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# IMPACT OF ECONOMIC INTEGRATION ON BANKING PERFORMANCE IN VIETNAM

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| ARTICLE INFO | ABSTRACT |
|---|---|
| DOI: 10.52932/jfm.vi72.316<br><br>*Received:* August 23, 2022<br>*Accepted:* September 23, 2022<br>*Published:* December 25, 2022<br><br>**Keywords:**<br>Commercial bank;<br>Economic integration;<br>Operational efficiency. | Through the collection of secondary data, the study was conducted to understand the impact of economic integration on banking performance in Vietnam. The data of the article is taken from 21 commercial banks in Vietnam from the period 2010 - 2021. The research results show that economic integration has an impact on banking performance through economic freedom indexes and financial freedom. Besides, the results also show that many factors related to the internal characteristics of banks also have an impact on bank performance including bank size, diversification of banking products, cost of banking activities, and equity ratio. Economic environmental factors also have an impact on bank performance. GDP has a positive and statistically significant relationship with banking performance. From the research results, the article proposes governance implications for managers of Vietnamese commercial banks. The obtained results have contributed more empirical evidence on the impact of economic integration on the banking performance of developing countries. |

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## 1. Introduction

Efficiency in banking operations always receives attention during the process of banking management and administration (Chortareas et al., 2015). To survive and develop in an increasingly free and equal business environment, it is essential to improve the operational efficiency and financial capacity of Vietnamese commercial banks. Considered from a research and academic perspective, the role of economic integration in the economy in general and the banking industry, in particular, has become a topic that attracts a lot of attention and research from policymakers to academic studies.

The relationship between economic integration and banking performance is mainly approached by previous studies through the perspective of economic freedom and banking technical efficiency. These studies are divided into two groups, one that looks at the level of a set of countries and another that looks at banks in a single country. Most studies show that economic integration has an impact on the bank performance (Chortareas et al., 2015); (Beju & Ciupac-Ulici, 2012). In particular, economic integration has basic effects on the banking system (Beju & Ciupac-Ulici, 2012), the effect of economic integration on bank performance is relatively more pronounced in countries with more liberal politics, and more sound government policies, and better governance (Chortareas et al., 2015). In many cases, financial liberalization caused instability in monetary policy and the banking system (Beju & Ciupac-Ulici, 2012). Besides, many scholars also study the role of economic integration with many different case studies (Pattanaik & Nayak, 2014); (Farhadi et al., 2015); (Bumann et al., 2013); (Nordin & Ghani, 2015). However, the research results are still inconsistent because of the specifics of each case study.

There are two different results in the impact of economic integration on the performance of banks. After integration, the country will borrow from other countries, that lead to a negative and significant influence of external debt on economic growth and bank operation (Al Kharusi & Ada, 2018). In the research of Shkolnyk et al. (2020), the economic categories of financial stability and financial security are closely related, since in both cases the ability of the country's financial system to absorb external and internal shocks is evaluated. Financial integration is generally associated with the development of synergies through cross-border banking and investment activities and increased competitiveness among banks, financial integration directly increases bank risk-taking behavior (Banyen, 2021).

Vietnamese commercial banks, financial intermediaries that play an important role in connecting the savings and investment sectors of the economy, are increasingly being competed by non-bank financial intermediaries and banks. Uncompetitive banks will be replaced by more efficient banks. This shows that only banks with good financial capacity and the most effective business operations can survive and develop. Over the years, Vietnam has been actively integrating deeply into the regional and world economy. This process creates many development opportunities but also poses many challenges for the Vietnamese economy. Although some studies on the role of economic integration and economic freedom in the Vietnamese economy (Herr et al., 2016). However, most of the studies focus on assessing the large scale of the economy in general. In contrast, in a narrower scope, the impact of economic integration on sectors in the economic system is still modest. Then, the article is conducted to analyze the impact of economic integration on the performance of commercial banks in Vietnam, and propose some solutions and recommendations to help Vietnamese commercial banks have better solutions. appropriate strategies to improve operational efficiency in the current context of deepening integration.

## 2. Literature Review

### *2.1. Bank performance*

Efficiency is a commonly used category to assess an entity's ability to maximize its revenue output given input costs, in other words, efficiency is the benefits yielded from specific activity (Kopp, 2016). In the banking sector, a bank's operational efficiency is its ability to generate profits as well as ensure safety and limit risks for its operations (Haralayya & Aithal, 2021).

