

# Challenges in Employing BASEL II at Military Commercial Joint Stock Bank

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## Abstract

This paper is conducted for examining the framework for risk management in the Basel II accord, the Basel II risk management model at the Military Commercial Joint Stock Bank. Data were collected from annual reports for the period from 2015 to 2017 of the Military Commercial Joint Stock Bank. The results show that the implementation of risk management under Basel II at Military Bank still faces many difficulties in the pressure of capital increase, database system, human resource quality, and cost of implementation. The study suggests some solutions for Military Bank to implement successfully Basel II, emphasizing the role of human resource quality, modernizing the data system and the specific mechanism for raising capital. The results of this research is a reference for Vietnamese commercial banks in identifying, controlling and responding various risks in banking activities in the context of Vietnam in particular and in emerging countries in general.

**Keywords:** Basel II, Risk management, Military Bank

## 1. Introduction

Following the global economic crisis of 2007 - 2008, Vietnam implemented a comprehensive reform of the economy, including the restructuring plan of credit institutions in the period of 2011-2015. The project concentrates on weak banks by M&A and simultaneously piloting Basel II in some banks. According to the State Bank's roadmap, by the end of 2015, ten banks were selected to pilot capital and risk management in accordance with Basel II standards such as Vietinbank, BIDV, Vietcombank, Techcombank, ACB, VPBank, MB, Sacombank, VIB and Maritime Bank.

Military Bank (MB) is one of the leading commercial joint stock banks in Vietnam, always pioneering the modernization of the banking system. MB has studied international standards for risk management including the Basel II. MB had applied Basel II before the State Bank officially issued Circular No. 41. In 2012, MB hired Deloitte advisors to develop the operation risk management framework, which included strategies, policies, operation risk and process of implementation of three tools are LDC, RCSA and KRI. By 2014, MB has partnered with Ernst & Young Singapore to implement a gap analysis project and develop a Basel II roadmap. The roadmap to 2019 is the last time for the selected banks to complete risk management in Basel II, although MB has had a lot of success in deploying Basel II, compared to other banks, but MB's Basel II risk management poses many challenges.

## 2. Theoretical Framework of Basel II

Basel II is the second version of the Basel convention, which sets out the general principles of the Basel Committee on banking supervision. The Basel I (credit risk framework) was first introduced in 1988 by Basel Committee on Banking Supervision (BCBS) which addresses the capital adequacy requirements of banks. Together with the development of the social economy, commercial banks are constantly improving themselves, renewing the business model, thus posing a requirement for the Basel Committee to renew the principles in

Basel I. In June 2004, the Basel II accord was enacted, introducing a series of complex and risky approaches to credit risk, focusing on operation risk. Basel II uses the term "three pillars": (i) minimum capital requirements, (ii) supervisory reviews, and (iii) market principles.

<b>Pillar 1</b> <b>Minimum Capital Requirements</b>	<b>Pillar 2</b> <b>Supervisory Review</b>	<b>Pillar 3</b> <b>Market Disciplines</b>
<ul style="list-style-type: none"> <li>• Risk management incentives</li> <li>• New operational risk capital</li> <li>• Risk weighted assets (RWA) for credit more risk sensitive</li> <li>• Market risk largely unchanged</li> </ul>	<ul style="list-style-type: none"> <li>• Solvency report</li> <li>• Regulatory review</li> <li>• Capital determination</li> <li>• Regulatory intervention</li> <li>• Addresses risks that are not captured in Pillar 1 like concentration, interest rate, and liquidity risk</li> </ul>	<ul style="list-style-type: none"> <li>• Minimum disclosure requirements</li> <li>• Scope</li> <li>• Capital transparency</li> <li>• Capital adequacy</li> <li>• Risk measurement &amp; management</li> <li>• Risk profiling</li> </ul>

**Figure 1. Basic Contents of Basel II**

Pillar 1 deals with minimum capital requirements. Accordingly, the minimum capital adequacy ratio (CAR) is still required at 8% of total risk-weighted assets like Basel I. However, the risk is calculated not only on credit risk but also on operation risk and market risk.

