

Research proposal

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Tung Hoang

**ASSESSING INVESTMENT
PROFITABILITY FOR A PUBLIC LISTED
COMPANY IN VIETNAM
- MBB case study -**

Research Proposal | ABSTRACT

TURKU UNIVERSITY OF APPLIED SCIENCES

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KEYWORDS:

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CONTENTS

LIST OF ABBREVIATIONS (OR) SYMBOLS	5
1 BACKGROUND	1
1.1 Introduction of the bank	1
1.2 Ownership structure of the bank	1
1.3 Research motivation and objective	3
2 LITERATURE REVIEW	5
2.1 Regression analysis	5
2.1.1 Introduction to the purpose of regression analysis	5
2.1.2 Introduction to variables in regression	5
2.1.3 Introduction to linear and polynomial regression	6
2.1.4 Interpreting the result of regression analysis in Excel	6
2.2 Beta	8
2.3 Banking industry ratios	9
2.3.1 Net Interest Margin	9
2.3.2 Loan to Deposit ratio	9
2.3.3 Cost to Income ratio	10
2.3.4 Credit risk analysis	11
2.4 Gross domestic product	12
2.5 Earning per share and Price/Earning Per Share	12
2.6 Price to Earnings ratio	13
2.7 Forward P/E	13
2.8 The risk when investing	13
2.8.1 Manipulation of financial statement risk	14
2.8.2 Risk from direct competitors	14
2.8.3 The deceleration in credit growth of banking industry	15
2.8.4 Interest rate risk	16
2.8.5 The unstability of global economics	17
2.8.6 The stronger of US dollars	17
3 RESEARCH METHODOLOGY	19
4 DATA COLLECTION METHOD	21

5 QUANTITATIVE ANALYSIS	22
5.1 The relationship between MBB share price with the whole market price	
VNIndex – The beta of MBB	22
5.2 Fundamental analysis	24
5.2.1 Peers for comparison	24
5.2.2 Banking industry ratios and credit risk analysis	25
5.3 Valuation	29
5.4 Scenario analysis	33
6 QUALITATIVE ANALYSIS	35
6.1 Analyzing the macroeconomics situation of Vietnam	35
6.2 P/E of Vietnamese banking industry from interviewing specialists	36
7 CONCLUSION	37
APPENDIX	10

LIST OF ABBREVIATIONS (OR) SYMBOLS

Abbreviation	Explanation of abbreviation (Source)
MBB	Military Bank Vietnam
VND	Vietnamese Dong currency (23.300 VND = 1 USD)
VAMC	Vietnamese Asset Management Company
EPS	Earnings per share
P/E	Price / Earnings per share
NIM	Net Interest Margin
LDR	Liability to Debt Ratio
CIR	Cost to Income Ratio

1 BACKGROUND

1.1 Introduction of the bank

Military Commercial Joint Stock Bank is one of the leaders in banking and financial services in Vietnam with the authorized capital of 21,604,513,810,000 Vietnamese Dong (VND), which is approximately 1 billion USD (MBB Annual Report, 2018). The bank has been listed in the Vietnamese stock market since 2011 with the abbreviation MBB. The main business lines of the bank are mobilizing and lending short, medium and long-term loans to financial institutions and individuals. Besides, MB conducts settlement and cash services and other banking services as approved by the State Bank of Vietnam. The bank also makes capital contributions, purchasing shares, investment in bonds and trading foreign currencies in accordance with the provisions of the law (MBB Annual Report, 2016).

1.2 Ownership structure of the bank

The table below shows the ownership structure of MB bank as of 31/12/2017:

Table 1: The ownership structure of MBB as of 31/12/2017

Shareholder	Number of shares	% Holding
Foreign individuals	2.451.289	0,14
Domestic individuals	333.422.350	18,37
State-owned institutions	844.913.121	46,54
Foreign institutions	360.649.775	19,86
Domestic institution	274.068.828	15,10

(Vietstock, 2018)

As can be seen from the graph, the state-owned institutions are the biggest shareholder of the bank with 46.54%. The foreign institutions and foreign individuals own 19,86% and

0,14% respectively. Noticeably, the room for foreign investors of MB are 20% (MBB Annual Report, 2018). If we sum up the ownership of foreign investors mentioned above, 19,86% plus 0,14% equal to the maximum point 20%. In other words, foreign investors cannot buy the shares of MB until the bank extends more room for foreign investors.

The day 24/10/2017 was remembered by many investors, including myself. This is a “once in a blue moon” day when the foreign investors can buy 3.245 million shares from the domestic investors because of policies from MBB (Thủy, 2017). The picture below shows that most of those shares are bought in the first minute of this transaction day from foreign investors. The first column from the left is the time. The second column is the name of the shares in the order. The third column 23.9 is the maximum price for MBB at that day (23 900 VND). The forth column 20.8 is the minimum price for MBB at that day (20 800 VND). The fifth column 22.35 is the previous closing price (22 350 VND). The sixth column is the executed price. The seventh column is the number of shares executed. The last column is the amount of money in VND required to buy those shares. This event has once more claimed the strong desires from foreign investors to the share of MBB.

KHỚP							
TG	CK	Trần	Sàn	TC	Giá khớp	KL khớp	Giá trị
09:00:21	MBB	23.9	20.8	22.35	23,900	400,000	9,560,000,000
09:00:21	MBB	23.9	20.8	22.35	23,900	1,000,000	23,900,000,000
09:00:21	MBB	23.9	20.8	22.35	23,900	900,000	21,510,000,000
09:00:21	MBB	23.9	20.8	22.35	23,900	400,000	9,560,000,000
09:00:21	MBB	23.9	20.8	22.35	23,900	135,000	3,226,500,000
09:00:21	MBB	23.9	20.8	22.35	23,900	120,000	2,868,000,000
09:00:21	MBB	23.9	20.8	22.35	23,900	150,000	3,585,000,000
09:00:21	MBB	23.9	20.8	22.35	23,900	175,000	4,182,500,000
09:00:21	MBB	23.9	20.8	22.35	23,900	125,000	2,987,500,000
09:01:05	MBB	23.9	20.8	22.35	23,900	395,360	9,449,104,000
09:01:05	MBB	23.9	20.8	22.35	23,900	204,640	4,890,896,000
09:11:34	MBB	23.9	20.8	22.35	23,900	21,585	515,881,500

Figure 1: The orders in the first 15 minutes of MBB on 24/10/2017

1.3 Research motivation and objective

The motivation to write this thesis coming from fact that a few people asked me to perform valuation of MBB. From the author's opinion, analyzing the operation of one of the biggest banks in Vietnam is performing valuation. Then, the objective of this thesis is to perform an assessment about investment profitability of MBB.

The stock price of MBB is presented in Figure 2. As can be seen from the figure, MBB had been stable for four years, from the period 2012 to 2016. From the beginning of 2012 to 2016, the price range of MBB is from 9.000 VND to 11.000 VND. The story begins when the new CEO Luu Trung Thai brought huge motivation to the development for the bank (Lâm, 2017). The operation of the bank has become so successful since 2016. This argument is explained more in quantitative research chapter. The stock price went up dramatically from 10.000 VND in March 2017 to reach the peak of approximately 30.000 VND in March 2018, an explosion of 300% grow in the stock price. However, in April 2018, the worries of trade war between USA and China led to the huge sell of entire banking industry as well as Vietnamese stock market (Son, 2018). The author endeavors to find the fair value of MBB by answering two questions mentioned above. In order to answer those question, regression techniques are used to forecast the future's financial statements of MBB. According to (Anderson, 2013), regression is one of the most statistical techniques for business application and regression are used for forecasting purpose and determining the relationships of variables. Besides, the author's knowledge

in accounting in finance are used to complete this thesis.



Figure 2: MBB Stock Price from 2/2012 to 11/01/2019

According to Circular 36 of Vietnamese government no financial institution is allowed to have more than 5% of equity in other financial institutions (Lâm, 2017). Vietcombank is 7% equity in MBB and therefore the divestment of Vietcombank certainly decreases the price dramatically. In fact, more than 50 million shares have been sold in the Vietnamese market and this is the reason why the stock price is going down even though the bank performances are well (Ha, 2018). As of 11/1/2019, the stock price of MBB stood at 19.250 VND per share.

Besides assessing investment profitability, the risks when investing must be considered before investing in MBB. This thesis is aiming at bringing an objective view, both advantages and disadvantages of investing in MBB with the vision to 31/12/2019. The profitability assessment report must be updated quarterly or annually because the stock market reacts quickly with news and events.