Operational efficiency of commercial banks through various quantitative indicators such as profit after tax, capital size, market share, stock value, and profit growth rate. The most common are return on equity ratios – ROE and return on total assets – ROA (Recap & Am, 2008).

### *2.2. Economic integration*

Economic integration is the process of institutional connection between economies together. This is the process of proactively implementing both aspects at the same time, including linking each country's market and economy to regional and global markets by opening up the economy and promoting economic liberalization; and breathe members and together build economic institutions at the regional and international level (Pattanaik & Nayak, 2014). Thus, the process of economic integration goes hand in hand with the process of opening the economy and liberalizing the economy.

To assess the level of the economic integration of a country, major financial institutions in the world often evaluate through a set of indicators reflecting economic freedom (Miller & Kim, 2015). Which, three important factors include free trade (business freedom), monetary freedom, and financial freedom. Business freedom is the ease with which a start-up business can obtain an operating license or an investment certificate, and the ease in closing a company (Sufian & Habibullah, 2014). Monetary freedom refers to a country having a stable currency and following a price mechanism that is determined by market supply and demand (Miller & Kim, 2015). Financial freedom refers to the independence of the banking industry from government control. Financial freedom leads to an accessible and efficient formal financial system that ensures a wide range of savings, credit, payment, and investment services are available to all participants (Sufian & Habibullah, 2014).

### *2.3. The relationship between economic integration and banking sector performance*

Economic integration can have both positive and negative effects on banking performance in different countries (Sufian & Habibullah, 2014; Beju & Ciupac-Ulici, 2012).

Economic integration creates new capital sources, helps to effectively circulate capital, and promotes the application of international practices in banking supervision. The participation of foreign banks in the domestic market contributes to improving the operational efficiency of the domestic banking system. This is due to foreign banks' involvement in improving the quality, price, and supply of new financial instruments to the domestic market, improving management skills and qualifications as well as increasing increase competition in the domestic market. Besides, economic integration contributes to the stability of the domestic banking system, resulting in a better quality of financial services at lower costs (Sufian & Habibullah, 2014).

However, the increasing and deepening participation of foreign banks in the domestic market can have a negative impact on the financial system and the economy in developing countries. In some cases, in response to shocks from the parent bank's own country, foreign bank branches often adopt policies or mechanisms that may have a negative impact on the banking system. goods and finance in the host country. Besides, the participation of foreign banks in the domestic market contributes to the improvement of staff quality and banking inspection and supervision standards, banking activities outside of a single country are difficult to achieve complicated monitoring and management issues (Beju & Ciupac-Ulici, 2012).

## 3. Research model, research data and research methods

### *3.1. Research model*

Based on the research model of Sufian & Habibullah (2014) and the situation in Vietnam, the research model as following:

$$ROA_{it} = \alpha + \beta_1 Loan\_TA_{it} + \beta_2 TA_{it} + \beta_3 LLP\_TL_{it} + \beta_4 NII\_TA_{it} + \beta_5 NIE\_TA_{it} + \beta_6 ETA_{it} + \gamma_1 GDP_t + \gamma_2 INF_t + \delta_1 BUSI\_FREE_t + \delta_2 MONE\_FREE_t + \delta_3 FINA\_FREE_t + \delta_4 Năm + \varepsilon_{it} \quad (1)$$

$$ROE_{it} = \alpha + \beta_1 Loan\_TA_{it} + \beta_2 TA_{it} + \beta_3 LLP\_TL_{it} + \beta_4 NII\_TA_{it} + \beta_5 NIE\_TA_{it} + \beta_6 ETA_{it} + \gamma_1 GDP_t + \gamma_2 INF_t + \delta_1 BUSI\_FREE_t + \delta_2 MONE\_FREE_t + \delta_3 FINA\_FREE_t + \delta_4 Năm + \varepsilon_{it} \quad (2)$$

Which, economic integration is measured through 3 aspects include the degree of business freedom, monetary freedom, and financial freedom, i represents each bank, t represents each time. The description of the variables in the research model is presented in Table 1.