Pillars 2 deals with banking supervision. This pillar defines the process of reviewing the organization's risk management framework and ultimately capital adequacy. It sets out specific supervisory responsibilities for the board of directors and senior management, thereby enhancing the principles of internal control and other corporate governance by regulators in different countries throughout the world.

Pillar 3 aims to strengthen market discipline by enhancing the disclosure of information by banks. It sets out requirements and recommendations for disclosure in a number of areas, including how banks calculate capital adequacy and the bank's risk assessment approach. Enhancing comparability and transparency among banks is the desired result of pillar 3. At the same time, the Basel Committee seeks to ensure that Basel II corresponds to accounting standards and it does not conflict with the broader accounting disclosure standards that banks must adhere to.

In this research, data employed in this research mainly basing on the secondary data. They were collected mainly from annual reports of Military Bank (MB) for the financial years ended 2015, 2016 and 2017. Some management accounting reports of MB are also collected for having full data of loans, nonperforming loans, exchange rate; risks and others relating to the topic research.

Based on the data collected, we use analytical procedures including comparison, evaluation, judgments relating to the topic research. For more illustration, we use crosstab data and figures for showing more the issue.

### **3. Results and Discussion**

#### **3.1. Risk Management When Adopting Basel II**

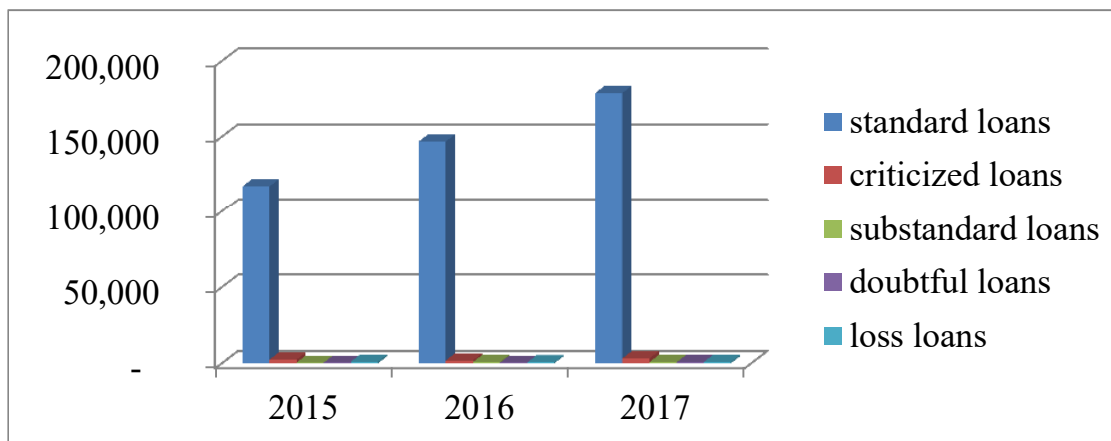
In this content, we mainly focus on risks and risk management at MB.

