CHAPTER II

LITERATURE REVIEW

This chapter provide the summary of prior research and other findings related to the topic of this study.

2.1 Bank

The object in this research is Bank. According to Indonesian Law No. 10 of 1998 on Banking (www.bi.go.id), bank is an institution which collect fund from people in the form of savings or deposit and distributing it to people in the form of credit or other forms in order to increase their quality of life. Casu et al. (2006: 4) stated a bank is a financial intermediary that offers loans and deposit, and payment services. As a financial intermediary, bank have a role as financing, saving and loaning to improve people welfare. Channeling funds done with the purpose of working capital, investment, and deposit and for long-term.

By carrying out the intermediation function banks collect surplus funds from savers and allocate them to those (both people and companies) with a deficit of funds (borrowers). In doing so, they channel funds from savers to borrowers thereby increasing economic efficiency by promoting a better allocation of resources. Furthermore, Weert (2011: 9) reviewed a bank focuses on managing customers monies and subsequently relocating these monies (e.g. through lending) in an opportune manner to others part of society. This process is called financial intermediation, which goes hand in hand with maturity transformation. Maturity transformation means that banks transforms the maturity of money. They do this by giving customers who store money with them the option of withdrawing money on demand (short-term money), and by lending this money to customers on a long-term basis through, for example, mortgages (long-term money).

Nowadays, banks also offer a wide range of additional services. The amount of services provided by bank varies a lot, which depends on the capability of each bank. The more capable and good bank will have more services to be provided. In response to these pressures, banks have attempted to adopt strategies aimed at improving efficiency, in order to expand their output and increase in size, either through mergers or through internally generated growth, in order to compete.

A very important banking functions of the bank are forced to become more competitive. Banking industry has a vital role in improving the economic condition of a country. Most of the finance related life sectors are highly dependent on banking service, making it so bank becomes the core of a country's economic matters.

2.1.1 Types of Bank

According to Raksasasmita (2012), types of bank divided into 4, which are:

1. Based on functions
   a. Commercial Bank

      Bank that do their business activity conventionally and/or based on sharia principle in which one of their activity includes providing services on payment traffic. In other words, commercial banks are the major financial intermediary in any economy, which is the main providers of credit to the household and corporate sector and operate the payments mechanism. Commercial Bank are typically joint stock companies and publicly listed on the stock exchange or privately owned. (Casu et al., 2006: 55). For example: BRI, Mandiri, BNI, BTN, Danamon, Bank CIMB, etc.

b. Rural Bank

Bank that do their business activity conventionally and/or based on sharia principle in which on their activity may not provide services on payment traffic. For example: Bank Pasar, Bank Desa, Badan Kredit Desa.

2. Based on Ownership

Types of banks based on ownership means categorizing based on who owns the bank. This ownership can be observed from the deed of incorporation and stock mastery which belongs to the bank. Types of banks based on ownership are described below:

a. State-owned Bank

Both deed of incorporation and stock is owned by the government, which means every income of the bank belongs to the government. For example: Bank Mandiri, BRI, BNI, and BTN.

b. Private National Bank

Banks that fully or partially owned by private entities of Indonesian nationality, also founded by private, and so the income owned privately as well. For example: Bank Central Asia, Bank Bukopin, Bank CIMB, Bank Danamon, and Bank Permata.

c. Foreign Bank

Foreign bank is a branch of bank from a foreign country, either privately owned by foreigner or owned by a foreign country government. For example: Bank of America, Bangkok Bank, Standard Chartered Bank, Bank of China Limited, and The Royal Bank of Scotland.

d. Joint Venture Bank

Joint venture bank is a bank which stocks are privately owned by both Indonesian citizen and foreigner, where majority of the stock is owned by the Indonesian citizen. For example: Bank Commonwealth, Bank Maybank, Bank Rabobank International Indonesia, Bank Woori Indonesia, and Bank Chinatrust Indonesia.

3. Based on Status

Categorizing bank based on status means it is divided by the standings or status of said bank. This standings or status shows the measurement of bank capability in serving the public, either from amount of product, capital or service quality. Which is why, to earn said status several assessments with certain criteria are needed. In practice, type of bank based on status is divided into 2, which are:

a. Foreign Exchange Bank

Foreign Exchange Bank is able to do overseas transaction or any transaction related with foreign currency overall. For example: Bank Agroniaga, Bank Artha Graha, Bank Muamalat, Bank Sinar Mas, and Bank OCBC.

b. Non-Foreign Exchange Bank

Non-Foreign Exchange Bank do not have permission to do overseas transaction, therefore unable to provide same services as Foreign Exchange Bank. For example: Bank Pundi Indonesia, Bank Sinar Harapan Bali, and Bank Tabungan Pensiunan Nasional.

4. Based on Price Fixing

Based on price fixing can also means the method to determine earned income. Types of bank based on price fixing, both selling and buying price, are divided into two groups, which are:

a. Conventional Bank

On earning income and deciding price to their customers, conventional bank uses two method, which are :

i. Decides interest as selling price, for deposit such as demand, saving or time deposits. Likewise the credit buying price is also spread based.
ii. For other banking services, conventional bank apply several costs with certain nominal or percentage such as administration cost, provision cost, rent, dues, and fee based.

a. Sharia Bank

Bank based on sharia principle apply agreement rule based on Islam law between bank and other parties on saving funds, business financing, or other banking activities. Sharia banking is based on non-interest principles. Sharia bank prohibits the payment of interest but does encourage entrepreneurial activity; have to develop products and services that do not charge or pay interest.

Sharia Bank in Indonesia is categorized into 2 types, which is BUS (Bank Umum Syariah/Sharia Commercial Bank) and UUS (Unit Usaha Syariah/Sharia Business Unit). BUS is Sharia Bank which on their activity of providing service in payment traffic, the deposited capital source must not come from borrowed fund or other financing facility in any form from bank or other party in Indonesia. For example: BRI Syariah, BNI Syariah, Bank Syariah Muamalat, Panin Bank Syariah, and Bank Mandiri Syariah.

Meanwhile, UUS is a work unit from the headquarters of a conventional commercial bank which function as the main branch of office or unit that business activity based on sharia principle. The capital of UUS is a capital that is set aside in a certain separate bank account which can be used to fund the operational and non-operational activities of the sharia branch office. The separation of capital is meant to avoid mixing its management with funds which belongs to their main office that operate in conventional way.

2.1.2 Core Business of Bank

Bank is a financing business, just like conventional businesses, activities like buying and selling products still exist, the only difference is in banking business what is sold and bought is financial services. Before they sell a financial service, a bank must first buy financial services available in public, which can be earned from several source of funds, especially third party funds.

Described below are funds based on its source, according to Raksasasmita (2012):

1. Third Party-Funds

Third party-funds are funds in form of deposit from public which is the biggest source of funds that bank relies on the most. Third party funds comprised of several types, which are:

a. Demand Deposit

Demand Deposit is a third party funds deposited to bank in which withdrawal may be done anytime using cheques, transfer form, other payment order letter or by transfer.

b. Time Deposit

Time Deposit is a third party funds deposited to bank in which withdrawal may only be done on certain timeframe based on agreement.

c. Saving Deposit

Saving Deposit is a third party funds deposited to bank in which withdrawal may only be done by fulfilling certain requirements.

2. Loans Fund (Second Party Funds)

Second party funds is loans funds which earned from external sources, which includes funds as described below:

a. Interbank Call Money

Interbank Call Money is loans from other bank in form of daily interbank loans.

b. Normal Interbank Loans

Normal interbank loans is loans from other bank in form of normal loans with relatively longer timeframe

c. Non-Bank Institution Loans

This loan mostly given in form of valuable letter which is marketable on the financial market before its due in form of credit.

d. Central Bank (Bank Indonesia) Loans

Loans from central bank (Bank Indonesia) is a relatively cheaper source of funds with very low interest rate.

3. First Party Funds (Own Capital Funds)

First party funds is funds which earned from the bank owner or their shareholder, which includes both the initial shareholder (which already present during the founding of the bank) and newer shareholder that involved with the bank later on, including public shareholder.

Capital funds are comprised of:

a. Deposited Capital

Deposited capital is money that effectively deposited by the shareholder during the founding of the bank.

b. Stock Agio

Stock Agio is the differences value of paid money by new shareholder compared with the nominal stock value.

c. Reserves

Reserves is part of bank profit which saved in form of capital reserves and other reserves which used as countermeasure to the future risk probability.

d. Retained Earnings

Retained earnings is the profit which belongs to the shareholder that has been decided by themselves on the Shareholders General Meeting (RUPS) to be not included as dividend, but to be put back again on the work capital for bank operational activities.