**Table 1.** Description of variables in the research model

| Variables | Symbol | Calculate | Expected | Data Source | Authors |
|---|---|---|---|---|---|
| **Dependent variable** | | | | | |
| Bank efficiency | ROA | Return/ Total assets | | Bank Scope Database | Sufian & Habibullah, (2014) |
| Bank efficiency | ROE | Return/ Equity | | Bank Scope Database | Sufian & Habibullah (2014) |
| **Independent variables** | | | | | |
| **Internal factors** | | | | | |
| Loan-to-total assets ratio | Loan_ TA | Total loans/ Total assets | + | Bank Scope Database | Sufian & Habibullah (2014), Barry & Heather (2014) |
| Bank size | TA | ln (Total assets) | + | Bank Scope Database | Sufian & Habibullah (2014), Bikker & Hu (2002) |
| Risk ratio | LLP_TL | Provisions for credit losses/ Total loans | +/- | Bank Scope Database | Sufian & Habibullah (2014) |
| Diversification | NII_TA | Non-interest income/Total assets | +/- | | Sufian & Habibullah (2014) |
| Operating costs | NIE_TA | Operating expenses/ Total assets | +/- | Bank Scope Database | Sufian & Habibullah (2014) |
| Equity ratio | ETA | Equity/total assets | + | Bank Scope Database | Sufian & Habibullah (2014) |
| **External factors** | | | | | |
| Economic growth | GDP | Annual economic growth rate | + | IMF | Demirgüç-Kunt & Huizinga (1999), Sufian & Habibullah (2014) |

| Variables | Symbol | Calculate | Expected | Data Source | Authors |
|---|---|---|---|---|---|
| Inflation | INF | Inflation rate | + | IMF | Sufian & Habibullah (2014), Demirgüç-Kunt & Huizinga (1999) |
| **Economic integration** | | | | | |
| Business Freedom | BUSI_FREE | Business Freedom ratio | + | Heritage Foundation | Sufian & Habibullah (2014) |
| Monetary freedom | MONE_FREE | Monetary freedom ratio | + | Heritage Foundation | Sufian & Habibullah (2014) |
| Financial freedom | FINA_FREE | Financial freedom ratio | + | Heritage Foundation | Sufian & Habibullah (2014), Beju & Ciupac-Ulici (2012) |

### *3.2. Research data*

Data related to banking characteristics are collected from the financial statements of 21 Vietnamese commercial banks in the period from 2010 to 2021. Data representing the macroeconomic factors of the economy are collected from the statistics of the International Monetary Fund (IMF). Data related to the economic freedom index is collected by the author from the report of the Heritage Foundation.

### *3.3. Research methods*

The study uses estimation methods with panel data including OLS, FEM, REM, and GLS methods to provide empirical evidence on the impact of economic integration on the performance of Vietnamese commercial banks.

## 4. Research results

### *4.1. Descriptive Statistics*

Descriptive statistics results show the basic characteristics of the data sample such as the number of observations, the mean value, the standard deviation, the minimum value, and the maximum value. The data sample includes 21 Vietnamese joint-stock commercial banks, in the research period from 2010 to 2021, the largest number of observations for each variable is 252 observations and the lowest is 222 observations, the data is unbalanced panel data. because some banks do not fully disclose financial statements and/or some items in the financial statements are not available.

**Table 2.** Descriptive statistics

| Variables | Observations | Mean | S.deviation | Min | Median | Max |
|---|---|---|---|---|---|---|
| ROE | 233 | 0,11 | 0,07 | 0,0007 | 0,10 | 0,44 |
| ROA | 233 | 0,01 | 0,02 | 0,0001 | 0,01 | 0,19 |
| LLP_TL | 224 | 0,01 | 0,01 | 0,0001 | 0,01 | 0,04 |
| LOAN_TA | 246 | 0,53 | 0,13 | 0,11 | 0,54 | 0,87 |
| TA | 248 | 17,58 | 1,46 | 11,88 | 17,61 | 20,81 |
| NII_TA | 222 | 0,02 | 0,04 | -0,07 | 0,01 | 0,29 |
| NIE_TA | 232 | 0,02 | 0,01 | 0,004 | 0,02 | 0,03 |
| ETA | 245 | 0,12 | 0,08 | 0,04 | 0,10 | 0,71 |
| GDP | 252 | 0,06 | 0,01 | 0,05 | 0,06 | 0,07 |

| Variables | Observations | Mean | S.deviation | Min | Median | Max |
|---|---|---|---|---|---|---|
| INF | 252 | 0,08 | 0,06 | 0,01 | 0,07 | 0,23 |
| BUSI_FREE | 252 | 60,99 | 1,32 | 58,3 | 61,15 | 63,8 |
| MONE_FREE | 252 | 69,22 | 5,73 | 58,1 | 67,45 | 79,1 |
| FINA_FREE | 252 | 31,67 | 3,73 | 30 | 30 | 40 |