##### **(i). Credit risk management**

\* Credit quality

**Figure 2. Classification of MB's Loans**

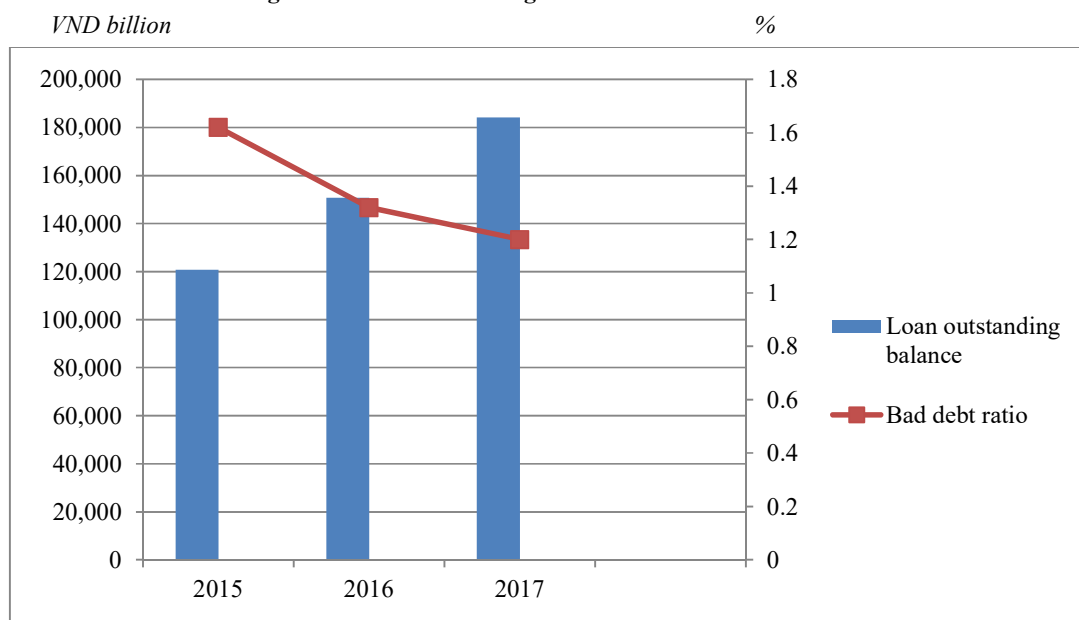
Unit: VND billion



In 2017, credit grew in the whole year and is the highest in the last three years, higher than the average growth rate. Credit structure was shifted in the right direction; credit outstanding focused on priority areas and good projects of large firms. Credit structure in the past 3 years has changed positively in line with MB's direction and development strategy.

Every year, MB's credit quality is basically controlled to the right target. Under unfavorable conditions of the business environment, MB has implemented many solutions for managing, processing and recovering bad debts. Bad debt as of 31st December 2015 is 1,949 billion VND, accounting for 1.62% of total outstanding loans. The outstanding debt as of 3 December 2016 is 1,987 billion VND, the bad debt ratio is 1.32%, down 0.3% compared with 2015. Criticized loans at the end of 2017 is 3,175 billion VND, an increase of 1,270 billion VND compared to 2016 (+ 66.6%). Outstanding debt at the year end of 2017 is 2,218 billion VND. The non performing loans (NPL) ratio was 1.2%, down 0.12 percentage points from 2016, lower than the plan's target of 1.5%.

**Figure 3. Loan outstanding balance and bad debt ratio of MB**



\* Credit risk management

MB has maintained a credit risk management policy to ensure basic principles:

- Establish an appropriate credit risk management environment;

- Operate a suitable credit process;
- Maintain a proper credit management, measurement and supervision process;
- Ensure to adequately control over credit risk.

MB conducts credit review through multiple levels to ensure that a loan is reviewed independently. At the same time, the approval of loans is made on the basis of credit limits assigned to each competent authority. In addition, the credit approval model of the bank has the involvement of the credit board to ensure that credit approval is centralized with the highest quality. MB is using an internal credit rating system that is approved as a management tool for credit risk management whereby each customer is rated at a risk level. This level of risk can be modified, updated regularly. Data and customer ratings across the entire system are centrally controlled and managed. This is the basis for the credit granting and provision of services to customers as well as the provision of credit risk provisions.

**(ii). Exchange rate risk management**

Exchange rate risk is the risk that the value of financial instruments fluctuates due to exchange rate fluctuation. MB was established and operated in Vietnam with reporting currency by VND. MB's main trading currency is VND. MB's loans are mainly denominated in VND and USD ("USD"). MB sets up a limited gap for each currency based on MB's internal risk rating system and the State Bank's regulations. Daily managed currency position and risk hedging strategy used by MB to ensure that currency position is maintained within established limits.

