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**LIQUIDITY MANAGEMENT AT VIETNAM BANK OF
AGRICULTURE AND RURAL DEVELOPMENT**

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SUMMARY OF DOCTORAL THESIS IN ECONOMICS

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INTRODUCTION

1. The essentiality of the research topic

Commercial banks are a special enterprise, trading in the field of currency - credit; the capital is mainly mobilized from economic organizations and individuals with high volatility to make loans and investments - those low liquid properties. Therefore, liquidity and liquidity management are always a key issue in business management in commercial banks. Agribank is one of the four largest commercial banks in Vietnam and mainly serves Vietnam's key economic sectors; Agribank's business activities have great impacts on the banking system and the national economy. However, in the period of 2013 - 2018, Agribank's business activities revealed many weaknesses, affecting its liquidity and liquidity risk. Therefore, the liquidity management in Agribank is one of the issues that threaten to the existence and development of the bank in the coming years and the bank needs to implement appropriate solutions in specific order to complete the liquidity management. Currently, there have been some domestic studies on liquidity issues, liquidity risk, liquidity risk management in Vietnamese commercial banking system in general and Agribank in particular. However, there has not been any comprehensive and systematic research on the Agribank liquidity management. Stemming from the above reasons, the topic "*Liquidity management at Vietnam Bank for Agriculture and Rural Development*" is having both theoretical and practical meaning.

2. Overview of the research

Currently, in the world and in the country, there are many researches related to the liquidity management in commercial banks. Most of these studies have focused on liquidity, liquidity risk, and liquidity - risk liquidity management in commercial banks. However, there have been no comprehensive theoretical studies about liquidity management of

commercial banks, especially, there have been no studies clarifying the basic issues of modern liquidity management. For domestic researchs, most of them have only studied surveyed liquidity, liquidity risk, and liquidity risk management at Vietnamese commercial banks in general and at Agribank in particular to take information, data and conditions of the previous period 2017. There have been no studies on surveys and assessments of liquidity management at Vietnam's commercial banks, especially on the Agribank liquidity management in the period of 2017-2018 to propose solutions to improve the liquidity management by 2025. Therefore, it is necessary to have a complete and systematic theoretical research on liquidity management in commercial banks, a practical study of Agribank liquidity management for the period of 2013 - 2018, and then to propose meaningful and highly feasible solutions and recommendations on liquidity management by 2025.

3. Research objectives of the thesis

The thesis proposes a system of solutions and recommendations on liquidity management at Agribank by 2025 to ensure effective operation, stable and sustainable development, and maintaining the leading commercial bank position in Vietnam.

Specific tasks: (i) Systematize and deepen fundamental theoretical issues about liquidity and liquidity management of commercial banks; (ii) Studying experience in handling situations in liquidity management of some banks, thereby drawing lessons for Agribank; (iii) Assess the liquidity and liquidity management situation in Agribank in 2013 - 2018. Point out the achieved results, limitations and causes of the limitations in the Agribank liquidity management; (iv) Propose a system of solutions and recommendations to complete the Agribank liquidity management by 2025, ensuring effective business operations, stable and sustainable development.

4. Objects and Scope of the research

- Object: liquidity management in commercial banks

- Scope:

+ Content: The thesis researches the liquidity management in commercial banks, which focuses mainly on the organization and process of the liquidity management of the commercial banks.

+ Space: The thesis focuses on the study of Agribank liquidity management (excluding subsidiaries, joint ventures and associates of Agribank).

+ Time: Surveying and analyzing the situation of the Agribank liquidity management from 2013 to 2018 and propose solutions until 2025.

5. The contribution of the research topic

* Theoretical contributions: The dissertation deepens the theoretical basis of the liquidity management in commercial banks that previous studies have not mentioned or mentioned are not systematic and complete. Specifically: (i) Clarify the liquidity issues of commercial banks: the concept of liquidity and liquidity regulation mechanism of commercial banks; (ii) Clarify the connotations of "liquidity management in commercial banks" and basic issues about the modern liquidity management in commercial banks. Based on the study of experience in handling situations in liquidity management of some banks, the thesis shows meaningful lessons for Agribank in liquidity management.

