Solutions for Sustainable Banking and Enhancing Banking Competitiveness – Vietinbank Case in Vietnam

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Abstract

During and after China-USA commerce ward, financial accounting transparency will become hot issues as it will help to attract more FDIs capitals flows into the country and stock market. Financial accounting transparency policy will prove enough data for firms and esp., banks in evaluating business risks and financial risks.

For economic development during industry 4.0, enhancing banking sustainability in emerging markets such as Vietnam is becoming necessary.

The results show us that CPI, GDP growth and risk free rate (Rf) has higher effects on beta CAPM and stock price of Vietinbank (CTG). Risk free rate and lending rate have positive correlation with these 2 variables.

Then, this study can enable to propose management implications and risk management to enhance banking sustainability strategies.

Glossary and Abbreviatons

Term	Vietnamese meanings	English
CAPM	Mô hình định giá tài sản vốn	Capital Asset Pricing Model
CPI	Lam phat	Inflation
CFP	Hiệu quả tài chính doanh nghiệp	Corporate Financial Performance
CTCK	Công ty chứng khoán	Security company
DCF	Chiết khấu dòng tiền	Discounted Cash Flow
FDI	Đầu tư trực tiếp nước ngoài	Foreign Direct Investment
FIT	Minh bạch thông tin tài chính	Financial Information Transparency
Rf	LSPRR	Risk free rate
ISO	Tổ chức tiêu chuẩn hóa quốc tế	International Organization for Standardization
R	Lãi suất	Interest rate

1. Introduction

In this paper we mainly focus on comparing and evaluating stock price and market risk under macro indicators effects in one big listed bank (previously SOE), Vietinbank (CTG) in our country Vietnam.

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

First of all, looking at below charts, we recognize that: between trade balance and stock price or beta CAPM, there is positive correlation while between exchange rate and stock price of CTG (or beta) there is negative correlation. Thats for external effects.

Second, for internal effects, we recognize that: between industrial production (IM) and stock price of beta of CTG, as well as between Rf and stock price or beta, there are positive correlation.

Hence, stock price and market risk of CTG have same trend of relationship with these external and internal factors.

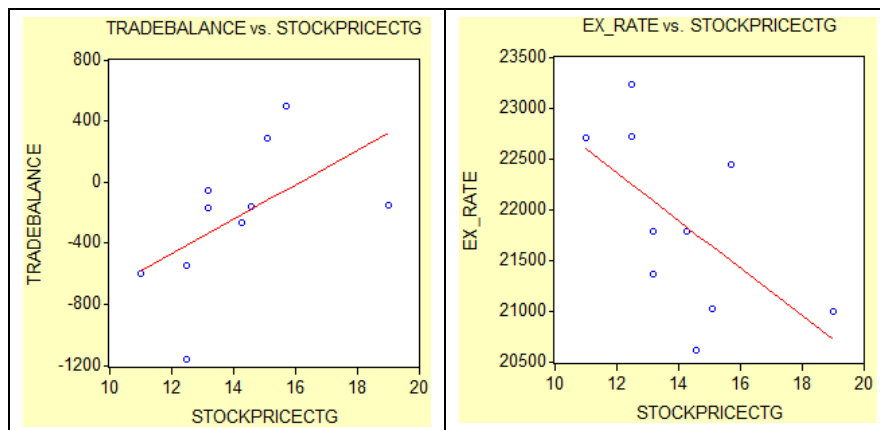Chart 1 – Stock Price CTG and Trade Balance, Exchange Rate Relationship

