Strengthen roles of commercial banks in vietnam economy– a case of eximbank

NGUYEN THI TUYEN NGON[1], DINH TRAN NGOC HUY[2], TRAN DUC THANG[3]

[1]Duy Tan University, Vietnam
[2]PhD candidate, Banking University HCMC, Ho Chi Minh city Vietnam – International University of Japan, Japan
[3]National Economics University (NEU), Vietnam
Email ID: nngon@yahoo.com, dtnhuy2010@gmail.com, tranducthang@neu.edu.vn

Abstract: Is it the time for us to evaluate roles of Vietnam commercial banks and importance of risk management activities? This paper uses both quantitative analysis with statistical data and charts, combined with qualitative analysis including synthesis, inductive and explanatory methods in order to estimate and compare market risk via beta CAPM of Eximbank (EIB) and Asia Commercial Bank (ACB), 2 big listed joint stock banks in Vietnam. Research findings show us that market risk of Eximbank is higher and increase during post-low (L) inflation stage, compared to pre-L inflation time. Results may be used for policy implications and research models can be references for other countries including emerging markets.

Keywords: risk management, Vietnam, commercial bank, low inflation time
JEL: M21, G30, O11

INTRODUCTION

Eximbank (EIB) is one of good banks in Vietnam to support all kinds of businesses very well and ex-import companies. Eximbank has strengthened its capital positions. Top management team has taken a number of bold initiatives to help the bank overcome its current financial constraints and limit lending activities; The bank focuses on developing technology infrastructure, developing people and improving transaction systems; at the same time, to increase the bank's capital to enhance its competitiveness, expand the scope of operations, improve financial ratios, and meet the State Bank of Vietnam regulations.

Whereas Asia commercial bank (ACB) is the first commercial bank to modernize information technology, build a wide area network and operate this system since 2001. Customers are no longer bound to deposit and withdraw money at a place that already exists. can be deposited and withdrawn in many places. ACB approached modern banking very early through a comprehensive two-year training program that began in 1997, taught by foreign lecturers. The new and practical knowledge continues to be shared by ACB leaders with employees through intensive training, helping ACB to build up a high quality human resource.

Better risk management and control for enhancing roles of Vietnam banks need us to build models to measure and evaluate and compare market risks or Beta CAPM.

This paper organized with introduction, literature review, main results, discussion and conclusion.

LITERATURE REVIEW

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

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

In addition to, Khan et al (2018) investigated thorough analysis of stocks from different sectors in order to estimate beta values and thus creating optimum portfolio of estimated low β values. There are many traditional as well modern stock market theories prevalent in the system to facilitate common investors to enhance their returns from the stock market. Investors usually only focus on expected returns from their investments in the stock market and the forego various types of systematic and unsystematic risks involved in their investments in stock market that is basically risky way for investment. Therefore this study is an attempt to inculcate some basic as well as advance knowledge to create awareness about various types of risks involved in their investments. The researchers have considered beta to be measured of different stocks taken from various sectors in the stock market

Next, Kayo et al (2020) seeks to analyse and propose alternative procedures to estimate the cost of equity through the capital asset pricing model (CAPM) in the context of electricity transmission in Brazil. Under the

assumption that a stable beta is important for regulatory purposes since it provides institutional security for investors, as well as fair tariffs for consumers, we test different options to find the set of parameters that provides the most stable beta for the transmission sector. They test beta stability by modifying three CAPM elements: the risk asset, the proxy for market returns, and the length of the estimation window. By applying robust structural break tests, we show that the desirable beta stability may be reached with the use of a Brazilian pure-play global beta estimated with an 11-year estimation window.

Thang, N.C et al (2020) conducted to examine if beta, proxied for a systematic risk, should be considered valid in the application of the CAPM at the industry level for Australia using daily data on 2200 stocks listed on the Australian Securities Exchange from January 2007 to 31 December 2016. Various portfolio formations are utilized in this paper. General economic conditions such as interest rate, inflation, and GDP are examples of systematic risk. Findings from this study indicate that the selection of portfolio construction, estimation technique, and news about economic conditions significantly affects the view whether or not beta should be considered as a valid measure of systematic risk.