*Practical contributions: The thesis assesses the situation of Agribank liquidity management for the period of 2013-2018. Assessments of results, limitations and causes of limitations in the Agribank liquidity management are based on scientific and practical basis because they follow the theoretical basis in chapter 1 and data with clear origin, high reliability audited financial statements, the annual report of Agribank from 2013 to 2018 and the survey results by the questionnaire. The thesis proposes a system of solutions and recommendations to complete the Agribank liquidity management by 2025 to ensure effective business operations, stable and sustainable development. The solutions and recommendations

are meaningful and highly feasible because they are interpreted in a scientific basis and closely follow the liquidity management practices at Agribank.

6. Research methods

Firstly, on the basis of dialectical materialism and historical materialism, the thesis uses a combination of traditional research methods as follows: Statistical, analytical, comparative and other methods of scientific thinking. Secondly, the method of surveying by questionnaire with 2 target groups: officers working at Agribank branches / transaction offices and individual customers of Agribank. Thirdly, the thesis inherits and applies a number of domestic and foreign research results related to the research content.

7. The structure of the thesis

In addition to the introduction, conclusion, list of published scientific studies, appendices and references, the thesis consists of 3 chapters:

Chapter 1: Theoretical basics about liquidity management in commercial banks.

Chapter 2: Current situation of liquidity management at Vietnam Bank for Agriculture and Rural Development.

Chapter 3: Solutions to improve liquidity management at Vietnam Bank for Agriculture and Rural Development.

CHAPTER 1. THEORETICAL BASICS ABOUT LIQUIDITY MANAGEMENT IN COMMERCIAL BANKS

1.1. The basics of liquidity of commercial banks

1.1.1. Overview of commercial banks

1.1.1.1. Commercial banking concept

Commercial bank is a monetary business organization that often receives deposits, provides credits and provides banking services in the national economy, including payment services.

Compared to other financial intermediaries, commercial banks always play an extremely important role: (i) Providing diversified banking services; (ii) An important bridge between supply and demand for capital, especially in developing economies, Commercial bank is still the main channel of attracting and providing capital to the economy; (iii) Being an important subject of the monetary policy transmission of the Central Bank.

1.1.1.2. Operating characteristics of commercial banks

Business object of commercial banks is monetary. Products of commercial banks are similar, easy to imitate and linked with time factor; Capital of the bank is mainly mobilized from the outside, the equity ratio is much lower than that of organizations in other business areas; The bank's business activities affect every aspect of the national economy; The business operations of commercial banks have close relationships with each other; Business activities of commercial banks are based on the word "credit".

1.1.2. Liquidity of commercial banks

1.1.2.1. Liquidity concept of commercial banks

Liquidity of a commercial bank is the ability to respond promptly and fully to financial obligations arising in the course of business operations of the bank such as withdrawing deposits, disbursing committed credits, paying operating costs or needs to be paid in cash other than reasonable cost.

In banking business, liquidity determines the existence and development of a bank because when banks ensure liquidity, it is the foundation to build trust in the market. A bank with good liquidity does not only meet the demand for full withdrawals for customers, but also has a sufficient reserve to meet the bank's need to disburse profitable loans.

1.1.2.2. Net liquidity position of commercial banks

Net liquidity position (NLP) is the difference between total supply and aggregate liquidity at a time.

a. Supply of liquidity: is the amount of money available or may be available for a short time for the bank to use.

b. Liquidity demand: is the amount of money the bank needs to pay immediately or in a short time.

$NLP > 0$ (liquidity surplus) or $NLP < 0$ (shortage of liquidity) is a common situation and has certain effects on the business activities of the bank.

1.1.2.3. Liquidity risk

a. Liquidity risk concept

From the perspective of commercial bank administration, it can be understood that: liquidity risk arises from a situation where commercial banks are not sufficient to provide liquidity to meet liquidity demand, this status adversely affects prestige, income and final solvency same of commercial banks

b. Reason of liquidity risk

* Inside the bank: The market management strategy is not appropriate; Inaccurate prediction about supply and demand of liquidity; Increase operating costs; Increasing risks in business activities of commercial banks

* Outside banks: adverse changes in the business environment; Instability of financial markets.

c. Negative impact of liquidity risk

* Impact on commercial banks: Financial losses, capital raising pressure, affecting reputation and increasing risk of bank bankruptcy.

* Impacts on the economy: Can cause disruption of the financial market and instability with the banking system, possibly increasing the State Budget spending and negative impacts on social security.

1.2. Liquidity management in commercial banks

1.2.1. Liquidity management concept

Liquidity management is the use of appropriate tools, policies and techniques to ensure that the liquidity supply is always in line with liquidity demand, harmonizing the relationship between liquidity and earnings of the bank.

