

**YANGON UNIVERSITY OF ECONOMICS**  
**DEPARTMENT OF COMMERCE**  
**MBF PROGRAMME**

**DETERMINANTS OF CAPITAL ADEQUANCY RATIO**  
**ON SELECTED BANKS**

**NI LAR WIN**  
**EMBF II – 37**  
**EMBF 6<sup>th</sup> BATCH**

**DECEMBER, 2019**

**YANGON UNIVERSITY OF ECONOMICS**  
**DEPARTMENT OF COMMERCE**  
**MBF PROGRAMME**

**DETERMINANTS OF CAPITAL ADEQUANCY RATIO ON SELECTED BANKS**

**Supervised By:**

Dr. Aye Thu Htun

Professor

Department of Commerce

Yangon University of Economics

**Submitted By:**

Ni Lar Win

EMBF II - 37

EMBF 6th Batch

2018-2019

**YANGON UNIVERSITY OF ECONOMICS**  
**DEPARTMENT OF COMMERCE**  
**MBF PROGRAMME**

**DETERMINANTS OF CAPITAL ADEQUANCY RATIO ON SELECTED BANKS**

A thesis submitted to the Board of Examiners in partial fulfillment of the  
Requirements for the degree of Master of Banking and Finance (MBF)

**Supervised By:**

Dr. Aye Thu Htun  
Professor  
Department of Commerce  
Yangon University of Economics

**Submitted By:**

Ni Lar Win  
EMBF II - 37  
EMBF 6th Batch  
2018-2019

## **ACKNOWLEDGEMENTS**

Firstly, I would like to express my deepest gratitude to Prof. Dr. Tin Win, Rector of Yangon University of Economics, for allowing me to undertake this study as a partial fulfillment towards the Master Degree of Banking and Finance. Secondly, I am deeply beholden to Prof. Dr. Ni Lar Myint Htoo, Pro-Rector of Yangon University of Economics for leading me to successfully accomplish my study in many ways.

My deepest thanks to Prof. Dr. Soe Thu, Head of Department, Department of Commerce for her extensive and constructive suggestions, her supporting excellence lecturers and comments to complete this thesis.

I am heartily grateful to my supervisor, Prof. Dr. Aye Thu Htun, Department of Commerce, for her guidance, advice and encouragement in preparing to complete this study successfully. I would like to express my sincere gratitude to all the teachers, and visiting lecturers who have made their grateful efforts in rendering knowledge sharing of MBF Programme during these two years.

Furthermore, I would like to say special thanks to professors and teachers for their valuable knowledge and experience without which would not have been this paper. I extend my sincere thanks to all persons and friends who contribute directly or indirectly to my research paper.

Last but not least I thank my beloved aunty for her support, strength, encouragement while I worked on this study.

## **ABSTRACT**

This study aims to analyze the financial soundness indicators of the selected banks and to examine the banks' specific determinants of Capital Adequacy Ratio (CAR) for the fiscal year 2015-2016 to 2017-2018. The study only focuses on two private banks that are First Private Bank and Myanmar Citizens Bank. Descriptive method is used in this study. The study only used the secondary data. This study analyzed the banks' specific factors ROA (Return on Assets), ROE (Return on Equity), LAT (Loan to Asset ratio), LLR (Loan Loss Reserves), NPL (Non-Performing Loans) impact on the Capital Adequacy Ratio (CAR). The study found that the Capital Adequacy Ratio of the First Private Bank and Myanmar Citizens Banks were decreased due to the increasing numbers of Non-Performing Loans in fiscal year 2017-2018. The banks should decrease the risk weighted assets. Bank should make quality loans. The study revealed that Myanmar Citizens Banks' loans to deposits ratio is the highest during three years. The Capital Adequacy Ratio of the two banks decreased sharply after the tight regulation of the Central Bank. Banks should have adequate capital, and then it can protect its depositors from unforeseen contingencies as well as promotes the stability and efficiency of financial systems.

# CONTENTS

<b>TITLE</b>	<b>Page</b>
<b>ACKNOWLEDGEMENTS</b>	<b>i</b>
<b>ABSTRACT</b>	<b>ii</b>
<b>TABLE OF CONTENTS</b>	<b>iii</b>
<b>LIST OF TABLES</b>	<b>v</b>
<b>LIST OF FIGURE</b>	<b>vi</b>
<b>CHAPTER I INTRODUCTION</b>	
1.1 Rationale of the Study	2
1.2 Objectives of the Study	3
1.3 Method of the Study	3
1.4 Organization of the Study	3
<b>CHAPTER II LITERATURE REVIEW</b>	
2.1 The CAMELS Rating System	4
2.2 The Nature of Capital Adequacy Ratio	6
2.3 Determinants of Capital Adequacy Ratio	7
2.4 Theoretical Framework of the study	12
<b>CHAPTER III PROFILE AND FINANCIAL SOUNDNESS INDICATORS OF SELECTED BANKS</b>	
3.1 Profile of Selected Banks	13
3.2 Financial Soundness Indicators of the Selected Private Bank	15
<b>CHAPTER IV DETERMINANTS OF CAPITAL ADEQUACY ON SELECTED BANKS</b>	
4.1 Determinants of Capital Adequacy Ratio on Frist Private Banks	21
4.2 Determinants of Capital Adequacy Ratio on Myanmar Citizens Bank	24

## **CHAPTER V CONCLUSION**

5.1 Findings and Discussions	29
5.2 Suggestions and Recommendations	29
5.3 Need for Further research	30

## LIST OF TABLE

<b>Table No</b>	<b>Title</b>	<b>Page</b>
2.1	Composite of CAMEL Rating System	6
2.2	Loan loss provisioning and Loan classification	11
3.1	Capital Quality	16
3.2	Asset Quality	16
3.3	Earning Quality	17
3.4	Liquidity Ratio	18
3.5	Capital Adequacy	18
3.6	Asset Quality	19
3.7	Earning Quality	20
3.8	Liquidity Ratio	20
4.1	Capital Adequacy Ratio	22
4.2	The Capital Adequacy Ratio and Return to Assets Ratio	22
4.3	The Capital Adequacy Ratio and Return to Equity Ratio	23
4.4	The Capital Adequacy Ratio and Non-Performing Loans	24
4.5	The Capital Adequacy Ratio and Loan Loss Reserve	24
4.6	The Capital Adequacy Ratio and Loan to Assets Ratio	25
4.7	Capital Adequacy Ratio of the Myanmar Citizens Bank	25
4.8	The Capital Adequacy Ratio and Return to Assets Ratio	26
4.9	The Capital Adequacy Ratio and Return to Equity Ratio	26
4.10	The Capital Adequacy Ratio and Non-Performing Loans	27
4.11	The Capital Adequacy Ratio and Loan Loss Reserve	27
4.12	The Capital Adequacy Ratio and Loan to Assets Ratio	28

## LIST OF FIGURE

<b>Figure No</b>	<b>Title</b>	<b>Page</b>
2.1	Theoretical Framework	13

# **CHAPTER I**

## **INTRODUCTION**

The Banks play a major role in fostering the economic well-being of a country. For the smooth flow of credit in an economy, it is essential that banks should be financially sound so as to meet the various requirements of other fields. In the banking industry, adequate amount capital is a prerequisite to ensure financial solvency, sustainability and smooth flow of business operations. A bank has sufficient amount of capital to cover its risk weighted assets which includes cash equivalent, loans and overdraft, investments and other receivables.

The capital adequacy ratio (CAR) is a measure of a bank's capital. As per the requirements of Basel committee on banking supervision, every bank must maintain a desirable level of Capital Adequacy Ratio. It is expressed as a percentage of a bank's risk weighted credit exposures. It is also known as capital-to-risk weighted assets ratio (CRAR), it is used to protect depositors and promote the stability and efficiency of financial systems around the world. It is the ratio of a bank's capital to its risk. The ratio ensures that the how much extent a bank can cover its losses in future.

Capital adequacy ratio (CAR) is one of the measures which ensure the financial soundness of banks in absorbing a reasonable amount of loss. Regulation of capital assumes significant importance so as to reduce bank failures, to promote stability, safety and soundness of the banking system, to prevent systemic disaster and to ultimately reduce losses to the bank depositors. It is a measure of the financial strength of a bank. The ratio of total capital as a share of total Assets reflects the ability of a bank to absorb the unanticipated losses. This ratio is positively related to the financial soundness of the bank, thus it is negatively related with a possible failure.