Then, Oseni and Olanrewazu (2020) noted that estimates of portfolios' beta-risk and its standard error for Gaussian and student-t were approximately the same when the sector follows a normal distribution while the standard errors of portfolio beta-risk estimates will be smaller under student-t innovation than that of Gaussian innovation when the sector does not follow normal distribution due to these anomalies. Furthermore, it was discovered that building & construction, manufacturing, quarry & mining, communication, transportation, education and utilities sectors have been having lower volatility, that is, in boosting the economy over the last 15 years.

MAIN RESULTS
Overall results
From the below chart 1 and 2, we see that during pre-L inflation stage, beta CAPM of Eximbank almost lower or equal to 1 (<= 1), only 1 time point in June 2011 beta higher than 1. Whereas many more beta values of EIB are higher than 1 during post-L inflation period.

Main findings
We can see from below table 1 that mean of beta CAPM around 1 (1.0049) and max value of beta of 4.79 is high in June 2011.

Table 1: Beta CAPM values during pre-low (L) inflation time

Pre-L inflation time	variable	variable	Beta EIB
Thg6-11	0.0093	0.0019	4.7918
Thg12-11	0.0001	0.0009	0.1525
Thg6-12	0.0012	0.0011	1.1188
Thg12-12	0.0006	0.0006	1.0288
Thg6-13	0.0007	0.0008	0.8152
Thg12-13	-0.0001	0.0002	-0.4534
Thg6-14	0.0001	0.0007	0.1974
Thg12-14	0.0000	0.0005	-0.0229
Thg6-15	0.0005	0.0005	1.0802
Thg12-15	0.0008	0.0006	1.3406
		Mean	1.0049
		Median	0.9220
		Max	4.7918
		Min	-0.4534

We can see from below table 2 that during post - L inflation period, mean of beta CAPM little higher than 1 (1.38) and max beta of 2.5 (lower than pre-L inflation value)

Table 2: Beta CAPM values during post-low (L) inflation time

Post-L inflation time	variable	variabe	Beta EIB
Thg6-15	0.0005	0.0005	1.0802
Thg12-15	0.0008	0.0006	1.3406
Thg6-16	0.0004	0.0004	1.1398
Thg12-16	0.0002	0.0004	0.5801
Thg6-17	0.0002	0.0001	2.5013
Thg12-17	0.0007	0.0004	2.0004
Thg6-18	0.0023	0.0015	1.5121

Thg12-18	0.0008	0.0005	1.5852
Thg6-19	0.0003	0.0002	1.6801
Thg12-19	0.0002	0.0001	1.3839
Thg6-20	0.0012	0.0031	0.3862
Thg12-20	0.0008	0.0006	1.4655
		Mean	1.3880
		Median	1.4247
		Max	2.5013
		Min	0.3862

We can see from below table 3 that there are negative values of beta CAPM during pre-L inflation time and max beta is the highest.

Table 3: Comparing Beta CAPM values during 2 stages

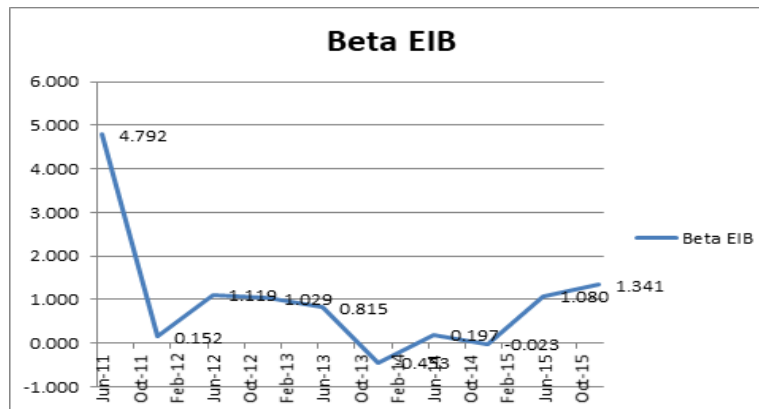| Post – L inflation	Beta VCB	Pre-L inflation	Beta EIB
Thg6-15	1.080	Thg6-11	4.792
Thg12-15	1.341	Thg12-11	0.152
Thg6-16	1.140	Thg6-12	1.119
Thg12-16	0.580	Thg12-12	1.029
Thg6-17	2.501	Thg6-13	0.815
Thg12-17	2.000	Thg12-13	-0.453
Thg6-18	1.512	Thg6-14	0.197
Thg12-18	1.585	Thg12-14	-0.023
Thg6-19	1.680	Thg6-15	1.080
Thg12-19	1.384	Thg12-15	1.341
Thg6-20	0.386		
Thg12-20	1.466		