Chart 2 - Stock Price CTG and Industrial Manufacturing, Risk Free Rate Rf Relationship
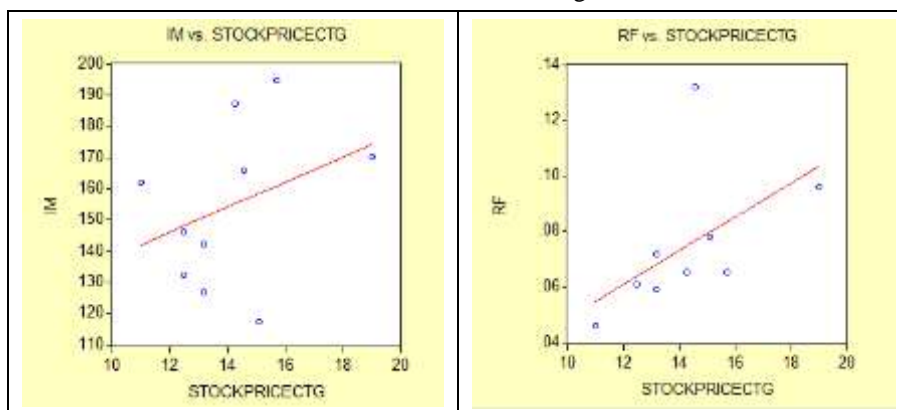
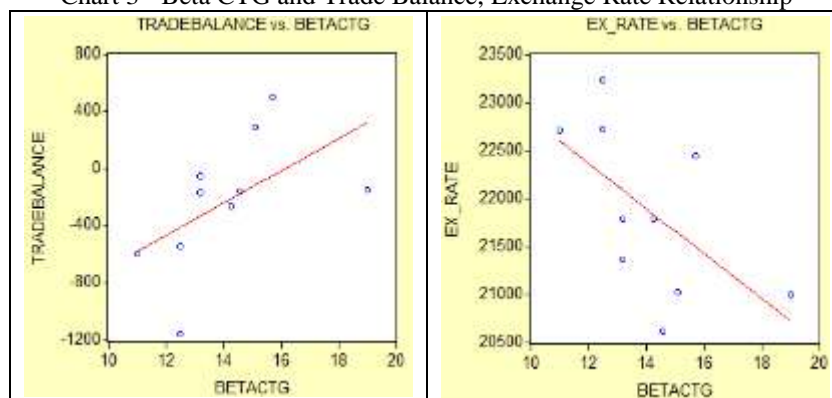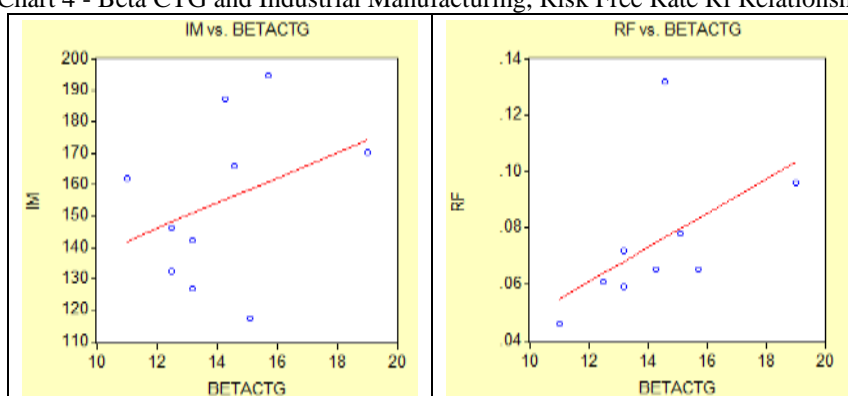Chart 3 - Beta CTG and Trade Balance, Exchange Rate Relationship

Chart 4 - Beta CTG and Industrial Manufacturing, Risk Free Rate Rf Relationship

2. Literature Review

We summarize previous studies as follows:

Al-Quaisi (2011) studied the Amman stock market in Jordan, which is considered to be representative of the emerging Arab financial markets. and found that a number of factors including size, financial leverage, government deficits and inflation rates significantly affect a firm's value of systemic risk.

Ozlen and Ergun (2012) point out that exchange rates and interest rates are the most important factors in firms' stock price volatility. The stock yields of firms in any industry are very sensitive to changes in exchange rates and interest rates. Krishna (2015) investigated the nature of causal relationships between stock prices and important macroeconomic variables in the BRIC countries. Empirical evidence suggests that long-run and short-run relationships exist between macroeconomic variables and stock prices, but the relationship is not consistent for all BRIC countries. Kulathunga (2015) suggests that all macroeconomic factors influence the development of the stock market. More precisely, volatile inflation and exchange rates coupled with higher deposit rates have hampered the development of the stock market in Sri Lanka.

Next, Huy, DTN et al (2020) presented research showing that the increase in GDP and lending interest rates, and the increase in risk-free interest rates had a significant impact on the increase in Vietcombank's stock price in Vietnam by the second highest impact is the rate decrease, the last one is the S&P 500 with a slight decrease.

3. Methodology

The study mainly use quantitative analysis with OLS regression and statistic results, and qualitative analysis with synthesis, inductive methods combined with dialectical materialism method.

Data are reliable from Vietnam stock exchange.