The Central Bank of Myanmar (CBM), established in the Central Bank of Myanmar Act in 1990, is a sole authority for momentary policy of Myanmar and regulates 4 state-owned banks, 10 semi-government banks, 17 domestic private banks and 13 foreign banks. The Banking Supervision Department under Central Bank of Myanmar is taking regulatory action on the operation of banks by applying the prudential policies based on the Basle Core Principles. The Banking sector reforms and movement towards deregulations have created the opportunity for new entrants to enter the financial service market in Republic of the Union of Myanmar.

The CBM introduced Basel I to Myanmar banks in 1990 and the Capital Adequacy Ratio requirement of 10 percent. In order to establish a sound and efficient financial system functioning in harmony in the market economy, various financial reform measures have been undertaken to lay down the foundation of a modern financial system in Myanmar. Therefore, the CBM has to review the existing regulations to minimize the possibility of regulatory arbitrage and assess the need for additional prudential regulations in implementing Basel II.

In July 2017, the Central Bank of Myanmar has introduced a fresh set of four regulations including capital adequacy ratio. The directives based on the Financial Institutions Law and released in 2017 are in line with the Basel I principles, such as capital requirements and risk weighted assets. Tier 1 capital must be 4% and Regulatory capital adequacy must be 8%. As part of the July 2017 regulations, banks have been asked to prepare plans for increasing capital in order to comply with the new requirements on tier 1 and tier 2 capital.

Most of the banks need to recapitalize, and hold more capital against NPLs and risk-weighted assets has the knock-on effect of sharply reducing lending following the set of regulations issued in July 2017. Myanmar private banks may face challenges after new capital adequacy ratio instruction because of risk weighted assets, related party transactions. They need more capital, more quality assets (Performing loan) to meet the new capital adequacy ratio.

### **1.1. Rationale of the Study**

In 1988, The Basel Committee on Banking Supervision (BCBS) introduced the capital measurement system commonly referred to as Basel I. Basel I focus only on credit risk. In 2004, BCBS published Basel II guidelines which were the refined, reformed and more complex version of Basel I. Therefore Base II accord surfaced in 2004 and was to be enforced up to 2008 and due to financial instability in USA the focus of the regulators was to settle the financial unrest in the first place.

Basel II includes market and operational risks besides credit risks. The lessons learnt after the crisis led the central bankers and banking regulatory authorities of the whole world to come up with more stern capital reform with obligatory amendments in the mandatory capital requirements. Basel III released in December, 2010 which lay more focus on quality, consistency and transparency of the capital base.

Myanmar private banks may face challenges after new capital adequacy ratio instruction because of Assets Management Quality, Liquidity, Credit Risk, Non-performing Loans, and Profitability.

That's why, it is very necessary to dig out the factors which determine the Capital adequacy ratio and the relation of the factors so that the other elements may also be taken in to account for a better capital management.

## **1.2. Objective of the study**

The objectives of the study are as follows:

- (1) To identify the financial soundness indicators of selected banks on Capital Adequacy ratio and
- (2) To examine the bank specific determinants of Capital Adequacy Ratio (CAR).

## **1.3. Scope and Method of the Study**

The study only focuses on that Capital Adequacy Ratio in selected private banks. In this study, only two private banks. They are First Private Bank and Myanmar Citizens Bank. The study used descriptive methods. Secondary data was used in this study. All Financial data are collected and extracted from the external audit reports of First Private Bank and Myanmar Citizens Bank published in its website. Due to time constraint, the study covers only fiscal year from 2015-2016 to 2017-2018. The secondary data used in this study are obtained from report and record of selected private banks, relevant text books, banks' reports that publish their financial reports, and other reliable sources such as journal, articles and previous research paper on internet websites.

## **1.4. Organization of the Study**

In this study, it is organized with five main chapters. Chapter I is the introduction of the study which includes rational of the study, scope, method of the study and organization of the study. Chapter II gives literature reviews concerning with determinants of Capital Adequacy Ratio and CAMEL Rating System. The relationship of the Non-Performing Loans, profitability of Return on Assets(ROA) and Return on Equity(ROE) are explained and how to impact the CAR ratio. Chapter III presents the profile of First Private Bank and Myanmar Citizens Bank and their financial soundness indicators. Chapter IV explains the determinants of Capital Adequacy Ratio in First Private Bank and Myanmar Citizens Bank. Chapter V describes conclusion of the study which is composed of findings and discussions, suggestions and recommendations and need for further research.

## **CHAPTER II**

### **LITERATURE REVIEW**

This Chapter described the CAMEL Rating System and the nature of Capital Adequacy Ratio and Return to Assets ratio, Return to Equity ratio, Non-Performing Loans, Loan Loss Reserve, Loans to Assets ratio and Deposit to Assets Ratio. And this section presented how to impact and determine these ratios on Capital Adequacy Ratio.

#### **2.1. The CAMELS Rating System**

The CAMELS rating is a supervisory rating system originally developed in the U.S to classify a bank's overall condition. It's applied to every bank and credit Union in the U.S and is also implemented outside by the U.S by various banking supervisory regulators. The ratings are assigned based on a ratio analysis of the financial statements, combined with on-site examinations made by a designated supervisory regulator.

Ratings are not released to the public but only to the top management to prevent a possible bank run on an institution which receives a CAMELS rating downgrade. The Uniform Financial Institutions Rating System (UFIRS) was adopted by the Federal Financial Institutions Examination Council (FFIEC) on November 13, 1979.

Under the 1997 revision of the UFIRS, each financial institution is assigned a composite rating based on an evaluation and rating of six essential components of an institution's financial condition and rating of six essential components of an institution's financial condition and operations that are summarized in a composite "CAMELS" rating. The acronym CAMELS stands for Capital Adequacy, Asset Quality, Management, Earnings, Liquidity and Sensitivity to Market Risk. The CAMELS has two criteria. They are composite assessment and component assessment. Composite means the overall assessment and component means the each part assessment. The Composites' Checklists of CAMEL Rating System is shown in Table (2.1).

**Table (2.1) Composite Checklists of CAMEL Rating System**

Rating	Assessment
1	<ul style="list-style-type: none"> <li>-sound in every respect</li> <li>-Any weaknesses are minor can be handled in a routine manner by the board of directors and management</li> <li>-Substantial compliance with laws and regulations</li> <li>-no cause for supervisory concern</li> </ul>
2	<ul style="list-style-type: none"> <li>-Only moderate weaknesses</li> <li>-well within the board of directors' and management's capabilities and willingness to correct,</li> <li>-Stable and are capable of withstanding business fluctuations in substantial compliance with laws and regulations</li> <li>-no material supervisory concerns, supervisory response is informal and limited</li> </ul>
3	<ul style="list-style-type: none"> <li>-some degree of supervisory concern in one or more of the component areas</li> <li>-weaknesses that may range from moderate to severe; less capable of withstanding business fluctuations</li> <li>-significant noncompliance with laws and regulations</li> <li>-more than normal supervision formal or informal enforcement actions</li> </ul>
4	<ul style="list-style-type: none"> <li>-unsafe and unsound practices or conditions</li> <li>-serious financial or managerial deficiencies that result in unsatisfactory performance, critically deficient</li> <li>-significant noncompliance with laws and regulations</li> <li>-Close supervisory attention is required, (formal enforcement action is necessary)</li> <li>- Failure is a distinct possibility (if the problems and weaknesses are not satisfactorily addressed and resolved )</li> </ul>

Rating	Assessment
	<ul style="list-style-type: none"> <li>-extremely unsafe and unsound practices</li> <li>-critically deficient performance; greatest supervisory concern</li> <li>-The volume and severity of problems are beyond management's ability or willingness to control or correct</li> <li>- Immediate outside financial or other assistance is needed</li> <li>- Ongoing supervisory attention is necessary. Failure is highly probable</li> </ul>

Source: Off-Site supervision manual guideline

## 2.2. The Nature of Capital Adequacy Ratio (CAR)

In 1988, the Basel Committee on Banking Supervision (BCBS), International committee to provide standards for banking regulations, introduced the capital measurement system commonly referred to as Basel I. Thus Basel 1 is known as minimum capital ratio of capital to risk weighted assets of 8%. That means, if a bank has MMK 100 million of risk weighted assets in position, capital and reserve must be in MMK 8 million. By doing so, most of the bank can reduce risk for both customers and bank although slowing the loan issuing activities and decrease the profitability.