**Table 1.** Foreign Currency Status of MB for the period of 2015 - 2017

*Unit: VND billion*

Criteria	2015		2016		2017	
	USD	EUR	USD	EUR	USD	EUR
+ Currencies						
+ Asset	31,457,841	1,406,022	30,762,729	2,816,885	3,105,196	3,018
+ Liability	33,263,984	1,405,221	32,532,478	2,827,824	3,128,816	0
+ Gap	(1,806,143)	801	(1,769,749)	(10,939)	(23,620)	3,018
+ Exchange rate of VND against USD, EUR	1%	1%	1%	1%	1%	1%
+ Expected change of income	14,407	6	14,158	87	8,130	189

Clearly in Table 1, MB mainly maintains the foreign currency position for two foreign currencies are USD and EUR. The bank maintains the short position of foreign currency for two currencies USD and EUR although the difference is not high. With USD, the gap between asset and debt of the bank is (-) 1,806,143 billion, by 2017 only (-) 23,620 billion. That shows the risk management of foreign currency are more interested at MB.

**(iii). Interest rate risk management**

Table 2 shows that all terms of less than one month, MB maintained a negative sensitive interest rate gap. This is in line with interest rate trend in recent years, MB will increase net income when interest rates decrease. For longer term periods, from 12 months or more, MB maintained a positive sensitive interest rate gap. If interest rates continue to fall as in recent years, MB will face the interest rate risk. Therefore, MB should increase long term deposits of 12 months or more, encourage short-term loans and reduce medium and long-term loans.

**Table 2.** Interest Rate Gap of MB from 2015 to 2017

Unit: VND billion

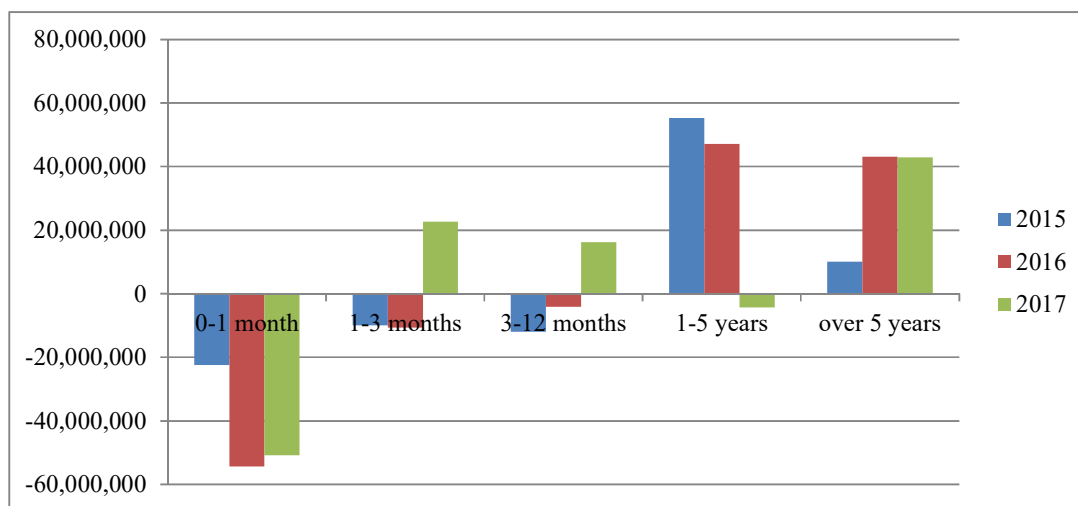
Gap	2015	2016	2017
0-1 month	- 24,319,162	- 14,202,246	- 69,324,990
1-3 months	18,858,317	28,093,327	88,306,317
3-6 months	4,874,732	19,937,314	- 11,397,212
6-12 months	- 14,503,911	- 349,915	- 12,204,587
Over 1 year	25,869,762	- 14,745,165	19,825,957

**(iv). Liquidity risk management**

MB uses risk measurement methods appropriate to the scale of operations and the availability of the information system, ensuring that the risk minimization requirements are met. Liquidity risk is measured by the use of indicators related to cash flow, ability to raise capital, liquidity capacity of MB. In addition, MB also has specialized departments to update domestic and foreign economic information which directly affects the trading book and business strategy of MB as well as forecast the fluctuation of market factors: exchange rate, interest rate, gold price to have the timely warning. MB also develops and implements the system of limits, decision authority levels based on risk measurement results for each category.