2.1.3 Revenue of Bank

Anindyntha (2016) stated bank’s source of revenue is interest income that is also the largest revenue in the banking and non-interest income which obtained by organizers in the shape of giving financial services and other non-operational income. Banks source of revenue can be described below:

1. Interest Based Income

   Income from interest earned from debtor, which borrowed funds in from of credit. Wahjono (2010: 96) stated that credit is a form of providing money; bank provide a certain amount of money (cash or deposit) which agreed before for a certain purpose. Credit can also mean as providing claim, which means the commitment of bank given to other parties over the business of their customer. These commitment can be shown in form of bank guarantee, letter of credit, or promissory notes. Bank is obligated to test their customer first whether the money which the customer borrowed can be returned within the timeframe which agreed initially in the beginning of credit. Therefore before the credit is provided, bank will conduct a set of credit process which includes appropriateness analysis about the credit applied by the customer.

   The amount of this income depends greatly from the amount of credit given and the interest rate. Each bank own different policy for determining the interest rate, which is based on cost of fund, strategic, competition, and also different types of credit based on type of customer. For individual customer, credit card is charged with high interest rate, while for mortgage loan a lower interest rate is given. Bank also charge different interest rate to their customer based on their credit rating and ability to pay.

2. Non-interest Based Income

   Non-interest based income is the income that came from source other than interest, such as fee-based income, transaction spot, dividend, and other operational income, which described as follows:

a. Fee-based income

Income which earned from fees of services that provided by bank, for example: monthly admin fee on saving accounts and debit card, and annual fee on credit card, foreign exchange, interbank transfer, letter of credit, and other small fee such as ATM receipt cost. Nowadays bank also provide service of paying bills such as electricity, water, and telephone bill, provide balance for prepaid mobile phone provider, buying airplane or train ticket, and paying insurance fee. The main principle is that bank will charge fee for each of services provided. Bank also will charge fines for each of customer fault such as late credit card payment and reissue cost of lost debit card or saving book.

Fee-based income is considered as sustainable income because of its low risk, different with interest based income where bank risk losing all of their distributed funds in case the customer is unable or refuses to pay their borrowed credit (non-performing loans). According to Wahjono (2010: 106), at the time of bank facing difficulties of earning income from interest, which is caused by the negative differential between interest that came from credit and interest that came from negative spread, such as when monetary crisis happened between 1998 and 2000, then bank will depend their income source on fee-based income.

b. Transaction Spot and Derivative

Includes bond, foreign exchange, or other derivative instrument.

c. Dividend

Dividend is the allocation of income to the shareholder based on owned share. Bank receive income from company dividend which part of share is owned by bank, but its financial statement is not consolidated.

d. Other Operational Income

Income received from the sale of fixed asset or building rent.

Table 2.1: Bank Income based on source 2011-2015

	2015	2014	2013	2012	2011
Bank Mandiri					
Interest Income	71.570	62.637	50.208	42.550	37.730
Non-interest Income	25.993	22.728	19.828	17.643	16.041
Other Operating Income	18.378	14.687	14.686	11.897	11.768
BRI					
Interest Income	85.434	75.122	59.461	49.610	48.164
Non-interest Income	10.067	7.918	6,400	6,117	3,965
Other Operating Income	12.409	9.299	8.348	8.390	5.776
BNI					
Interest Income	36.895	33.750	26.705	22.705	20.692
Non-interest Income	7.282	6.999	5.467	5.217	4.852
Other Operating Income	8.872	8.855	7.605	7.255	6.563

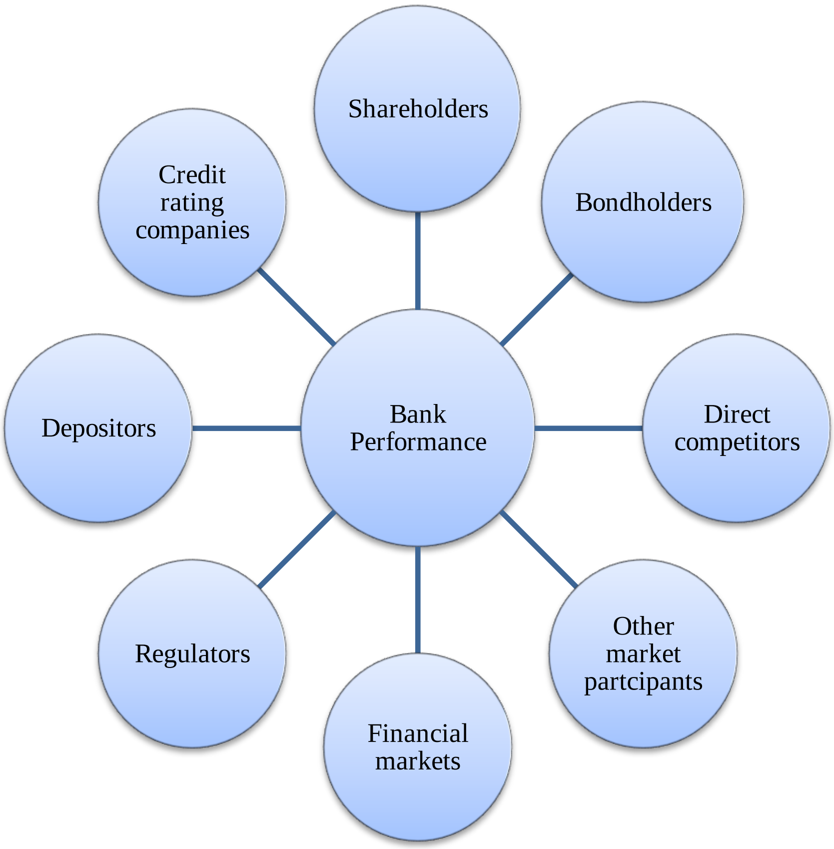
Source: Annual Report BNI, BRI, and Bank Mandiri

Income which earned by bank (revenue) will then be deducted with the total expense (cost) to calculate the net profit. Revenue is the income from normal bank activity, which represented by the sum of interest income and non-interest income, while cost is the resource expended by bank to ensure the fulfillment of their main goal which is to earn profit. Cost is represented by the sum of operational expenses such as wages, transport, etc.; allowance for impairment losses, and other non-operational cost. Cost is the largest deducting factor in calculating net profit.

2.1.4 Bank Performance

Bank performance is calculated using ratio analysis and assessed with the aim of: (1) looking at past and current trends, and (2) determining future estimates of bank performance. Performance analysis is an important tool used by various agents operating either internally to the bank or who form part of the bank's external operating environment as shown in figure 2.1 below:

Figure 2.1 Bank Performance



Source: Casu et al., 2006: 213

a. Shareholders and bondholders, Investors in shares and in bonds issued by the bank, and bank managers, and other employees have an obvious economic and strategic interest in the current and future prospects of the banking;
b. Direct competitors, peer group analyses compare the profitability of similar banking institutions operating in similar operating environments;
c. Other market participants, competitors that represent potential take-over and to evaluate potential economic synergies;
d. Financial markets, capital and money market participants will use ratio analysis to monitor the performance of banks;
e. Regulators, domestic and international regulatory authorities concerned about the performance of banking institutions. For example, financial regulators need to evaluate the solvency, liquidity and overall performance of banking gauge the likelihood of potential

problems and making excess profits and behaving in an uncompetitive manner;

f. Depositors, the smooth performance of banks is valuable for depositors who trust their banks will remain profitable and not expose itself to too much risk; and
g. Credit rating companies, to compile analyses and ratings of banks operating in a certain country or group of countries.

2.1.5 Managing Banks

` The role of financial management are (1) to make investment decisions, how to allocate finance, (2) to undertake financing decisions, ho to acquire finance, and (3) to control resources decisions, how to conserve finance. According to Casu et al. et al (2006) stated that for modern banks the goal is to manage assets and liabilities in a way that maximizes profits while being generally safe and sound. The function of financial management is to monitor actual performance against planned goals and targets. More specifically, bank managers will have 5 the following concerns as described below:

a. Asset management: The bank should make sure their portfolio of assets includes low risk assets and is well diversified to avoid over interesting in a single sector;
b. Liability management: The bank must acquire funds at the lowest possible cost.
c. Liquidity management: Liquidity in banking is a main factor because every bank needs to ensure that it keeps enough cash or other liquid assets to meet its obligations to depositors and to satisfy customer loan and demand. The bank must predict with the lowest possible margin of error the daily withdrawals and other payments by customer in order to keep enough cash and other liquid assets readily available. Bank having to obtain liquidity it has 4 options, borrowing from other banks, selling some of its securities, selling some of its loans, or borrowing from the central bank.

d. Capital management: Capital in banking is one of the major balance sheet concerns. The bank must keep an adequate level of capital to comply with regulatory requirements in order to maintain the appropriate level of solvency; and
e. Off-balance sheet management: The bank must control and limit the exposures derived from off-balance sheet transactions.