It was focus only on credit risk and relation with the capital factor and risk weighted asset which is used as denominator. At the balance sheet of financial institutions, cash, loans and investments are main assets types of the institutions. The categories or class of the loans depends on the nature of the borrowers. For example, cash is 0% risk, categories loan collateralized by claims on Central Banks is as 20%, residential mortgage is 50% and so on. The higher the credit rate the lower the risk weight.

The main drawback of Basel I is the slow of bank activities. To balance the profit ability and soundness of the financial industry, Base II accord surfaced in 2004 and was to be enforced up to 2008 and due to financial instability in USA the focus of the regulators was to settle the financial unrest in the first place. BCBS published Basel II guidelines including calculations of minimum regulatory capital ratio. There are three main factors in Basel II guide line minimum capital requirement, regulatory supervision and market disciplines.

Basel II includes market and operational risks besides credit risks. The lessons learnt after the crisis led the central bankers and banking regulatory authorities of the whole world to come up with more stern capital reform with obligatory amendments in the mandatory capital requirements. It has emphasis on the division of eligible regulatory capital of a bank into three tiers.

Tier 1 capital is a bank's core capital, shareholders equity and retains earning. Tier 2 capital includes revaluation reserves, capital instrument and debts. Tier 3 capital is tier 2 capital plus short term subordinate loans.

Basel III released in December, 2010 which lay more focus on quality, consistency and transparency of the capital base. Regulation of capital assumes significant importance so as to reduce bank failures, to promote stability, safety and soundness of the banking system, to prevent systemic disaster and to ultimately reduce losses the bank depositors.

Well-managed banks will normally maintain a buffer of capital above the minimum required ratios to reduce the risk that they will breach the minimum in the future.

### **2.3. Determinants of Capital Adequacy Ratio**

Determinants of Capital Adequacy Ratio are Return to Assets ratio, Return to Equity ratio, Non-Performing Loans, Loan Loss Reserve , Loans to Assets ratio and Other determinant factors such as related party loans, Suspense accounts, Earning assets to total assets ratio.

Return on Assets (ROA) means profits of the bank for the period relation to average total assets. The ratio of ROA is Net profit after tax to Total Assets. A key indicator of the bank's profitability as it measures net income in relation to the whole balance sheet of the bank and calculated on an after tax and a pre-tax basis(pre-tax is useful to ensure comparability of banks as they often have different effective tax rates based on their circumstances and features of the corporate taxation regime).

The higher the ratio, in general the more positive is the risk assessment of the bank. It may indicate high levels of risk-taking by the bank which could lead to losses in the future. The ratio is expressed as an annualized rate of return on the average capital during the quarter (or year). It should also be calculated on both a pre-tax and a post-tax basis.

If the Return to Assets Ratio may high, the Capital Adequacy Ratio will be high. On the other hand, the Return of Assets may fall down, the Capital Adequacy Ratio will be decreased because Tier 1 Capital deducted profit and loss if negative.

That's why, banks need to increased profits in the quarter due to underlying increases in profitability or one-off effects such as extraordinary gains (on sales of assets, for example) ,Reductions in the bank's assets or in equity during the quarter, for example because of deposit withdrawals, maturing deposits with other banks or payments of dividends .

Return on Equity (ROE) means bank's profit after tax in relation to the equity capital of the bank (shareholders' funds).And the ratio is Net profit to Equity .A key indicator of the bank's efficient use of capital, as it measures the bank's performance in generating a return to shareholders. The ratio is expressed as an annualized rate of return on the average capital during the quarter (or year). It should also be calculated on both a pre-tax and a post-tax basis.

The higher the ratio, in general the more positive is the risk assessment of the bank. High rates of return enable the bank to pay the dividends expected by shareholders while also retaining sufficient earnings to support the future growth of the bank, without risk to continued compliance with capital adequacy requirements.

Typical reasons for downwards movements in ratios may be reduced profits due to underlying decreases in profitability or higher taxation or one-off effects such as extraordinary losses (on revaluation of assets, for example), Large increases in the bank's assets or in equity during the quarter, for example because of an injection of new equity into the bank by shareholders (the reduction in ROE should be temporary as the bank puts new capital to use in support of growth in earning assets).

Like ROA, If ROE ratio may high, the Capital Adequacy Ratio will be high. On the other hand, the Return of Equity may fall down. The Capital Adequacy Ratio will be decreased because Tier 1 Capital deducted profit and loss if negative. ROA depends on Assets and ROE depends on Equity.

A nonperforming loan (NPL) is a loan in which the borrower hasn't made any scheduled payments of principal or interest for some time. NPL ratios have tended to be low in Myanmar, reflecting the extent of overdraft lending and the nature of the repayment requirements associated with it.

NPL ratio means NPLs to Gross loans ratio. Total non-performing loans as a percentage of the bank's total loans .The ratio level should be reviewed in conjunction

with the analysis of the extent to which: - NPLs are in the doubtful or loss categories (or there are also significant loans classified as sub-standard); - they are concentrated in a particular sector; they are also either large exposures (refer to the quarterly large exposure report) or related party exposures or both; the extent of any rescheduled or restructured loans; and the extent of any recent recoveries and write-offs of loans .

Typical reasons for downwards movements (i.e., generally improvement) in ratios: there has been significant recent loan growth which has increased the denominator in some ratios, while it is too early to recognize NPLs on the new exposures; the bank has made recent recoveries or provided more for existing NPLs or has written off significant amounts.

Typical reasons for upwards movements (i.e., generally deterioration) in ratios are the bank has reviewed asset quality, resulting in significant reclassification of loans or increased provisions total loans have reduced owing to repayments, write-offs or limited new lending, reducing the value of the denominator in the NPL ratio.

The Loan loss reserve means that potential losses arising from the loans classified as non-performing (doubtful and loss, i.e. those over 90 days past due), if all the bank's NPLs cannot be recovered and cause loss (and collateral is inadequate to mitigate losses) the specific provisions and capital act as a cushion preventing failure of the bank. If the ratio exceeds 100%, the financial institution may have insufficient capital to meet potential bad debts.

Specific provisions/NPLs mean total specific bad debt provisions as a percentage of the bank's total NPLs. This ratio measures the extent to which the bank's provisions cover its NPLs at the aggregate level. It can be referred to as a provision coverage ratio. The ratio needs careful interpretation, taking into account the minimum provisioning requirements set out in the Asset Classification and Provisioning Regulations, which require provisions to be held against not just NPLs but also assets classified as watch and sub-standard.

Myanmar banks are required by CBM regulation to make two types of loan loss provisioning: general provisioning and specific provisioning. As per CBM instruction No. 17/2017, banks have to set aside general provisions for loan losses at the value of 2% of total outstanding loans and advances at the end of a reporting period.

The banks charge the general provision in other comprehensive income statements (net profit after tax) and maintain it in equity under reserves. In addition to general reserve provisioning, the banks have to classify loans and make specific provisions. Specific provisions are calculated on the shortfall amount of past due loans where the current forced sales value of the collateral is lower than the outstanding loan amount. The Central Bank of Myanmar prescribed by the Loan Loss provisioning and Loan classification according to the instruction 17/2107 as follows;

**Table (2.2) Loan Loss Provisioning and Loan Classification**

<b>Sr. No</b>	<b>Classification of loans/advances</b>	<b>Days past due</b>	<b>Provisions on short-fall in security value</b>
(a)	Standard	30 days past due	0%
(b)	Watch	31 to 60 days past due	5%
(c)	Substandard	61 to 90 days past due	25%
(d)	Doubtful	91 to 180 days past due	50%
(e)	Loss	Over 180 days past due	100%

Source: The instruction of Central Bank of Myanmar (17/2017)

The Loans to Assets composition is directly relation with the Capital Adequacy Ratio. If the loans to assets ratio may increase, the Capital Adequacy ratio will increase. And if the loans to assets ratio may decrease, the Capital Adequacy ratio will decrease. But, the bank's loans must be quality loans. Only then, the interest income from the amount of quality loan may increase the bank's total income. And this ratio shows the bank's ability in generating income from its lending activities.

