Improving Bank management Under Macro economic Context - Case of ACB Bank in Vietnam

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Abstract: Vietnam experienced the year 2015 with low CPI as of 0.6%. It is the time to suggest solutions to improve bank management and leadership in the country in a changing macro economic context. This paper evaluate bank risks in famous risk model under impacts of both macro internal and external variables during 2 special periods: pre-Low (L) inflation time 2011-2015 and post-L time 2015-2020 in the country. Therefore, in our paper, we aims to measure and evaluate how much effects in the market risk of one of big listed Vietnam commercial bank, Asia Commercial Bank (ACB) during the 2 special periods with semiannual data. We use synthesis statistics methods, and dialectical materialism method, combined with econometric model with 9 macro variables, and figure out that lending rate and risk free rate has positive impacts with bank risk. It implies that increase in lending rate, together with decrease in Rf will increase market risk. Then, we will suggest recommendations for improving bank management capabilities and relevant government agencies. Our recommendation can be used for reference in many other developing markets.

JEL classification numbers: M21, G12, G30, E58, E62

Keywords: market risk management, beta CAPM, macro effects, low inflation, banking industry, Vietnam, policy

INTRODUCTION
ACB is founding early and reached big market share since the day it established. Their board of management keep on business targets and manage safe business operation and reduce risks. They pay attention much to capture new business chances, new markets, Daft (1986) presented us that good management requires sound principles and facts. Whereas Inyang (2008) opined that management theories will provide basis for management practices, and vice versa, management practices will help to reinforce theories. He also said that people that research on theories and with practices need , together, to improve our understanding. (Inyang, 2008:124-125).

Macro policy makers will need to look at risk management in banking industry and impacts of macro factors on market risk in order to adjust macro policies. 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, SP500, trade balance and exchange rate, etc. affecting the market risk level during the low inflation time (2015-2020).

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

LITERATURE REVIEW
Fama, Eugene F., and French, Kenneth R., (2004) also found out that not only beta market, but also beta with market capitalization will affect stock return.
Dimitrov (2006) observed that between debt ratio or leverage and returns of stock (risk adjusted) have negative relationship.
Umar (2011) said that companies with high leverage will have better corporate governance. Chen et all (2013) gave evidence showing that in Lehman Brothers case, depending too much on short term financing and not enough collateral will present high risk exposure.
During the financial crisis 2007-2009 in Viet Nam and global financial markets, high inflation causing high lending rates have created risks for many industries such as banking, medicine and the whole economy.
Mohamad et all (2014) presented results showing that in banking operation, between risk and return, banks need to better select a trade off. Wang et all (2014) showed us that when institutional investors invest in longer period in firms, companies receive abnormal profits.
Then, Gunarathna (2016) mentioned that between firm size and financial risk, there is negative relationship.
Last but not least, Hami (2017) presented us that between inflation and depth of finance in Iran, there is negative relationship.

METHODOLOGY
All stock data is available from Vietnam stock exchange market (HOSE and HNX) during the low inflation period 2015-2020 and China-US commerce war, which we use to estimate systemic risk results. We perform , with formulas of traditional beta market and comparison, both fundamental data analysis and financial techniques.
Analysis of the effects of 9 macro variables on market risk of listed commercial bank, ACB. Weekly data collected from 2015-2020 for ACB 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.

MAIN RESULTS
General Data Analysis
First we look at the below figure, we find out during pre-L inflation time CPI and Beta have negative correlation, but during post-L inflation time, they have positive correlation.
Left column: 2011-2015 (pre-L inflation)
Right column: 2015-2020 (post-L inflation)

Second we look at the below figure, we find out during pre-L inflation time Beta and GDP growth have positive correlation, and also during post-L inflation time, they have positive correlation with smaller slope.
Third we look at the below figure, we find out during pre-L inflation time Beta and Industrial production have positive correlation, and also during post-L inflation time, they have positive correlation with less dispersed values.

Fourth we look at the below figure, we find out during pre-L inflation time Beta and lending rate have positive correlation, and also during post-L inflation time, they have positive correlation with smaller slope.

Fifth we look at the below figure, we find out during pre-L inflation time Beta and Rf have negative correlation, but during post-L inflation time, they have positive correlation with smaller slope.
Sixth we look at the below figure, we find out during pre-L inflation time Beta and VNIndex have negative correlation, but during post-L inflation time, they have positive correlation.

Chart 1: ACB market risk volatility

As we see: beta of ACB reached highest value in June 2017 and lowest value in 2011.

3.2 Empirical Research Findings and Discussion

Using OLS regression from Eviews, we have regression results:
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Fig.7: External impacts on Beta CAPM – Case ACB – period 2011-2015

<table>
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<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
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R-squared 0.518552; Mean dependent var 0.447526; S.E. 0.391636; Akaike info criterion 1.150963; Schwarz criterion 1.271957; Dw statistic 2.155554; Prob(F-statistic) 0.204411

Fig.8: Internal impacts on Beta CAPM – Case ACB – period 2011-2015

<table>
<thead>
<tr>
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Fig.9a: External impacts on Beta CAPM – Case ACB – period 2015-2020

<table>
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<tr>
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Fig.9: Internal impacts on Beta CAPM – Case ACB – period 2015-2020

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DISCUSSION FOR FURTHER RESEARCHES
We find out: Lending rate, \( R_f \) and VNIndex have positive correlation with market risk in both pre-L and post-L inflation periods.
On the other hand, CPI and Beta have positive correlation during post-L inflation time but they have negative correlation during pre-L inflation period.
Regarding external factors, we recognize trade balance and beta have negative correlation during post-L inflation time, but positive correlation during pre-L inflation time.

CONCLUSION AND POLICY SUGGESTION
Modern bank management needs bank leaders to consider macro economic concepts, factors and their impacts on bank business operation.
As shown from the above regression model and equation, Government and Ministry of Finance need to control lending rate, reduce \( R_f \), and CPI for lower market risk.
Our model also shows that other macro factors such as exchange rate and SP500 will have positive correlation with market risk.

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REFERENCES


