BANKING MANAGEMENT FOR SUSTAINABILITY - A CASE IN COMMERCIAL BANKING INDUSTRY IN VIETNAM

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ABSTRACT

Objective: This paper will aim to present banking management and control for sustainability in Vietnam situation.

Method: Authors will use OLS method combined with statistic analysis with Essay, case study method and synthesis method.

Results: the article analyzed SHB stock price under a function with 7 variables - macro elements. Our findings show growth of GDP, lending rate has highest impact on stock price.

Conclusion: One of effective risk management tools is risk model that we suggested in this study, for instance. Impacts of factors such as rate (lending), exchange rate, inflation, etc. Need to be measured and then it is a foundation for policy including but not limit to risk policy, control policy and measurements.

Keywords: risk, policy, bank sector.

Received: 21/08/2023
Accepted: 20/11/2023
DOI: https://doi.org/10.55908/sdgs.v11i11.2261

GESTÃO BANCÁRIA PARA A SUSTENTABILIDADE - UM CASO NA INDÚSTRIA BANCÁRIA COMERCIAL NO VIETNÃ

RESUMO

Objetivo: Este documento terá como objetivo apresentar a gestão bancária e o controle para a sustentabilidade na situação vietnamita.

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Método: Os autores usarão o método OLS combinado com análise estatística com Eveiw, método de estudo de caso e método de síntese.

Resultados: o artigo analisou o preço das ações da SHB sob uma função com 7 variáveis - elementos macro. Nossas descobertas mostram o crescimento do PIB, a taxa de empréstimo tem o impacto mais alto no preço das ações.

Conclusão: Uma das ferramentas eficazes de gestão de riscos é o modelo de risco que sugerimos neste estudo, por exemplo. Impactos de fatores como taxa (empréstimo), taxa de câmbio, inflação, etc. Necessidade de ser medido e, em seguida, é uma base para a política, incluindo, mas não se limitando a política de risco, política de controle e medições.

Palavras-chave: risco, política, setor bancário.

1 INTRODUCTION
1.1 CONTEXTUALIZATION
In recent years in Vietnam banking industry, the central bank and government has issued legal documents to govern bank better, as well as reduce risk and enhance risk control.

First of all, Legal basis for regulating banking operations risks
- Law on credit institutions 2010 (Law on credit institutions amended and supplemented in 2017)
- Circular 41/2016/TT-NHNN safety ratio for foreign bank branches
- Circular 13/2018/TT-NHNN internal control of commercial banks and foreign bank branches
- Circular 40/2018/TT-NHNN

From these analytical results, we could suggest bank and government policies toward sustainability target.

We recognize in a smaller range SHB stock price varied during study period, in same trend with other macro elements.
1.2 RESEARCH OBJECTIVE

This study will present **BANKING MANAGEMENT FOR SUSTAINABILITY – A CASE IN COMMERCIAL BANKING INDUSTRY IN VIETNAM**: It is Saigon Hanoi Bank stock price (SHB).

We organize this study with introduction (and justification), framework, method, discussion, results and conclusion.

1.3 JUSTIFICATION

DTN Huy, PM Dat, PT Anh (2020) mentioned that bank sector health might be reflected via analysis of stock price movement. Hence, the analysis of effects of macro elements on bank stock price will reflect the health of bank sector.

So it is better to build an econometric model to measure these impacts under a scope of risk analysis.

2 THEORETICAL FRAMEWORK

2.1 RESEARCH ISSUES

This paper not only address and test corr among 7 elements (macro) on stock price but it also suggest suitable risk policies, from management analysis and bank management views.
2.2 LITERATURE REVIEW

We analyze in below figure:

We see in below fig 1 that: there is evidence showing macro econ factors has certain effect on stock return.

![Figure 1 - Summary of related studies](source)

During time 2014-2020 banks suffer from macro impacts so it is need to measure it for meanings from central bank views.

3 METHODOLOGY AND DATA

We will recommend policies from our quantitative model below measuring impact macro elements. (see fig 2).

![Figure 2 - Our research model](source)
4 MAIN RESULTS AND DISCUSSION

4.1 GENERAL DATA ANALYSIS

First of all, we analyze below charts and see:

Y (SHB stock price) have positive corr with G, VNIndex (chart 1, chart 3) and negative corr with inflation, lending rate (chart 2, chart 4).