Related party loans and other credit facilities to core capital ratio is the other determinant factors on Capital Adequacy Ratio. This ratio measures the extent of aggregated related party exposure in relation to the core measure of capital. This ratio could be reviewed also under "Asset Quality" Related party lending is already deducted from core capital under the Capital Adequacy Regulation. However, it is important to monitor the overall level of related party lending, because the potential adverse impact on the bank of high levels of related party lending is not limited to the amounts deducted from capital.

There is also potential reputational risk to a bank, for example, and business and earnings risks arising from over-dependence on business with related parties as a source of income. A ratio of over 10% of core capital should be considered as a cause for enquiry and a ratio over 20% a cause for concern.

Suspense accounts to Regulatory Capital measures the total suspense accounts (assets) in comparison with total regulatory capital. Most banks can be expected to have some items in suspense at any time, but amounts should normally be low and higher than normal amounts should be cleared rapidly. High levels of suspense accounts create uncertainty over the value of the bank's assets, and call into question the adequacy of its financial controls. Any ratio over 2% is a trigger for enquiry and over 4% is a cause for concern.

Earning assets/total assets measures the extent to which the bank's assets are earning income for the bank. Earning assets are defined for these purposes to include time deposits placed with and loans to other banks as well as investments and commercial loans.

They may include high quality assets such as cash or banks' main account with Central Bank of Myanmar. However, there could also be significant intangible assets, fixed assets (see next ratio) and "other assets", where the quality of the asset may be uncertain. Significant amounts of reported other assets should always be investigated by the supervisor.

A ratio of less than 75% should be treated as a cause for enquiry and a ratio of less than 60% a cause for concern. Careful interpretation of the numbers and an analysis of the nature of the non-earning assets is required. Particularly high levels of earning assets may also be a cause of concern, indicating a lower level of liquidity and potentially high risk in lending practices. This ratio also provides insights into the future viability of the bank. If the bank has insufficient earning assets (including cash), it may fail to earn adequate returns in the longer term.

This ratio can therefore also be considered under Earnings; Fixed assets (PPE)/ Core capital: measures the extent to which core capital (or, if the ratio is over 100%, other resources of the bank) are being used to support the bank's business.

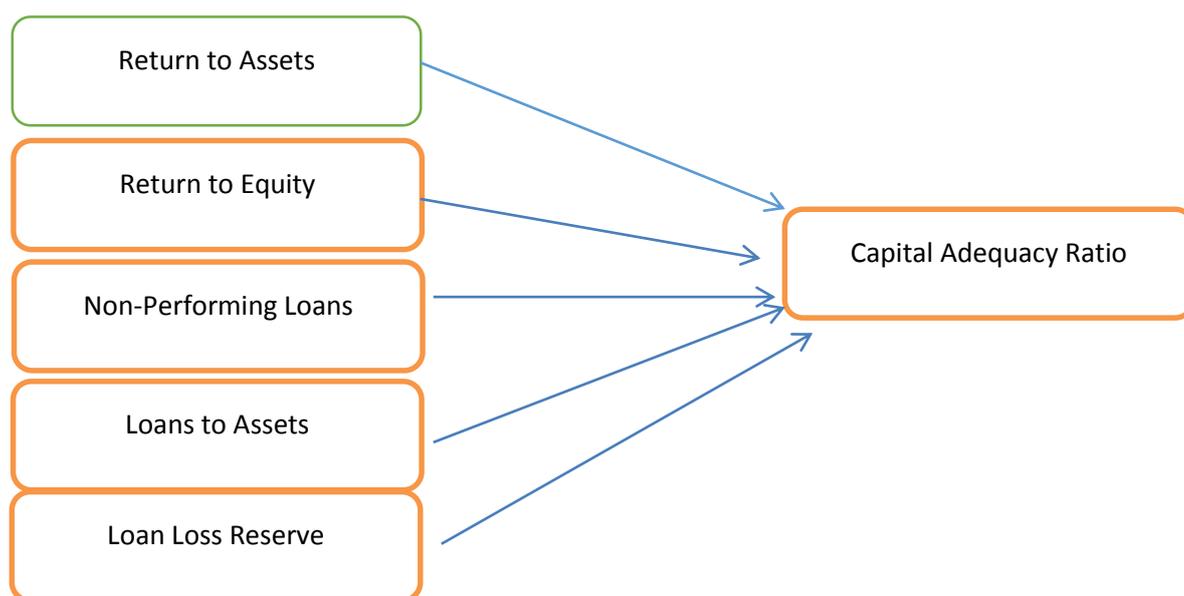
Fixed assets should in principle be low, as they are mostly non-earning and of relatively uncertain value, particularly if the bank's practices, and the accounting and auditing standards, do not provide for adequate depreciation or for regular revaluations in the case of property. Although all banks require a certain level of fixed

assets in order to operate, a high proportion of fixed assets indicate risks to depositors. A level of over 25% would be a cause for enquiry. A ratio of over 50% is a cause for concern.

#### 2.4. Theoretical Framework

Theoretical Framework of the study is presented in this figure (2.1) that is adopted from Usman Masood, Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology (2016).

Figure (2.1) Theoretical Framework



Source: Adopted from Usman Masood, Shaheed Zulfiqar Ali Bhutto, ( 2016)

According to the theoretical framework, Figure (2.1) explains about the determinants of the Capital Adequacy Ratio and its determinants ratios. They are the Return on Assets (ROA), Return on Equity (ROE), Non-Performing Loans, Loan to Assets, Loan Loss Reserve. The profitability of Return on Assets (ROA) and Return on Equity (ROE) was directly related to the CAR ratio. The Non-Performing Loans and Loans to Deposits were negatively significant with the CAR. It was conducted that aggressive lending also lead to reduction in capital. For loan loss reserve, the banks charged the general provision in other comprehensive income statements (net profit after tax) and maintained it in equity under reserves. The Loans to Assets composition was directly relation with the Capital Adequacy Ratio.

## **CHAPTER III**

### **PROFILE AND FINANCIAL SOUNDNESS INDICATORS OF SELECTED BANKS**

In this study only focus on two private banks. They are First Private Bank and Myanmar Citizens Bank. This section mainly described the profile of First Private Bank and Myanmar Citizens Bank and their financial soundness indicators. The Financial Soundness Indicators (FSIs) are statistical measures for monitoring the financial health and soundness of a country's financial sector and its corporate and household counterparts.

#### **3.1. Profile of Selected Banks**

In Myanmar, there are 4 State-Owned banks (Myanmar Foreign and Trade Bank, Myanmar Investment and Commercial Bank, Myanmar Economic Bank, Myanmar Agricultural and Development Bank), 10 semi-government banks, 17 domestic private banks and 13 foreign banks. The profile of First Private Bank and Myanmar Citizens Bank are as follows;

##### **(a) Profile of First Private Bank**

First Private Bank (FPB) is a public bank established in 1991, with company registration No. (223/1991-1992) granted on 9th September, 1991 under Myanmar Company Act (1914). With the Banking License No. CBM/P-1 (5)1992 granted by CBM on 25th May, 1992. It started its business on 10-6-1992 at No. 619-621, Merchant Street, corner of Bo Soon Pat Street, Pabedan Township, and Yangon, Myanmar. Currently FPB was opened the 32 branches in Myanmar. Board of Directors comprises 16 members.

Central Bank of Myanmar has permitted the Money Changer License, Foreign Exchange License, and Mobile Banking License to the First Private Bank. FPB was granted the Money Changer License No. CBM FEMD 8/2011 by CBM on 24th October, 2011. It has opened 11 money exchange counters. On 24th August, 2012, FPB was granted the Foreign Exchange Authorized Dealer License No. CBM FEMB 93/2012 by CBM and it started Foreign Banking on 2-10-2012.

It became a member of the Society for Worldwide Interbank financial Telecommunication (SWIFT). It has established correspondence Bank relationship

with 15 foreign banks. By connecting with correspondent banks, FPB is currently providing Foreign Currency current account opening, Export/Import LC, Telegraphic transfer (TT) Account transfer and Foreign Exchange transaction activities to its customers.