The liquidity management has a broader connotation than liquidity risk management: The liquidity risk management function is to handle the state of liquidity shortage; Meanwhile, the function of the bank's liquidity management focuses on harmonizing the relationship between the liquidity and the profitability of the bank, and must regularly and continuously address shortages and surpluses. In other words, governance of liquidity risk is considered an important part of the liquidity management and is crucial to the effectiveness of liquidity management. A commercial bank effectively controlling liquidity risk is an important foundation to ensure liquidity

The liquidity management has a broader scope of payment management: In payment management, the bank focuses on finding sources to solve its financial obligations; In the liquidity management, the bank focuses on asset management to ensure that the liquidity of assets is in line with the liquidity of capital sources to ensure current and future solvency.

1.2.2. The need for liquidity management in commercial banks

The bank needs to meet the liquidity needs of customers regularly and fully in any case, because of the existence and development of each bank and the banking system.

1.2.3. Content of liquidity management

1.2.3.1. Liquidity management strategy

The liquidity management strategy can be understood as a long-term overall plan of the bank in order to achieve the defined liquidity management goal in each specific period. The liquidity management strategy is established based on the taste of liquidity risk that has been determined in each period. According to recommendations of the Basel Committee (2010), the Board of Directors is responsible for approving the liquidity risk strategy and taste. The strategy and taste of liquidity risk must be reviewed annually, adjusted as necessary and communicated throughout the system.

1.2.3.2. Liquidity management policy

A liquidity management policy can be understood as a system of specific regulations and guidelines on liquidity management that is fully and clearly established in the form of documents. Basic contents of the liquidity management policy include: Structure of the liquidity apparatus; Roles and responsibilities of stakeholders in the liquidity management; Procedures and procedures for liquidity management. The liquidity management policy must be communicated to the relevant departments and employees in the system. The liquidity management policy must be reevaluated when there are influencing factors that change the bank's liquidity risk strategy and taste.

1.2.3.3. Regulating mechanism of liquidity of commercial banks

a. Distributed capital management mechanism: is the capital management mechanism from management units located at the branch centers in the banking system. Accordingly, each branch operates on the principle of independence and autonomy in using resources and creating sources, receiving support from the Head Office only takes place when branches are inadequate and unbalanced. Business performance as well as risks is the responsibility of the branch.

b. Centralized capital management mechanism: It can be understood as the capital management mechanism from the Capital Center located at the Head Office. Branches become business units, buying and selling capital with

the Head Office through the Capital Center. The main office will buy all branches' liabilities and sell capital to the branch to use for existing assets. The price of capital purchase and sale is the internal capital transfer price.

1.2.3.4. Organization of liquidity management apparatus

Organization of the liquidity management apparatus is a way of organizing and arranging functional parts of the s liquidity management system of a commercial bank according to certain principles, ensuring the linkage between all parts of the system in order to achieve the objective of the bank 's liquidity management selected. In terms of the requirements of modern liquidity management, the bank's organizational model of liquidity management ensures: the Board of Directors approves the bank's strategy and policies; The ALCO committee is primarily responsible for the bank's liquidity management. The Treasury department implements the liquidity management policy and reports on liquidity to the ALCO Committee.

1.2.3.5. Process and procedures for liquidity management

a. Identify liquidity position

Identifying liquidity position is a process that is carried out continuously and systematically to determine the current and future liquidity position of commercial banks. Identifying the liquidity position of commercial banks is done through 2 channels: (i) Identifying through early warning indicators; (ii) Use stress-testing tools.

b. Measure liquidity

Liquidity measurement is the process of using tools, techniques and methods to accurately determine the level of excess / shortage of banks.

* Approach to liquidity indicators (Static liquidity measurement method): Using financial indicators or liquidity indicators to assess the liquidity of commercial banks. Including: Payment Serving Ratio; Loan to Deposit Ratio (LDR); The maximum rate of short-term capital is used for medium and long-term lending; Cash status indicator; Securities investment

index and liquidity stock index; Lending capacity index; Liquidity Coverage Ratio(LCR); Net stable funding ratio (NSFR).