2 LITERATURE REVIEW

2.1 Regression analysis

2.1.1 Introduction to the purpose of regression analysis

Regression is a forecasting model which can analyze based on the data between two or more than two variables (Dan Campbell, Sherlock Campbell, 2008). There are two main objectives of regressions: one is determining the relationship between the predictors and response variable and second is forecasting the response variable (Minitab, 2014).

2.1.2 Introduction to variables in regression

There are two types of variable in every regression analysis: one is independent variable and the other is dependent variable. It is not called a regression analysis if all the variables are independent. Choosing the variables are critically important as it affect the reliability of regression analysis. For example, suppose that an ice cream company in the north of Vietnam want to predict the sales in the future. The summer in the north of Vietnam is often very hot and in the winter the weather is extremely cold. If an analyst finds out that Vietnamese people often eat ice cream in the hot weather and do not eat ice cream in cold weather, the weather in this situation becomes an independent variable and the sales becomes dependent variables since the weather element heavily affected the sales. In this case, the reliability of the variables is good.

An example of choosing bad variables for the example of ice cream company above are sales and car accidents. There is no evidence to show that eating ice cream may increase the probability of car accident. Instead, if an analyst wants to find a cause for car accident, drinking alcohol or exceeding speed limit are more suitable variables.

In this thesis, a regression analysis is performed with the purpose of showing the relationship between the return of MBB and return of Vietnam Index over the past five years. The daily return on investment of Vietnam Index are examined to test if it affects the daily return on investment of MBB; hence the return of MBB is a dependent variable and the return of Vietnam Index is an independent variable.

2.1.3 Introduction to linear and polynomial regression

There are seven types of regressions namely Linear Regression, Logistic Regression, Polynomial Regression, Stepwise Regression, Ridge Regression, Lasso Regression and Elastic Net Regression. After testing all seven types of regressions, the coefficient in linear regression is suits the best for identifying the relationship between the return of MBB and Vietnamese index. Quadratic polynomial regression is used to forecast the net income of MBB, the independent variable is the time and the dependent variable is the net income. In terms of polynomial regression, the R-squared for this model is the highest among seven types of regression. That is the reason why only linear regression and quadratic polynomial regression are introduced in this thesis. More information about the selection of these models can be found in the next chapters.

The formulas for the linear and polynomial regressions are:

$$\text{Linear regression: } Y = ax + c + \epsilon$$

$$\text{Polynomial (Quadratic) regression : } Y = ax^2 + bx + c + \epsilon$$

Where Y is the dependent variable, X is the independent variable, ϵ is the standard error, c is the constant number.

2.1.4 Interpreting the result of regression analysis in Excel

Multiple R and R-Squared

Multiple R tells you how strong your regression is (Ray, 2015). However, multiple R is not a popular number. R-Squared is the square of multiple R and it is a number that we see obviously after a regression is conducted. R-squared is the regression's coefficient of determination (Kenton, 2018). Simplicity, R-squared range from 0% to 100% and it tells how many percentages a dependent variable is explained by independent variable. For example, if R-square is equal to 1 (or 100%), it means that all the dependent variables are explained perfectly by the movement of independent variables. If R-squared is equal to 0.5, it means that half of the dependent variables are explained perfectly by the movement of independent variables. If R-squared is equal to 0, we say that there is no relationship between movements of dependent variables and independent variables. R-squared is one of the most important factors to test the

reliability of a forecasting model because it gives the analyst a first overview and sense to judge the regression model (Kenton, 2018). However, it should be noted that R-squared alone cannot guarantee the model is totally correct. There is a note when analyzing the importance of R-squared. From the part introduction to the purpose of regression analysis, there are two objectives of regressions and the analyst must aware of the importance of this number based on specific circumstance. The table below shows the importance of R-squared in the different objectives of regression.

Table 2: The importance of R-squared in the different objectives of regression

Purpose 1: Determining the relationship between the predictors and the responsive variable for regression	Purpose 2: Predicting the response variable
<p>The R-Squared is not important. Instead, the coefficient (slope) of the linear regression and p-value are more important. If the coefficient between the variable is greater than 1 and the p-value is close to 0, then we can say that our variables have strong relationship regardless the number of R-squared (Minitab, 2014). The coefficient and p-value can be found in the 3rd part of regression analysis and are discussed below. An analyst should also include some qualitative questions to confirm if the model is reliable:</p> <ol style="list-style-type: none"> 1. How reliable is the data? 2. How confidence is our assumptions? 3. Does the model when visualizing look good by sense? <p style="text-align: right;">(Minitab, 2014)</p>	<p>The R-Squared is important. The higher the R-Squared, the better the reliability of the model. The reason is because predicting values include a margin of error. Logically, if a regression model has less error, this forecast can be more trusted. Again, R-squared cannot stand alone and it must be combined with other factors to determine the model can be totally reliable. There is still an opportunity that the all the dependent variables fit perfectly by accident. If the given data set is small, the higher the probability to all the dependent variables fit perfectly by accident and the model is not trusted for prediction.</p>

Adjusted R-squared

An adjusted R-squared number is used when there are two more independent variables in the regression. If there are more than two independent variables in the regression, the R-squared alone would increase. However, in this thesis a regression are conducted base on two variables. Hence, the adjusted R-squared can be ignored.

Standard error of the regression

The standard error is important if an analyst use regression model to predict the dependent variables. This statistic is the average distance of the data points are from the regression line (Frost, 2017). Basically, the lower the standard error is, the more reliable is the prediction.

Observations

Observation number is the total observations in the sample or population. An equal or higher 30 observations in statistics is considered good enough to start tesing data.

2.2 Beta

The beta number of MBB is calculated based on regression analysis. A beta number measures of a stock's volativity in relation to the market. Theoretically, if a stock has a beta of 1.0, it moves in a completely same way with the market. In other words, it follows exactly the Vietnam Index. If a stock price fluctuates more than the market, it has a beta above 1.0. If a stock price changes less than the market, the beta is less than 1.0 (Mcclure, 2017).

It is important to analyze the macroeconomic situation of Vietnam before assessing investment profitability. Especially in the recent two decades, the proportionally direction between stock price and economy is confirmed to be reliable (Pilinkus, 2011). In other words, if the firms in a country expand their business activities, the economy would expand. Logically, banks play an important role of providing capital for companies to expand their business activities, the development of the economy is directly proportionate to the development of banks.

The return of Vietnam Index and the return of MBB is calculated based on the formula:

$$Return (\%) = \frac{Price\ today - Price\ yesterday}{Price\ yesterday} \times 100\%$$

2.3 Banking industry ratios

2.3.1 Net Interest Margin

The bank is working as an intermediaries between lenders and borrowers. In other words, a bank take money from the lender with a fixed interest rate and give them to the borrower with a higher interest rate. The spread between the interest rate between lender and borrower is the profit of a bank. Then, a key ratio to measure this spread is Net Interest Margin. Net Interest Margin (NIM) is a key ratio measuring a success of a bank at investing its funds in comparison to its expenses on the same investments. The NIM ratio is straightforward: the higher the NIM, the better is the financial firm. A negative value implies that the firm has not made a good investment (Chen, 2018). The formula of NIM is represented below:

$$NIM = \frac{(Investment\ returns - Interest\ expense)}{Average\ Earning\ Assets} \times 100\%$$

In this above formula, investment returns is the summary of all investment returns and interest expense is the summary of all interest expenses from loans (Hamel, 2017). The average earning assets figure is calculated by adding the average of the beginning and ending assets which generate those returns.

2.3.2 Loan to Deposit ratio

Before analyzing loan to deposit (LDR) ratio, the author presents the Reserve Requirement Rate (or Cash Reserve Ratio) for Vietnamese banks. By definition, a cash reserve ratio is a portion of reservable liabilities that a financial institution must hold and this amount of money cannot be lent to someone (Kenton, 2018). Based on decision number 1925/QD-NHNN 26/8/2011 and decision number 379/QD-NHNN 24/2/2009 of

State Bank of Vietnam, State-ownes commercial banks (excluding the Vietnam Bank for Agriculture & Rural Development), Urban joint-stock commercial banks including Foreign Banks' Branches in Vietnam, Joint – Venture Banks, Finance Companies, Financial Leasing Companies must hold a minimum of 3% Cash Reserve Ratio for under short-term loans and 1% for long-term loans. The decision took effect from 09/01/2011.

