Journal of Contemporary Issues in Business and Government Vol. 27, No. 2, 2021
https://cibg.org.au/

P-ISSN: 2204-1990; E-ISSN: 1323-6903
DOI: 10.47750/cibg.2021.27.02.095

Enhancing Corporate Management - A Case of Saigon Hanoi Bank in Vietnam Under Impacts of Macro Indicators

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Abstract: Bank is a special corporation and plays a vital role in economic circulation. In order to achieve sustainable bank management in emerging markets such as Vietnam, this paper measures bank management capabilities in famous model under impacts of both macro internal and external variables during low inflation time 2015-2020 in the country. During covid 19 and US-China commerce war, analyzing these impacts to have a netter management plans are necessary for commercial banks to respond to economic recession and impacts from trade war.

In recent years, research scholars link banking sustainability with CSR and community and environment; however this study takes another macro approach to banking sustainability. This research paper aims to figure out what are recommendations to management better bank performance to respond to fluctuation sin macro conditions under the case of one of big listed Vietnam commercial bank, Saigon Hanoi Bank (SHB) during the low inflation period 2015-2020 with stock price weekly data.

We use an econometric model with Eviews to estimate impacts from 9 macro variables on Beta CAPM. We find out that bank management team need to pay attention to macro contex in which increasing VNIndex and lending rate and Risk free rate.

Then, one of its major findings is the suggestion of macro and risk management policies for bank and relevant government agencies. Our recommendation can be used for reference in many other developing markets.

JEL classification numbers: M21, M1, G12, G30

Keywords: better corporate management, sustainable banking, banking industry, Vietnam, policy

INTRODUCTION

Nowadays, under 4.0 industry and Basel impacts, Vietnam banks pay attention more to risk management, esp. New perspectives in governance , management and risk models. This is the condition fir sustainable bank management and also the 1st reason we conduct this research paper.

Second, not only commercial banks take care of community, society and environment, but it also pay attention to sustainable banking model appearing in many developed countries with modern technology foundation, large financial resources and many initiatives on sustainability. The model of sustainable banking in developed countries is closely related and responsible with the community, and business operations meet the needs of both banks and local communities. Sustainable banking responds to the financial needs of local and regional communities by funding sustainable businesses that drive economic growth.

Third, monetary policy, fiscal policy and export-import or trade policies also have certain effects on bank market risk and their operation.

This study will calculate and figure out not only inflation but other macro factors, both internal and external, such as GDP growth, risk free rate, lending rate, S&P500, trade balance and exchange rate, etc. affecting the market risk level during the low inflation time (2015-2020).

We organize the paper with introduction, research issues, literature review, conceptual theories and methodology. Next will cover main research findings/results. Finally we present some discussion and conclusion and policy suggestion.

BODY OF MANUSCRIPT

Research Issues

The scope of this study are:

Issue 1: What are impacts of internal macro variables such as inflation, GDP growth, VNIndex, risk free rate,…on market risk of Saigon Hanoi bank (SHB)?

Issue 2: Evaluating impacts of external macro variables such as balance of trade, exchange rate and S&P500 on market risk of SHB measured by Beta CAPM

This paper also tests three (3) below hypotheses:

Hypothesis 1: the beta or risk level of listed bank (SHB) will increase if inflation increase and it will decrease if GDP growth increases..

Hypothesis 2: If exchange rate decreases (VND appreciation), beta CAPM will decrease.

Hypothesis 3: What are results when we are compare to other joint stock commercial banks group.

Literature review

Vuong Duc Hoang Quan (2012) said In the first stage, in general, the information from the Vietnam stock market is not sufficient in quantity and quality to estimate the beta coefficient according to the traditional method, which is regression analysis of stock returns volatility compared to indices. VN-Index to value the listed companies and stocks.

Truong Dong Loc and Duong Thi Hoang Trang (2014) show that earnings of stocks are positively correlated with market risk, firm size and the book value to market value (BE / ME) ratio. In other words, the Fama - French 3-factor model is suitable in explaining the change in profits of stocks listed on HOSE.