* Maturity ladder method (Dynamic liquidity measurement method): The method of liquidity management by predicting the supply and demand of liquidity, predicting the liquidity gap, thereby giving the policy on liquidity management. The instrument to execute is maturity ladder.

c. Control liquidity

Liquidity control is the use of necessary tools and measures by the bank to ensure that the NLP is maintained in line with business objectives in certain periods. Commercial banks control liquidity through the following main instruments: Liquidity limits / limits; Liquidity reserve; Market Access; Contingency planning.

d. Monitor and report liquidity status

* Liquidation monitoring: Must be done regularly, in all related activities, mainly through liquidity indicators. Supervisory responsibilities are classified by management level, in which the highest level is the Board of Directors and the Executive Board.

* Liquidation status report: Reports are made, allocated and sent to the departments responsible for liquidity monitoring. The frequency of liquidity reports can be daily, weekly, or monthly. The content format of the liquidity report depends on the characteristics of each bank.

1.2.5. Factors affecting the liquidity management in commercial banks

1.2.5.1. Objective factors: Economic environment; Regulatory environment; Political environment; Social and cultural, development of financial markets.

1.2.5.2. Subjective factors: Capacity of bank's liquidity management; Organizational model of liquidity management; Database system for the liquidity management; The quality of human resources for implementing liquidity management; Scale and reputation of the bank in the system; Bank

competitiveness in the system; Information transparency of commercial banks environment;.

1.3. Experience in liquidity management of some banks and lessons for Vietnam Bank for Agriculture and Rural Development

1.3.1. Case study in liquidity management of some commercial banks

The thesis studies case study at: Continental Illinois National Bank and Trust Company (1984); Northern Rock Bank (2007); Washington Mutual (2008); ACB (2003).

1.3.2. Learned lesson for Vietnam Bank for Agriculture and Rural Development

By researching the experience of handling a number of situations in the liquidity management in domestic and foreign banks, the post graduate draws eight meaningful lessons for Agribank in the liquidity management: Establishing a strong liquidity management system; Improve macroeconomic forecasting; Having an action plan for emergencies; Prudent business strategy; Maintain liquidity cushion; Building trust from customers; Pay attention to the relationship between risks and liquidity risk; The regulatory role of the SBV and the support of commercial banks in dealing with liquidity and liquidity risk.

CHAPTER 2: THE SITUATION OF LIQUIDITY MANAGEMENT AT VIETNAM BANK FOR AGRICULTURE AND RURAL DEVELOPMENT

2.1. Business overview of Vietnam Bank for Agriculture and Rural Development in the period of 2013 - 2018

2.1.1. The process of formation and development of Vietnam Bank for Agriculture and Rural Development

Established under Decree No. 53/HDBT of March 26, 1988 of the Council of Ministers, Agribank's development process from 1988 to now has become the leading bank playing a leading and key role in economic development Vietnam, is the only bank with a 4-level organization model.

2.1.2. Organizing of Vietnam Bank for Agriculture and Rural Development

Since 2011, Agribank has transformed its operation into a one-member limited liability company with 100% of charter capital owned by the State and the Board of members is the leading agency. By 2018, the organizational model at the Head Office was reorganized to suit practical requirements, gradually bringing Agribank to operate under the model of a modern commercial bank. As of December 31, 2018, Agribank had 2,232 branches across the country and a large workforce (nearly 40,000 staffs).

2.1.3. Business activities of Vietnam Bank for Agriculture and Rural Development in the period of 2013 - 2018

In the period of 2013 - 2018: Agribank's operating scale tended to increase, in which credit and mobilized capital in market 1 accounted for the highest proportion and stable growth; Operational capability is still limited, because CAR ratio is low compared to some other commercial banks, the bad debt ratio decreases but the bad debt sold to VAMC has not been completely dealt with; Profitability improved but is still low compared to other commercial banks, especially VCB.

2.2. The situation of liquidity at Vietnam Bank for Agriculture and Rural Development in the period of 2013 - 2018

Analysis of liquidity indicators at Agribank in the period of 2013 - 2018 shows that: Agribank's liquidity situation has improved significantly over the years. However, there are still limitations such as: (i) Affordability of Agribank compared to VCB, BIDV, Vietinbank is still low; (ii) The risk of term mismatches between capital mobilization and lending is still potential; (iii) Cash reserves, liquidity are low while lending capacity and bad debt ratio are high compared to VCB, BIDV, and Vietinbank.

2.3 The situation of liquidity management at Vietnam Bank for Agriculture and Rural Development in the period of 2013 - 2018

2.3.1 Some characteristics of Vietnam Bank for Agriculture and Rural Development impact on liquidity management

Including: Wide activity network; Operating under the model of one member limited company with 100% State capital; Carry out the mission to serve agriculture, rural areas and farmers; huge number of staffs with many different qualifications.