If NIM is a key ratio to measure the profitability, the LDR ratio measures the liquidity of a bank. A bank must always reserves money because they must pay the customer immediately when requested. The loan-to-deposit ratio compares a bank's total loans to its total deposits for the same period and it is expressed as a percentage. If the ratio is too high, it means that the bank may not have enough cash in hand to cover any unforeseen fund requirements. Conversely, if the ratio is too low, the bank does not optimize the capital effectively because they still can lend more money to the borrower. If the ratio is too high, it affects the ability to generate more loans and it affects to the net income directly. Besides, when calculating LDR ratio and analyze the potential of banks to generate more loans, we must add the Cash Reserve Ratio because the bank is not allowed to lend that funds. In this case, Vietnamese banks must hold at least 3% of cash for upcoming short-term loans and 1% of cash for long-term loan. The ideal ratio for LDR of a bank is about 80% to 90% (Kenton, 2018). The formula for LDR is presented below:

$$LDR = \frac{\text{Total loan}}{\text{Total deposit}} \times 100\%$$

2.3.3 Cost to Income ratio

Cost to income (CIR) ratio measures the effectiveness of cost management of a company. Basically, the bank profitability depends heavily on the completion of the employee's key performance indicators. The lower is the CIR, the more profitable is the company. (Seidel, 2018). The CIR ratio can be calculated as follows:

$$CIR = \frac{\text{Operating expense}}{\text{Operating income}} \times 100\%$$

Operating expense and operating income are easily to locate in the income statement.

2.3.4 Credit risk analysis

Credit risk is the probability that a borrower may default his or her loan (Wagner, 2018). The bank must maintain the allowance for as a result, analyzing loans portfolio is an important process of assessing a bank's asset quality. As of 2nd quarter 2018, MB lends 63,63% of the capital resources to financial institutions and 32,63% to individuals. The other loans to organizations and foreign institution account for 2,03% (MBB 2nd Quarter Report, 2018). MBB classified their loans in five categories and different categories have different provision expenses. The provision expense and the classifications of loan for Vietnamese banking are the same. The table 3 shows the provision expense for each specific group.

Table 3: Provision expense for specific loan group

Name of the group	Provision expense
Group 1 – Current	0%
Group 2 – Special mentioned	5%
Group 3 – Sub standard	20%
Group 4 – Doubtful	50%
Group 5 – Loss	100%

As can be seen from the table, the higher the number of the loan group, the higher the amount of provision expense must be maintained in the operation of a bank. For example, if a loan is classified in group 1, no provision expense is subtracted from the operating income because this loan is safe for the bank. However, if a loan is classified in group 5, the bank must allocate the amount of money equal to the amount of loan because there is a minor chance that the bank can collect the debt from the customer. If the customer does not pay the loan on time or the financial situation of the customer is become worst, the ability to collect the loan from the bank decreases. As a result, a group 1 loan can be classified again to become group 2, group 3 or even group 5. Logically, a bank which have enormous group 3, group 4 and group 5 loans are dangerous for investors because the net income of the bank is likely to be affected detrimentally.

When choosing peers for comparison in this thesis, I mention one criterion to choose industry peers which is the low amount in bad debt. As a result, all the peers selected have the lowest group 4 and group 5 loans in Vietnamese banking industry.

2.4 Gross domestic product

When considering factors of macroeconomics, gross domestic product (GDP) is one of the most important indicators and widely used to measure the growth rate of a country (Picardo, 2016). GDP is the measurement of gross domestic product of a country (CFA , 2018). The formula of GDP is presented below:

$$GDP = C + I + G + (X - M)$$

Where:

C: Personal consumption expenditures

I: Gross private investment

G: Government spending

X-M: Net export

(Investopedia, 2018)

2.5 Earnings per share and Price/Earnings Per Share

Earning per share (EPS) is a measurement indicator of a company's profitability. By definition, it is the amount of earning for current reporting period allocating to each share. Obviously, increasing interim and annual EPS are the main target of the management team to increase the value of the share of the company. EPS number can be calculated base on the below formula:

$$EPS = \frac{Net\ income - Preferred\ Dividends}{Weighted\ average\ of\ shares\ outstanding}$$

In this formula, net income of MBB can be found at the end of the income statement. MBB does not issue preferred dividends, hence the value for preferred equals 0. Weight average of shares outstanding is a calculation that includes all the changes in the amount of outstanding shares over a reporting period (Murphy, 2018). The weighted average number of shares is calculated by taking the number of outstanding shares of the specific period and multiplying the portion of the reporting period itself. The process continues

until the end of the year. Finally, we sum the average shares in each period to get the final results.

2.6 Price to Earnings ratio

Price to Earnings ratio (P/E) measures how much VND is the market willing to pay for a share to get back one VND profit. For example, if the P/E of a company is 10, it means that the market is willing to pay 10 VND to aim for 1 VND profit (Kenton, 2019). It should be noted that EPS in the formula is the annual EPS.

The formula of P/E ratio is presented as:

$$\frac{P}{E} = \frac{\text{Price}}{\text{Annual EPS}}$$

2.7 Forward P/E

Forward P/E is the ratio measurement the P/E ratio in the future. The main difference between forward P/E and P/E is forward P/E uses the future earnings in calculation, normally 12 months. The fact is that all companies set the earning targets for the fiscal year at the beginning of the year. Even though forecast/target earnings is not as reliable as earnings data in the past, forward P/E gives an analyst a clear picture of the ambition of the company (Kenton, 2018).

$$\text{Forward P/E} = \frac{\text{Current Price}}{\text{Estimate Earning Next Year}}$$

2.8 The risk when investing

There is no doubt that all investments carry some risks, therefore understanding those risks is necessary to come up with solution for specific risk immediately. There are two types of risks: systematic risks and unsystematic risks. A systematic risk, also known as market risk, is the risk affecting the entire market in all industries if it occurs. Unsystematic risks are risks coming from a company or industry you invest in. Classifying the risk give an investor a multi perspective and comprehensive picture in

investment because the investor must understand what is happening in finance world (Investopedia, n.d.).

2.8.1 Manipulation of financial statement risk

This is the act to artificially increasing or reducing numbers in the financial statements for the specific purpose (Adkins, 2019). Based on definition, this is classified as unsystematic risk because it affects a single company if this risk happens. From my point of view, the manipulation of financial statement risk is one of the biggest problems in corporate finance. The reason is because it distorts all the calculations and the vision of an investor towards a company. In fact, the global investors have experienced many manipulation financial statement scandals for decades. Enron scandal in 2001, Worldcom scandal in 2002, Tyco scandal in 2002, HealthSouth scandal in 2003, Freddie Mac scandal in 2003, American Group scandal in 2005, Bernie Madoff scandal in 2008, Saytam scandal in 2009 are famous scandals of manipulating financial statement that the reader can easily find them on Internet. From my point of view, the most famous scandal is the scandal of Lehman Brothers bank in 2008, which is the biggest bankruptcy of all time. About fifty billion dollars of loans was disguised as sales (Lioudis, 2017). Although the financial reports of Lehman Brothers are audited by an independent auditor, the manipulation can still happen, and this collapse triggered the economic turmoil in 2008 (Shell, 2009).

Obviously, if MBB financial reports are manipulated, all the calculations in the quantitative research chapter will not reflect the true situation of MBB. At the time this thesis is written, MBB has not involved in any manipulation doubts from the auditors and the investing communities. Although we cannot always claim about the transparency in the MBB reports in the future, the transparent application of accounting standard from the past of MBB is the reason for the investor community to believe the manipulation financial statement risk of MBB is low.

2.8.2 Risk from direct competitors

The risk from direct competitors is unsystematic risk because this risk does not affect the whole market if it occurs. The growing number and the increasing in consumer spending from young population make the competition in winning the market shares

among Vietnamese banks become tough (Fili, 2018). This is the reason why the intense competition among Vietnamese banks has never been less tough. From my own experience, there is no dominating bank in Vietnam in terms of consumer spending credit. The smaller bank endeavors to win the market share from the big banks and the example between the giant Vietcombank and the small Techcombank in March 2018 Vietcombank demonstrates for my argument. Vietcombank stated that they would start charging a small amount of fee for online internet banking for all users from March 2018 (VNS, 2018). Even though the charging fee is very little, however the Vietnamese people prefer that service to be free (VNS, 2018). Having realized that this is an opportunity to persuade the users of Vietcombank change the credit card to other banks, Techcombank implemented a marketing campaign and target heavily on “free service of internet banking” on social media. There are no exact numbers of users of Vietcombank switch to use Techcombank service but as far as I read in forums and social medias, a lot of business owners and Vietcombank customers decide to use Techcombank internet banking. The campaign was extremely successful for Techcombank because the interaction in posts and traffic about Techcombank are increasing dramatically (Hai Van, Ngoc Hoan, 2018).

