. Huy, D. T.N., Loan, B. T., and Anh, P. T. (2020). 'Impact of selected factors on stock price: a case study of Vietcombank in Vietnam', *Entrepreneurship and Sustainability Issues*, vol.7, no.4, pp. 2715-2730. [https://doi.org/10.9770/jesi.2020.7.4\(10\)](https://doi.org/10.9770/jesi.2020.7.4(10))
6. Huy, D. T.N., Dat, P. M., và Anh, P. T. (2020). 'Building and econometric model of selected factors' impact on stock price: a case study', *Journal of Security and Sustainability Issues*, vol.9(M), pp. 77-93. [https://doi.org/10.9770/jssi.2020.9.M\(7\)](https://doi.org/10.9770/jssi.2020.9.M(7))
7. Huy D.T.N., Nhan V.K., Bich N.T.N., Hong N.T.P., Chung N.T., Huy P.Q. (2021). 'Impacts of Internal and External Macroeconomic Factors on Firm Stock Price in an Expansion Econometric model—A Case in Vietnam Real Estate Industry', *Data Science for Financial Econometrics-Studies in Computational Intelligence*, vol.898, Springer. http://doi-org-443.webvpn.fjmu.edu.cn/10.1007/978-3-030-48853-6_14
8. Kantos, C., & Bartolomeo, D.D. (2020). How the pandemic taught us to turn smart beta into real alpha, *Journal of Asset Management*, **21**: 581–590
9. Kayo, E.R., Martelanc, R., Brunaldi, E.O., & Silva, W.E. (2020). Capital asset pricing model, beta stability, and the pricing puzzle of electricity transmission in Brazil, *Energy Policy*, 142.
10. Khan, A.A., Faisal, S.M., & Aboud, O.A.A. (2018). Estimating Beta (β) Values of Stocks in the Creation of Diversified Portfolio - A Detailed Study, *Applied Economics and Finance*, 5(3). DOI: 10.11114/aef.v5i3.3243
11. Kumaresan, R. (2019). The Effects of Macroeconomics Factors towards the Starbucks Corporation;, MPRA Paper No. 97243. Retrieved from:https://mpra.ub.uni-muenchen.de/97243/1/MPRA_paper_97243.pdf
12. Masood, O., Javaria, K., Petrenko, Y. 2020. Terrorism activities influence on financial stock markets: an empirical evidence from United Kingdom, India, France, Pakistan, Spain and America. *Insights into Regional Development*, 2(1), 443-455. [https://doi.org/10.9770/IRD.2020.2.1\(4\)](https://doi.org/10.9770/IRD.2020.2.1(4))
13. Milewicz, W. 2020. The influence of foreign investors on the development of Polish enterprises – a case study of the BPH bank. *Entrepreneurship and Sustainability Issues* 8(2), 829-839. [http://doi.org/10.9770/jesi.2020.8.2\(50\)](http://doi.org/10.9770/jesi.2020.8.2(50))
14. Nasr, A.K., Alaei, S., Bakhshi, F., Rasoulyan, F., Tayaran, H., Farahi, M. 2019. How enterprise risk management (erm) can affect on short-term and long-term firm performance: evidence from the Iranian banking system. *Entrepreneurship and Sustainability Issues*, 7(2), 1387-1403. [http://doi.org/10.9770/jesi.2019.7.2\(41\)](http://doi.org/10.9770/jesi.2019.7.2(41))
15. Nidar, S.R., Anwar, M., Komara, R., Layyinaturobanayah. 2020. Determinant of regional development bank efficiency for their sustainability issues. *Entrepreneurship and Sustainability Issues*, 8(1), 1133-1145. [http://doi.org/10.9770/jesi.2020.8.1\(76\)](http://doi.org/10.9770/jesi.2020.8.1(76))
16. Okpamen, H., & Ogbeide, S.O. (2020). Board director reputation capital and financial performance of listed firms in Nigeria. *Insights into Regional Development*. *Insights into Regional Development*, 2(4), 765-773. [http://doi.org/10.9770/IRD.2020.2.4\(3\)](http://doi.org/10.9770/IRD.2020.2.4(3))
17. Patro, D.K., Wald, J., & Wu, Y. (2002). 'The Impact of Macroeconomic and Financial Variables on Market Risk: Evidence from International Equity Returns', *European Financial Management*, 8(4):421 - 447. DOI: 10.1111/1468-036X.00198
18. Tahmidi, A. Westlund, S.A., & Sheludchenko, D. (2011). The Effect of Macroeconomic Variables on Market Risk Premium, Working paper, Mälardalen University. Retrieved from: <https://www.diva-portal.org/smash/get/diva2:429080/FULLTEXT01.pdf>