2.2 Financial Statements

Financial statement is a tool which used by a company to receive information about the financial position and condition, performance as well as results achieved by the company. Aside from that, financial statement is also useful for other parties involved with the company which is to provide financial information of the aforementioned company.

The Indonesian Institute of Accounts (IAI) (2015) stated the definition of financial statement as: “structure which provides financial position and performance of an entity”. General goals of financial statement for public interest is the presentation of information about financial position, financial performance, and cash flow of an entity, which is very useful to make economic decision for the user. To reach this goal, financial statement provides information about elements of entities which comprised of asset, liabilities, net worth, expenses, and incomes (including gain and loss), change in equity and cash flow. These information is followed with notes, which will help the user to predict the future cash flow.

a. Goals of Financial Statement

Output from an accounting process is the financial statement which reflects the company management achievement on certain time period. Besides used as responsibility tools, financial statement is needed as the foundation on decision making of economic decision in the future. According to IAI (2015), financial statement goals are:

i. Provides information related to financial position, performances, as well as the changes in financial position of an entity which useful for most user on economic decision making.
ii. Financial statement is compiled to fulfill the common needs of most users. However, financial statement may not provide all of the needed information for a user to make an economic decision, because it only generally describe the financial influences of past events, and not obliged to provide non-financial information as well.
iii. Financial statement also shows all what have been done by the management or in other words taking account of all the resources entrusted to the management.

b. Component of Financial Statement

According to IAI (2015: 1.3), complete financial statement comprised of components such as described below:

1) Balance Sheet, report showing financial condition of a company on certain times;
2) Profit and Loss, report showing summary of profit and loss during an accounting period;
3) Statement of Shareholder’s Equity, report showing the causes of equity changes from the initial period value to the value on the end of period;
4) Cash flow Statement, shows in and out cash flow which divided into operating cash flows, investing cash flows, and financing cash flows; and
5) Notes to Financial Statement, contains financial information which normally not included inside the financial statement but still an integral part of the financial statement.

Types of Financial statement are described below:

1) Balance Sheet

Balance Sheet is a report which contains assets, liability and capital of a company on a certain time period. According to Casu et al. (2006: 196), Balance

Sheet is a financial statement of the wealth of a business or other organization on a given date. This is usually at the end of the financial year. For commercial banks the balance sheet lists all the stock values of sources and uses of banks funds. Bank's fund come from:

a. The general public (retail deposits);
b. Companies (small, medium, and large corporate deposits);
c. Other banks (interbank deposit);
d. Equity issues (share issues, conferring ownership rights on holders);
e. Debt issues (bond issues and loans);
f. Saving post profit (retained earnings).

The above is generally classified as banks liquidity (debt) and equity (capital). These funds are then transformed into financial and, to a lesser extent, real assets, consist of:

a. Cash;
b. Liquid assets (securities);
c. Short term money market instrument (treasury bills);
d. Loans;
e. Other investment;
f. Fixed assets (branch network, computers, and premises).

Below is an example of balance sheet, taken from Bank Mandiri financial statement:

Table 2.2: Example of Balance Sheet 31/12/2015 (in million IDR)

Cash & Due from Banks	81,423,440.00
Federal Funds Sold / Securities Purchased Under Resale Agreement	676,900.00
Trading Account Assets	13,184,766.00
Other Short Term Investments	43,641,564.00
Securities Held	103,917,755.00
Total Investment Securities	103,917,755.00
Customer Acceptances	11,224,243.00
Other Earning Assets, Total	172,645,228.00

Total Gross Loans	595,451,859.00
Loan Loss Allowances	-22,552,456.00
Net Loans	620,372,480.00
Buildings - Gross	4,069,068.00
Land / Improvements - Gross	2,845,929.00
Machinery / Equipment - Gross	9,090,875.00
Construction in Progress - Gross	1,451,759.00
Other Property / Plant / Equipment - Gross	12,495.00
Property / Plant / Equipment, Total - Gross	17,470,126.00
Accumulated Depreciation, Total	-7,708,438.00
Property / Plant / Equipment, Total - Net	9,761,688.00
Goodwill, Net	423,115.00
Intangibles, Net	1,492,077.00
Defered Income Tax - Long Term Asset	4,834,522.00
Other Long Term Assets, Total	4,834,522.00
Other Assets	19,110,859.00
Other Assets, Total	19,110,859.00
Total Assets	910,063,409.00
Accrued Expenses	3,490,801.00
Non-Interest Bearing Deposits	1,156,327.00
Interest Bearing Deposits	634,968,568.00
Other Deposits	54,054,930.00
Total Deposits	690,179,825.00
Acceptances Outstanding	11,331,273.00
Other Bearing Liabilities, Total	11,331,273.00
Federal Funds Purchased / Securities Sold Under Repurchase Agreement	4,863,171.00
Other Short Term Borrowings	317,933.00
Total Short Term Borrowings	5,181,104.00
Current Portion of Long Term Debt / Capital Leases	11,053,858.77
Income Taxes Payable	2,131,616.00
Other Current liabilities, Total	2,131,616.00
Long Term Debt	28,846,693.23
Total Long Term Debt	28,846,693.23
Total Debt	45,081,656.00
Minority Interest	2,328,800.00
Pension Benefits - Underfunded	5,777,077.00
Other Liabilities	32,579,320.00
Other Liabilities, Total	38,356,397.00

Total Liabilities	792,900,368.00
Common Stock	11,666,667.00
Common Stock, Total	11,666,667.00
Additional Paid-In Capital	17,316,192.00
Retained Earnings (Accumulated Deficit)	89,224,718.00
Unrealized Gain (Loss)	-1,565,019.00
Translation Adjustment	242,807.00
Other Equity	277,676.00
Other Equity, Total	520,483.00
Total Equity	117,163,041.00
Total Liabilities & Shareholders' Equity	910,063,409.00
Shares Outstanding - Common Stock Primary Issue	23,333.33
Shares Outstanding - Common Issue 2	.00
Total Common Shares Outstanding	23,333.33
Treasury Shares - Common Stock Primary Issue	.00
Treasury Shares - Common Issue 2	.00
Employees	36,737.00
Total Risk-Weighted Capital	577,345,989.00
Tier 1 Capital %	16.15
Total Capital %	18.60
Trading Account	13,184,766.00
Credit Exposure	846,209,158.00
Non-Performing Loans	15,377,323.00
Assets under Management	28,151,000.00
Tangible Book Value	115,247,849.00
Tangible Book Value per Share	4,939.19
Pension Obligation - Domestic	4,134,406.00
Plan Assets - Domestic	4,732,443.00
Funded Status - Domestic	598,037.00
Total Funded Status	598,037.00
Prepaid Benefits - Domestic	--
Net Assets Recognized on Balance Sheet	--
Debt Securities % - Domestic	--
Real Estate % - Domestic	--

Private Investments % - Domestic	--
Other Investments % - Domestic	--
Total Plan Obligations	4,134,406.00
Total Plan Assets	4,732,443.00

Source: Bank Mandiri 2015's Annual Report

2) Profit and Loss Statement

Profit and loss statement is a systematic report about income, expenses, profit and loss which earned by a company during a certain time period. Main goals of profit and loss statement is to report the real capability of the company on earning incomes. A company profit and loss statement is provided in a way which highlights several financial performance component which needed to be normally presented.

On banking financial statement, profit and loss statement consist of:

a. Interest income
b. Interest expense
c. Income commission
d. Provision and fee expense
e. Loss or gain from financial assets held for trading
f. Profit/loss of stock investment
g. Profit/loss of foreign currency transaction
h. Income of dividend
i. Other operational income
j. Preliminary credit loss and other productive assets expenses
k. General administration expenses
l. Other operational expenses

Below is an example of profit and loss statement, taken from Bank Mandiri financial highlights:

Table 2.3: Example of Profit and Loss Statement Period 1/1/2015-31/12/2015

Profit and Loss Statement	**2015**
Interest Income	71,570,127
Including Interest on Government Bonds	66,296,272

Excluding Interest on Government Bonds	45,363,103
Net Interest Income	40,089,248
Including Interest on Government Bonds	18,378,678
Excluding Interest on Government Bonds	28,754,543
Other Operating Income	11,664,837
Other Operating Expenses	26,369,430
Reserve for Impairment (CKPN) Expenses	21,152,398
Profit before Tax	20,334,968
Net Profit in Current Year	817,43
Profit attributable to owner of parent company	20,446,829
Profit attributable to non-controlling interests	19,658,155
Comprehensive profit (loss)	788,674
Comprehensive profit attributable to owner of parent company	871.50
Comprehensive profit attributable to non-controlling interests	71,570,127
Net Earnings per Share (in IDR)	66,296,272

Source: Bank Mandiri 2015's Annual Report

3) Statement of Shareholder's Equity

Statement of Shareholder's Equity is a report compiled to see the changes on owned capital or to see final capital value on a period. This statement of shareholder's equity is meant to follow the growth of the observed company.

