

Better Management of Listed Banks in Vietnam for Sustainability During Pre-Low Inflation Period- Case of Sacom Bank (STB)

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Abstract

Further researches on banking industry to suggest bank policies and macro policies for sustainable development is becoming necessary.

One of our purposes is to evaluate how much impacts in the market risk of a big listed Vietnam commercial bank, Sacombank- STB with semiannual data. It will serve for better management of bank and will contribute for sustainable economic development.

Our traditional methods still be with qualitative analysis including synthesis and inductive, combined with OLS for 9 macro variables, findings show CPI and GDP growth, rate of loans and risk free rate (Rf) will put more impacts on market risk while external indicators (exchange rate and SP500) just put tiny effect on beta CAPM.

This study can be functioned as references for further researches in other markets.

JEL classification numbers: M21, G12, G30

Key-words: Bank Management, Sacombank, Beta CAPM, Pre-low Inflation, Banking Industry, Vietnam, Policy.

1. Introduction

Sacombank (STB) is a big listed banks in our nation-Vietnam and has been growing over years.

STB vision and mission: To become the leading modern and versatile retail bank in Vietnam.
The bank received many awards:

Certificate of Merit from the Prime Minister for "achievement in social security work, accompanying the activities of the Central Committee of the Ho Chi Minh Communist Youth Union, contributing to the cause of building socialism" and defend the Fatherland".

Emulation flag "Excellent strong grassroots trade union" for outstanding achievements in the movement of emulating good labor and building a strong trade union organization awarded by the Ho Chi Minh City Confederation of Labor.

Top 50 best enterprises in Vietnam in VNR500 ranking organized by Vietnam Report Joint Stock Company (Vietnam Report) in collaboration with Vietnamnet Newspaper.

So Our study will calculate not only inflation but other macro factors, that affect the market risk level during the pre-low (L) inflation period (2011-2015).

We structure study with introduction, research issues, literature review, methodology, main research findings/results and conclusion.

2. Body of Manuscript

2.1. Research Question

We will address this issue;

Measure and Evaluate impacts of external macro variables such as balance of trade, exchange rate and S&P500 on market risk of VCB, ACB and STB measured by Beta CAPM.

We also will see and test whether CPI increase will cause beta of STB increases.

2.2. Literature Review

Huy, D.T.N et al (2020) measure effects of external factors on bank stock price in case of a big listed bank in Vietnam - Vietcombank which left the direction for further researches on internal factors effects measuring.

Related studies summarized in below table:

Table 1 - Summarize previous studies

Domestic researches	Authors name	Results, contents
1.Fama-French 3-Factor Model	Loc, T.D., & Trang, D.T.H (2014)	There is positive relationship g between stock earning and market risk, BV? MV and firm size
2.Case of stock prices ACB	Đinh Trần Ngọc Huy (2015)	stock price of ACB affected by VN Index and other factors
3.The theory of average return of K. Marx	Nguyễn Thị Hương (2017)	Beta will keep pace with the development of the market.
International researches	Authors name	Results
1. Kosovo banks profitability impacts	(2016)	Bank loans increase will enlarge profitability of commercial banks in Kosovo
2.Macroeconomic factors and micro-level bank risk	Claudia et al (2010)	As ease of monetary, increase in risk of about a third of US banks
3.Macroeconomic Factors on Banking Index in Pakistan	Saeed và Akhter (2012)	In Karachi stock market, Between Banking index and exchange rate: there is effect, significantly.