2.8.3 The deceleration in credit growth of banking industry

Credit growth rate is the growth in the money that banks lend to companies (Ranjan, 2016). According to the economics curriculum from CFA Institute (CFA , 2018), the advantage of credit growth is that companies will have money from the bank to expand production. As a result, the GDP can increase because the consumer and exports are likely to be encouraged. On the other hand, credit growth does not always bring benefits for the economy. To demonstrate, if a huge amount of money is keeping poured into the economy in a long period, the value of money may decrease. In other words, the inflation of that economy may go up. If the government cannot control the inflation rate, it can lead to the corruption of an economy. In 2018, SBV announces that the inflation rate of Vietnam stands at 3.54%, which meets the initial target at the beginning of the year (Thang, 2018).

The figure below shows the credit growth rate of Vietnamese banking industry from 2012 to 2018. As can be seen from the graph, the credit growth of Vietnamese banking

industry goes from 8.9% in 2012 to the peak 18.7% in 2016 (Thang, 2018). After that, there has been a slow decline in the credit growth rate and the target number for 2019 and 2020 from the State Bank of Vietnam (SBV) is about 14% (Thang, 2018). Obviously, SBV is endeavoring to complete the mission of control the inflation rate after years of pouring money to the economy. Therefore, deceleration of credit growth is an unsystematic risk because it affects the net income of the banking industry directly. If other companies in other industries do not borrow much money from the banks, they are not likely to be affected by the deceleration of credit growth.

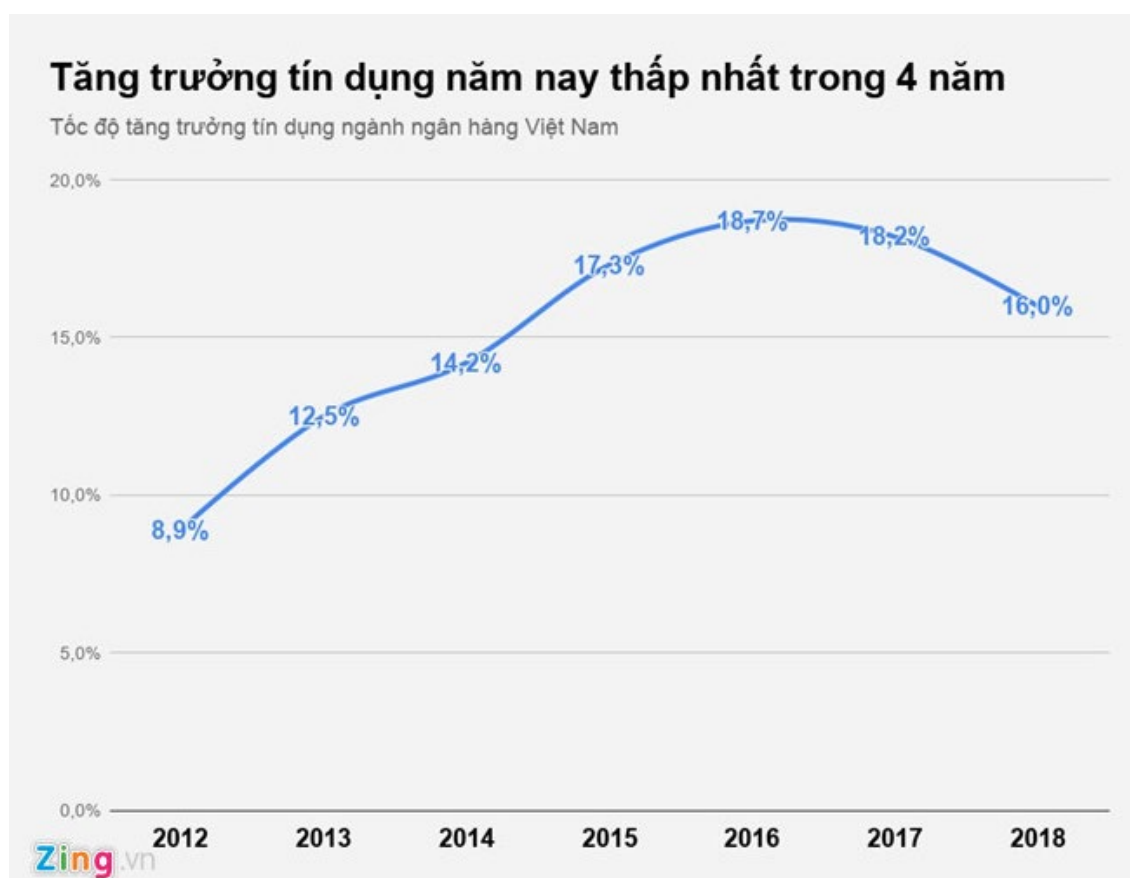


Figure 3: The credit growth rate of banking industry from 2012 to 2018

2.8.4 Interest rate risk

Interest rate risk is a systematic risk (Fontinelle, 2018). The current interest rate in Vietnam is standing at 4.25 (SBV, n.d.). From my observation, the world nowadays is

too complicated which leads to the process of raising interest rate faster from State Bank of Vietnam. The fact is that interest rate is always inversely proportionate with the stock price. The reason for that fact are explained by logic. If the interest rate is risen, the cost of borrowing is more expensive, and companies would hesitate to borrow money. As a result, the profit for banking industry are affected detrimentally every time the interest rate is risen. As a stock investor in banking stocks, raising interest rate means the stock price suffers the pressure of selling because shareholder may move to the other more attractive investment such as bond investment. The stock price is extremely sensitive to any events and undoubtedly raising interest rate cause the stock price falls.

2.8.5 The instability of global economics

The intensive trade war between the United States and China now can affect to global markets, and Vietnamese market is not an exception. By definition, it is classified as systematic risk because it affects the whole market if it occurs. As the US and China are the biggest economies in the world, business activities and imports as well as exports are stagnant. The fact is that US investors are holding a great amount of cash rather than other assets and it showed that the global stock market is not an attractive investment deal (Young, 2018). The uncertainty is the global economics risk clearly a systematic risk and it affects badly to the stock price of MBB.

Not only the trade war between the US and the Chinese but the world nowadays is extremely unstable. The failure in Brexit negotiation, the peak in the global debt, the terrorists and wars in Middle East and even US President Donald Trump's twitter can affect heavily on the global stock market. According to the book *The Coming Crisis* (Palgrave, 2017), the world economy is more dangerous and less stable now than in 2008.

2.8.6 The stronger of US dollars

The value of a dollar is getting stronger and stronger in the year 2018 comparing to the year 2017 (Barro, 2018). Logically, if the US dollar is stronger, people would choose to hold US dollar rather than any other currencies in the world (Yen, 2018). Therefore, the

stronger US dollars is classified as systematic risk. The stronger dollar has created a stock selling wave from foreign investors in the Vietnamese stock market in June of 2018 (Phuong, 2019). Although the US dollar exchange rate is more stable than in the summer of 2018, this factor should be concerned if the dollar keeps getting stronger in 2019. When the US dollar increases, the pressure from selling stock is higher, which leads to the fall in stock price. Even though there has not been any pressure from foreign investor to sell MBB stock yet, this risk should be noticed in 2019.

3 RESEARCH METHODOLOGY

The mixed method of quantitative and qualitative was applied in this thesis.

The data for quantitative analysis are the numbers from the financial statements. Banking ratios are calculated for the purpose of valuation. The concepts are introduced and figures are calculated based on the three financial statements: balance sheet statements, income statement and statement of cash flow. Notes of financial report is also vital because it demonstrates how to calculate the numbers mentioned in these financial statement. Besides, the regression technique are performed to find the beta number of MBB. The numbers are rounded as follows: EPS is rounded to integer and the ratios, the amount of money is rounded to one decimal place. The goals of the quantitative analysis is assessing the asset quality of MBB as well as comparing current P/E and forward P/E of MBB to other banking peers.