According to IAI in PSAK No.1 (2015: 1.20), statement of changes equity show:

a. Total comprehensive revenue in ongoing period, which exclusively shows total revenue that may be distributed to main entity owner and non-controlling concerned party.
b. For each component of equity, the impact of retrospective implementation or retrospective return presentation.

c. For each equity component, reconciliation between the recorded amount in the beginning and the end of period, exclusively shows each changes which occurred from:
    i. Profit and loss
    ii. Other comprehensive income, and
    iii. Transaction with the owner on their capacity as the owner, which exclusively shows the contribution from and distribution toward the owner and changes on ownership right of the entity.

4) Cash Flow Statement

According to IAI in PSAK No.2 (2015: 2.3) "Cash flow statement is a financial statement which contains information cash flow from a company in a certain period of time and classified by three types which are operating activities, investing activities, and financing activities." Cash flow information is useful to assess a company capability on producing cash and its equivalent, and allows the user to develop model to consider and compare current value with future cash flow from various company.

5) Notes to Financial Statement

Notes to Financial Statement is additional notes an information which added to the end of the financial statement to give additional information for the reader to obtain further information. Notes to financial statement must be presented systematically. Every post in the balance, profit/loss report and cash flow report must be inter-related with the information which found in the notes of financial statement.

IAI (2015) stated that, notes to financial statement comprised of:

1. Provide information about the basic of compiling financial statement and accounting policy.
2. Provide information which required by accounting standard statement (PSAK) which are not presented in any section of the financial statement.
3. Provide information which are not presented in any section of the financial statement, but still relevant for understanding the financial statement.

2.3 The Healthiness of Bank

Just like humans, where health is one of most important aspect of its life, so does banks. A healthy body will improve work rate and other performances. For banks, a healthy condition is an indispensable requirements to serve their customer well, in an effort to maintain the loyalties of the customer and the public.

Assessment of the health of banks is an activity undertaken to determine the ability of a bank to normally conduct banking operational activities and fulfilling their obligations. This assessment is meant to determine whether a bank is on healthy, quite healthy, less healthy or unhealthy condition, so Bank Indonesia as the banking instructor and supervisor may provide direction or suggestion on how the said bank should be run, or even stopping their operational activity.

The health assessment is essential for banks to establish public trust and to implement the principle of prudence in the banking world. It is also expected that only the banks that actually healthy may operate and relate to the community. General healthiness of a bank should be known as it is the requirement to gain the trust of the community.

The standard for banks health assessment has been made by Bank Indonesia. Every bank is prompted to provide routine or timely reports on each of their activities during a certain time period. Banks health assessment is done routinely each year, to check on its increase or decrease. Banks with positive trend on their healthiness level over years should find no problem, because it is what to be expected from banks which give a lot of effort on maintaining their health level. Meanwhile, for banks which continuously find themselves in unhealthy condition, perhaps they should get some directions or penalty from Bank Indonesia as the banking instructor and supervisor. Bank Indonesia may suggest to make changes in the management structure, initiate merger, consolidate, acquisition, or even to be liquidated if the condition of the bank stays in unhealthy level.

2.3.1 The General Principles of the Healthiness of Bank

According to Bank Indonesia Circular Letter No. 13/24/DPNP/2011 concerning Commercial Bank Rating. Bank’s management need to pay attention to these general principles as the foundation for measuring the healthiness of bank:

1. Risk Oriented

The rating is based on bank risks and impacts on the overall performance of the bank. This is done by identifying the external and internal factors that can increase the risk or affect the bank's financial performance in the present and in the future. Thus, the bank is expected to detect the root causes earlier and take precautions and improvements effectively and efficiently.

2. Proportionality

Usage of parameters or indicators within each factor of the bank's health rating is conducted by taking into account the characteristics and complexity of the bank. Parameter or assessment indicators of the bank in this Circular Letter is the minimum standards that must be used in bank assessment. However, the bank may use the parameter or additional indicators that correspond to the characteristics and complexity of the business in assessing the bank so that it may help reflect the bank conditions better.

3. Materiality and Significance

Bank need to pay attention on materiality or significance assessment factor of Bank's Healthiness Rating, which are Risk Profile, GCG, Earning, and Capital and the significance of the parameters or indicators during the assessment of each factor in concluding the assessment results and rank the factors. The determination of materiality and significance based on an analysis supported by sufficient data and information on the risks and bank's financial performance.

4. Comprehensive and Structured

The assessment process is done thoroughly and systematically and focused on the main issues of the bank. The analysis was conducted in an integrated manner, i.e. consider the relation between risk factors and bank's assessment risk and also subsidiaries which are required to be consolidated. The analysis should be supported by the basic facts and relevant ratios to show the level, trend, and the level of problems faced by the bank.

2.3.2 How to Measure of Bank Healthiness

As regulated in Bank Indonesia Regulation No. 13/1/PBI/2011, factors that become the indicator of Bank Healthiness Rating are: (1) Risk Profile, (2) Good Corporate Governance, (3) Earnings, and (4) Capitals. Each of these factors will be described in more detail as follows:

2.3.2.1 Risk Profile

An assessment of the risks is divided into eight parts:

i. Credit Risk

Credit risk refers to the risk of default by borrowers, where the term of the loan is identical to the term of the borrower's cash flow, credit risk arises from the uncertainty over the cash flow from the borrower's project. (Morris and Shin, 2016)

Berrospide and Edge (2010) in CUCINELLI (2015) study how bank capital impacts on bank lending behavior measured by loan growth, and find that capital has a small effect on lending. Bridges et al. (2014) investigate the effects of a change in bank capital requirements on lending behavior. Their results suggest that changes in capital requirements affect both capital and lending. In response to an increase in capital requirements, banks gradually increase their capital ratios to restore their original buffers held above the regulatory minimum.

The higher the level of Non Performing Loan’s, which means the greater the credit risk carried by the bank. NPL rate may affect the level of efficiency of banks. NPL’s formula is:

$$\text{NPL} = \frac{\text{Non Performing Loan}}{\text{Total Loan}} \times 100\%$$

ii. Market Risk

Urosevic, Karapandza, Bozovic (2009) stated that the risk of losses arising from changes in market risk factors. Market risk can arise from changes in interest rates, foreign exchange rates, or equity and commodity price factors. Drehmann et al. (2006) examined IRR is the most important risks faced by commercial banks. IRR is also a broad term and may be attributable to re-pricing mismatches of assets, liabilities and off-balance sheet net positions, including basis and yield curve risk. Market Risk can be calculated using IRR's formula:

$$\mathrm{IRR} = \frac{\text{Rate Sensitive Assets}}{\text{Rate Sensitive Liabilities}} \times 100\%$$

iii. Liquidity Risk

Akhtar, Ali, and Sadaqat (2011) stated that liquidity risk is the outcome from the disparity involving the maturities of the two sides of the balance sheet. This disparity either results in an excess of cash that wishes to be invested or result in a deficiency of cash that wishes to be funded. Liquidity is important to maintain the survival of a bank. Therefore, bank should have good liquidity risk management.
Liquidity Ratio can be calculated using formula as stated below:

1. **Loan to Deposit Ratio (LDR)**

LDR is a useful instrument to determine bank liquidity, and by extension, it influences the profitability of the banks. The bank profit is based on the interest charged against the deposits; it means the profit is generated through the positive difference between interest of loans and interest on deposits (Rengasamy, 2014). In general, a bank may not be earning to operate their return if the LDR's ratio is too low and if the higher the LDR showed, which means greater use of bank deposits for lending and bank has been capable to run their intermediary function optimally. However, if the LDR's ratio is too high it will make liquidity risk for a bank. LDR's formula is:

$$\mathrm{LDR} = \frac{\text{Total Debt}}{\text{Third Parties Fund}} \times 100\%$$