Chart 1 – SHB stock price (Y) vs. GDP growth in Vietnam (G)

(source: author analysis with Eview)

Chart 2 – SHB stock price (Y) vs. Inflation (CPI)

(source: author analysis with Eview)
On the other hand, we could see statistical results with Eview in the below table with 7 variables:
Table 1 – Statistics for macro economic factors

<table>
<thead>
<tr>
<th>SHB stock price</th>
<th>GDP growth (CPI)</th>
<th>Inflation (CPI)</th>
<th>VN Index</th>
<th>Lending rate</th>
<th>Risk free rate</th>
<th>USD/VND rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>7.62</td>
<td>0.06416</td>
<td>0.02588</td>
<td>758.875</td>
<td>0.09856</td>
<td>0.050485</td>
</tr>
<tr>
<td>Median</td>
<td>7.85</td>
<td>0.0648</td>
<td>0.0264</td>
<td>720.67</td>
<td>0.1</td>
<td>0.05435</td>
</tr>
<tr>
<td>Maximum</td>
<td>9.3</td>
<td>0.0708</td>
<td>0.0474</td>
<td>984.24</td>
<td>0.1115</td>
<td>0.06535</td>
</tr>
<tr>
<td>Minimum</td>
<td>6.1</td>
<td>0.0552</td>
<td>0.0063</td>
<td>545.63</td>
<td>0.0886</td>
<td>0.0297</td>
</tr>
<tr>
<td>Standard dev.</td>
<td>0.97</td>
<td>0.005549</td>
<td>0.013884</td>
<td>176.4835</td>
<td>0.007636</td>
<td>0.014068</td>
</tr>
</tbody>
</table>

(source: author analysis with Eview)

Table 2 - Corr matrix

<table>
<thead>
<tr>
<th></th>
<th>Y</th>
<th>G</th>
<th>CPI</th>
<th>VNIndex</th>
<th>R</th>
<th>Rf</th>
<th>Ex rate</th>
<th>SP500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>1</td>
<td>0.34</td>
<td>-0.27</td>
<td>-0.65</td>
<td>-0.48</td>
<td>0.1</td>
<td>-0.29</td>
<td>0.139</td>
</tr>
<tr>
<td>G</td>
<td>1</td>
<td>-0.05</td>
<td>0.65</td>
<td>-0.39</td>
<td>-0.47</td>
<td>0.56</td>
<td>0.63</td>
<td></td>
</tr>
<tr>
<td>CPI</td>
<td>1</td>
<td>0.14</td>
<td>1</td>
<td>-0.22</td>
<td>-0.15</td>
<td>0.08</td>
<td>0.18</td>
<td></td>
</tr>
<tr>
<td>VNIndex</td>
<td>1</td>
<td>-0.44</td>
<td>-0.63</td>
<td>0.77</td>
<td>0.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>1</td>
<td>0.3</td>
<td>-0.15</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rf</td>
<td>1</td>
<td>-0.52</td>
<td>0.67</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ex rate</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SP500</td>
<td></td>
<td>1</td>
<td>0.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

(source: author analysis with Eview)

We recognize When G or VNIndex increase then Y increase.

4.2 REGRESSION MODEL AND MAIN FINDINGS

In below part, we will find out the relationship between 7 macro economic factors and stock price.

4.2.1 Scenario 1: Regression model with single variable

Note: C: constant

Using Eview gives us the below results:

Table 3: Single var regression

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>59.7</td>
<td>58.1</td>
</tr>
<tr>
<td>C</td>
<td>3.7</td>
<td>3.7</td>
</tr>
<tr>
<td>SER</td>
<td>0.96</td>
<td></td>
</tr>
</tbody>
</table>

(source: author analysis with Eview)

4.2.2 Scenario 3 - Regression model with 3 variables: adding lending rate (r) into the above model

Eviews generates below statistical results:
Table 4 – Regression

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>20.6</td>
<td>60.8</td>
</tr>
<tr>
<td>CPI</td>
<td>-26.6</td>
<td>22.9</td>
</tr>
<tr>
<td>R</td>
<td>-66.5</td>
<td>45.2</td>
</tr>
<tr>
<td>C</td>
<td>13.5</td>
<td>7.2</td>
</tr>
<tr>
<td>SER</td>
<td>0.92</td>
<td></td>
</tr>
</tbody>
</table>

(source: author analysis with Eview)

4.2.3 Scenario 3 - regression model with 4 macro variables

Eviews presents the below results:

Table 5- Regression with Eview

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>37.8</td>
<td>82.2</td>
</tr>
<tr>
<td>CPI</td>
<td>-25.1</td>
<td>25.2</td>
</tr>
<tr>
<td>R</td>
<td>-70.3</td>
<td>50.2</td>
</tr>
<tr>
<td>VNIndex</td>
<td>-0.0009</td>
<td>0.002</td>
</tr>
<tr>
<td>C</td>
<td>13.4</td>
<td>7.8</td>
</tr>
<tr>
<td>SER</td>
<td>0.99</td>
<td></td>
</tr>
</tbody>
</table>

(source: author analysis with Eview)

We recognize from above models that:
- First, in both single model and 2 or 4 factors model G has positive corr with Y (table 3,4,5)
- Second, other elements such as R, VNindex have negative corr with Y

4.2.4 Scenario 4 - regression model with 6 macro variables

Running Eviews gives us results:

Table 6- Regression macro

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficient</th>
<th>Std dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>68.7</td>
<td>72.3</td>
</tr>
<tr>
<td>CPI</td>
<td>-24.0</td>
<td>23.1</td>
</tr>
<tr>
<td>R</td>
<td>-49.8</td>
<td>54.5</td>
</tr>
<tr>
<td>VNIndex</td>
<td>-0.0006</td>
<td>0.01</td>
</tr>
<tr>
<td>Rf</td>
<td>27.7</td>
<td>29.6</td>
</tr>
<tr>
<td>Ex rate</td>
<td>-0.001</td>
<td>0.0008</td>
</tr>
<tr>
<td>SP500</td>
<td>0.002</td>
<td>0.007</td>
</tr>
<tr>
<td>C</td>
<td>33.7</td>
<td>19.2</td>
</tr>
<tr>
<td>SER</td>
<td>0.85</td>
<td></td>
</tr>
</tbody>
</table>

(source: author analysis with Eview)

Therefore, we see meanings for policy as follows: because G and Rf has positive corr with Y while CPI, R and ex rate have negative corr with Y.

We will recommend that:
- We need to reduce CPI or control it better as well as lending rate and ex rate.

5 CONCLUSION AND POLICY SUGGESTION

Our above model and findings show that G and Rf has positive corr with Y while CPI, R and ex rate have negative corr with Y.

Then, The business efficiency of commercial banks depends on the level of risk.

In business activities, the Bank has many objective and subjective factors that bring risks, and many force major factors so risks cannot be avoided. Therefore, every year commercial banks are allowed and need to set up a risk compensation fund to account for expenses. The size of the risk compensation fund is based on the level and likelihood of risk.

Next, risk policy at banks will be in favor of their operation (effectiveness).

In commercial bank management, risk management is an important content that leaders, managers, and executives must pay special attention to. Therefore, commercial bank administrators need to be equipped with knowledge of risk management, provide updated economic information, have a professional advisory team and an internal inspection, control and auditing apparatus. Effective management is a necessary condition to prevent, limit risks, and improve business efficiency - Accordingly, many opinions affirm: "Risk management is a key operation and a measure of capacity" "life" or "death" of a commercial bank".

(source: sbv.gov.vn)

For bank risk control: we see below fig

Figure 3 - Bank regulations

risk management is the identification, measurement, monitoring and control of risks in the operations of commercial banks and bank branches. Foreign goods.

Clause 4, Article 3 of Circular 13/2018/TT-NHNN

*2. Commercial banks and foreign bank branches must have internal regulations that comply with the provisions of Article 93 of the Law on Credit Institutions, which must ensure the following requirements:

a) In accordance with the provisions of this Circular and relevant laws;
b) Authority to issue:
   i) For commercial banks: The Board of Directors and the Board of Members promulgate regulations on the organization, administration and operations of commercial banks, except for issues falling under the authority of the General Meeting of Shareholders. Each owner; The Supervisory Board promulgates internal regulations of the Supervisory Board;
The General Director (Director) promulgates regulations, processes and operational procedures (hereinafter referred to as internal processes);
   ii) For foreign bank branches: General Director (Director) promulgates internal regulations of foreign bank branches according to the parent bank’s regulations or uses the parent bank’s internal regulations promulgate;
c) Meet the requirements and contents of control activities specified in Article 14, Clauses 1 and 2, Article 15 of this Circular;

Source: Prepared by Authors (2023)

ACKNOWLEDGEMENTS

Thank you Editors, friends for convenient conditions to publish my research paper.
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ANNEXES

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

Exhibit 2 – GDP growth rate past 10 years (2007-2018) in Vietnam