4. Main Results

4.1 Overall Results

Shown in below figure:

Figure 1 – Relation between Stock Price of CTG and Macro Indicators

Correlation Matrix										
	STOCKPRI...	CPI	G	IM	R	RF	VNINDEX	EX_RATE	SP500	TRADEBA...
STOCKPRI...	1.000000	0.350722	-0.443804	0.347304	0.522813	0.552012	-0.648914	-0.595852	-0.711877	0.541368
CPI	0.350722	1.000000	0.090566	0.500206	0.428665	0.580486	-0.861426	-0.382440	-0.844053	0.156409
G	-0.443804	0.090566	1.000000	0.440105	0.223263	-0.421402	-0.016434	0.519076	0.136776	-0.107369
IM	0.347304	0.500206	0.440105	1.000000	0.663798	0.117679	-0.664368	0.038528	-0.613771	0.161388
R	0.522813	0.428665	0.223263	0.663798	1.000000	-0.045403	-0.746263	0.006143	-0.664122	0.553061
RF	0.552012	0.580486	-0.421402	0.117679	-0.045403	1.000000	-0.444136	-0.772931	-0.652624	0.264192
VNINDEX	-0.648914	-0.861426	-0.016434	-0.664368	-0.746263	-0.444136	1.000000	0.295409	0.950618	-0.375438
EX_RATE	-0.595852	-0.382440	0.519076	0.038528	0.006143	-0.772931	0.295409	1.000000	0.476195	-0.491811
SP500	-0.711877	-0.844053	0.136776	-0.613771	-0.664122	-0.652624	0.950618	0.476195	1.000000	-0.485719
TRADEBA...	0.541368	0.156409	-0.107369	0.161388	0.553061	0.264192	-0.375438	-0.491811	-0.485719	1.000000

We can see:

Figure 2 – Relation between Beta CAPM of CG and Macro Indicators

Correlation Matrix										
	BETACTG	CPI	EX_RATE	G	IM	R	RF	SP500	TRADEBA...	VNINDEX
BETACTG	1.000000	0.350722	-0.595852	-0.443804	0.347304	0.522813	0.552012	-0.711877	0.541368	-0.648914
CPI	0.350722	1.000000	-0.382440	0.090566	0.500206	0.428665	0.580486	-0.844053	0.156409	-0.861426
EX_RATE	-0.595852	-0.382440	1.000000	0.519076	0.038528	0.006143	-0.772931	0.476195	-0.491811	0.295409
G	-0.443804	0.090566	0.519076	1.000000	0.440105	0.223263	-0.421402	0.136776	-0.107369	-0.016434
IM	0.347304	0.500206	0.038528	0.440105	1.000000	0.663798	0.117679	-0.613771	0.161388	-0.664368
R	0.522813	0.428665	0.006143	0.223263	0.663798	1.000000	-0.045403	-0.664122	0.553061	-0.746263
RF	0.552012	0.580486	-0.772931	-0.421402	0.117679	-0.045403	1.000000	-0.652624	0.264192	-0.444136
SP500	-0.711877	-0.844053	0.476195	0.136776	-0.613771	-0.664122	-0.652624	1.000000	-0.485719	0.950618
TRADEBA...	0.541368	0.156409	-0.491811	-0.107369	0.161388	0.553061	0.264192	-0.485719	1.000000	-0.375438
VNINDEX	-0.648914	-0.861426	0.295409	-0.016434	-0.664368	-0.746263	-0.444136	0.950618	-0.375438	1.000000

Chart 1 – Comparison of Market Risk and Stock Price of CTG during 2011-2015
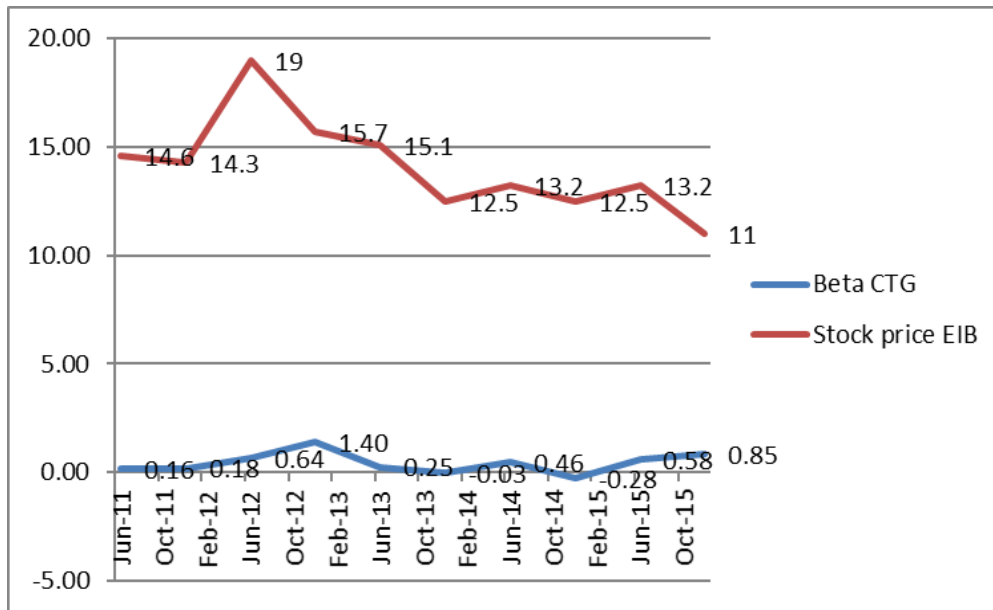
3.2. OLS Regression Results