2. Loan to Asset Ratio (LAR)

LAR shows the bank's ability to meet their obligations, which is shown by how much a part of their own capital is used to pay the debt. According to RJ (2000) in Sugiarto (2015), one of the ratios that are included in the solvency ratio or leverage is debt to equity ratio. This ratio is used to determine what proportion of any capital itself is used as collateral for the overall corporate debt or to assess the amount of debt that is used by the company. LAR can be defined by the following equation:

$$\text{LAR} = \frac{\text{Total Debt}}{\text{Total Assets}} \times 100\%$$

3. Cash Ratio

According to Sugiarto (2015) Cash Ratio is one measure of the liquidity ratio (liquidity ratio) which is the ability of the company meet its short-term liabilities (current liability) through a number of cash (and cash equivalents, such as current accounts or other savings in the bank that can be withdrawn at any time) owned by the company. If the company's shows higher Cash Ratio, means the greater their ability to pay dividends. Cash Ratio's formula is:

$$\text{Cash Ratio} = \frac{\text{Cash} + \text{Cash Equivalents}}{\text{Current Liabilities}} \times 100\%$$

iv. Operational Risk

Urosevic, Karapandza, Bozovic (2009) stated that the risk of financial losses resulting from a host of potential operational breakdowns that we can think of in terms of people risks, process risks, and technology risks (e.g., frauds, inadequate computer systems, a failure in controls, a mistake in operations, a guideline that has been circumvented, or a natural disaster). Several things that may prevent this includes managing equipment failures, keeping strong business to business relationship, having adequate insurance, plus being aware of the regulations.

v. Law Risk

Risks of uncertainty of action or demand or uncertainty of the application or interpretation of contracts, laws or regulations which is primarily caused by a defective transaction or change in law.

vi. Strategic Risk

Risks caused by their determination and implementation of the bank's strategy is not right, wrong business decision making or lack of responsiveness of banks to external changes. (e.g., making poor business decisions, from the substandard execution of decisions, from inadequate resource allocation, or from a failure to respond well to changes in the business environment).

vii. Compliance Risk

Risks caused by non-compliance of a bank to implement legislation and other applicable provisions. Bank that fail to comply with the necessary standards may be subjected to fines, payment of damages, and voided contracts. This cases can lead to diminished reputation and limited business opportunities or the bank may find it is no longer capable of enforcing its contracts.

viii. Reputation Risk

Risks of loss resulting from damages to a firm's reputation, in lost revenue; increased operating, capital or regulatory costs; or destruction of shareholder value, consequent to an adverse or potentially criminal event even if the company is not found guilty. This type of risk can be informational in nature that may be difficult to realize financially (e.g., extreme cases may even lead to bankruptcy as in the case of Arthur Andersen)

2.3.2.2 Good Corporate Governance (GCG)

Swarup (2011) defined Corporate Governance has at its backbone a set of transparent relationships between an institution’s management, its board, shareholders and other stakeholders. It, therefore, needs to take into account a number of aspects such as, enhancement of shareholder value, protection of shareholder rights, composition and role of board of directors, integrity of accounting practices and disclosure norms and internal control system. In a service industry like banking, corporate governance relates to the manner in which the business and affairs of individual banks are directed and managed by their board of directors and senior management. It also provides the structure through which the objectives of the institutions are set, the strategy for attaining them is determined and the performance of the institution is monitored. Pratiwi (2016) stated that Corporate Governance is a set of mechanism that direct and control the company so that the company's operation can be run in accordance with expectations of stakeholders.

Based on the definitions stated above, GCG in short can be understood as a set of system which govern and control a company to create added value for the stakeholders. This happen because GCG is able to push the creation of a clean, transparent and professional management work ethic. Implementation of GCG in a company will pique interest of investors, both domestic and foreign. This is very important for company that aspire to develop their business further, such as getting new investment.

GCG implementation in the banking industry should be based on five basic principles as follows:

1. Transparency, openness in the fringe material and relevant information as well as openness in carrying out for the decision making process;
2. Accountability, clarity of function and implementation of accountability for banks so the operations run effectively;
3. Responsibility, the suitability of the management of the bank with the applicable legislation and the principles of a healthy bank management;
4. Independency, the management of the bank in a professional manner with no influence or pressure from any party; and
5. Fairness, justice and equality in fulfilling the stakeholder's rights arising under the agreement and the regulations that apply.

Assessment of the implementation of GCG based on 5 basic principles that are grouped within a governance system that consists of three aspects of governance, namely governance structure, governance process, and governance outcome. Assessment of the governance structure aims to assess the adequacy of the governance structure and infrastructure of the Bank so that the process of the implementation of GCG principles produce outcomes that correspond to the expectations of the stakeholders of the Bank. Included in the Bank's governance structure is the Board of Commissioners, Board of Directors, committees and units of work at the Bank. As for the Bank's governance infrastructure including, among others, is the Bank's policies and procedures, management information systems and basic tasks and functions each organizational structure.

Assessment of the governance process aims to assess the effectiveness of the process of the implementation of the principle of GCG supported by adequacy of structure and infrastructure of the Bank's governance so as to produce outcomes that correspond to the expectations of the stakeholders of the Bank. Assessment of learning outcomes governance aims to assess the quality of the learning outcomes which meet the expectations of stakeholders of the Bank is the result of the process of the implementation of GCG principles supported by adequacy of infrastructure and governance structure of the Bank.

In order to ensure the implementation of five basic principles of GCG, Bank Indonesia established Bank Indonesia Regulation No. 15/15/DPNP on April 29th 2013 regarding The Implementation of Good Corporate Governance for Commercial Banks. According the regulation, banks are required to conduct GCG self-assessment against 11 factors, each with weights as follows:

Table 2.4: GCG Self Assessment's Factors

No	Factor	Weight (%)
1	Performance of duties and responsibilities of the Board of Commissioners	10.00
2	Performance of duties and responsibilities of the Board of Directors	20.00
3	Adequacy and the performance of duties by the Committees	10.00
4	Management of conflicts of interest	10.00
5	Implementation of compliance function	5.00
6	Implementation of internal audit function	5.00
7	Implementation of external audit function	5.00
8	Implementation of risk management including internal control system	7.50
9	Provisioning of funds to related parties and large exposures	7.50

10	Transparency of the banks financial and non-financial conditions, report of GCG implementation, and internal reporting	15.00
11	The bank's strategic plan	5.0

Source: Bank Indonesia Regulation No. 15/15/DPNP

Table 2.5: GCG's Worksheet Self Assessment

No	Criteria/Inidicator	Analysis
1	**Performance of duties and responsibilities of the Board of Commisioners**	
	A. Governance Structure	
	1) Members of the Board of Commissioners at least 3 persons and does not exceed the number of members of the Board of Directors.	
	2) At least 50% of the total members of Board of Commissioners are independent Commissioners.	
	B. Governance Process	
	1) The Board of Commissioners have been doing their job to ensure this implementation of GCG principles in each business activity of the Bank on all levels or level of organization.	
	2) In order to perform the tasks of supervision, the Commissioner has been directing, monitoring and evaluating the implementation of the strategic policy of the Bank.	
	C. Governance Outcome	
	1) The results of the meeting of the Board of Commissioners has been distributed to all members of the Board of Commissioners and the parties concerned.	
	2) The results of the meeting of the Board of Commissioners have been poured in the treatise and well documented, including dissenting opinions that occur clearly.	
2	**Performance of duties and responsibilities of the Board of Directors**	
	A. Governance Structure	
	1) Members of the Board of Directors of at least 3 people.	
	2) Member of the Board of Directors either singly or together does not have shares exceeding 25% of the paid-in capital at some other companies.	
	B. Governance Process	
	1) The Board of Directors has raised a member of the Committee, based on the decision of the meeting of the Board of Commissioners.	
	2) The Board of Directors are fully responsible for the implementation of the management of the Bank.	
	C. Governance Outcome	

	1) The Board of Directors has revealed the Bank's policies which are in the field of employment to employees with easily accessible media employees.	
	2) The Board of Directors has been communicating to employees about the bank's business direction within the framework of the achievement of the bank's mission and vision.	
3	**Adequacy and the performance of duties by the Committees**	
	A. Governance Structure	
	1) The Audit Committee	
	Members of the Audit Committee at least consists of an independent Commissioner, an Independent Party who are experts in finance or accounting and a Party of independent experts in the field of law or banking.	
	2) Risk Monitoring Committee	
	Risk Monitoring Committee members at least consists of an independent Commissioner, an Independent Party who are experts in the field of finance and an Independent Party who are experts in the field of risk management.	
	3) Remuneration and Nomination Committee	
	If the amount of the Remuneration and Nomination Committee members set forth more than 3 people then members of independent Commissioners most under amounted to 2 people.	
	B. Governance Process	
	1) The Audit Committee	
	The Audit Committee has been monitoring and evaluating the audit planning and execution as well as monitor the follow-up on audit results in order to assess the adequacy of internal control including the adequacy of the financial reporting process.	
	2) Risk Monitoring Committee	
	Risk Monitoring Committee to evaluate the policies and implementation of risk management	
	3) Remuneration and Nomination Committee	
	The Nomination Committee, has given the recommendation of the members of the Board of Commissioners and Board of Directors for/or submitted to the RUPS.	
	C. Governance Outcome	
	The results of a mandatory meeting of the treatise are made, including disclosure of dissenting opinions clearly and well documented.	
4	**Management of conflicts of interest**	
	A. Governance Structure	
	The Bank has policies, systems and procedures of settlement of:	
	1) conflict of interest that binds each of the Trustees and officers of the Bank;	
	2) the Administration, documentation and disclosure of conflicts of interest within the meaning of the treatise.	