2.3.2. The situation of organization and liquidity management process at Vietnam Bank for Agriculture and Rural Development in the period of 2013 - 2018

2.3.2.1. Liquidity management strategy of Vietnam Bank for Agriculture and Rural Development

Currently, Agribank has set up a liquidity management strategy consistent with its business strategy until 2025, with a vision to 2030. Agribank's liquidity management strategy is: Increase mobilized capital and ensure liquidity safety; Appropriate credit growth and improvement of credit quality; Ensure daily solvency at business units; Ensuring the ability to pay foreign currencies at branches. On the basis of the strategic liquidity management, the bank determines liquidity risk appetite in each period. Planning - capital Department advises for the Board of members on the

strategic planning of the liquidity management and the Board is the approver.

2.3.2.2. Liquidity management policy of Vietnam Bank for Agriculture and Rural Development

Based on the regulations of the SBV related to the safety of banking operations and internal documents on the liquidity management in Agribank such as Decision 1275/QD-NHNo-KHTh, Decision 2140/QD-HDTV-TKDB, Decision 510/QD-HDTV-TKDB and Decision 1891/QD-HDTV-KHNV, the liquidity management policy at Agribank have been established. Internal documents on Agribank liquidity management have not been much, but there has been progress, creating a basis for Agribank's liquidity management to be closer and more complete.

2.3.2.3. Regulating liquidity mechanism at Vietnam Bank for Agriculture and Rural Development

Currently, the liquidity regulation mechanism at Agribank is a decentralized. At the branch: Self-balancing sources and using capital to ensure daily ability to pay, if there is excess capital, it will send capital to the Head Office, if lack of capital, it will borrow capital from the Head Office. At the Head Office: Identify and inform the internal capital conditioning fee to branches every month; Operating fee by object / term; Managing the balance of outstanding loans and balances with accounts for internal capital transfer; Assigning the norm of cash balance to branches.

2.3.2.4. Organizing the liquidity management apparatus of Vietnam Bank for Agriculture and Rural Development

Organizing the liquidity management apparatus at Agribank has been established and formed a number of functional divisions from the Head Office to business units. At the Head Office: Planning - Capital Department is the focal point of the liquidity management, executing the liquidity report and proposing the liquidity plan to the Board of members and General Director. The internal control inspection system includes the

internal control inspection system Department at the Head Office and the internal control inspection system Departments at type – 1 branch and some type-2 branches. Internal Audit has just been established at the Head Office and is under the direction of the Board of Supervisors. Business units manage daily liquidity in their business operations.

2.3.2.5. The liquidity management process at Vietnam Bank for Agriculture and Rural Development

a. Identify liquidity position

Planning - Capital Department is responsible for identifying liquidity position. In the period of 2013 - 2015, Agribank regularly controlled the following factors: The increase in concentration in the portfolio of assets - liabilities; Credit quality of the bank; Comparing loan growth rate with deposit growth rate; Compare financing costs with the market; The bank's reliance on wholesale funding sources. In the period of 2016 - 2018, Agribank identified liquidity position through early warning signs. Stress testing tool has not been used to identify liquidity position at Agribank.

b. Measure Liquidity

Agribank mainly uses static liquidity measurement method. The indicators prescribed by Agribank to measure liquidity are: Liquidity reserve ratio; Payment serving ratio in 30 days; LDR; The maximum rate of short-term capital is used for medium and long-term lending. Planning - Capital Department is responsible for measuring liquidity and assessing liquidity of Agribank by identifying and complying with liquidity limits prescribed by the State Bank and Agribank from time to time.

c. Control Liquidity

Agribank uses the following liquidity controls:

- * Liquidity limit: Planning - Capital Department control the liquidity through the determination and compliance with liquidity limits / limits of business units. Agribank's liquidity limits for the period 2013-2018 are as follows:

Table 2.9. Agribank liquidity limits

Numerical order	Liquidity index	Limit of Agribank
1	Liquidity reserve ratio	$\geq 10\%$
2	Payment serving ratio (VND)	$\geq 50\%$
3	Payment serving ratio in 30 days (Foreign currency)	$\geq 10\%$
4	The maximum rate of short-term capital is used for medium and long-term lending	- From July 1, 2016 to December 31, 2016, up to 60% - From January 1, 2017 to December 31, 2017, up to 50% - From January 1, 2018 up to 40%
5	Loan to Deposit Ratio	$\leq 90\%$

* Liquidity reserves: In the period of 2013 - 2018, Agribank mainly relied on secondary reserves and loans when there were difficulties in liquidity.