After quantitative analysis, qualitative analysis is necessary to understand what other specialists in banking in securities industries opinion of the market. It is my pleasure to interview six specialists and listen to their arguments about macroeconomics and finance. They strengthened my financial logics and assisted me in academic knowledge. The language of the interview is Vietnamese and the interviewees are asked to perform their views towards the Vietnamese banking industry. The reason the author asks their opinion about Vietnamese banking industry instead of specific P/E for MBB is because the author understands different people have different preferences for selecting stocks. If the author asks the specialists directly about Forward P/E of MBB directly, some people who earned huge profit because of investing in MBB in the past might be more optimistic. On the other hand, some people who lost money because of investing in MBB in the past might be more pessimistic. That is my experience after more than two years investing in the Vietnamese stock market. To guarantee the objectivity of the research, it is better to ask the Forward P/E of the banking industry. The goal of qualitative analysis is finding what is the reasonable Forward P/E for Vietnamese banking industry for the year 2019.

After performing quantitative and qualitative analysis, a conclusion is drawn to answer two main questions. Before going to research questions, the definition of target price must be presented. The target price is the projected price that an analyst expects at

the targeted date (Chen, 2018). The target price is only calculated by a careful evaluation process (Chen, 2018).

The main questions that need to be answered in this thesis are:

1. Does MBB stock price today (19.250 VND per share) is currently trading at undervalued or overvalued?
2. What would be the target price for MBB at the end of 2019?

4 DATA COLLECTION METHOD

For the quantitative chapter, numbers for calculation purpose are collected and calculated through the annual, quarterly report and annual meeting documents in the official MBB website www.mbbank.com.vn. The data in the financial statements are used because the formula in literature review needs information in the financial statements. The limitation of the data is that the quarterly reports are not audited. In other words, this thesis is faced with the manipulation of financial statement risk mentioned in chapter two. The analysis and valuation parts are based on my knowledge in accounting and finance and all the concepts are defined clearly in the thesis.

For the qualitative chapter, it is better to have the interview with leaders of MBB; however due to lack of resource the author cannot have the opportunities to interview privately with the leaders. Instead of interviewing MBB board of directors, the author interviewed people working in banking industry and securities industry. All of them are working in securities and banking industry and have more than two year investing experiences in Vietnamese stock market. The interview assists me in guaranteeing the objectivity of the thesis. To illustrate, different people have different opinions about the market; hence the answers advocated by most of the interviewees are selected to support the thesis. The interviews are private meetings and are conducted in Vietnamese language. My opinion and experience of investing in Vietnamese stock market are also involved in analyzing process.

5 QUANTIATIVE ANALYSIS

5.1 The relationship between MBB share price with the whole market price

VNIndex – The beta of MBB

	A	B	C	D	E	F	G
1	VNINDEX				MBB		
2	Date	Closed price	Return		Date	Closed price	Return
3	20190107	889.64			20190107	18.95	
4	20190104	872.89	-1.88%		20190104	18.6	-1.85%
5	20190103	878.22	0.61%		20190103	18.5	-0.54%
6	20190102	891.75	1.54%		20190102	19.35	4.59%
7	20181228	892.54	0.09%		20181228	19.45	0.52%
8	20181227	900.81	0.93%		20181227	19.7	1.29%
9	20181226	891.75	-1.01%		20181226	19.6	-0.51%
10	20181225	897.94	0.69%		20181225	19.7	0.51%
11	20181224	908.56	1.18%		20181224	20.45	3.81%
12	20181221	912.26	0.41%		20181221	20.95	2.44%
13	20181220	918.24	0.66%		20181220	20.95	0.00%
14	20181219	919.24	0.11%		20181219	21.15	0.95%
15	20181218	927.25	0.87%		20181218	21.3	0.71%
1353	20130808	498.22	-0.48%		20130808	7.55	0.67%
1354	20130807	500.1	0.38%		20130807	7.5	-0.66%
1355	20130806	496.56	-0.71%		20130806	7.55	0.67%
1356	20130805	493.66	-0.58%		20130805	7.5	-0.66%
1357	20130802	494.66	0.20%		20130802	7.5	0.00%
1358	20130801	492.43	-0.45%		20130801	7.5	0.00%
1359	20130731	491.85	-0.12%		20130731	7.5	0.00%
1360	20130730	488.54	-0.67%		20130730	7.5	0.00%
1361	20130729	485.69	-0.58%		20130729	7.5	0.00%
1362	20130726	493.93	1.70%		20130726	7.44	-0.80%
1363	20130725	491.78	-0.44%		20130725	7.44	0.00%
1364							
1365							

Figure 4: Calculating the daily return of VN Index and the daily return of MBB

The table above shows the closing price of both VNI and MBB for the period of approximately 10 years, or in other words 1360 business working days. In this table, “Closed price” is the closing price of the day.

The daily returns of VNI and MBB are presented in the columns C and G respectively. After calculating the return of both VNI and MBB, the raw beta number can be calculated based on regression analysis in Excel. In this regression, it is noticeable that “Input Y” is the return of MBB and “Input X” is the return of index. A total number of 1360 working days are involved in this regression calculation to make the result objective. The reason for choosing the number 1360 business-working-day is because the author wants the

large observations to minimize the standard error of the model. The result of the regression analysis is presented in the figure below:

	A	B	C	D	E	F	G	H	I
1	SUMMARY OUTPUT								
2									
3									
4	Multiple R	0.616766134							
5	R Square	0.380400464							
6	Adjusted R Square	0.379944205							
7	Standard Error	0.013042523							
8	Observations	1360							
9									
10	ANOVA								
11		<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>			
12	Regression	1	0.141825048	0.141825048	833.7382463	2.4445E-143			
13	Residual	1358	0.231005854	0.000170107					
14	Total	1359	0.372830903						
15									
16		<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95.0%</i>	<i>Upper 95.0%</i>
17	Intercept	-0.000169097	0.000353911	-0.477795672	0.632872537	-0.000863369	0.000525174	-0.000863369	0.000525174
18	X Variable 1	0.993788802	0.034417493	28.87452591	2.4445E-143	0.926271579	1.061306026	0.926271579	1.061306026
19									
20									

Figure 5: Calculating beta of MBB using regression

The results of the regression are interpreted as follows:

Multiple R: 0.616

R Square: 0.380

Adjusted R Square: 0.379

Standard Error: 0.013

Observations: 1360

The number of observations is 1360 means that 1360 working days are taken into this regression. As mentioned above, the purpose of this regression is to test the beta of MBB (objective 1 in chapter 2), the coefficient and p-value are more important than the R-squared. The coefficients of the variables X and Y is 0.9938, which Y stands for MBB return and X stands for VNI return. The p-value is 2.44E-143 which can be considered significant close to 0.

Based on definition, if the beta is close to 1, the stock price acts closely to the movement of index. In MBB case, the calculated beta is 0.996 which is approximately to 1.

Therefore, a conclusion can be made that the movement of VN Index extremely affects to the performance of MBB.

5.2 Fundamental analysis

Fundamental analysis is very beneficial for analyzing investment opportunities (HTMW , 2012). At the first step, the author performs the banking ratio calculations for MBB. After that, the author analyzes the annual reports of other banks in Vietnam to calculate industry ratios for the purpose of comparison. It is necessary to compare the performance of MBB with other peers because financial ratios standing alone cannot give a clear picture for an analyst (Nickolas, 2018). Only when these ratios are compared with peers, the analyst is able to estimate whether the stock is trading undervalue or overvalue among companies in the same industry (Nickolas, 2018).

This thesis focuses on analyzing financial reports and annual report of MBB because they are available to public. The quarterly report is issued by a company every three months and annual report is issued every year. Besides, the abbreviation for Quarter 1, Quarter 2, Quarter 3 and Quarter 4 of 2018 are Q1/2018, Q2/2018, Q3/2018 and Q4/2018 respectively.