	B. Governance Process	
	In the event of a conflict of interest, members of the Board of Commissioners, Board of Directors, and the Executive Officials not to take actions that can harm or reduce the profits of the Bank.	
	C. Governance Outcome	
	1) Conflict of interest which could be detrimental to the Bank or reduce profits banks have disclosed in every decision and has been well-documented.	
	2) The Bank successfully completed conflict of interest going on.	
5	**Implementation of compliance function**	
	A. Governance Structure	
	1) Compliance work units independent of operational work units.	
	2) The Bank has been providing quality human resources on Compliance work unit to accomplish the task effectively.	
	B. Governance Process	
	1) Formulate strategies to encourage the creation of a culture of Compliance Bank;	
	2) Set the system and compliance procedures to be used for drawing up internal guidelines and the provisions of the Bank;	
	C. Governance Outcome	
	1) The Bank succeeded in lowering the level of breach of conditions.	
	2) The Bank managed to build a culture of compliance in decision making and in the operational activities of the bank.	
6	**Implementation of internal audit function**	
	A. Governance Structure	
	1) The Bank has an internal Audit Function implementation of Standard Bank, with:	
	a) compose Internal Audit Charter;	
	b) internal audit guide to composing.	
	B. Governance Process	
	1) Internal audit function implemented the Bank effectively on all aspects and activities that directly affect the interests of the Bank can be estimated and the community.	
	2) The Bank plan and realization of quality improvement skills human resources periodically and sustainable.	
	C. Governance Outcome	
	1) The Board of Directors is responsible for the availability of the report of the audit function of the implementation activities of the Bank to the RUPS intern.	
	2) SKAI examination findings have been acted upon and does not happen repeat findings.	
7	**Implementation of external audit function**	

	A. Governance Structure	
	The auditing assignment to the public accountant and the KAP of at least fulfill aspects:	
	1) the capacity of the designated of KAP;	
	2) the legality of the employment agreement;	
	3) the scope of the audit;	
	4) public accountant professional standards; and	
	5) the communication Bank Indonesia with the KAP	
	B. Governance Process	
	1) Public accounting has been carrying out audit independently and professionally.	
	2) The public accountant has reported the results of the audit and the Management Letter to Bank Indonesia.	
	C. Governance Outcome	
	1) The results of the audit and management letter have described the bank's problems are significant and are delivered in a timely manner to Bank Indonesia by KAP appointed.	
	2) The auditor's objective in conducting the audit Act.	
8	**Implementation of risk management including internal control system**	
	A. Governance Structure	
	The Bank already has policies, procedures and defining adequate risk limit.	
	B. Governance Process	
	1) Ensure the adequacy of financial support and infrastructure to manage and control risk;	
	2) The Bank has been implementing a comprehensive internal control system and reliable.	
	C. Governance Outcome	
	The Bank does not undertake business activities that go beyond the ability of capital to absorb the risk of losses.	
9	**Provisioning of funds to related parties and large exposures**	
	A. Governance Structure	
	The Bank has had a policy, system and procedures adequate written for the provision of funds to related parties and large funds provision, following the monitoring and resolution of the problem.	
	B. Governance Process	
	Decision-making in the provision of fund management are decided independently without the intervention of the relevant parties and/or other parties.	
	C. Governance Outcome	
	Pay attention to capitalization and dissemination capability/portfolio diversification of provision of funds.	

10	**Transparancy of the banks financial and nin-financial conditions, report of GCG implementation, and internal reporting**	
	A. Governance Structure	
	1) The Bank has policies and procedures regarding the procedures for the implementation of the transparency of the financial and non financial conditions.	
	2) The Bank is obliged to draw up the report of the implementation of GCG at each end of the fiscal year in accordance with the applicable provisions.	
	B. Governance Process	
	The Bank has mentransparansikan conditions of finance and non-finance to stakeholders including Announces Quarterly Publication financial report and report them to Bank Indonesia or stakeholders of appropriate conditions.	
	C. Governance Outcome	
	The Bank's annual report was submitted on time and in full to the shareholders, the Bank of Indonesia	
11	**The bank's strategic plan**	
	A. Governance Structure	
	Bank's strategic plan has been set in form of corporate plan and business plan fit with bank's vision and mission	
	B. Governance Process	
	The Bank has devised a business plan of the Bank realistically achievable, comprehensive, having regard to the principle of prudence and responsive to internal and external changes.	
	C. Governance Outcome	
	1) The Bank's business plan describes the growth of a sustainable Bank.	
	2) The Bank's growth provides benefits economically and non-economical for stakeholders.	

Source: Bank Indonesia Regulation No. 15/15/DPNP

The assessment of each of those factors is done by using work paper with format as regulated by Bank Indonesia. For each factor, the work paper contain explanations about goals, criteria/indicator, column for self-assessment analysis, and ranking criteria. Representative from the bank will fill out their analysis result on the provided column. Then the bank will conduct assessment following the ranking criteria, which is ranked 1 until 5, while also setting up conclusions which includes problem identification, action plan, and completion time. Every of the factor above will be assessed with value of 1 = excellent, 2 = good, 3 = fairly good, 4 = poor, 5 = failed. The value of each factor is then multiplied by the weight and summed to produce a composite score, which will be in range of 1-5. These composite score is categorized by certain range which determined by Bank Indonesia, as shown in the following table 2.6:

Table 2.6: GCG's Composite Score

Criteria	Predicate
Composite Score < 1.5	Excellent
1.5 < Composite Score < 2.5	Good
2.5 < Composite Score < 3.5	Better
3.5 < Composite Score < 4.5	Less
Composite Score > 4.5	Failed

Source: BI Circular Letter No. 9/12/DPNP

Bank with rating 3, 4, and 5 are required to prepare and submit action plan containing corrective measures comprehensively and systematically along with the target to Bank Indonesia. Self-Assessment Report of GCG Implementation equipped with Self-Assessment Working Paper of GCG Implementation submitted to Bank Indonesia to be evaluated. If there is difference between bank and Bank Indonesia assessment, bank have to revise the Report of GCG Implementation. Report of GCG Implementation published as a separate chapter in banks Annual Report or presented separately and submitted together with Annual Report (Bank Indonesia, 2013).

Besides conducting self-assessment using the format prepared by Bank Indonesia, every bank also may utilize third-party service in conducting self-assessment, such as assessment by FCGI (Forum Corporate Governance Indonesia) or CGPI (Corporate Governance Perception Index). FCGI established on 8 February 2000 by 5 professional and business associations. FCGI itself is a forum which developing tools to conduct self-assessment towards the condition of GCG in a company in form of spreadsheet file, in which the assessment may also done through their website http://www.fcgi.or.id by doing online assessment. By utilizing said tools, a company may conduct self-assessment of GCG through a set of questionnaire which is weighted and scored based on certain evaluation. In short, there are 5 aspect which is assessed in the scoring framework of GCG in this FCGI version, which are:

Table 2.7: FCGI's Assessment

No	Factors	Weight
1	Shareholders Right	20%
2	CG Policy	15%
3	CG Practices	30%
4	Disclosure	20%
5	Audit	15%

Source: http://www.fcgi.or.id/

Besides that, the assessment of corporate governance may also be done by participating on CGPI which is organized by Indonesian Institute Corporate Governance (IICG) since the year of 2001. CGPI is the implementation of GCG ranking on companies in Indonesia through a research that is designed to push companies to improve the quality of GCG concept implementation through continuous improvement by conducting evaluation and benchmarking. CGPI has 4 stages of assessment, which are:

Table 2.8: CGPI's Assessment

No	Stage	Weight
1	Self-Assessment	21%
2	Documentation System	25%
3	Research Papers	25%
4	Observation	27%

Source: www.iicg.org

1. Self-assessment, on this stage the company will fill out questionnaire by asking the respondent to give their honest and objective perception to provide feedback and evaluation towards the company with 2 types of respondent which is internal respondent and external respondent;
2. Document system, on this stage the company will provide document related with the assessment theme. The document provided will include Basic Budget, Board Charter for Commissioners, Annual Report, and several other document which is asked following the assessment theme;

3. Research papers, on this stage the company is asked to prepare explanations of the corporate activity on the implementation of GCG principle in form of a paper following the systematic format which provided; and
4. Observation, direct observation by the CGPI assessment team to ensure that the execution process of the GCG implementation program series and the effort of the management complies to the assessment theme, which is done in form of presentation and discussion with the Commissaries or other parties related with the company.