### *4.2. Correlation coefficient matrix*

Research results show that the correlation coefficient between the pairs of variables is lower than 0.8; Therefore, there is no possibility of serious multicollinearity in the model (Wooldridge, 2003).

### *4.3. Regression analysis*

First, the author uses the POOLed OLS to test the impact of the variable on the return on total assets (ROA). However, the test results are not effective. Accordingly, the author uses both fixed effect estimation (FEM) and random effects estimation (REM) methods in panel data to evaluate the impact of explanatory variables on the dependent variable. However, after the author performed the tests including the non-fixed variance test and the series correlation test for the model to ensure the results is stable, the result is that the model exists the phenomenon of variable variance and no autocorrelation. Therefore, the author applies the method of FGLS in panel data to regress the research model instead of FEM and REM methods. At the same time, the estimated results from the FGLS method are the main basis for analyzing and discussing the research results on the impact of economic freedom on the ROA rate. However, the model estimation results by FGLS method are not significantly different from the other two estimation methods, FEM and REM.

Table 3 presents the results of the model for the effects of economic freedom and other factors on the return on assets (ROA). Most of the effects of the variables are compatible with the expected trend of impact.

**Table 3**. Regression results with ROA

| Variables | ROA (FEM) | | ROA (REM) | | ROA (FGLS) | |
|---|---|---|---|---|---|---|
| | Coefficient | P value | Coefficient | P value | Coefficient | P value |
| LLP_TL | -0,52** | 0,04 | -0,32 | 0,15 | -0,18 | 0,36 |
| Loan_TA | -0,01 | 0,51 | -0,02 | 0,18 | -0,02 | 0,12 |
| TA | 0,02*** | 0,00 | 0,01*** | 0,01 | 0,01*** | 0,00 |
| NII_TA | 0,01 | 0,96 | -0,02 | 0,59 | -0,03 | 0,42 |
| NIE_TA | 0,85** | 0,02 | 0,63** | 0,04 | 0,52** | 0,05 |
| ETA | 0,11*** | 0,00 | 0,09*** | 0,01 | 0,09*** | 0,00 |
| GDP | 0,48** | 0,02 | 0,45** | 0,03 | 0,47** | 0,02 |
| INF | -0,04 | 0,13 | -0,03 | 0,29 | -0,03 | 0,27 |
| BUSI_FREE | 0,01** | 0,03 | 0,01** | 0,04 | 0,01** | 0,05 |
| MONE_FREE | 0,00 | 0,86 | 0,00 | 0,94 | 0,00 | 0,92 |
| FINA_FREE | 0,01*** | 0,00 | 0,01*** | 0,00 | 0,01*** | 0,00 |
| Nam | -0,01*** | 0,00 | -0,00*** | 0,00 | -0,01*** | 0,00 |
| Coefficient | 9,99*** | 0,00 | 5,97*** | 0,00 | 5,61*** | 0,00 |
| F stat | 4,30 | 0,00 | 43,98 | 0,00 | 44,09 | 0,00 |
| Observations | 207 | | 207 | | 207 | |

*Source: Results calculated from Stata*

The results of Table 3 show that there is statistically significant evidence of the impact of entrepreneurship and financial freedom on ROA, however, there is no evidence of the impact of monetary freedom on ROA. More specifically, entrepreneurial freedom has a positive relationship with ROA, with a statistical significance of 5%. This result shows that, as Vietnam moves towards integration and economic freedom, gradually removing trade barriers and creating a more favorable environment for foreign participation in Vietnam, the efficiency of the economy is greatly improved. The performance of the domestic banking industry has improved. The positive relationship between entrepreneurial freedom and bank performance (ROA) is similar to the results of the author's previous study in Asia (Sufian & Habibullah, 2014).