5.2.1 Peers for comparison

In order to perform valuation of MBB correctly, the multiples must be compared with other peers. The peers chosen for MBB to compare are ACB and HDB. There are three main reasons to select ACB and HDB to compare with MBB. One of the most important criteria is the bad debt. By definition, the bad debt of a bank is the total amount of money that borrowers of a bank can default his or her loan (Wagner, 2018). The bad debt of MBB is low (the calculation of bad debt are in the credit risk analysis part) and the comparing peers must have low bad debt too. Bad debt can affect to the increase in the provision of bad debt expense. As a result, the net income of a bank cannot be predicted precisely if there is too much bad debt. For example, a bank which is having problem with bad debt such as Sacombank reports the earning extremely low and unpredictable. Both ACB and HDB have a bad debt of 1% which are similar to MBB. The second factor is the my own feeling about the management board. From what I observe the market, MBB, ACB and HDB have young management teams and they are all advocated by

stakeholders. From my observation, the young management teams are beneficial for the banking industry. Young management teams of MBB, HDB and ACB are ambitious and they completed the earning goals in 2016 and 2017. The author have attended the annual shareholder meetings of MBB, HDB and ACB and those management teams impressed me by answering all questions from shareholders transparently and clearly.

5.2.2 Banking industry ratios and credit risk analysis

Net Interest Margin

In terms of MBB, the investment returns are interest income from lending activities, investment securities and income from trading foreign currencies. The interest expenses are the cost of interest, the provision for the deduction of securities and expense from trading foreign currencies respectively. Other service or activities are not calculated in NIM formula. These numbers can be found in the income statement footnotes of a financial statements.

According to 3Q/2018 Financial Statements of MBB, the data for calculating NIM are:

Table 3: Input data for calculating NIM of 3Q/2018

Name	Amount (in millions VND)
Interest income	18 155 246
Cost of interest	-7 725 364
Interest from investment securities	429 380
Provision for deduction of securities	-147 847
Income from trading foreign currencies	826 207
Expense from trading foreign currencies	-524 361
Beginning earning assets	266 001 451
Ending earning assets	232 739 529

$$NIM = \frac{18\,155\,246 + 429\,380 - 7\,725\,364 - 147\,847 + 826\,207 - 524\,361}{\frac{(266\,001\,451 + 232\,739\,529)}{2}} \times 100\% = 4.4\%$$

Repeating the same process, the author calculates the NIM for 2Q/2018, 1Q/2018 and for the whole years 2017 to 2013. The results for NIM of MBB are presented at the table:

Table 4: NIM of MBB from 2013 to 3Q/2018

Period	NIM
3Q/2018	4.4 %
2Q/2018	4.3 %
1Q/2018	4.3 %
2017	4.1 %
2016	3.7 %
2015	3.9 %
2014	4.0 %
2013	3.8 %

From the table, we can clearly seen that NIM of MBB has been improving. From 2013 to 2016, the range of NIM was around 3.7% to 4% and from 2017 onwards, NIM range improved to 4.1% to 4.4%. According to Vietnam Banking Report (2018), the average NIM for banks in Vietnam in 2017 was 2.9%. Based on that fact, a conclusion can be made that MBB is one of the leading banks in terms of NIM in Vietnam. The final step in analyzing NIM is to compare with the peers ACB and HDB.

Table 5: Comparing the NIM of MBB to the selection peers

	MBB	ACB	HDB
3Q2018	4.4%	3.5%	5.1%

When comparing NIM of MBB to other peers ACB and HDB, the figure for MBB is higher than ACB and lower than HDB. When calculating the NIM for HDB, I realize that the main reason for the high NIM comes from investment securities. Therefore, I believe that the stability of NIM of MBB is better than HDB.

Liability to Debt Ratio

According to 3Q/2018 Financial Statement of MBB, the total loan of MBB is 201 474 976 and the total deposit of MBB is 232 638 438. Hence, we can calculate LDR:

$$\text{LDR} = 201474976 / 232\,638\,438 * 100\% = 86.6\%$$

The LDR figure is 86.6% is in the ideal range between 80% to 90%. However, when considering a potential of a bank to generate more loans in the future, the reserve ratio of 3% for loans under 12 months must be considered besides the LDR. Besides, I calculated the LDR ratio with added reserve ratio for comparing peers. The results of LDR for three banks for 3Q/2018 is presented in this table below:

Table 6: Compare LDR of MBB to the selection peers

	MBB	ACB	HDB
LDR 3Q/2018	86.6%	81.4%	93%

As we can see from the table, ACB and MBB are having an ideal LDR ratios between 80% to 90%. When adding 3% for short-term loan and 1% for long-term loan of Cash Reserve Ratio to LDR ratio, the LDR for MBB become 89.6% and 87.6% respectively. These numbers showed that MBB reached the maximum acceptable LDR for short-term loan (90%) and this figure affects the ability to generate more short-term loans. In case of HDB, the exceeding 93% LDR put pressure for the liquidity of that bank. As a result, HDB is not possible to increase as many loans as MBB and ACB. Of all three banks, ACB is having the most potential for lending because it has the lowest LDR among peers.

Cost to income ratio

The table below show the CIR of 3Q/2018 in three banks:

	MBB	ACB	HDB
CIR 3Q/2018	41%	67.4%	54.3%

In terms of CIR, MBB is the most effective bank because it has the lowest CIR. Comparing to ACB and HDB, MBB is much more efficient than the other banks in reducing the operating cost. The reason for the effectiveness of MBB comes from the business with many giant organizations across Vietnam, especially the giant in telecommunication industry Viettel. Besides, MBB has a unique customer segmentation: people who are serving in the military of Vietnam. (Anh, 2017). Beside

finding business opportunities in consumer credit like ACB and HDB, MBB has an additional advantage to grow sustainably.

Credit risk analysis

The table below shows the loan portfolios of MBB and the comparison peers as of 30/9/2018.

Table 7: Loan portfolios of MBB, ACB and HDB

	MBB	ACB	HDB
Group 1	198 339 666	216 669 807	117 338 870
Group 2	3 326 833	561 129	1 742 214
Group 3	781 186	360 159	510 924
Group 4	1 118 326	224 976	587 705
Group 5	1 318 865	1 264 518	713 221
Total loans	204 884 876	219 080 589	104 497 028

For better comparison, the author converts all the loan numbers above into percentage of total loans for each specific bank. The formula is as follows:

$$\% \text{ of group loan} = \frac{\text{Amount of group loan}}{\text{Total loan}} \times 100\%$$

The result is presented in the table below:

Table 8: Loan portfolios of MBB, ACB and HDB in percentage

	MBB	ACB	HDB
Group 1	96.81%	98.90%	96.60%
Group 2	1.62%	0.26%	1.67%
Group 3	0.38%	0.16%	0.49%
Group 4	0.55%	0.10%	0.56%
Group 5	0.64%	0.58%	0.68%
Total loans	100%	100%	100%

According to the calculation, ACB has the lowest credit risk loans among three banks because the group 1 loans take account for 98.90% of total loan. Besides, all the other

groups (from group 2 to group 5 loans) of ACB is lower than both MBB and HDB. The numbers for MBB and HDB are quite similar from groups 2 to group 5.

5.3 Valuation

Earning per share and Price/Earning Per Share

The fact is that only annual EPS appears in the end of the income statement. Quarterly EPS cannot be found in the income statement. In order to calculate quarterly EPS, I need to calculate the weight average shares outstanding of 2018 first. The quarterly EPS is critically important because the investor can evaluate the stability and the profitability of a stock (Forbes, 2018). MBB has a stock split of 100/19 and the implementing date was 6/7/2018. It means that if you had 100 shares before 6/7/2018, you would receive an additional of 19 shares after 6/7/2018. According to the financial statement of MBB, the current shares outstanding of MBB now is 2160.4 million. Then, at the beginning of 2018 the number of shares outstanding was $(2160.4/119)*100 = 1815.4$ million. From 01/01/2018 to 06/07/2018 is equal to approximately 0.52 year, and from 07/07 to 31/12/2018 is equal to 0.48 year. A table are conducted to calculate the weighted average shares outstanding of the year 2018:

Table 9: Calculating Weighted Average Shares of MBB in 2018

	Number of shares	Period Covered	Weighted shares for each period
From 01/01 to 06/07	1815.4 million	0.52	944 million
From 07/07 to 31/12	2160.4 million	0.48	1037 million

Weighted average shares for 2018 = 944 + 1037 = 1981 million shares outstanding.