**Figure 4.** The Liquidity Gap of MB between 2015 and 2017

Unit: VND billion



Looking at the chart, the bank is always in shortage of liquidity for short terms, especially the term of less than a month. In 2015, the difference between the short-term assets of less than one month and the debt of less than one month is (-) 2,455,202 million VND, this figure is quite high, with - 50,827,641 million VND in 2017. This liquidity risk in short terms is very noticeable. At longer maturities, the bank maintained its liquidity surplus.

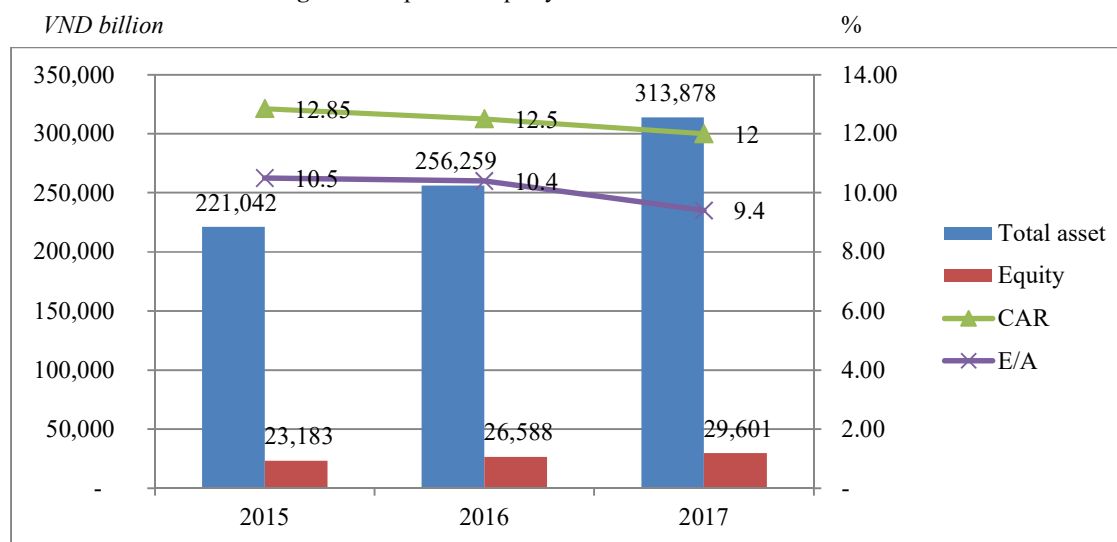
**(v). CAR management**

The size of the bank's capital is a key element in Basel II to assess the safety of banking operations. In Vietnam, the State Bank has issued many regulations relating to the level of self-financing of banks. First of all, Decision 297/1999/QĐ-NHNN requires commercial banks to maintain a minimum capital adequacy ratio of 8%. In 2005, the State Bank issued Decision 457/2005/QĐ-NHNN which stipulated minimum capital adequacy ratio of 8%, but this rate was standardized by Basel I. Then, by 2010, the State Bank of Vietnam issued Circular No. 13/2010/TT-NHNN and later Circular 36/2014/TT-NHNN raised the minimum capital adequacy ratio (CAR) to

9% on the basis of the Basel II approach. The increase of capital in accordance with the regulations of the State Bank put MB a lot of pressure and there are many problems that need to be resolved.

Looking at the chart it can be seen that MB basically meets the requirements of the State Bank of Vietnam to maintain minimum capital adequacy by continuously maintaining the CAR of over 12% in the period of 2015 - 2017. CAR numbers tend to decrease over time. Basel III, on the other hand, needs to maintain CAR above 13% so that it can withstand cyclical and cross-sector risks.