* Market access: In the period of 2013 - 2018, to deal with liquidity issues, Agribank mainly borrowed from the State Bank of Vietnam and participated in the financial market as a securities investor and the use of derivative tools is very few.

d. Monitor and report liquidity

* Liquidation monitoring: The department responsible for supervising liquidity at Agribank includes: Board of members and General Director, planning - Capital Department, internal control inspection, branch manager and operational departments. Planning - Capital Department monitors liquidity through liquidity indicators and early warning signs. The internal control inspection checks and monitors liquidity through the following forms: (i) Check reports, documents of professional sections such as accounting, funds, credit, etc. .; (ii) Direct interview with officials of the professional departments; (iii) Check and monitor on IPCAS system.

* Liquidation report: Based on the reports directly related to the liquidity made by the various specialized departments at the Head Office. Agribank has not had a comprehensive liquidity report providing sufficient information about the bank's periodical liquidity to the Board of members and General Director.

2.4. Assessment of liquidity management situation at Vietnam Bank for Agriculture and Rural Development in the period of 2013 - 2018

2.4.1. These achievements

- Implementing the strategic plan of the liquidity management in close compliance with the bank's business strategy with specific and clear objectives of capital sources, outstanding loans to the economy, outstanding loans to agriculture and rural areas. In the period of 2013 - 2018, liquidity management strategy will be strictly controlled in the system of capital in the whole system and controlling credit growth to ensure business safety.

- Basically Agribank has established a liquidity management policy through the issuance of relevant internal legal documents, in accordance with the regulations of the State Bank. The liquidity management policy has more fully regulated the fund management issues at Agribank, creating a basis for improving the effectiveness of the Agribank liquidity management.

- In the organizational structure of Agribank liquidity management, there have been set up basic functional parts according to common practices such as the function of liquidity management , the function of internal control inspection, the function of internal audit.

- Establishing a consistent liquidity management process in the whole system. Many new, modern issues and access to international standards were raised by Agribank in the process steps.

2.4.2. The limitations

- The objective of the liquidity management strategy has not been effectively implemented.

- The liquidity management policy has not been completed. For example: Regulations on the use of liquidity management tools and methods are not sufficient and clear; Regulations on the roles and responsibilities of

stakeholders in the liquidity management such as the Board of members, the Board of Directors and internal audit are not specific.

- The organizational structure of the liquidity management has not established all necessary functional parts and has not ensured the independence, not ensured the uniformity and the close connection between the parts. The number and quality of human resources serving the liquidity management are limited.

- The content and responsibilities of the stakeholders in the steps of the liquidity management processes have not been specified clearly and clearly. The implementation of the liquidity management process at Agribank has some shortcomings: (i) The stress testing tool has not been used to identify liquidity position; (ii) Mainly using static liquidity measurement method; (iii) The use of modern instruments to support the bank's liquidity is limited, such as: derivative contracts, Repo contracts; (iv) Liquidity reports are mainly short-term, not yet fully prepared as internal regulations and in particular there is not yet a comprehensive liquidity report with sufficient information on periodic liquidity of the bank

2.4.3. The cause of the limitations

2.4.3.1. Objective reasons

Vietnam's macro-economic environment is still unstable; The legal documents are still inadequate and slowly progressing compared to international standards; The domestic financial market is not yet developed; The effectiveness of the inspection and supervision of commercial banks by the State Bank is not high.

2.4.3.2. Subjective reasons

Internal inspection and control activities are inefficient; Agribank's ability and awareness of liquidity management is still not good; The database system for the liquidity management is inadequate; Agribank's ability to forecast market conditions is still limited; Agribank's liquidity regulation mechanism has many limitations; Agribank's reputation and scale in Vietnamese commercial banking system.

CHAPTER 3: PERFECT MANAGEMENT SOLUTIONS LIQUIDATION AT VIETNAM BANK FOR AGRICULTURE AND RURAL DEVELOPMENT

3.1. Orientation of liquidity management at Vietnam Bank for Agriculture and Rural Development in the period of 2019 - 2025

3.1.1. Orientation for development of Vietnamese commercial banks by 2025

Develop the system of credit institutions in the direction that domestic credit institutions play a key role; Based on advanced technology and banking management, in accordance with operational standards in accordance with international practices, aiming to reach the advanced level of the group of 4 leading ASEAN countries by 2025.