Since we have the number for weighted average shares for the year, we can easily calculate interim (in this case quarterly) of MBB by taking net income divided by weight average shares. The result is presented in the table below:

Table 10: Calculating Quarterly EPS from 3Q/2017 to 3Q/2018

Time	Quarterly EPS (VND)
Q3/2017	603
Q4/2017	151
Q1/2018	782
Q2/2018	753
Q3/2018	889

As can be seen from the table 11, Q4/2017 has a sudden fall in EPS comparing to the range 600 – 800 VND of other quarters. When seeing a sudden fall in quarterly EPS, an analyst can doubt about the sustainable profitability of the bank. However, the net revenue growth and all other profit-generating activities of MBB are stable. The only reason is because MBB allocated their earnings for voluntary provision of bad debt, specifically VAMC bond. This action tackled the bad debt ratio but reducing net income, as a result reducing quarterly EPS. From 2018 onwards, pressure from VAMC bond would gotten away and the earnings are come stable. In other words, MBB has the right to increase the profit at the Q4/2018 but sustainable growth has always been the bank's vision. From my point of view, this decision of the management board is extremely right. The table belows show the voluntary provision of MBB from Q3/2017.

Table 11: Provision expenses of MBB from 3Q/2017 to 3Q/2018

Time	Provision expense (in millions VND)
Q3/2017	-614317
Q4/2017	-1315991
Q1/2018	-692224
Q2/2018	-952806
Q3/2018	-645617

On January 12, 2019, MBB organizes a meeting with employees to announce their earnings for 2018. At the time the thesis is writing, the annual report for fiscal year 2018 has not been officially published yet. In the meeting, CEO Luu Trung Thai announced that the earnings for MBB exceeds 31% comparing to 2017 (Tam, 2019). Hence, in order to calculate EPS for the year 2018, the author is going to calculate the EPS of 2017 and

multiply it to 1.31. The reason is because if net come of 2018 is 31% higher than the net income of 2017, the EPS would also proportionately higher because net income is at the numerator.

As can be seen from annual report 2017, the EPS for the year is 1953. Therefore, the annual EPS of 2018 is 1953 multiply by 1.31 = 2558.

Price to Earnings Ratio

The market price for a MBB share trading in the market as of 13/1/2019 was 19 250 VND. Therefore, the P/E of 2018 is equal to $19\,250 / 2558 = 7.5$

Forward P/E

Because the forward P/E needs the future earning in the formula, I use regression analysis to predict P/E ratio. All the financial statement I have is until 3Q/2018 and the data of earnings before tax 7 000 000 million VND in 2018.

Since EPS is calculated based on net income after tax, we must calculate the net income after tax for 2019. The formula describe below describes the relationship between net income before tax and net income after tax:

Net income after tax = Net income before tax – Corporate tax

The author has the data for net income before tax for the year 2018 which is 7 000 000 million. The author conducts the regression analysis for profit before tax and corporate tax. It is noted the left column is the horizontal line (X). The number 1 stands for year 2013, number 2 stands for year 2014, number 3 stand for year 2015, number 4 stands for year 2016, numeber 5 stands for 2017, number 6 stands for 2018 and number 7 stands for year 2019. The other column is the number for annual profit before tax for each year respectively. The author conducted the regression analysis in Excel and quadratic polynominal regression is chosen because of two main reasons. Firstly, MBB profit before tax in years 2013, 2014, 2015, 2016 are stable but it dramatically increases for the year 2017 and 2018. The quadratic polynomial regression is best explained the earnings of MBB. Secondly, the R-squared of this regression model is the highest among all types of regression. It's R-squared is 0.9681 which can be considered close to 1. In chapter Literature Review, R-squared is extremely important

for the purpose of forecasting in regression analysis.

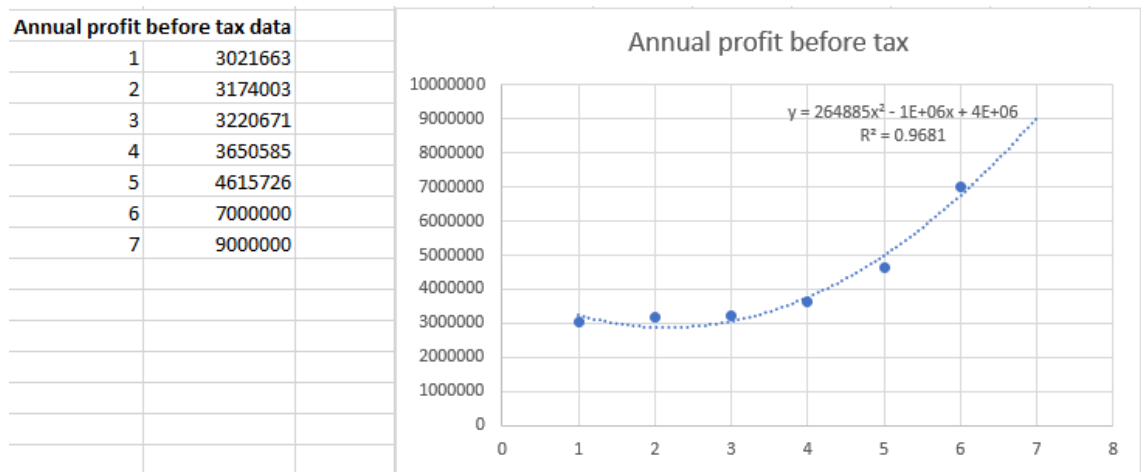


Figure 6: Performing regression analysis in Excel to calculate Annual profit before tax

Based on that regression line, the forecasting earning before tax earnings for 2019 of MBB is approximately 9 000 000 million VND.

There is no doubt that the higher the net profit before tax, the higher the corporate tax you have to pay. When MBB profit's increase dramatically, its corporate tax is going to go up shaprlly. After looking at the annual corporate tax data, the author decides to conduct polynominal regression. The reason for choosing quadratic polynomial regression is because it has the highest R-squared among other regression types. The R-squared of this model is also very high at 0.9577. Then, we can calculate the corporate tax for 2019 and the result is 2 018 809 million.

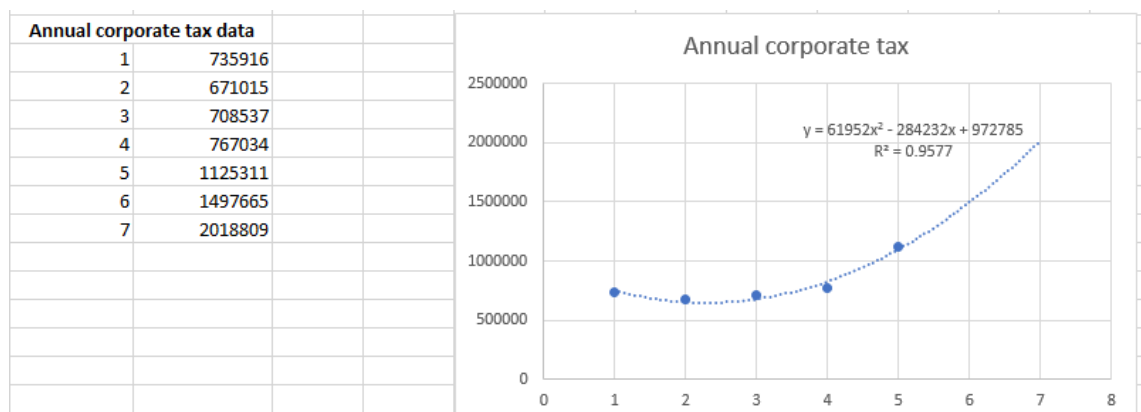


Figure 7: Performing regression analysis in Excel to calculate Annual corporate tax.

Then, the net income after tax of 2019 can be calculated:

Net income after tax 2019 = 9 000 000 – 2 018 809 = 6 981 191

Then, Forward EPS of 2019 = 6 981 191 / 2160.4 = 3 231

Forward P/E = 19 250 / 3231 = 5.95

Valuation based on P/E

Different companies and industries have specific reasonable valuation methods. In the case of banking industry in general and MBB in specific, P/E multiple is the most suitable one. P/E multiple is the most popular valuation metrics for a company (Kenton, 2018). The reason for the author to use P/E multiples valuation method is because P/E is the most popular. The other popular valuation methods for banking industry are Free Cash Flow to Equity (FCFE) or Dividend Cash Flow (DCF) (Leister, 2015). The DCF method is not suitable for the case MBB because MBB does not pay cash dividend regularly. The FCFE model is not suitable also because the author is lack of resource and information to forecast the cash flow. Comparing P/E to other peers can evaluate the value of the company (Morning Stars Editors, 2013). Theoretically, a low P/E stock means that the company is traded undervalue and a high P/E stock means that the company is traded overvalue.