2.3. Methodology

With OLS method for beta with total 9 macro indicators (x1: GDP growth rate (g), x2: Risk-free rate R_f (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 will show nine variables here:

Table 2 - Variables description

Variable name	Sign	Data source	Reference source
Dependent variable			
Market risk (BetaCAPM)	BetaCAPM	HOSE and HNX	Jack T.(1961, 1962), William F. Sharpe (1964), John L. (1964) và Jan M. (1966)
Independent variables			
GDP growth	g	Bureau statistics	Dinh Tran Ngoc Huy (2021, Springer Verlag book chapter)
VNIndex	VNindex	HOSE and HNX	Dinh Tran Ngoc Huy “Econometric model for ACB bank stock price 2008-2011, Sai Gon university journal, No.22, 2015”
Risk free rate	R_f	Ministry of Finance (MOF)	Dinh Tran Ngoc Huy “Econometric model for ACB bank stock price 2008-2011, Sai Gon university journal, No.22, 2015”
Lending rate	r	Commercial bank	Dinh Tran Ngoc Huy (2021, Springer Verlag book chapter) “
Exchange erate	Ex_rate	Commercial bank	Dinh Tran Ngoc Huy (2021, Springer Verlag book chapter)
S&P500	SP500	NYSE	Huy, D.T.N

(source: stock exchange, bank system, bureau statistics)

Below figure give us analysis:

- standard dev. With highest values: Exchange rate and trade balance.
- standard dev. with lowest values : CPI, GDP growth, Rf.

Figure 1- Descriptive stat

	BETA	CPI	EX RATE	G	IM	R	RF	SP500	TRADEBA...	VNINDEX
Mean	0.447765	0.068270	21864.80	0.056730	154.4800	0.132500	0.073505	1701.587	-232.2000	490.1750
Median	0.568578	0.063850	21780.00	0.056500	153.9500	0.125000	0.065275	1734.160	-162.5000	492.8800
Maximum	0.936182	0.181300	23230.00	0.066800	194.8000	0.190000	0.132000	2103.840	498.0000	593.0500
Minimum	-0.180274	0.006300	20618.00	0.043800	117.4000	0.100000	0.046000	1292.280	-1162.000	351.5500
Std. Dev.	0.381571	0.059925	876.1553	0.007141	25.76659	0.031380	0.024419	327.3917	465.6620	83.37681
Skewness	-0.343903	0.921046	0.108851	-0.361761	0.145331	0.844274	1.469319	-0.061715	-0.405459	-0.196155
Kurtosis	1.725334	2.637092	1.708458	2.181881	1.849123	2.335049	4.388549	1.360020	2.975371	1.735476
Jarque-Bera	0.874104	1.468753	0.714782	0.497001	0.587084	1.372230	4.401524	1.126987	0.274248	0.730387
Probability	0.645938	0.479805	0.699499	0.779970	0.745618	0.503528	0.110719	0.569217	0.871862	0.694062
Sum	4.477655	0.682700	218648.0	0.567300	1544.800	1.325000	0.735050	17015.87	-2322.000	4901.750
Sum Sq. Dev.	1.310369	0.032319	6908834.	0.000459	5975.256	0.008862	0.005367	964668.1	1951570.	62565.23

3. Main Results

3.1. Overall Analysis

Here, we see for STB case:

- If there is increase in industrial manufacturing index and lending rate will cause Beta CAPM increases but decrease in SP500 will cause it decreases.

Figure 2 - Macro Correlation Matrix

Correlation Matrix										
	BETA	CPI	EX RATE	G	IM	R	RF	SP500	TRADEBA...	VNINDEX
BETA	1.000000	-0.498207	-0.255749	-0.054354	0.106161	0.053114	-0.181392	0.206738	0.488115	0.295288
CPI	-0.498207	1.000000	-0.382440	0.090566	0.500206	0.428665	0.580486	-0.844053	0.156409	-0.861426
EX RATE	-0.255749	-0.382440	1.000000	0.519076	0.038528	0.006143	-0.772931	0.476195	-0.491811	0.295409
G	-0.054354	0.090566	0.519076	1.000000	0.440105	0.223263	-0.421402	0.136776	-0.107369	-0.016434
IM	0.106161	0.500206	0.038528	0.440105	1.000000	0.663798	0.117679	-0.613771	0.161388	-0.664368
R	0.053114	0.428665	0.006143	0.223263	0.663798	1.000000	-0.045403	-0.664122	0.553061	-0.746263
RF	-0.181392	0.580486	-0.772931	-0.421402	0.117679	-0.045403	1.000000	-0.652624	0.264192	-0.444136
SP500	0.206738	-0.844053	0.476195	0.136776	-0.613771	-0.664122	-0.652624	1.000000	-0.485719	0.950618
TRADEBA...	0.488115	0.156409	-0.491811	-0.107369	0.161388	0.553061	0.264192	-0.485719	1.000000	-0.375438
VNINDEX	0.295288	-0.861426	0.295409	-0.016434	-0.664368	-0.746263	-0.444136	0.950618	-0.375438	1.000000