Statistical Charts

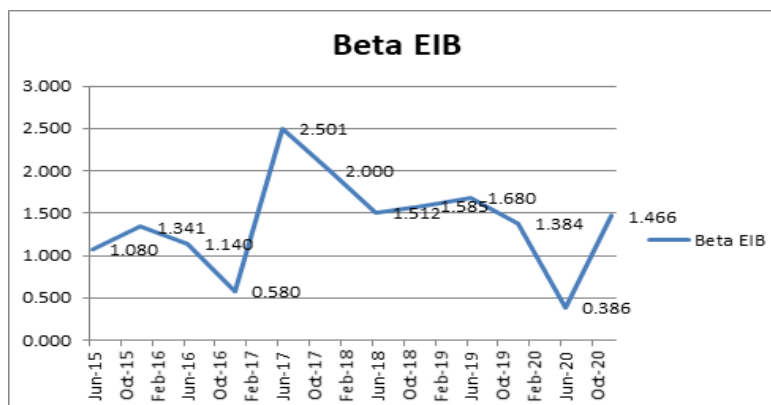**Chart 1: Beta Eximbank fluctuation 2011-2015**

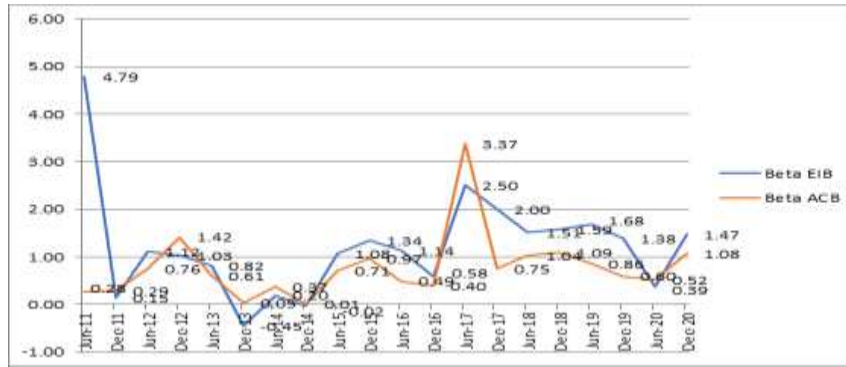**Chart 2: Beta Eximbank fluctuation 2015-2020**

Chart 3: Comparing Beta Eximbank and Asia Commercial Bank 2011-2020

DISCUSSION

We can infer from the above chart 1 , 2 that the period 2015-2020 (post-L inflation time) economy experience higher market risk or beta CAPM of Eximbank.

Then, we could also see from chart 3 that beta EIB much higher than beta ACB during June 2011, then lower during 2013-2014, then higher during 2014-2016 and 2018-March 2020.

CONCLUSION

First of all, commercial banks in Vietnam such as Eximbank or Asia Commercial Bank need to perform better measurement of market risk or beta CAPM during special periods such as pre and post-L inflation time.

Second, State bank of Vietnam (SBV) and relating governmental agencies also need to control bank risk better with proper solutions.

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. Gunaratha 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)
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)
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. Thang, N.C., Vu., N.T., Duc, V.H., & McAleer, M. (2020). Systematic Risk at the Industry Level: A Case Study of Australia , *Risk, 8*, 36. Doi:10.3390/risks8020036