First Private Bank was granted to be listed on the Yangon Stock Exchange on 30 December 2016. The Directors of FPB have approved this Disclosure Document (which is called this “Disclosure Document for Listing”), for all outstanding Shares to be listed on the Yangon Stock Exchange “YSX”. Since the founding of FPB in 1992, FPB has grown steadily and made profits continuously.

First Private Bank started paying dividends to shareholders beginning with FY 1992-93 till to date, 31 March 2018. Likewise, FPB has paid corporate profit tax to the government continuously without fail and is one of the largest tax payers.

Because of its performance and good reputation FPB has been able to sell its shares with a premium of 200 percent. The share capital of the bank (authorized capital) increased 100 times since it was established.

#### **(b) Profile of the Myanmar Citizens Bank**

The Myanmar Citizens Bank (MCB) Limited was incorporated as a public company limited by shares, as per Notifications No.21/91 of the Ministry of Commerce (Ministry of Trade) dated so" September, 1991. The Company's Shares may only be acquired by Myanmar nationals and companies registered in Myanmar that are wholly owned by Myanmar nationals.

The Ministry of Commerce, as a shareholder of the Company, has contributed to our operations and profitability through developing positive relationships with government officials and other important persons within and outside of Myanmar. In addition, we have also gained significant insight and expertise in the foreign trade sector and currently collect license fees in respect of export-import licenses issued to traders in Myanmar. There is currently no formalized arrangement with respect to the role the Ministry of Commerce plays in our operations, and there is no contractual agreement with respect to our service of collecting license fees.

As such, in the event that the Ministry of Commerce ceases to be a shareholder of the Company, some or all of these benefits may no longer be available and our businesses and profitability could be adversely affected to some extent.

The Myanmar Citizen Bank has achieved total deposit growth of MMK 56.18 Billion and Loan growth of MMK 28.53 Billion in comparison to

the same period in the year of 2017/2018 were recorded deposit and loan amounting to MMK. 220.15 Billion and 188.25 Billion respectively. The Loans and advance increase was primarily attributable to the Higher Purchase Loan growth. As of the Latest Practicable Date, Myanmar Citizens Bank is operating a total of 34 branches across Myanmar.

### 3.2. Financial Soundness Indicators of Selected Banks

Financial Soundness Indicators of Selected Banks are the First Private Bank and Myanmar Citizens bank. They are the Listed Companies and both of two banks are the most senior banks among 27 private banks because they established since 1991.

#### (a) Financial Soundness Indicators of the First Private Bank

The First Private Bank of financial Soundness Indicators was analyzed by the Capital Quality, Assets Quality, Management, Earning Quality and Liquidity Ratio.

##### (i) Capital Quality

The analysis ratios for capital quality are Capital to Total Assets ratio, Equity to Total Assets ratio and Equity to Deposit Ratio. The results of the ratios are described in Table 3.1

**Table (3.1) Capital Quality**

Year	Equity to Total Asset	Equity to Deposit	Capital to Total Asset
2016	25.08%	34.45%	11.41%
2017	24.63%	34.75%	10.58%
2018	9.98%	28.09%	9.88%

Source: The annual report of the FPB bank (2016, 2017, 2018)

According to the above Table(3.1), except equity to Deposit ratio in 2017, the Capital to Total Assets ratio, Equity to Total Asset Ratio and Equity to Deposit ratios was decreasing from 2016 to 2018 because of the increasing of Non-Performing Loans .And the risk weighted assets was higher than the previous year. The capital ratios were in excess of minimum regulatory requirements. The bank has strong management and capital management plan. The bank can control and manage the appropriate capital levels and the bank could able to raise new capital and maintain a credible plan. As results, the Capital quality of the bank was to be rated as “1” for Strong.

**(ii) Assets Quality**

The analysis ratios for assets quality are Non- Performing Loan, Total Deposit to Total Asset and Fixed Asset to Total Asset. The results of the ratios are described in Table 3.2.

**Table (3.2) Assets Quality**

<b>Year</b>	<b>Total Deposit to Total Asset</b>	<b>Fixed Asset to Total Asset</b>	<b>NPL to Total Loan</b>
2016	72.79 %	2.60%	0.02 %
2017	70.87%	2.82%	0.02 %
2018	73.77%	2.73%	3.41 %

Source: The annual report of the FPB bank (2016, 2017, 2018)

According to the above Table (3.2), from fiscal year 2016 to 2018, Non-performing loan to Total loan Ratios of the bank are increasing. Because the Central Bank of Myanmar issued the new instruction in relating with the Non-Performing Loans and the instruction focused on the risk-weighted assets. Total Deposit to Total Asset ratios are around 70%. It reflects that only (70%) of total assets are financed purchased fund (deposit) and Fixed Asset to Total Asset ratio are all years around 3 % only. The bank has more earning asset than the Fixed Assets. Based on the above data, Asset quality is to be rated as 2.

**(iii) Management Quality**

Management Quality cannot be measured by quantitative data. The bank has strong performance by management and the board of directors and strong risk management practices because from 2016 to 2017, the bank has no Non-Performing Loans. The Bank has strong equity and minor weaknesses may exist, but are not material to the safety and soundness of the institution. Therefore, Management Quality is to be rate as rating 2.

**(iv) Earning Quality**

The analysis ratios for earning quality are Return to Total Assets, Return to Total Equity and Deposit Cost to Deposit Ratio. The results of the ratios are described in Table 3.3.

**Table (3.3) Earning Quality**

Year	Return to Total Equity (ROE)	Deposit Cost to Deposit Ratio	Return to Total Assets (ROA)
2016	12.33 %	7.36%	3.09 %
2017	15.00 %	7.77%	3.70 %
2018	13.30 %	7.48%	3.12 %

Source: The annual report of the FPB bank (2016, 2017, 2018)

According to the above Table (3.3), from fiscal year 2016 to 2017, the Return to Total Asset (ROA), Return to Total Equity (ROE) and Deposit Cost of Deposit ratio were increasing. In 2017-2018, the ratios for earning quality were decreasing because of increasing of interest expenses. The returns of equity and the return of assets were good, although return to Total Equity and return to total asset ratios were not in positive trends. In spite of there was not at positive trends in all three ratios, deposit cost to deposit ratio was also good. Earning is to be rated as rating 2, based on the facts above mentioned.

#### (v) Liquidity Quality

The analysis ratios for liquidity quality are liquid Asset to Demand Deposit, liquid Asset to Total Deposit and Liquid Asset to Total Asset. The results of the ratios are described in Table 3.4.

**Table (3.4) Liquidity Quality**

Year	Liquid Asset to Demand Deposit	Liquid Asset to Total Deposit	Liquid Asset to Total Asset
2016	244.59 %	19.90 %	14.48%
2017	55.30 %	22.49 %	15.94%
2018	43.79 %	19.25 %	14.20%

Source: The annual report of the FPB bank (2016,2017, 2018)

According to the above Table (3.4), fiscal year 2015-2016, liquid asset to demand deposit are considerably high. It means that the bank keeps liquid asset more than its all demand deposit like Current deposit, Call deposit and floats. But later in 2017-18 the ratio becomes moderate. Based on the facts mentioned, liquidity is to be rate as rating 1.

By summing of the financial soundness indicators of the FPB, the bank's conditions are sound in every respect. Capital Adequacy ratio was over 8% and more than adequate from the CBM requirements. NPL is less than 5%. Return on Assets

was above 3%. Return on equity is above 10%. Liquidity was over the minimum requirement of 20%. In overall, FPB has effective and efficient policy for internal control and risk management. Any weaknesses are minor can be handled in a routine manner by the board of directors and management. Based on the overall situation and CAMEL criteria, the bank can be rated as “2”.

**(b) Financial Soundness Indicators of Myanmar Citizens Bank**

The First Private Bank of financial Soundness Indicators was analyzed by the Capital Quality, Assets Quality, Management, Earning Quality and Liquidity Ratio.