Dinh Tran Ngoc Huy (2015) analyzes the impact of VNIndex and internal and external macro variables on the stock price of ACB.

Curran and Velic (2018) took advantage of global data on stock prices and highly value CAPM model compared to previous models. They show that in the countries with higher level of openness of financial markets, fluctuation in exchange rate and bigger size of economy receive higher systematic covariance. Also there is negative correlation between world reserves and systematic risk.

Conceptual theories

Scholtens and Klooster (2019) investigated effects of bank sustainability on risk. Result shows that higher sustainability scores of banks significantly associate with lower default risk. We also establish that outperformance on sustainability reduces banks' contribution to systemic risk. Thus, it appears that banks' sustainability performance can spill over to the financial system. This implies sustainability is material for banks and their supervisors.

Sarker et al (2016) also noted an understanding of the concepts and the role of banking industry towards sustainability with special reference to Corporate Social Responsibility (CSR), Green Banking (GB) and Financial Inclusion (FI). The study revealed a positive response in implementing the sustainability issues by the banks in various capacities under the guidance of the Central Bank.

Next, Mendez and Houghton (2020) identified the three biggest obstacles to sustainable banking identified by the authors are discussed: (1) The uncertain bank ability of projects; (2) non-transparency in tracking sustainable capital flows; and (3) no universal mechanism capable of making matches between green investment supply and demand.

In summary we identify 3 approaches of bank sustainability: green banking, CSR factors impacts on banking, technology advancement in banking, and in this paper, our research fill the gap in banking sustainability with effects of macro factors on bank market risk.

Methodology

Values of Beta CAPM are calculated data of stock price on HOSE and HNX stock market during 2015-2020. This is L-inflation time and China-US commerce war.

We use analytical and synthesis methods and dialectical materialism method. Analytical data is from the situation of listed bank (SHB) in Vietnam stock exchange.

Analysis of the effects of 9 macro variables on market risk of listed commercial bank, Saigon Hanoi commercial bank (SHB). Weekly data collected from 2015-2020 for SHB stock price to measure Beta and other macro data from reliable sources such as the General Statistics Office and commercial banks. Beta CAPM is a function with 9 macro variables (x1: GDP growth rate (g), x2: Risk-free rate Rf (i), x3: Loan interest rate (r), x4: Exchange rate (ex_rate), x5: S&P 500, x6: VNIndex, x7 : trade balance, x8: industrial production index, x9: CPI). We use OLS regression.

Based on that, Macro policies and risk management plans are recommended for both Saigon Hanoi commercial ban (SHB), relevant organizations and government.

In the below table, we see statistics for 9 variables. We find our standard deviation of Exchange rate and SP500 and trade balance (BOT) with highest values, while std. deviation of CPI, Rf as lowest values.

	BETACAPM	BOT	EX_RATE	SP500	VNINDEX	G	CPI	RF	R	IM
Mean	0.612036	-60.45455	22791.45	2576.246	800.6455	0.060609	0.027618	0.042000	0.095691	167.8909
Median	0.837552	-100.0000	22920.00	2506.850	825.1000	0.067600	0.028100	0.037000	0.100000	147.4000
Maximum	1.126242	400.0000	23230.00	3230.780	984.2400	0.070800	0.047400	0.061800	0.110000	267.2000
Minimum	-1.458957	-500.0000	21780.00	2043.940	579.0300	0.018100	0.006300	0.019500	0.080000	127.3000
Std. Dev.	0.736058	267.7728	443.6015	416.1722	161.5812	0.015273	0.012590	0.014450	0.010825	44.01387
Skewness	-2.253418	0.573461	-1.103011	0.208963	-0.254721	-2.140463	-0.162938	0.114349	-0.137303	1.322279
Kurtosis	6.971218	2.763409	3.459091	1.681378	1.437038	6.685526	2.045666	1.716206	1.756312	3.491429
Jarque-Bera	16.53765	0.628561	2.327097	0.876987	1.238592	14.62515	0.466101	0.779363	0.743494	3.316126
Probability	0.000256	0.730314	0.312376	0.645007	0.538323	0.000667	0.792114	0.677272	0.689529	0.190508
Sum	6.732397	-665.0000	250706.0	28338.71	8807.100	0.666700	0.303800	0.462000	1.052600	1846.800
Sum Sq. Dev.	5.417814	717022.7	1967823.	1731993.	261085.0	0.002333	0.001585	0.002088	0.001172	19372.21