Run OLS regression with Eviews gives below results:

Figure 3- Regression Results for Internal Effects on CTG Stock Price during Pre-L Inflation Time

Dependent Variable: STOCKPRICECTG
Method: Least Squares
Date: 03/06/21   Time: 13:41
Sample: 1 10
Included observations: 10

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CPI	-42.90631	24.30743	-1.765152	0.1757
G	-33.54695	108.0783	-0.310395	0.7766
IM	-0.005156	0.031512	-0.163623	0.8804
R	7.383494	34.23835	0.215650	0.8431
RF	53.79706	31.03874	1.733223	0.1815
VNINDEX	-0.035848	0.024340	-1.472833	0.2372
C	32.37799	16.72996	1.935330	0.1484

R-squared	0.877241	Mean dependent var	14.11000
Adjusted R-squared	0.631723	S.D. dependent var	2.216328
S.E. of regression	1.344998	Akaike info criterion	3.626689
Sum squared resid	5.427056	Schwarz criterion	3.838498
Log likelihood	-11.13344	F-statistic	3.573019
Durbin-Watson stat	2.210638	Prob(F-statistic)	0.161669

Figure 4- External Effects on CTG Stock Price during Pre-L Inflation Time

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Dependent Variable: STOCKPRICECTG
Method: Least Squares
Date: 03/06/21   Time: 13:40
Sample: 1 10
Included observations: 10
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Variable	Coefficient	Std. Error	t-Statistic	Prob.
EX_RATE	-0.000703	0.000780	-0.901258	0.4022
SP500	-0.003393	0.002079	-1.632183	0.1538
TRADEBALANCE	0.000767	0.001476	0.519930	0.6217
C	35.43023	16.16513	2.191769	0.0709

R-squared	0.609680	Mean dependent var	14.11000
Adjusted R-squared	0.414520	S.D. dependent var	2.216328
S.E. of regression	1.695860	Akaike info criterion	4.183431
Sum squared resid	17.25564	Schwarz criterion	4.304465
Log likelihood	-16.91716	F-statistic	3.124004
Durbin-Watson stat	1.797456	Prob(F-statistic)	0.109245

We can infer from the above figures that CPI, Rf and GDP growth has highest coefficients and effects on stock price of CTG for internal effects, and for external effects, Sp500 has more impacts on stock price of CTG.

Table 1 - External and Internal impacts on CTG Beta CAPM

	External macro effects		Internal macro effects	
	Coefficients	T-statistic	Coefficients	T-statistic
G			-33.5	-0.3
CPI			-42.9	-1.7
R			7.3	0.21
Rf			53.7	1.7
IM			-0.005	-0.16
VNIndex			-0.03	-1.4
Trade balance	0.0007	0.5		
Exchange rate	-0.0007	-0.9		
SP500	-0.003	-1.6		

Run OLS regression with Eviews gives below results:

We can infer from the above figures and tables that for external factors, exchange rate and SP500 have negative correlation with beta CAPM of CTG, as well as stock price and SP500 has more effects on these factors.

5. Discussion

During Pre – L inflation 2011-2015

In case of stock price of CTG we find out: Risk free rate and lending rate have positive correlation with stock price of CTG. For external macro effects, trade balance has positive relationship with stock price. The same phenomenon happens for beta.

In case of beta CAPM of CTG, we figure out: trade balance has positive correlation with market risk. For internal effects, lending rate and risk free rate also have positive relationship with beta CAPM.

6. Conclusion

The year 2015 Vietnam experienced low inflation rate of 0.6%, so we conduct this study during pre-L inflation period 2011-2015.

Because GDP growth and CPI has more effects and negative relationship , while Risk free rate has high impacts and positive relationship with beta CAPM and stock price of CTG, Ministry of Finance, State bank of Vietnam and relevant agencies need to control GDP growth and CPI toward benefits for managing risk.

7. Implications for Financial Accounting Transparency

Lending rate, profits information, risk data and risk free rate policies need transparency policy and suitable disclosure to investors and to public in order to attract more capitals and FDIs.

8. Limitation of Research

We can expand our research model for other industries and other markets.

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