Financial freedom has a positive relationship with ROA, statistically significant at the 1% level. This result is similar to the results of Sufian & Habibullah (2014). This result further shows that the separation of control of the bank from the government (financial freedom) is the driving force behind the profit growth of commercial banks. Banks have more opportunities to finance good private businesses and bring more benefits while controlling risks without having to be dominated by power from the Government (Sufian & Habibullah, 2014). In Vietnam, banking operations are nominally regulated by the State Bank. However, government intervention in the Vietnamese banking system is not uncommon. This is sometimes appropriate because the context of Vietnam is currently a developing country, and the government's intervention sometimes helps the bank to solve some common risks for the economy as well as the economy. for the development of the banking industry. In the opposite direction, the government's excessive intervention sometimes becomes an obstacle to the development of banking.

Monetary freedom does not show an impact on ROA in the case of Vietnam. This result is different from the result of a negative relationship between monetary freedom and ROA in the study of Sufian & Habibullah (2014). In other words, in the case of Vietnam, the government's intervention in the market has not shown an impact on the efficiency of commercial banks.

Table 4 shows the results of the regression model of the impact of economic integration on the return on equity (ROE) of Vietnamese commercial banks. The results show that there is statistically significant evidence for the impact of financial freedom on ROE, while business freedom and monetary freedom have no evidence to affect a bank's ROE. The positive relationship between financial freedom and ROE is similar in meaning to the relationship between financial freedom and ROA. In other words, less government intervention in the banking industry improves the bank's performance including ROE and ROA.

**Table 4.** Regression results with ROE

| **Variables** | **ROE (FEM)** | | **ROE (REM)** | | **ROE (FGLS)** | |
|---|---|---|---|---|---|---|
| | **Coefficient** | **P value** | **Coefficient** | **P value** | **Coefficient** | **P value** |
| LLP_TL | -1,31 | 0,11 | -1,24 | 0,11 | -1,14 | 0,12 |
| Loan_TA | -0,06 | 0,16 | -0,09** | 0,02 | -0,08** | 0,02 |
| TA | 0,09*** | 0,00 | 0,05*** | 0,00 | 0,04*** | 0,00 |
| NII_TA | 0,02 | 0,87 | -0,09 | 0,39 | -0,23* | 0,07 |
| NIE_TA | 2,43** | 0,04 | 2,82** | 0,01 | 3,87*** | 0,00 |
| ETA | 0,15 | 0,12 | -0,02 | 0,79 | -0,05 | 0,59 |
| GDP | 2,88*** | 0,00 | 2,87*** | 0,00 | 3,16*** | 0,00 |

| Variables | ROE (FEM) | | ROE (REM) | | ROE (FGLS) | |
|---|---|---|---|---|---|---|
| | Coefficient | P value | Coefficient | P value | Coefficient | P value |
| INF | -0,18** | 0,02 | -0,13 | 0,11 | -0,15 | 0,10 |
| BUSI_FREE | 0,01 | 0,17 | 0,01 | 0,16 | 0,01 | 0,17 |
| MONE_FREE | 0,00 | 0,13 | 0,00 | 0,25 | 0,00 | 0,40 |
| FINA_FREE | 0,01*** | 0,00 | 0,01*** | 0,00 | 0,01*** | 0,00 |
| Nam | -0,04*** | 0,00 | -0,03*** | 0,00 | -0,03*** | 0,00 |
| Coefficient | 67,77*** | 0,00 | 51,01*** | 0,00 | 49,72*** | 0,00 |
| F stat | 18,34 | 0,00 | 206,87 | 0,00 | 233,66 | 0,00 |
| Observations | 207 | | 207 | | 207 | |

Besides, the research results also show that the larger the banks, the higher the profit margin in terms of ROA and ROE due to taking advantage of the advantages of scale. Besides, large-scale banks often have good input resources and quality output customers, so the bank's income is improved. These results are consistent with those of Sufian & Habibullah (2014).