Figure 1- Descriptive statistics for 9 macro variables

MAIN RESULTS

General Data Analysis

we look at the below figure, we find out correlation matrix of internal variables. We see that Increase in industrial manufacturing index will cause Beta CAPM of SHB decreases while decrease in CPI will make it increases.

Correlation Matrix										
	BETACAPM	BOT	EX_RATE	SP500	VNINDEX	G	CPI	RF	R	IM
BETACAPM	1.000000	0.027438	-0.027650	-0.044474	0.019002	0.361081	-0.243907	0.002479	-0.196040	-0.473795
BOT	0.027438	1.000000	0.502185	0.781213	0.563170	-0.118760	-0.332970	-0.470740	-0.454561	-0.347985
EX_RATE	-0.027650	0.502185	1.000000	0.775782	0.793384	-0.008980	0.345255	-0.770196	-0.770506	-0.070142
SP500	-0.044474	0.781213	0.775782	1.000000	0.841551	-0.176527	0.239791	-0.760251	-0.747890	-0.197708
VNINDEX	0.019002	0.563170	0.793384	0.841551	1.000000	0.236537	0.410100	-0.770134	-0.914370	0.059045
G	0.361081	-0.118760	-0.008980	-0.176527	0.236537	1.000000	0.170563	0.251391	-0.421321	0.155701
CPI	-0.243907	-0.332970	0.345255	0.239791	0.410100	0.170563	1.000000	-0.145300	-0.404467	0.429462
RF	0.002479	-0.470740	-0.770196	-0.760251	-0.770134	0.251391	-0.145300	1.000000	0.664379	0.117218
R	-0.196040	-0.454561	-0.770506	-0.747890	-0.914370	-0.421321	-0.404467	0.664379	1.000000	0.077944
IM	-0.473795	-0.347985	-0.070142	-0.197708	0.059045	0.155701	0.429462	0.117218	0.077944	1.000000

Figure 2- Macro external and internal variables correlation matrix

Empirical Research Findings and Discussion

In the below section, data used are from 2015-2020 with weekly data for stock price of SHB, live data on VN stock exchange (HOSE and HNX mainly). Different scenarios are created by comparing 2 scenarios: macro internal factors impacts and macro external variables effects.

We model our data analysis as in the below figure:

Low inflation period 2015-2020	**Stock price**	**Beta CAPM**	**Other statistic measures**	**Gap**
Internal variables	**Scenario**	**Scenario**	**Scenario ..**	**Analysis**
External variables				

Figure 1 – Analyzing market risk under impacts from macro factors in 2 scenarios

Using OLS regression from Eviews, we find out: CPI has negative correlation with Beta CAPM of SHB.

Figure - Single factor impact on Beta CAPM

Dependent Variable: BETACAPM
Method: Least Squares
Date: 01/02/21 Time: 10:23
Sample: 1 11
Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CPI	-14.25956	18.89913	-0.754509	0.4698
C	1.005859	0.569132	1.767356	0.1110

R-squared	0.059491	Mean dependent var	0.612036
Adjusted R-squared	-0.045010	S.D. dependent var	0.736058
S.E. of regression	0.752441	Akaike info criterion	2.431977
Sum squared resid	5.095504	Schwarz criterion	2.504321
Log likelihood	-11.37587	F-statistic	0.569284
Durbin-Watson stat	2.594164	Prob(F-statistic)	0.469825

Looking at the below figure we see internal effects on Beta CAPM of SHB: GDP growth has positive correlation with SHB Beta CAPM, then CPI and lending rate have negative correlation with market risk. If lending rate increases, market risk will decrease.