**(i) Capital Quality**

The analysis ratios for capital quality are Capital to Total Assets ratio, Equity to Total Assets ratio and Equity to Deposit Ratio. The results of the ratios are described in Table 3.1

**Table (3.5) Capital Adequacy Ratio**

<b>Year</b>	<b>Capital to Total Asset</b>	<b>Equity to Total Asset</b>	<b>Equity to Deposit</b>
2016	22.44%	27.66%	42.58%
2017	20.80%	26.58%	40.53%
2018	16.77%	22.47%	31.66%

Source: The annual report of the MCB bank (2016, 2017, 2018)

According to the above Table, from 2016 to 2018, Equity to Total Asset Ratio and Equity to Deposit ratios are increasing from 2016 to 2017. For fiscal year 2017-2018, the ratios were decreasing. However, the bank could able to raise new capital and maintain a credible plan and the bank met the minimum requirement of Capital Adequacy Ratio. That’s why; the bank has strong management and capital management plan which takes account of business risks. The bank can control in determining appropriate capital levels. As results, the Capital quality of the bank was to be rated as “1”.

**(ii) Assets Quality**

The analysis ratios for assets quality are Non- Performing Loan, Total Deposit to Total Asset and Fixed Asset to Total Asset. The results of the ratios are described in Table 3.6

**Table (3.6) Assets Quality**

Year	NPL to Total Loan	Total Deposit to Total Asset	Fixed Asset to Total Asset
2016	2.69%	64.96%	3.63%
2017	2.89%	65.58%	4.10%
2018	4.45%	70.98%	4.17%

Source: The annual report of the MCB bank (2016,2017 , 2018)

According to the above Table (3.6), from fiscal year 2016 to 2018, Non-performing loan to Total loan Ratios of the bank were increasing. Like First Private Bank, the Non- Performing Loans of Myanmar Citizens Bank was increasing because of the increase of the risk-weighted assets .The total Deposit to Total Asset ratios were around 70%. It reflects that only (70%) of total assets are financed purchased fund (deposit).Fixed Asset to Total Asset ratio were all years around 4 % only. It means the lesser in Fixed Asset, the more in earning asset. Based on the facts mentioned, Asset quality is to be rate as 1.

**(iii) Management Quality**

Management Quality cannot be measured by quantitative data. The bank has strong performance by management and the board of directors and strong risk management practices because from 2016 to 21017, the Non-Performing Loans was less than 5%. The Bank has strong equity. Minor weaknesses may exist, but are not material to the safety and soundness of the institution and are being addressed. Based on the facts mentioned, Management is to be rate as rating 2.

**(iv) Earning Quality**

The analysis ratios for earning quality are Return to Total Assets, Return to Total Equity and Deposit Cost to Deposit Ratio. The results of the ratios are described in Table 3.7.

**Table (3.7) Earning Quality**

Year	Return to Total Assets (ROA)	Return to Total Equity (ROE)	Deposit Cost to Deposit Ratio
2016	2.39%	8.63%	6.23%
2017	2.33%	8.78%	7.04%
2018	1.02%	4.55%	6.33%

Source: The annual report of the MCB bank (2016, 2017, 2018)

According to the above Table (3.7), from fiscal year 2016 to 2018, the Return to Total Asset (ROA) and the Return to Total Equity (ROE) are decreasing because of the bank's net profit was decreasing. But the Returns on Assets are nearly 3% and Returns on Equity are around 10%. The Deposit cost to deposit ratio are also good, although there is not at positive trends in all three ratios. Based on the facts mentioned, Earning is to be rated as rating 3.

**(v) Liquidity Quality**

The analysis ratios for liquidity quality are liquid Asset to Demand Deposit, liquid Asset to Total Deposit and Liquid Asset to Total Asset. The results of the ratios are described in Table 3.8.

**Table (3.8) Liquidity Quality**

<b>Year</b>	<b>Liquid Asset to Demand Deposit</b>	<b>Liquid Asset to Total Deposit</b>	<b>Liquid Asset to Total Asset</b>
2016	28%	260%	18.19%
2017	15.99%	117%	10.48%
2018	20.93%	180%	14.86%

Source: The annual report of the MCB bank (2016, 2017, 2018)

This Table (3.8) shows that, fiscal year 2015-2016, liquid asset to total deposit are considerably high. It means that the bank keeps liquid asset more than its all deposits. For 2016-2017, the liquid Asset to Demand Deposit ratio was decreasing because of the cash equivalent are dramatically decreased. But the Liquid Asset to total deposit ratios were rather high because of increasing of total deposits. The liquidity parameter is used to evaluate level of cash and liquid asset of the bank to meet its obligations or demand deposit. Based on the facts mentioned, liquidity is to be rate as rating 3.

By summing of the financial soundness indicators of the MCB bank, the Capital Adequacy ratio is over 8% and more than adequate from the CBM requirements. NPL was less than 5%. Return on Assets was around 4 %. Return on equity was nearly 10%. All financial soundness indicators are very strong except liquidity ratio in 2017. In 2018, the bank met the minimum requirement of Liquidity ratio. The bank has only moderate weakness. The senior management could control and managed well. All areas were stable and are capable of withstanding business fluctuations in substantial compliance with laws and regulations. According to the CAMEL's criteria, the overall composite rating of Myanmar Citizens Bank can be rated as "1".

## CHAPTER IV

### DETERMINANTS OF CAPITAL ADEQUACY RATIO ON SELECTED BANKS

This chapter analyzes and evaluates the determinants of Capital Adequacy Ratio of the selected banks during the fiscal year 2015-2016 to 2017-2018. The determinants of Capital Adequacy Ratio on selected banks are First Private Bank and Myanmar Citizens Bank. The Determinants of Capital Adequacy Ratio on First Private Bank and Myanmar Citizens Bank are Return to Assets (ROA), Return to Equity (ROE), Non-Performing Loans (NPL), Loan Loss Reserve, Loans to Assets.

#### 4.1. Determinants of Capital Adequacy Ratio on First Private Bank

The Capital Adequacy Ratios and its determinants of the First Private Bank from the fiscal year 2015-2016 to 2017-2018 are as follows;

**Table (4.1) Capital Adequacy Ratio**

Year	Capital Adequacy Ratio	Changes
2015-2016	60.11%	
2016-2017	64.24%	4.13%
2017-2018	23.42%	(40.82%)

Source: The annual report of FPB (2016, 2017, 2018)

Table (4.1) mentions the Capital Adequacy Ratio of FPB from 2015-2016 to 2016-2017. The CAR ratio sharply fall 2017-2018 to 23.42 compares to last two years around 60 %. This is because of the determinants of the Return to Assets, Return to Equity, Non-Performing Loans, Loan Loss Reserve, and Loan to Total Asset ratio.

##### (i) Return to Assets Ratio

The ratio of Return to Asset is Net profit after tax to Total Assets. A key indicator of the bank's profitability as it measures net income in relation to the whole balance sheet of the bank and calculated on an after tax. The Capital Adequacy Ratio and Return to Assets Ratio of FPB is as follows;

**Table (4.2) The Capital Adequacy Ratio and Return to Asset Ratio**

<b>Year</b>	<b>Capital Adequacy Ratio</b>	<b>Changes</b>	<b>Return to Asset Ratio</b>	<b>Changes</b>
2015-2016	60.11%		3.09%	-
2016-2017	64.24%	4.13%	3.70%	0.61%
2017-2018	23.42%	(40.82%)	3.12%	(0.58%)

Source: The annual report of FPB (2016, 2017, 2018)

According to the Table (4.2), when the Return to Asset Ratio increased in fiscal year 2015- 2016 to 2017-2018, the Capital Adequacy Ratio increased from 60.11% to 64.24%. The Return to Asset Ratio dropped in fiscal year 2016- 2017 and 2017-2018, the Capital Adequacy Ratio decreased from 64.24 % to 23.42%. The ROA decreased in 2017-2018, because of the net profit decreased. Based on the facts, the ROA and Capital Adequacy Ratio of FPB are directly correlated.