**Figure 5.** Capital Adequacy Ratio of MB from 2015 to 2017



(Source: MB annual report 2015 - 2017)

Likewise, although the CAR of the bank has remained stable over 12%, if the equity/asset ratio is immediately seen falling from 10.5% in 2015 to 9.4% in 2017, this shows that financial leverage of MB is increasing.

### 3.2. Difficulties in Implementing Basel II at Military Bank

Firstly, with the first pillar, to increase the CAR ratio. As mentioned above, MB's CAR is maintained at over 12%, it meets the requirements of the the State Bank (> = 9%). However, MB's CAR has only included credit risk without mentioning market risk and operation risk. When adding these two types of risk, MB's CAR will decrease. To increase CAR, MB can reduce total risky assets. However, this is difficult to implement because MB is still focusing on credit growth target, reducing total risky assets means reducing the bank's credit activity, thereby reducing the profitability and performance of MB. Therefore, the need to increase capital to ensure CAR is very urgent.

Secondly, Basel II has provided a framework for the risks that banks face (systemic risk, strategic risk, reputation risk, etc.). The second pillar requires commercial banks to have a capital adequacy and internal capital adequacy assessment process to maintain safe capital. At the same time, the State Bank will be responsible for reviewing, re-evaluating and then intervening, requesting adjustments if the level of commercial banks' capital below the prescribed minimum level. This will cost MB to invest in IT systems, hire consultants and train human resources.

Thirdly, MB needs to disclose information appropriately in accordance with market principles. When information is public, the commercial banks will know all the information of competitors, customers will also know the information of many commercial banks. Consequently, good quality commercial banks will be able to survive easily, and inexperienced commercial banks will be at risk of being eliminated. In addition, because there is still a gap between Vietnam's accounting system and risk management and international practices, financial disclosure by banks is currently difficult.

Finally, perhaps the biggest obstacle for most commercial banks in Basel II is the database. The core banking system at banks has so many different systems and data that have not been focused on systematically and collectively for a long time. While, the minimum data length requirement for some analytical models is 3 years. Therefore, system building and data collection will take time, effort and money of banks when deploying.

#### **4. Conclusion**

First, MB needs to develop a clear and specific strategy to increase its own capital, but it should be linked to the proper use of capital to ensure sustainable development. Theoretically speaking, in order to increase MB's internal capital there are two ways to increase it from internal sources and from external sources. MB, as well as other banks, are increasing their internal capital mainly from the increase in retained earnings or dividends. This method is being implemented effectively by MB. MB has completed raising its chartered capital to over 21.600 billion VND on 15 August 2018 after issuing 345 million shares to pay bonus shares and dividend for the second phase of 2017. However, this method is still limited when the scale of capital increase is low. As such, MB, as well as other commercial banks, need to expand their own capital from outside sources such as issuing shares, M&A for banks, and even recommending the State Bank to propose a specific mechanism for open larger room for foreign investors during the Basel II deployment period. In addition, the bank should have plans to issue additional bonds with maturities of 5 to 10 years to be able to meet Basel II equity.

Second, MB needs to continue building and improving its information system in order to increase its modernity, updating, researching and setting up data transmission lines and linking information networks with other banks for the purpose of creating ownership for the bank. MB should try to connect, share information with the State Bank to build a comprehensive data warehouse, to provide accurate sources of information for the relevant departments.

Third, MB must build a team of experienced and dedicated professionals. This is a decisive factor in the success of Basel II. By adopting more sophisticated risk management methods, MB will be lacking in high quality human resources. In addition to attracting and training human resources to meet the needs of building and deploying Basel II, MB also needs a team of experts outside the bank both at home and abroad for advice and support.

Finally, MB need to raise awareness of risk management, putting risk management into banking culture. MB should actively apply the regulations of the State Bank as well as international standards in risk management of the Basel II Committee such as sixteen principles of risk management, ten principles of management of interest rate risk, seventeen principles of BIS on liquidity risk management.

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