Dependent Variable: BETACAPM
Method: Least Squares
Date: 01/02/21 Time: 10:24
Sample: 1 11
Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CPI	-22.59454	20.81745	-1.085366	0.3137
G	16.32108	17.30507	0.943138	0.3770
R	-14.25742	26.30706	-0.541962	0.6047
C	1.611156	3.310843	0.486630	0.6414

R-squared	0.257652	Mean dependent var	0.612036
Adjusted R-squared	-0.060497	S.D. dependent var	0.736058
S.E. of regression	0.757996	Akaike info criterion	2.559010
Sum squared resid	4.021902	Schwarz criterion	2.703699
Log likelihood	-10.07455	F-statistic	0.809848
Durbin-Watson stat	2.611821	Prob(F-statistic)	0.527509

Figure - Internal impacts on Beta CAPM (SHB)

Finally, Looking at the below figure we see external effects on Beta CAPM of SHB:
We recognize that Trade balance, exchange rate have positive correlation or impacts on Beta CAPM, whereas SP500 have negative correlation with market risk (SHB). If SP500 decreases, SHB market risk will increase slightly.

Dependent Variable: BETACAPM
Method: Least Squares
Date: 01/02/21 Time: 10:24
Sample: 1 11
Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BOT	0.000485	0.001714	0.282960	0.7854
EX_RATE	0.000105	0.001023	0.102513	0.9212
SP500	-0.000409	0.001511	-0.270761	0.7944
C	-0.695736	20.72724	-0.033566	0.9742

R-squared	0.013381	Mean dependent var	0.612036
Adjusted R-squared	-0.409456	S.D. dependent var	0.736058
S.E. of regression	0.873852	Akaike info criterion	2.843476
Sum squared resid	5.345319	Schwarz criterion	2.988165
Log likelihood	-11.63912	F-statistic	0.031646
Durbin-Watson stat	2.418791	Prob(F-statistic)	0.991759

Figure - external impacts on Beta CAPM (SHB)

Next, we find out impacts of 6 macro factors on Beta CAPM. If BOT, VNIndex and CPI increase, market risk (SHB) will decrease. On the other hand, when SP500 goes up and VNIndex goes down, market risk will increase slightly as well.

Dependent Variable: BETACAPM
Method: Least Squares
Date: 01/02/21 Time: 10:25
Sample: 1 11
Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BOT	-0.004998	0.003552	-1.407069	0.2322
EX_RATE	3.88E-05	0.001038	0.037362	0.9720
SP500	0.004445	0.003175	1.399743	0.2342
VNINDEX	-0.003605	0.005070	-0.710917	0.5164
G	48.13943	29.27528	1.644372	0.1754
CPI	-76.34273	47.66032	-1.601809	0.1845
C	-9.948243	22.21659	-0.447784	0.6775

R-squared	0.501848	Mean dependent var	0.612036
Adjusted R-squared	-0.245379	S.D. dependent var	0.736058
S.E. of regression	0.821415	Akaike info criterion	2.705551
Sum squared resid	2.698893	Schwarz criterion	2.958757
Log likelihood	-7.880529	F-statistic	0.671614
Durbin-Watson stat	2.675466	Prob(F-statistic)	0.684722

Figure - Effects of 6 macro variables on Beta CAPM

Finally, we see both internal and external effects on Beta CAPM:
When GDP growth increases, beta CAPM of SHB will increases, it is NOT in favor of our 1st hypothesis above. And if CPI increase the market risk will go down, it is NOT in favor of our 1st hypothesis. If exchange rate decreases (VND appreciation), it will makes market risk decrease. It is in favor of our 2nd hypothesis.