**(ii) Return to Equity Ratio**

Return on Equity (ROE) means bank's profit after tax in relation to the equity capital of the bank (shareholders' funds). And the ratio is Net profit to Equity .A key indicator of the bank's efficient use of capital, as it measures the bank's performance in generating a return to shareholders. The Capital Adequacy Ratio and Return to Equity Ratio of FPB is as follows;

**Table (4.3) The Capital Adequacy Ratio and Return to Equity Ratio**

<b>Year</b>	<b>Capital Adequacy Ratio</b>	<b>Changes</b>	<b>ROE</b>	<b>Changes</b>
2015-2016	60.11%		12.33%	
2016-2017	64.24%	4.13%	14.99%	2.66%
2017-2018	23.42%	(40.82%)	13.30%	(1.69%)

Source: The annual report of FPB (2016, 2017, 2018)

According to the Table (4.3), when the Return to Equity Ratio increased in fiscal year 2015- 2016 to 2017-2018, the Capital Adequacy Ratio increased from 60.11% to 64.24%. When the Return to Equity Ratio dropped in fiscal year 2016- 2017 to 2017-2018, the Capital Adequacy Ratio was decreasing from 64.24 % to 23.42%. The ROE decreased in 2017-2018, because of the net profit decreased. Based on the facts, the ROE and Capital Adequacy Ratio of FPB are directly correlated.

**(iii) Non- Performing Loans Ratio**

NPL ratio means NPLs to Gross loans ratio. Total non-performing loans as a percentage of the bank's total loans. The Capital Adequacy Ratio and Return to Assets Ratio of FPB is as follows;

**Table (4.4) The Capital Adequacy Ratio and Non-Performing Loans FPB**

<b>Year</b>	<b>Capital Adequacy Ratio</b>	<b>Changes</b>	<b>NPL</b>	<b>Changes</b>
2015-2016	60.11%		0.02%	-
2016-2017	64.24%	4.13%	0.02%	-
2017-2018	23.42%	(40.82%)	3.41%	3.39%

Source: The annual report of FPB (2016, 2017, 2018)

According to the Table (4.4), from fiscal year 2015-2016 to 2016-2017, the percentage of Non-Performing Loan is nearly zero. When the NPL ratio increased 0.02% to 3.41% from 2016-2017 to 2017-2018, the Capital Adequacy Ratio dramatically decreased from 64.24% to 23.42%. In 2017-2-18, the NPL ratio significantly increased because of the increasing of risk-weighted assets. The NPL and CAR ratio of the bank are significantly influenced and conversely correlated.

**(iv) Loan Loss Reserve**

The Loan loss reserve means that potential losses arising from the loans classified as non-performing. The Capital Adequacy Ratio and Loan Loss Ratio of FPB is as follows;

**Table (4.5) The Capital Adequacy Ratio and Loan Loss Reserve**

<b>Year</b>	<b>Capital Adequacy Ratio</b>	<b>Changes</b>	<b>Loan Loss Reserve</b>	<b>Changes</b>
2015-2016	60.11%		2862.06	15.34%
2016-2017	64.24%	4.13%	3158.96	10.37%
2017-2018	23.42%	(40.82%)	3512.04	11.17%

Source: The annual report of FPB (2016, 2017, 2018)

According to the above Table (4.5), when the loan loss reserve amount was increased in 2016-2017, Capital Adequacy Ratio was also increased .Because, at that time, the NPL ratio is only 0.02%. The bank has no need to charge the loan loss reserve amount for NPL. From fiscal year 2016-2017 to 2017-2018, the percentage of loan loss reserve increased 11.17 %, the CAR ratio decreased from 64.24% to

23.42%. The loan loss reserve increased because of arising from the loans classified as non-performing. The bank of loan loss reserve and CAR ratio are conversely correlated.

**(v) Loans to Assets Ratio**

The Capital Adequacy Ratio and Loan to Asset of FPB from fiscal year 2015-2016 to 2016-2017 are as follows;

**Table (4.6) The Capital Adequacy Ratio and Loans to Assets Ratio**

<b>Year</b>	<b>Capital Adequacy Ratio</b>	<b>Changes</b>	<b>Loan to Assets Ratio</b>	<b>Changes</b>
2015-2016	60.11%		69.01%	
2016-2017	64.24%	4.13%	67.76%	1.25%
2017-2018	23.42%	(40.82%)	70.21%	2.45%

Source: The annual report of FPB (2016, 2017, 2018)

According to the Table (4.6), , when the percentage of Loan to Asset Ratio decreased from 69.01 % to 67.76 %, the Capital Adequacy Ratio increased from 60.11% to 64.24%. From 2016-2017 to 2017-2018, the Loan to Total Assets Ratio increase from 67.76% to 70.21%, the Capital Adequacy Ratio decreased from 64.24% to 23.42 %. Actually, if the loans to assets ratio may increase, the Capital Adequacy ratio will increase. And the If the loans to assets ratio may decrease, the Capital Adequacy ratio will decrease. But, in FPB, the Capital Adequacy Ratio and loans to Assets ratio were conversely related. During this year, the Loans to Assets ratios were not affected on the bank.

**4.2. Determinants of Capital Adequacy Ratio on Myanmar Citizens Bank**

The Determinants of Capital Adequacy Ratio on Myanmar Citizens bank are Return to Assets (ROA), Return to Equity (ROE), Non-Performing Loans (NPL), Loan Loss Reserve, Loans to Assets. The Capital Adequacy Ratio of the Myanmar Citizens Bank from the fiscal year 2015-2016 to 2017-2018 is as follows;

**Table (4.7) Capital Adequacy Ratio**

<b>Year</b>	<b>Capital Adequacy Ratio</b>	<b>Changes</b>
2015-2016	73.51%	3.27%
2016-2017	30.09%	(43.42%)
2017-2018	25.68%	(4.41%)

Source: The annual report of FPB (2016, 2017, 2018)

Table (4.7) shows the Capital Adequacy Ratio of MCB from 2015-2016 to 2016-2017. The CAR ratio sharply fall 2016-2017 to 30% compare with last year ratio 73.51%. This is because of the determinants of the Return to Assets, Return to Equity, Non-Performing Loans, Loan Loss Reserve, and Loan to Total Asset ratio.

**(i) Return to Assets Ratio**

The Capital Adequacy Ratio and Return to Assets Ratio of MCB is as follows;

**Table (4.8) Capital Adequacy Ratio and Return to Assets Ratio**

<b>Year</b>	<b>Capital Adequacy Ratio</b>	<b>Changes</b>	<b>ROA</b>	<b>Changes</b>
2015-2016	73.51%	3.27%	2.39%	
2016-2017	30.09%	(43.42%)	2.33%	(0.06%)
2017-2018	25.68%	(4.41%)	1.02%	(1.31%)

Source: The annual report of MCB (2016, 2017, 2018)

According to the Table (4.8), from fiscal year 2015-2016 to 2016-2017, when the percentage of Return to Assets (ROA) decreased, the Capital Adequacy Ratio decreased. From fiscal year 2016-2017 to 2017-2018, the percentage of Return to Assets (ROA) decreased 4.41%, the CAR ratio also decreased. From fiscal year 2015-2016 to 21016-2017, the ratio was dramatically decreased because of the increased of the risk weighted assets. The bank of ROA and Capital Adequacy was directly connected.

**(ii) Return to Equity Ratio**

The Capital Adequacy Ratio and Return to Equity Ratio of MCB is as follows;

**Table (4.9) The Capital Adequacy Ratio and Return to Equity Ratio**

<b>Year</b>	<b>Capital Adequacy Ratio</b>	<b>Changes</b>	<b>ROE</b>	<b>Changes</b>
2015-2016	73.51%	3.27%	8.63%	
2016-2017	30.09%	(43.42%)	8.78%	(0.15%)
2017-2018	25.68%	(4.41%)	4.55%	(4.23%)

Source: The annual report of MCB (2016, 2017, 2018)

According to the Table (4.9), from 2015-2016 to 2016-2017, when the ROE ratio increased from 8.63 % to 8.78%, the Capital Adequacy Ratio decreased from 73.51 % to 30.09%. From fiscal year 2016-2017 to 2017-2018, when the percentage of Return to Assets (ROE) decreased from 8.78 % to 4.55%, the CAR ratio also decreased. The Return of Total Assets of the Myanmar Citizens Bank was not too much affected on the Capital Adequacy Ratio.