The rating CGPI program normed assessment based on the range of scores achieved by the participants CGPI with categorization on the level of quality of GCG implementation that uses the term "Trusted". Companies that score between 55.00-69.99 awarded as the "Fairly Trusted". Companies that score between 70.00-84.99 awarded as the "trusted". Companies that score between 85.00-100% awarded as the "Most Trusted".

2.3.2.3 Earnings

Earnings is one of the common way to measure the healthiness of a bank from their earning power. Bank's characteristic from earnings is bank's performance in managing their profit, the stability of components that support core-earning, and the ability of profit in order to increase capital and profit prospect in the future. Indicators for earnings assessment are Return on Assets (ROA), Return on Equity (ROE), Net Interest Margin (NIM), and Operating Expense to Operating Income (BOPO).

Assessment towards earnings factors is based on four kinds of ratio, which are:

1. Return on Assets (ROA)

One of the most common ratio to be used for a company performance assessment is the ROA ratio. ROA is used to measure banks management overall capability on earning incomes. ROA focuses company capability and assets to get earning on their operational activity. According to Dendawijaya (2005), the larger ROA value of a bank, then the larger also the achieved income level for that bank and the better also the bank position from asset viewpoint. Formula for ROA is:

$$\text{ROA} = \frac{\text{Net Income}}{\text{Total Assets}} \times 100\%$$

This ratio measure the capability of company's assets on earning income from their operational activity. Assets that is used on these measurement is the operational assets. Banks that own relatively large total asset will have better performance because of their relatively bigger total revenue which is caused from the increase of product sale. With the increase in total revenue, company income will also increase which leads to better financial performance.

2. Return on Equity (ROE)

ROE only measures earned return from owner's investment from that particular business. As pointed out by Berzkalne and Zelgalve (2014), ROE tells what percentage of profit the company makes for every monetary unit of equity invested in the company. ROE does not specify how much cash will be returned to the shareholders, since that depends on the company's decision about dividend payments and on how much the stock price appreciates. ROE is usually calculated by dividing net profit by average shareholders' equity. ROE's formula is:

$$\text{ROE} = \frac{\text{Net Income After Tax}}{\text{Average Shareholders Equity}} \times 100\%$$

3. Net Interest Margin (NIM)

NIM is the ratio of net interest income to the average earning assets (Interest Earning Assets) or net interest profitability. However, it does succinctly summarize the effectiveness of banks' interest bearing assets. (Saksonova, 2014) The larger the NIM in a bank, which means their successfully manage their interest bearing assets. NIM's formula is:

$$\text{NIM} = \frac{\text{Investment Returns} - \text{Interest Expenses}}{\text{Average Earning Assets}} \times 100\%$$

4. Operating Expense to Operating Income (BOPO)

Operating Expense to Operating Income's Ratio is used to measure banks management capability on controlling their operational cost toward their operational income (Almilia and Herdiningtyas, 2005) in (Susanto and Wiksuana, 2014). The ideal BOPO value so that banks may be stated as efficient refers to Bank Indonesia Circular Letter Number 3/30/DPNP/2001, in which Bank Indonesia already set BOPO maximum value as 90%. BOPO's formula is:

$$\text{Operating Expense to Operating Income} = \frac{\text{Operating Expense}}{\text{Operating Income}} \times 100\%$$

2.3.2.4 Capital

Jokipii and Milne (2011) stated that capital requirements have become one of the key instruments of modern day banking regulation providing both a cushion during adverse economic conditions and a mechanism for preventing excessive risk. Capital is usually defined as the level that is required to cover the bank's losses with a certain probability, which is related to a desired rating.

CAR (Capital Adequacy Ratio) is the ratio that shows how much all of the assets of banks that contain risks (credit, investments, securities, bills to other banks) that also financed from own capital of the bank, in addition to obtaining funds from sources outside banks, such as public funding, debt, and others. In other words, Capital Adequacy Ratio is the ratio of performance to measure the capital adequacy of banks owned by bank to support assets that contain or produce a risk, such credits. (Dendawijaya, 2005)

According to Bank Indonesia Regulation No.15/12/PBI, Bank Indonesia requires each bank to provide a minimum capital at least 8% of Risk Weighted Assets (RWA). RWA is the sum of the assets listed in the balance sheet and RWA administrative assets (not listed in the balance sheet). In the calculation of RWA, RWA balance sheet assets is calculated by switching the nominal value of each post balance sheet. Meanwhile, the administration in calculating the RWA assets is calculated by diverting nominal value of off-balance sheet concerned with the risk weight of each item that risk.

These assessments are intended to assess the capital adequacy of banks in securing a position and anticipating risk exposure that will appear. Components for quantitative assessment for capital are:

1. Adequacy of capital and the ability of capital to cover risks; and
2. Ability to keep the additional capital comes from earnings, capital plan to support business growth, access to sources of capital and financial performance of stakeholders.

CAR can be calculated as:

$$\text{CAR} = \frac{\text{Equity Capital}}{\text{Risk Weighted Assets}} \times 100\%$$

2.4 Weighted Average

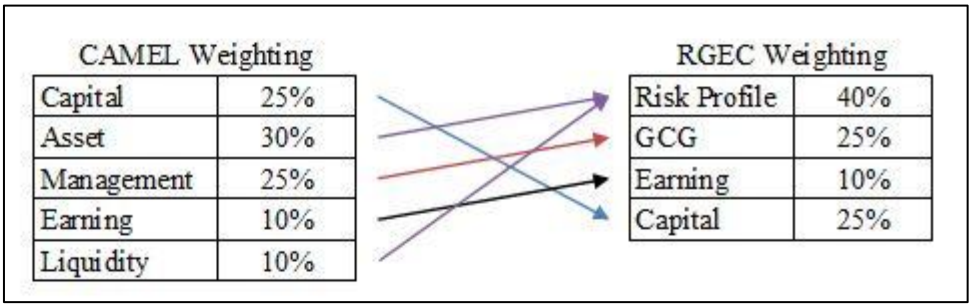


Figure 2.2: RGEC Weighting adapted from CAMEL

The calculation of composite score for RGEC method is done by using weighted average of each factor, which is adapted from the weighting of CAMEL method. The adapted weight is as illustrated in figure 2.2 above. The weight for Risk Profile is adapted from both CAMEL component of Asset, which contain the NPL ratio, and Liquidity, which contain the LDR ratio. Their weight is 30% and 10%, which together added up to 40% for Risk Profile. The weight for GCG is adapted from Management component of CAMEL, which is similar enough, with weight of 25%. Furthermore, the weight for Earning is adapted from the CAMEL component with the same name, with weight of 10%. Lastly, the weight for Capital is also adapted from the similar CAMEL component, with weight of 25%. In the end, will be retrieved a number that can determine the health of banks, the level of the predicate that is very healthy if the total composite rank is between 1 – 1,5, healthy if the composite score is more than 1,5, quite healthy, less healthy and unhealthy.

2.5 Previous Research Comparison

Based on previously done research on Banks Health Assessment using RGEC approach, several findings are described as follows:

Artyka (2015) conducted a research on“Banks Health Assessment Using RGEC Method on BRI period of 2011-2013” to determine banks healthiness level based on Risk Profile, GCG, Earning, and Capital on BRI for the period of 2011-2013 with sample NPL, LDR, GCG, NIM, ROA, CAR, and the result at BRI for period 2011 shows that the bank is very healthy, is shown in Risk Profile that includes aspects of NPL ratio of 2.30% and 76.20% LDR. GCG factor BRI for period 2011-2013 already doing principle of GCG accordance Bank Indonesia regulation. Earnings’s aspect that include 4.93% ROA and NIM 9.58%. Capital’s aspect which includes CAR ratio 16.16%. For the year 2012 show that is very healthy bank healthiness shown on aspects Risk Profile which includes the NPL ratio of 1.78% and 79.85% LDR. For Earnings’s aspect that includes ROA of 5.15% and 8.42% NIM. Capital’s aspect CAR cover ratio 18.95% and for the year 2013 show that the level health is very healthy bank indicated on aspects that include Risk Profile NPL ratio of 1.55% and 88.54% LDR. For Earnings’s aspect of the cover ratio of 5.03% ROA and NIM of 8.55%. Capital’s aspect cover ratio CAR 21.56%. BRI assessed to be very capable of facing significantly negative influence from changes in business condition and other external factors. BRI’s performance should maintained by maintaining the health of banks. BRI can improve the ability of assets, capital management, as well as operating income, so the quality of bank profits can be maintained.