Dependent Variable: BETACAPM
Method: Least Squares
Date: 01/02/21 Time: 10:26
Sample: 1 11
Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BOT	-0.012406	0.015363	-0.807523	0.5675
EX_RATE	0.001103	0.002526	0.436611	0.7379
SP500	0.010195	0.012703	0.802579	0.5694
VNINDEX	0.003669	0.017969	0.204163	0.8718
G	97.14153	141.4607	0.686703	0.6169
CPI	-160.9211	211.5747	-0.760588	0.5860
RF	44.00440	160.5153	0.274145	0.8297
R	169.9993	279.8319	0.607505	0.6525
IM	-0.005576	0.013538	-0.411884	0.7513
C	-73.09910	112.2421	-0.651263	0.6325

R-squared	0.685929	Mean dependent var	0.612036
Adjusted R-squared	-2.140709	S.D. dependent var	0.736058
S.E. of regression	1.304445	Akaike info criterion	2.789720
Sum squared resid	1.701578	Schwarz criterion	3.151443
Log likelihood	-5.343458	F-statistic	0.242666
Durbin-Watson stat	3.115738	Prob(F-statistic)	0.927065

Figure - Effects of 9 internal and external macro variables on Beta CAPM

DISCUSSION FOR FURTHER RESEARCHES

We can continue to analyze risk factors behind the risk scene (FDI, public debt, etc.) in order to recommend suitable policies and plans to control market risk better.
In order to enhance risk management culture at SHB, a big listed joint stock commercial bank in Vietnam, we have to consider some following action plans:
- It is necessary to enhance the role of risk supervision and control according to the risk management process as follows:
Step 1: Establish and analyze risk contexts (internal and external environment of the enterprise)
Step 2: Identify and classify risks
Step 3: Risk measurement and analysis
Step 4: Risk assessment (level of risk)
Step 5: Handling risks (through specific policies and plans)
Throughout the 5-step process of risk management in commercial banks and businesses is risk monitoring activities, performing communication and advisory functions for risk management activities.
The stability and soundness of the commercial banking system (commercial banks) plays an important and decisive role in macro stability and economic growth. Becoming an official member of the WTO since November 2006, Vietnam's commercial banking system has made positive changes, both in terms of operation scale, service quality, financial capacity, governance and current modernization of the bank. However, risks for commercial banks are also hidden, reflected in deteriorating credit quality, difficulties in liquidity management, interest rate risk management, term risk, exchange rate, ...

CONCLUSION AND POLICY SUGGESTION

For banking sustainability management, As shown from the above regression model and equation, Government and Ministry of Finance need to reduce lending rate and risk free rate for lower market risk.

This research paper provides evidence that the market risk are affected much more by CPI, GDP growth, risk free rate and lending rate. It means that the role of bank system in trying to control credit growth and rates reasonably. For other macro policies, GDP growth and exchange rate not necessary to increase too much to cause Beta CAPM climb up. Growing strategy within our control is always better.
Our model also shows that other macro factors such as VNIndex and exchange rate just have slight impact on Beta CAPM. And macro internal factors have much more effects on market risk of SHB.

Limitation of the research:
Finally, this study opens some new directions for further researches in risk control policies in medicine system as well as in the whole economy. We also can add other factors such as public debt into our model for expanding research. Even we can expand our research model for other Vietnam industries as well as in other emerging markets and all over the world.