Income diversification has a negative relationship with bank performance. In other words, banks focus too much on diversification and forget to improve their traditional activities of depositing and lending, further eroding corporate efficiency. Diversification can be considered in many aspects, but it is necessary to focus on and promote the main activities of depositing and lending, such as diversifying the group of loan customers, diversifying credit lines, and savings products... so the bank has both achieved the goal of diversification to attract resources and improve the efficiency of banking operations. The ability to manage operating costs has an impact on bank performance. The higher the management cost per total asset, the better the operational efficiency. This shows that the increase in operating costs is "intentional" such as increasing the cost of personnel quality and increasing resources for the banking administration system. These are intangible factors that contribute to improving the efficiency of banking operations. The equity ratio has a positive relationship with bank performance (ROA). The greater the participation of equity in the bank's source structure, the better the return on total assets. These results are similar to those in the study of Sufian & Habibullah (2014). In Vietnam over the past time, the State Bank has always set constraints related to improving the financial capacity of the banking system and required an increase in the bank's participating equity to meet the capital adequacy ratio requirements of the Basel standards. The greater the participation of equity, the greater the responsibility of the banker, in addition, the larger the equity, the lower the cost of capital, reducing risks in the face of economic uncertainties, thereby improving the efficiency of banking operations (Sufian & Habibullah, 2014).

The test results show that the economic growth index has clear and statistically significant evidence that has an impact on bank performance. GDP has a positive relationship with bank performance. The macroeconomic environment with a sustained economic growth rate further promotes and facilitates banking activities to become better. In other words, when economic growth is higher, banks will lend more and with a higher interest rate, and at the same time, the quality of bank assets will improve. On the other hand, the test results also show that the inflation factor does not have enough evidence to have an impact on bank efficiency.

## 5. Conclusion anh management Implications

The results show that economic integration and internal factors of the bank have a significant impact on the performance of the bank. Vietnam is increasingly participating in integration, so the trend of economic integration and globalization is inevitable. Accordingly, banks need to actively innovate to be suitable and successful in the new context. More specifically, the research results show that entrepreneurial freedom increases bank efficiency. This can be seen that entrepreneurial freedom creates a good environment to increase the participation of new businesses in Vietnam, thereby increasing the amount of demand for banking services. However, this also means more competition, increased profits coupled with increased risks. Therefore, the strategy to maintain stability in business operations and minimize risks is that the bank needs to increase its competitiveness, develop and enhance its inherent strengths, and above all, change according to international standards.

For policymakers, it is necessary to improve the legal framework, minimize unnecessary trade barriers and create a good environment to attract foreign investment, which is also an effective and necessary solution to develop the economy in general and increase the efficiency of the banking industry in particular. As mentioned above, the research results show that entrepreneurship increases the efficiency of banking operations. From an overall perspective, economic integration is a common policy of the State bank, so the simplification of administrative procedures, legal reform, and investment attraction are tasks that policy-making agencies need. must execute. Besides, it is necessary to further reform administrative and legal procedures for investment, and the procedures for establishing and allowing bankruptcy of enterprises, which need to be improved in a simpler direction, and come closer to common standards. international standards, removing barriers to administrative procedures, and harassment in licensing stages.

The government needs to reduce interference in the banking system. As defined by the ranking organization The Heritage Foundation, financial freedom is about reducing government control over the banking system. The role of government should only create an enabling, fair and transparent environment. Besides, the research results also show that financial freedom and bank performance have a positive relationship. Therefore, the author also advocates the reduction of government intervention in the operation of the Vietnamese banking system to be in line with global standards and to improve the efficiency of banking operations. More deeply, reducing government intervention in banking activities can partly make the operating system transparent, increase the efficiency of resource allocation among sectors of the economy, and promote competition. healthier competition among banks.

In the trend of economic integration, internal factors also strongly affect the efficiency of banking operations. Factors such as bank size, diversification, cost management ability, and bank's equity ratio all have statistical evidence to show a significant impact on bank performance. Therefore, banks need to actively improve the quality of internal factors such as increasing the bank size, diversifying, and effectively controlling costs to increase competitiveness and develop strengths. have advantages, and absorb new technology as well as international standards.

Macro factors also have a significant impact on the efficiency of banking operations in Vietnam. Therefore, the government needs to have solutions to run the economy appropriately and effectively. Research results show that GDP growth and bank efficiency have a positive relationship. Therefore, to contribute to increasing the operational efficiency of the banking industry, the Government should take measures to promote stable and sustainable economic growth. Since then, the bank is confident enough to have sustainable development strategies and contribute more to the overall growth of the economy.

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