3.1.2. Orientation of liquidity management at Vietnam Bank for Agriculture and Rural Development in the period of 2019 - 2025

Complete the independent liquidity management mechanism towards Basel standards; Increasing the use of modern measurement methods and tools of liquidity management; Speeding up technology investment, perfecting information technology system and database; Improving the quality of human resources, developing a qualified and knowledgeable team about the liquidity management; Improve financial capacity.

3.2. Opportunities and challenges for liquidity management at Vietnam Bank for Agriculture and Rural Development in the future

In terms of integration and the impact of the industrial revolution 4.0, the liquidity management in Agribank will face 3 opportunities and 7 challenges that require Agribank to have liquidity management solutions according to the appropriate roadmap.

3.3. Solutions to improve liquidity management at Vietnam Bank for Agriculture and Rural Development

3.3.1. Restructuring liquidity management apparatus

According to the post graduate, by the end of 2025, Agribank needs to have an independent liquidity management apparatus, centralized

management at the Head Office with all necessary functional parts as usual. Therefore, the bank needs to: (i) Set up all necessary functional parts in the liquidity management; (ii) Clarify responsibilities, authority of liquidity management of functional departments in the apparatus.

3.3.2. Implement centralized capital management mechanism

Agribank needs to organize the implementation of the centralized capital management mechanism according to the appropriate roadmap: Firstly, fully prepare the conditions on human resources and capital; Secondly, select and plan a specific conversion for each branch; Third, the Capital Center determines capital transfer prices; Fourthly, operate the internal capital transfer FTP valuation program

3.3.3. Arranging and consolidating personnel in accordance with the organization of liquidity management apparatus

In order to successfully restructure liquidity management, Agribank needs:

- Rearranging personnel in the organization of the organization of liquidity management apparatus: (i) Developing human resource standards for each functional part of the organization of liquidity management apparatus; (ii) Reassessing the professional qualifications and competencies of the personnel in the current liquidity management mechanism to screen and classify officials. Based on the standards set of personnel, personnel will be put in appropriate positions.

- Improving the quality of human resources for the purpose of liquidity management.

3.3.4. Complete the database for liquidity management

According to the post graduate, by the end of 2025, Agribank must have a strong database system and centralized management at the Head Office to serve the liquidity management. Therefore, banks need to: Develop a list of information to be stored in a database system for the liquidity management. Selecting to retain required fields and identifying new fields to add; Building software to integrate old data fields and new data fields; Continue to upgrade and modernize the IPCAS system throughout the system.

3.3.5. Complete liquidity management tools

- Use stress testing tool: According to the author, the objective is that by the end of 2025, Agribank can apply stress testing according to the complete statistical model. Therefore, the bank needs to: (i) Set up a specialized section of the Planning - Capital Department to undertake work related to stress testing; (ii) Apply stress testing according to the following roadmap: Run a statistical model based on historical data and expert experience and when the data is sufficient for the liquidity management, Agribank uses a complete statistical method.

- Increasing the use of derivative instruments according to the appropriate roadmap.

- Complete the system of liquidity limit tools.

- Establishing and maintaining relationships in the market.

- Building a system of early warning of liquidity risk: Developing a set of early warning indicators for liquidity risk and defining a threshold level for warning indicators; Develop an early warning model to identify conditions that can push banks into situations of liquidity difficulties, thereby offering countermeasures.

3.3.6. Improve liquidity measurement methodology

Improving the liquidity measurement method should be implemented by Agribank in 2 phases: (i) Completing the static liquidity measurement tool and preparing conditions for dynamic liquidity measurement; (ii) Perform dynamic liquidity measurement.

3.3.7. Improve liquidity control efficiency

Agribank needs to improve the efficiency of liquidity control by making a plan to ensure sufficient reserve capital at any time. Therefore, the bank should focus on addressing the following issues: (i) Assessing the liquidity reserve capital level of the bank; (ii) Periodically, the ALCO Council cooperates with the Planning - Capital Department to prepare liquidity reserve plan.

3.3.8. Improve the efficiency of liquidity monitoring and reporting

3.3.8.1. Improving the efficiency of liquidity monitoring

Agribank needs to improve the efficiency of internal inspection and control to improve the efficiency of banking liquidity monitoring. Agribank needs: Building a team of technicians - internal control members who are sufficient in quality and quantity; Complete the process and procedure of internal inspection and control; Enhancing online inspection and control through the bank's IPCAS system, Enhancing the regular supervision of Internal Audit for internal inspection and control at the branch.