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. Adhikari. N. (2015). 'Determinants of Systemic Risk for Companies Listed on Nepal Stock Exchange', Global Journal of Management and Business Research: C Finance,vol.15, no.5, pp. 75-83.
2. Ahmad, N., & Ramzan, M. (2016). Stock Market Volatility and Macroeconomic Factor Volatility, International Journal of Research in Business Studies and Management, 3(7), 37-44.
3. Ahmed, A., Ejaz, A., Ali, R., Ishfaq Ahmad, I. 2018. Sectoral integration and investment diversification opportunities: evidence from Colombo Stock Exchange. Entrepreneurship and Sustainability Issues, 5(3), 514-527. https://doi.org/10.9770/jesi.2018.5.3(8)
4. Andersen, T.G., Bollerslev, T., Diebold, F.X., and Wu, J. (2005). 'A Framework for Exploring the Macroeconomic Determinants of Systematic Risk', Financial Economics, Macroeconomics, and Econometrics, vol.95. no.2, pp. 398-404.
5. Arnes, S.K. (2014). 'Impact of Macroeconomic Indicators on Stock Market Performance: The Case of The Istanbul Stock Exchange', Master Thesis, Copenhagen Business School. Retrieved from:https://research-api.cbs.dk/ws/portalfiles/portal/58450158/sibel_arnes.pdf.
6. Ahmad, N., and Ramzan, M. (2016). 'Stock Market Volatility and Macroeconomic Factor Volatility', International Journal of Research in Business Studies and Management, 3(7), 37-44. Ahmed, A., Ejaz, A., Ali, R., Ishfaq Ahmad, I. 2018. Sectoral integration and investment diversification opportunities: evidence from Colombo Stock Exchange. Entrepreneurship and Sustainability Issues, vol.5, no.3, pp. 514-527. https://doi.org/10.9770/jesi.2018.5.3(8)
7. Be, N.T, & Hung, B.Q. (2019). Sytematic risk in banking in stages of crisis, Finance Journal. Retrieved from: http://tapchitaichinh.vn/ngan-hang/rui-ro-he-thong-trong-hoat-dong-kinh-doanh-ngan-hang-o-cac-giai-doan-khung-hoang-302120.html
8. Bohachova, O. (2008). 'The Impact of Macroeconomic Factors on Risks in the Banking Sector: A Cross-Country Empirical Assessment', IAW Discussion Papers 44, Institut für Angewandte Wirtschaftsforschung (IAW).
9. Bowman, R.G. (1979). 'The Theoretical Relationship Between Systematic Risk and Financial (Accounting) Variables', The Journal of Finance, vol. 34, no.3, pp. 617-630.
10. Butt, B.Z., Rehman, K.U. (2010). 'Do economic factors influence stock returns? A firm and industry level analysis', African Journal of Business Management, vol.4, no.5, pp. 583-593
11. Celebi, K., and Honig, M. (2019). 'The Impact of Macroeconomic Factors on the German Stock Market: Evidence for the Crisis, Pre- and Post-Crisis Periods', International Journal of Financial Studies, vol.7, no.18. doi:10.3390/ijfs7020018
12. Claudia, M.P., Sandra, E., and Esteban, P. (2010). 'Macroeconomic factors and micro-level bank risk', Discussion Paper Series 1: Economic Studies No 20/2010.
13. Curran,M., and Velic, A. (2018). 'The CAPM, National Stock Market Betas, and Macroeconomic Covariates: A Global Analysis',Trinity Economics Papers 0618, Trinity College Dublin, Department of Economics.
14. Emilios, A. 2015, 'Bank Leverage Ratios and Financial Stability: A Micro- and Macroprudential Perspective', Working Paper No.849, Levy Economics Institute
15. Eugene FF, French KR. (2004). The Capital Asset Pricing Model: Theory and Evidence, Journal of Economic Perspectives.