It should be noted again that regression model is just a "forecasting" model. In other words, regression analysis cannot guarantee 100% that the real life is going to happen exactly the same as the model's result. If the risk when investing occurs in the future, it might affect the forecasting results.

The current P/E of MBB is 7.5 and the forward P/E for 31/12/2019 is 5.95. The current P/E of peers ACB and HDB are 14.38 and 14.8 respectively. Therefore, a conclusion can be made that MBB is trading at low price comparing to its peers.

5.4 Scenario analysis

Complete provision for VAMC bond

Strategy analysis analyzes the strategy as well as the events which can affect the stock price of MBB. As mentioned earlier, the enterprise strategy of MBB is long term development; hence in this part the author specializes in how MBB can keep bad debt below 1.5% and grant 100% provision for Vietnam Asset Management Company (VAMC) bond (MBB Annual Report, 2018). VAMC is a state company and it works in a

way that they exchange the bank's bad debt to VAMC bond. The bond has a maturity date of five years and once it reaches the maturity date, the price of the bond become zero. By selling bad debt to VAMC, the banks share the task of tackling bad debt to VAMC. The government also requires each bank to spend the net income to grant VAMC bond allowance each year (Hang, 2014). By finishing the VAMC bond provision process, MBB can generate stable net income in the future.

Basel II Accords ready

The Basel Accords are three series of banking regulations (Basel I, II and III) which are set by the Basel Committee on Bank Supervision, which provides recommendations on banking regulations in regards to capital risk, market risk and operational risk (Chen, 2018). The purpose of the accords is to ensure that financial institutions have enough capital on account to meet obligations and be able to tackle unexpected loss (Chen, 2018). 10 priority banks in Vietnam are given the mission of following Basel II Accords by the government, including MBB (Nguyen, 2017). MBB has aware of the importance of applying Basel II Accords since 2012 and the bank is ready to apply this standard soon (Nhi, 2018). The pioneer in applying Basel II increases the reliability as well as the safety for the customer choosing to deposit money to MBB.

Possible extending room for foreign investors

MBB is attractive to the eyes of foreign investor as demonstrated in the first chapter. The room for MBB has always full in recent years since many foreign financial institutions want to be partner of MBB. As a result, if more room is opened, the institution might buy the stock immediately which leads to the significant climb in stock price.

6 QUALITATIVE ANALYSIS

6.1 Analyzing the macroeconomic situation of Vietnam

After demonstrating that the beta of MBB is approximately 1, a conclusion can be drawn that MBB stock price is affected enormously by Vietnam Index. Theoretically, the market index has a strong positive relationship with the GDP of a country (Hall, 2018). As a result, the stock price of MBB is affected enormously by the GDP of Vietnam. The author interviewed Tran Le Minh Anh – Equity Analyst in Saigon Securities Incorporation (SSI) – about his comment for GDP of Vietnam.

“When we look at the GDP, we should break it down to four elements: consumption, gross private investment, government spending and net export. The consumption is tending to be increased since the middle-class level has significantly improved in income these days. Besides, after very successful IPOs (for example Techcombank), companies gain too much capital to implement projects; therefore, the gross private investment will accelerate to maximize the time value of money. Government spending is still a concern and it is hard to predict. After successful divestment (for example Sabeco sell 50% to ThaiBev to gain 5 billion USD), government will invest in infrastructure such as ports and roads. However, the State Bank of Vietnam also wants to control the inflation and increases the interest rate. Therefore, it is hard to forecast when and where the capital is used. The net export is the potential threat to the growth of GDP. SamSung contribute largely to the export of Vietnam as well as the successful 7% growth GDP, and there is a chance that SamSung can move their manufactures to other country. Vietnam should not depend too much on a single company to grow sustainably”

Tran Le Minh Anh, Equity Analyst at SSI Hanoi

To summarize Tran Le Minh Anh’s comment, the author analyzes the GDP formula $GDP = C + G + I + X$ in detail. He believed in 2019 that C will increase very much, G is hard to forecast, I will increase, and X has potential of decreasing. Logically, consumption spending increases will bring potential to develop profit for banking industry as consumer credit will expand as a result. The investor should keep track of the latest government data to forecast the GDP in 2019 and understand the current macroeconomic situation of Vietnam to react with the news quickly in the stock market.

6.2 P/E of Vietnamese banking industry from interviewing specialists

The author also interviewed six specialists to find what is their opinion about Forward P/E of Vietnamese banking industry.

Translated question: what is your estimation about P/E ratio (Price/Earnings Per Share) of Vietnamese banking industry in the period 2018-2020?

Theo quan điểm của anh/chị, chỉ số P/E (Price/Earning per share) của ngành ngân hàng Việt Nam giai đoạn 2018-2020 là bao nhiêu?

6 câu trả lời

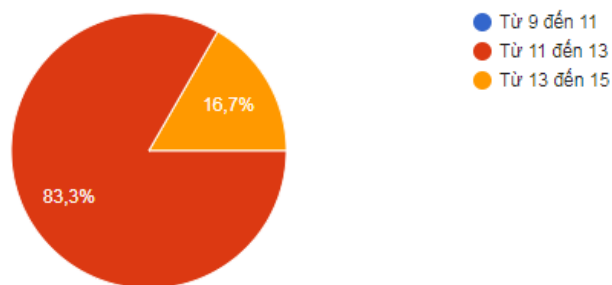


Figure 8: P/E of Vietnamese banking industry from qualitative analysis

Of all six specialists involving in this interview, five of them believe that the P/E ratio of banking industry will range from 11 to 13, whereas only one person considers it to be 13 to 15. Therefore, the P/E ratio range chosen for valuation is from 11 to 13. Based on the calculation below, the forward EPS of 2019 = 3231. Logically, to calculate the price for MBB share in 2019, I must to multiply the EPS to the forward P/E for banking industry ratio.

	P/E = 11	P/E = 13
Price for 31/12/2019	35 541	42 003

7 CONCLUSION

Based on the quantitative and qualitative analysis conducted above, a conclusion can be drawn that the stock price of MBB is traded under its value. The quantitative analysis showed that the net interest margin of MBB is high and the asset quality is safe and stable. The qualitative analysis showed that specialists working in the banking industry believe that MBB is trading below the average P/E of banking industry. For the vision at the end of 2019, regression analysis showed that MBB may experience an improvement in net income. Besides, scenario analysis implied MBB has potential events which can push the stock price up in 2019.

Besides the optimistic view of MBB stocks, there are pressures from macroeconomics and the investing risks. Regression analysis also showed that the movement in the stock price of MBB is nearly perfect to the movement of Vietnam Index. The GDP of Vietnam may face pressure of remaining the growth rate of approximately 7%, hence the Vietnam Index may grow slower comparing to the previous years 2017 and 2018. The systematic risks and unsystematic risks may also affect the security market in general and MBB is not an exception. Pressures are still ahead but from my point of view, MBB deserves to trade at a higher price than 19 250 VND per share. The target price of MBB ranges from 35541 and 42003 at the end of 2019.

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APPENDIX

Table 1: The ownership structure of MBB as of 31/12/2017	1
Table 2: The importance of R-squared in the different objectives of regression	7
Table 7: Provision expense for specific loan group	11
Table 3: Input data for calculating NIM of 3Q/2018	25
Table 4: NIM of MBB from 2013 to 3Q/2018	26
Table 5: Comparing the NIM of MBB to the selection peers	26
Table 6: Compare LDR of MBB to the selection peers	27
Table 8: Loan portfolios of MBB, ACB and HDB	28
Table 9: Loan portfolios of MBB, ACB and HDB in percentage	28
Table 10: Calculating Weighted Average Shares of MBB in 2018	29
Table 11: Calculating Quarterly EPS from 3Q/2017 to 3Q/2018	30
Table 12: Provision expenses of MBB from 3Q/2017 to 3Q/2018	30
Figure 1: The orders in the first 15 minutes of MBB on 24/10/2017	2
Figure 2: MBB Stock Price from 2/2012 to 11/01/2019	4
Figure 8: The credit growth rate of banking industry from 2012 to 2018	16
Figure 3: Calculating the daily return of VN Index and the daily return of MBB	22
Figure 4: Calculating beta of MBB using regression	23
Figure 5: Performing regression analysis in Excel to calculate Annual profit before tax	32
Figure 6: Performing regression analysis in Excel to calculate Annual corporate tax ..	32
Figure 7: P/E of Vietnamese banking industry from qualitative analysis	36