3.2. Empirical Research Findings and Discussion

We used 2 scenarios and modeled our data as follows:

Figure 3 – Beta Under Macro Factors in 2 Cases

Low inflation period 2011-2015	Stock price	Beta CAPM	Other statistic measures	Gap
Internal factors	Case	case	case	Analysis
External variables				

Using OLS regression from Eviews, we analyze that:

- First there are internal effects on Beta CAPM of STB: Between beta and Industrial product, Risk free rate, lending rate and VNindex: there is positive correlation with Beta, then between beta and CPI and GDP growth: there is negative correlation.

Figure 4 – Internal impacts on Beta CAPM – Case STB

Dependent Variable: BETA
 Method: Least Squares
 Date: 01/17/21 Time: 12:49
 Sample: 1 10
 Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CPI	-3.172566	8.150479	-0.389249	0.7231
G	-13.51060	36.23954	-0.372814	0.7341
IM	0.009039	0.010566	0.855452	0.4552
R	6.404989	11.48040	0.557906	0.6158
RF	4.802952	10.40754	0.461488	0.6759
VNINDEX	0.003648	0.008161	0.446952	0.6852
C	-2.955210	5.609691	-0.526804	0.6348
R-squared	0.534351	Mean dependent var		0.447765
Adjusted R-squared	-0.396948	S.D. dependent var		0.381571
S.E. of regression	0.450989	Akaike info criterion		1.441278
Sum squared resid	0.610172	Schwarz criterion		1.653088
Log likelihood	-0.206392	F-statistic		0.573769
Durbin-Watson stat	2.508833	Prob(F-statistic)		0.742554

Next we figure out that SP500 and trade balance have positive correlation with Beta CAPM.

Figure 5 – External impacts on Beta CAPM – Case STB

Dependent Variable: BETA
 Method: Least Squares
 Date: 01/17/21 Time: 12:15
 Sample: 1 10
 Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EX_RATE	-9.77E-05	0.000147	-0.663449	0.5317
SP500	0.000758	0.000393	1.931478	0.1016
TRADEBALANCE	0.000568	0.000279	2.039588	0.0875
C	1.425770	3.052305	0.467113	0.6569
R-squared	0.530500	Mean dependent var		0.447765
Adjusted R-squared	0.295751	S.D. dependent var		0.381571
S.E. of regression	0.320213	Akaike info criterion		0.849513
Sum squared resid	0.615218	Schwarz criterion		0.970547
Log likelihood	-0.247563	F-statistic		2.259855
Durbin-Watson stat	0.911245	Prob(F-statistic)		0.181793

4. Discussion

We would suggest to improve culture of risk management culture at Sacombank -STB, in our country, and we have to consider some following action plans:

- Improving risk management processes.
- Enhancing risk management models.

5. Conclusion and Policy Suggestion

We can infer macro policies from above analysis:

For Government and Ministry of Finance : it would be better to increase GDP growth and lower Rf and lending rate for lower market risk. GDP growth might increase more than exchange rate increase.

On the other hand, authors provides evidence with data that the beta are impacted more by CPI, GDP growth, risk free rate and R.

For management implications, Huy, D.T.N (2015) also suggest better corporate governance and risk management standards for corporations including banking industry.

Limitation of Research

Further researches are needed to implement to other banks and markets/industries.

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Exhibit

Exhibit 1 – Inflation, CPI over past 10 years (2007-2017) in Vietnam

Exhibit 1 – Loan/Credit Growth Rate in the Past Years (2012-2018) in Vietnam