16. Gay, R.D. (2016). 'Effect Of Macroeconomic Variables On Stock Market Returns For Four Emerging Economies: Brazil, Russia, India, And China', International Business & Economics Research Journal, vol.15, no.3.
17. Gizycki, M. (2001). 'The Effect Of Macroeconomic Conditions on Bank Risks and Profitability', Research Discussion Paper 2001-06,System Stability Department Reserve Bank of Australia. Retrieved from: https://www.rba.gov.au/publications/rdp/2001/pdf/rdp2001-06.pdf.
18. Hojat, S. (2015). The Impact of Monetary Policy On the Stock Market, Doctoral dissertation, Walden University. Retrieved from: https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=2602&context=dissertations
19. Hang, T.T.B., Nhung , D.T.H., Nhung, D.H., Huy, D.T.N., Hung, N.M. Dat, P.M. (2020). Where Beta is going – case of Viet Nam hotel, airlines and tourism company groups after the low inflation period. Entrepreneurship and Sustainability Issues, 7(3), 2282-2298. http://doi.org/10.9770/jesi.2020.7.3(55)
20. Huong, N.T. (2017). Average rate of return theory of K.Marx and CAPM model, Finane Journal, truy cập tại <http://tapchitaichinh.vn/nghien-cuu-trao-doi/ly-thuyet-ty-suat-loi-nhuan-binh-quan-cua-k-marx-va-mo-hinh-dinh-gia-tai-san-von-132532.html > [date access 20/12/2020]
21. 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)
22. 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)
23. 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
24. 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
25. Loc, T.D., & Trang, D.T.H. (2014). 3 Fctor Fama-French model: Evidence from HOSE, Scientific Journal of Can Tho University, 32(4) : 61-68.
26. 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)
27. Milewicz, W. 2020. The influence of foreign investors on the development of Polish enterprises – a case study of the BPH bank. Enterpreneuship and Sustainability Issues 8(2), 829-839. http://doi.org/10.9770/jesi.2020.8.2(50)
28. 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)
29. Nidar, S.R., Anwar, M., Komara, R., Layyinaturrobaniyah. 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)
30. Odhner, C.L., & Zachrisson, K. (2016). Monetary Policy Announcements and the Beta Risk Premium on Nasdaq OMX Stockholm, Master Thesis, Department of Economics, Lund University
31. 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)
32. 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
33. Quan, V.D.H. (2012). Rủi ro hệ thống và vấn đề xác định hệ số bê-ta tại Việt Nam, Tạp chí tài chính, truy cập tại <http://tapchitaichinh.vn/nghien-cuu-trao-doi/rui-ro-he-thong-va-van-de-xac-dinh-he-so-beta-tai-viet-nam-1257.html> [Date access 20/12/2020]
34. Quang, T.M., Minh, H.C., Linh, L.T.B., Thiem, N.H., & Tuyet, L.T. (2019). Factors affect stock return from perspective of 5 factor Fama-French model, Finance Journal. Retrieved from: http://tapchitaichinh.vn/kinh-te-vi-mo/yeu-to-tac-dong-den-ty-suat-sinh-loi-cua-co-phieu-niem-yet-nhin-tu-mo-hinh-5-nhan-to-fama-french-315676.html

35. Sadeghzadeh, K. (2018). The effects of microeconomic factors on the stock market: A panel for the stock exchange in Istanbul ARDL analysis, Theoretical and Applied Economics Volume XXV, vol.3, no.616, pp. 113-134
36. Sadia, S., and Noreen, A. (2012). Impact of Macroeconomic Factors on Banking Index in Pakistan, Interdisciplinary Journal of Contemporary Research in Business, vol.4, no.6, pp. 1200-1218.
37. Saeed, S., and Akhter, N. (2016). Impact of Macroeconomic Factors on Banking Index in Pakistan, Interdisciplinary Journal of Contemporary Research in Business, vol.4, no.6.
38. Singh, T., Mehta, S., and Versha, M.S. (2010). Macroeconomic factors and stock returns: Evidence from Taiwan, Journal of Economics and International Finance, vol.2, no.4, pp. 217-227
39. Sinh, H., & Duc, N.K. (2012). Estimate Beta in firm valuation from theory to practice, Journal of Integration and Development, 4(14): 26-33.
40. Siregar, E.I., and Diana. (2019). The Impact of Political Risk and Macro Economics on Stock Return at Indonesia Stock Exchange-An Approach of Arbritage Pricing Theory (APT), International Conference on Economics, Management, and Accounting (ICEMA), pp.744–772. DOI: https://doi.org/10.18502/kss.v3i26.5412
41. 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
42. Tomuleasa, I.I. (2015). 'Macroprudential policy and systemic risk: An overview', Procedia Economics and Finance, 20, pp.645 – 653

Exhibit

Exhibit 1 – Loan/Credit growth rate in the past years (2012-2018) in Vietnam