**(iii) Non- Performing Loans**

The Capital Adequacy Ratio and Non-Performing Loans (NPL) Ratio on Myanmar Citizens Bank during the fiscal year 2015-2016 to 2017-2018 are as follows;

**Table (4.10) The Capital Adequacy Ratio and Non-Performing Loans**

<b>Year</b>	<b>Capital Adequacy Ratio</b>	<b>Changes</b>	<b>NPL</b>	<b>Changes</b>
2015-2016	73.51%	3.27%	2.69%	
2016-2017	30.09%	(43.42%)	2.89%	0.20%
2017-2018	25.68%	(4.41%)	4.45%	1.56%

Source: The annual report of MCB (2016, 2017, 2018)

According to the above Table (4.10), from 2015-2016 to 2017-2018, when the NPL Ratio increased from 2.69% to 4.45 %, the Capital Adequacy Ratio decreased from 73.51% to 25.68 %. The NPL and CAR ratio of the bank are negatively related. From 2015-2016 to 2017-2018, the Capital Adequacy Ratio significantly decreased because of the increasing of NPL ratio. Based on the fact that the NPL and CAR ratio of the bank are conversely correlated.

**(iv) Loan Loss Reserve**

The Capital Adequacy Ratio and Loan Loss Reserve on Myanmar Citizens Bank during the fiscal year 2015-2016 to 2017-2018 are as follows;

**Table (4.11) The Capital Adequacy Ratio and Loan Loss Reserve**

<b>Year</b>	<b>Capital Adequacy Ratio</b>	<b>Changes</b>	<b>Loan Loss Reserve</b>	<b>Changes</b>
2015-2016	73.51%	3.27%	2305.52	
2016-2017	30.09%	(43.42%)	3194.36	38.55%
2017-2018	25.68%	(4.41%)	3765.05	17.86%

Source: The annual report of MCB (2016, 2017, 2018)

This table (4.11) shows that when the amount of loan loss reserve increased, the Capital Adequacy Ratio increased. From fiscal year 2016-2017 to 2017-2018, when loan loss reserve increased, the Capital Adequacy Ratio decreased from 73.51 % to 25.68%. The loan loss reserve increased because of arising from the loans classified as non-performing. According to the above table, the loan loss reserve and CAR ratio are conversely correlated.

**(v) Loans to Assets Ratio**

The Capital Adequacy Ratio and Loans to Assets Ratio on Myanmar Citizens Bank during the fiscal year 2015-2016 to 2017-2018 are as follows;

**Table (4.12) The Capital Adequacy Ratio and Loans to Assets**

<b>Year</b>	<b>Capital Adequacy Ratio</b>	<b>Changes</b>	<b>Loan to Assets Ratio</b>	<b>Changes</b>
2015-2016	73.51%	3.27%	51.87%	
2016-2017	30.09%	(43.42%)	63.88%	12.01%
2017-2018	25.68%	(4.41%)	60.70%	(3.18%)

Source: The annual report of MCB (2016, 2017, 2018)

This table (4.12) shows that when Loan to Assets Ratio increased 51.87% to 63.88% from 2015-2016 to 2016-2017, the capital adequacy ratio was decreased from 73.51% to 30.09%. According to the data, the loan to assets and capital adequacy ratio was not affected to the bank. The bank's loans were quality loans during the period. The bank's generating income was not affected to the Capital Adequacy Ratio.

## **CHAPTER V**

### **CONCLUSION**

The main objectives of the study are to identify the financial soundness indicators of selected banks on Capital Adequacy ratio and to examine the bank specific determinants of Capital Adequacy Ratio. Capital Adequacy Ratio is one of the measures which ensure the financial soundness of banks in absorbing a reasonable amount of loss. In order to establish a sound and efficient financial system functioning in harmony in the market economy, various financial reform measures have been undertaken to lay down the foundation of a modern financial system in Myanmar.

This chapter provides a summary of findings, discussions and suggestions of the determinants of the Capital Adequacy Ratio on the First Private Bank and Myanmar Citizens Bank. This thesis paper analyzed the determinants of Capital Adequacy Ratio on First Private Bank and Myanmar Citizens Bank based on the fiscal year 2015-2016 to 2017-2018.

#### **5.1. Findings and Discussions**

The study found that the Capital Adequacy Ratio of First Private Bank decreased from 60.11% to 23.42% from fiscal year 2015-2016 to 2017-2018 due to the Non-Performing loans. The ratio of Non-Performing Loans was 0% for the first two years and in 2017-2018, the NPL ratio increased 3% due to the new classification of NPL.

The Myanmar Citizens Bank, from 2015-2016 to 2016-2017, the Capital Adequacy Ratio decreased from 73.51% to 30.09 % because of increasing high risk assets. The Capital Adequacy Ratios of First Private Bank and Myanmar Citizens Bank were decreased in 2017-2018. However the increasing of Non-Performing loan, both of two banks' ratios was under 5%. But these two banks covered the risk weighted assets in fiscal year 2017-2018 and they met the minimum requirement of Capital Adequacy Ratio of Central Bank's instruction.

The significant findings of the study revealed that the Capital Adequacy Ratio decreased due to the risk weighted assets of these two banks. Since the Central Bank of Myanmar issued the new instruction of Capital Adequacy Ratio issued in 2017 and these banks more emphasized on the risk weighted assets. The new instruction altered

the risk categories for loans: cash as 0% risk categories, loan collateralized by claims on Central Banks as 20%, residential mortgage as 50% and immovable property loans and fixed assets as 100 %.

## **5.2. Suggestions and Recommendations**

The Non-Performing Loans of the FPB and First Private Bank were under the 5% and their Capital Adequacy Ratio was above minimum requirement. Most of their loans were quality loans during the period because of the efficient risk management policy. They should formulate their risk management policy to get better quality loans for sustainability.

Most of banks should increase the capital to cover the risk weighted assets in this 2017-2018. Banks should recapitalize, and hold more capital against NPLs and risk-weighted assets has had the knock-on effect of sharply reducing lending following the July 2017 regulations.

Regulation of capital assumes significant importance so as to reduce bank failures, to promote stability, safety and soundness of the banking system, to prevent systemic disaster and to ultimately reduce losses to the bank depositors. If the capital adequacy ratio (Tier 1) is under 4 % and Regulatory Capital Adequacy is under 8%, the bank may face challenges and anticipated losses. If banks have adequate capital, then it can protect its depositors from unforeseen contingencies as well promotes the stability and efficiency of financial systems.

The bank's loans must be quality loans. Only then, the interest income from the amount of quality loan may increase the bank's total income. And this ratio shows the bank's ability in generating income from its lending activities. The ability of the bank in generating income from its lending activities.

And the banks should monitor the overall level of related party lending ratio, under "Asset Quality". Related party lending is already deducted from core capital under the Capital Adequacy Regulation and to reduce the Capital Adequacy Ratio. Moreover, banks should monitor suspense A/c and Fixed Assets A/c to increase the risk weighted assets.

### **5.3. Need for Further Study**

This study discusses the determinants of Capital Adequacy Ratio. However, this framework process uses the Non-Performing Loans, Return to Assets, and Return to Equity, Loans Loss Research, and Loans to Assets Ratio. Additionally, the other researchers should analyze the each component of risk weighted assets and to get more definite financial data and to use more financial soundness indicators and financial ratios should be conducted as further study.

## REFERENCES

- Annual Report of First Private Bank (2015/16, 2016/17, 2017/18)
- Annual Report of Myanmar Citizens Bank (2015/16, 2016/17, 2017/18)
- Basel committee on *Banking Supervision Core Principles for Effective Banking Supervision*, Bank for International Settlements, September, 2012 <https://www.bis.org/bcbs>
- Eric Posner,(2014) *How Do Bank Regulators Determine Capital Adequacy Requirements?* Coase-Sandor , Institute for Law and Economics Working Paper No. 698
- Eric A. Posner (2015) *how do bank regulators determine capital adequacy requirements?* The University of Chicago Law Review
- Jonathan Berk, Peter DeManzo, (2007), *Corporate Finance*, Pearson International Edition
- Osama A.El-Ansary, *Corporate Ownership& Control*/volume 13, issue 1(2015), *Determinants of Capital Adequacy Ratios*,
- Off-Site Manual Guidelines of Financial Institutions Supervision Department of Central Bank of Myanmar
- Usman Masood, (2016), “*Determinants of Capital Adequacy Ratio*” A perspective from Pakistani Banking Sector, Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology, Islamabad, Pakistan