3.3.8.2. Complete the liquidity reporting system

To have an accurate liquidity reporting system; full and comprehensive; In time, Agribank needs:

- Adding some of the following reports: Liquidation reports periodically / weekly about liquidity index; about supply - demand of liquidity; Quarterly liquidity reserve plan report; Report term deviations to short-term liquidity management.

- Developing a general liquidity report to provide periodic liquidity information of the bank.

3.3.9. Improve macroeconomic forecasting

Agribank needs to build a list of indicators to report; Building an economic model and establishing a specialized division of the capital department to collect, analyze and forecast macroeconomic conditions.

3.3.10. Improve quality credit

- Improve the quality of new loans: Complete credit policy; Improve the effectiveness of internal inspection and control of credit operations; Well perform credit evaluation.

- Thoroughly handling the bad debts of the bank: Reviewing and re-evaluating the debts currently being restructured by the bank; Classify debts, set up risk provisions in accordance with the regulations of the State Bank; Apply appropriate measures for each different bad debt; Strengthen close cooperation between Agribank and VAMC to early recover outstanding debts.

3.3.11. Enhance the position and reputation of Vietnam Bank for Agriculture and Rural Development

3.3.11.1. Increasing equity to ensure sufficient capital in accordance with the regulations of the State Bank

- Applying measures to reduce operating costs
- Issue subordinated debt papers
- Increase charter capital.

3.3.11.2. Complete customer care policy

Agribank needs to focus on: Improving transaction skills and improving customer service; Upgrade services and enhance service quality; Diversify services; Use measures that impact customers' economic interests.

3.3.12. Increasing capital mobilization in the medium and long term

Focusing on research to offer flexible medium-long-term mobilization products; Strengthening the issuance of valuable papers to raise capital; Diversify information channels to widely announce Agribank's business activities to customers; Improving the understanding of the transaction staff about the medium-long-term mobilization products of the bank for better advice and customer care.

3.4. Some recommendations

3.4.1. Recommendations to the Government, concerned ministries and branches

Creating stable economic, political and social environment; perfecting, developing and healthier the financial market; accelerate Agribank's equitation process; Developing debt purchase and sale market to handle bad debts of commercial banks.

3.4.2. Recommendations to the State Bank

Improving the efficiency of monetary policy management; Complete the legal framework for commercial bank liquidity management; Improve the effectiveness of inspection and supervision of commercial banks; Strengthen monitoring and handling of violations of compliance with information and reporting regime of commercial banks; Be cautious in handling communication crisis.

CONCLUSION

The thesis with the research object is the liquidity management in commercial banks, so it should focus on clarifying theoretical and practical issues related to the liquidity management in commercial banks. In theory, the dissertation presents the theoretical basis system of liquidity management of commercial banks, researching experience in handling situations in liquidity management of some commercial banks in order to draw lessons learned on liquidity management for Agribank. In fact, the thesis analyzes the status of liquidity of Agribank from 2013 to 2018; properly analyzing and assessing the current situation of Agribank liquidity management in the period of 2013 - 2018 as a basis for proposing solutions to improve the Agribank liquidity management by 2025.

Besides the achieved results, the dissertation has a number of unfulfilled aspects as follows: (i) The thesis has not studied and expanded many commercial banks in Vietnam as well as in the region and the world; (ii) The thesis uses data sources from annual reports and audited financial statements of each commercial bank and through survey and questionnaire surveys without using quantitative models.

The post graduate expects that the issues mentioned in the thesis will make a small contribution to bank administrators in general and Agribank in particular in the research and implementation of liquidity management in commercial banks in the coming time. At the same time, the unrealized aspects of the thesis can be carried out by subsequent studies. The post graduate is looking forward to receiving many comments and comments from researchers, teachers and the Science Council to continue to improve its research.

Sincerely thank you!

LIST OF PUBLISHED WORKS BY AUTHOR RELATED TO THE THESIS

1. Hoang Thi Thanh Huyen, Article " Liquidity risk management at banks in the world and lessons to Vietnam", Review of Finance, Part 1, April 2019 (702).
2. Hoang Thi Thanh Huyen, Article "Liquidity of Vietnam Bank for Agriculture and Rural Development ", Economy Forecast Review, No. 11, April 2019.