Furthermore, Syawal (2015) conduct a research on “Analysis of Banks Healthiness Level Using RGEC Method on BNI period of 2011-2013” to analyze the healthiness of Bank BNI and the result is health level of BNI for the period of 2011-2013 is very healthy which is shown with healthy predicate on every aspect even if there are ratios that fluctuate in certain year.

Susanto et al. (2016) conduct a research on “Analysis of Banks Healthiness Level Using RGEC Method, Study of PT. Bank Mandiri (Persero) Tbk which Listed on BEI for periods 2010-2014 “to know the health assessment of Bank Mandiri and the result showed that health level of Bank Mandiri in 2010- 2014 as measured by using RGEC method is a bank on very health condition. Risk Profile factors assessed by ratio of NPL and LDR showed that Bank Mandiri has a good profitability of the reimbursement of third-party funds. GCG factor Bank Mandiri already doing principle of GCG accordance Bank Indonesia regulation. At factor earning assessed by ratio of ROA and NIM was ranked one with a predicate value very good. At Capital factors assessed by ratio of CAR showed Bank Mandiri doing well to funds business activities as well as to cover the risk of the future that can cause loss.

Yessi et al. (2015) reviewed that the results of this study indicate that the formula is based on the analysis of bank NPL's in 2011 increased annually 2010 = 1.73%, 2011 = 1.94%, and 2012 = 1.81%. While the risk of the market by looking at the IRR decreased in 2010 from 0.028% to 0.022% in 2011, and increased in 2012 to 1.909%, and liquidity risk using the two ratios, namely LDR and LAR, increased and decreased. This suggests that the Bank Sinar Harapan Bali as bank which is focus in micro and small entreprises has good profitability to return it back deposits. Bank Sinar Harapan Bali's GCG also has a very good management which is evident from the year 2010 - 2012 shows well with predicate composite matrix determination based assessment of healthy banks to Bank Indonesia Regulation No. 13 and the predicate is good throughout the composite value is still within the rules of greater than or equal to (≤) 1.5. When viewed from the CAR, Bank Sinar is ranked 2 it shows that the Bank Sinar Harapan Bali as commercial banks have a reasonable level of health.

According to Minarrohmah et al. (2014) conducted a research in National Private Bank, BCA. This study aims to examine the BCA's healthiness during 2010-2012. Using descriptive quantitative approach, this research explored four indicators: RGEC. The result showed that the Bank's credit risk was managed properly, proved by the percentages of NPL during the period of study were lower than the required maximum level as a healthy bank (2%). Especially, the lowest level of NPL was in 2011, 1,26%. In 2010 and 2012, the NPLs were a little higher since the amount of bad loans were increasing also. Findings related to capital capacity illustrated that the bank's CAR for 2010 has experienced a decrease. A significant decrease of CAR was occorred in 2011 when risk-involved assets were increasing and it was not followed by the proper increase of total capital.

Table 2.9: Comparison with Previous Research

No.	Title	Research Objectives	Methodology	Sample	Result	Conclusion
This Research						
1	Analysis of Bank Health Using RGEC Method Case Study at PT. Bank Rakyat Indonesia (Persero) Tbk, PT. Bank Negara Indonesia (Persero) Tbk, and PT. Bank Mandiri (Persero) Tbk for periods 2013-2015	To determine the rating of the 3 state-owned banks in Indonesia which one is better	Descriptive Quantitative	NPL, LDR, GCG, NIM, ROA, CAR	Three state-owned bank in Indonesia (BRI, BNI, and Bank Mandiri) are very healthy	Banks Health Level assessed from the aspect of RGEC method on three state-owned Bank in Indonesia (BRI, BNI, and Bank Mandiri) are very healthy and considered publicly as trusted banks
Previous Research						
2	Artyka (2015), Banks Health Assessment Using RGEC Method on PT. Bank Rakyat Indonesia (Persero) Tbk period of 2011-2013. Skripsi (Final Year Project/FYP) Universitas Negeri Yogyakarta, Yogyakarta, Indonesia, 2015.	To determine banks healthiness level based on Risk Profile, GCG, Earning, and Capital on BRI for the period of 2011-2013	Descriptive Qualitative	NPL, LDR, GCG, NIM, ROA, CAR	BRI Bank soundness is very healthy for the period of 2011-2013	BRI assessed to be very capable of facing significantly negative influence from changes in business condition and other external factors

No.	Title	Research Objectives	Methodology	Sample	Result	Conclusion
3	Syawal (2015), Analysis of Banks Healthiness Level Using RGEC Method on PT. Bank Negara Indonesia (Persero) period of 2011-2013. Skripsi (FYP) Universitas Gunadarma, Jakarta, Indonesia, 2015.	To analyze the healthiness of Bank BNI	Descriptive Quantitative	NPL, IRR, LDR, LAR, Cash Ratio, GCG, NIM, ROA, CAR	Health level of BNI for the period of 2011-2013 is very healthy which is shown with healthy predicate on every aspect	BNI is considered a very healthy bank even if there are ratios that fluctuate in certain year
4	Mahmud, (2016), Analysis Rating of the Banks Listed in Indonesia Stock Exchange. Skripsi (FYP) Universitas Hasanuddin, Makassar, Indonesia, 2016.	To determine the health of banks listed in the Indonesia Stock Exchange and to compare the level of State-Owned Banks Health and the Private National Bank.	Descriptive Quantitative	CAR, KAP, NPM, ROA, BOPO, and LDR	8 banks consisting of 4 state-owned Banks and 4 National private Banks predicated healthy during the period 2010-2014. Comparison of the two types of banks are Private National Bank is healthier than the State-Owned bank.	State-Owned banks and Private National Banks predicated healthy but Private National Banks is healthier than State-Owned Bank
5	Susanto et al. (2016), Analysis of Banks Healthiness Level Using RGEC Method, Study of PT. Bank Mandiri (Persero) Tbk which Listed on BEI for periods 2010-2014. Jurnal Administrasi Bisnis 35(2), 2016.	To know the health assessment of Bank Mandiri	Descriptive Quantitative	NPL, LDR, GCG, NIM, ROA, CAR	Bank Mandiri in 2010-2014 as measured by using RGEC method is a bank on very health condition	Bank Mandiri for periods 2010-2014 is a bank that is in a very healthy condition

No.	Title	Research Objectives	Methodology	Sample	Result	Conclusion
6	Yessi et al. (2015), Analysis of Bank Healthiness using RGEC approach Study at Bank Sinar Harapan Bali Period 2010-2012. Jurnal Administrasi Bisnis 1(1), 2015.	To know the health assessment of PT. Sinar Harapan Bali	Descriptive Qualitative	NPL, IRR, LDR, LAR, GCG, ROA, NIM, CAR	NPL increased annually, IRR increased in in 2010 to 2011 and decreased in 2012, LDR and LAR increased and decreased. GCG is excellent. For Earning's (NIM and CAR) also increased and decreased. Capital's aspect is very healthy	Bank Sinar Harapan Bali for periods 2011-2012 is a bank that is in a very healthy condition and they're really keep the economic stability especially in micro and small entreprises
7	Minarrohmah et al. (2014), Analysis of Bank Healthiness using RGEC approach Study at PT. Bank Central Asia Period 2010-2012. Jurnal Administrasi Bisnis 17(1), 2014.	To examine the Bank Central Asia (BCA)'s healthiness during 2010-2012	Descriptive Quantitative	NPL, IRR, LDR, LAR, CR, GCG, ROA, NIM, CAR	BCA for 4 years period is bank in a very healthycondition with good assessment	BCA for periods 2010-2012 is a bank that is in a very healthy predicate

2.6 Theoretical Framework

As illustrated in figure framework, it shows how the entire ratio amounted to 6 ratio is forming the variable of bank's financial performance. Each part of this ratio can be calculated clearly, therefore illustrated in a box in accordance with the classification which then has become one in a bank performance.

The first box contains ratios to calculate the aspect Risk Profile which is an aspect to calculate the risk management in the banking of Indonesia, consists of NPL and LDR. The second box contains the aspect of GCG which is in this study uses the criteria of self-assessment or assessment by the bank's management to analyze the performance of the bank in order to affect investors assessment of the company, because a good company is a company that is able to run and provide good information and GCG. The third box consists of ratios that make up the aspect of Earnings which consists of 2 ratios (NIM and ROA) to calculate the financial sector and bank profitability. The last box containing aspect ratios that arrange the Capital which is an important aspect in assessing the elements of capital (CAR) in the banking sector.

Banks should be able to keep healthy in order to remain in good condition. This is the reason why RGEC is important, because the representation of the performance of the bank itself is based on the concept of RGEC. Healthy banks are very important for healthy banks will be able to conduct their operations with normal activities. In addition, the health condition of banks that would increase public trust that the bank as a safe and profitable place to keep their funds while the bank trust their funds to be processed and returned on time.

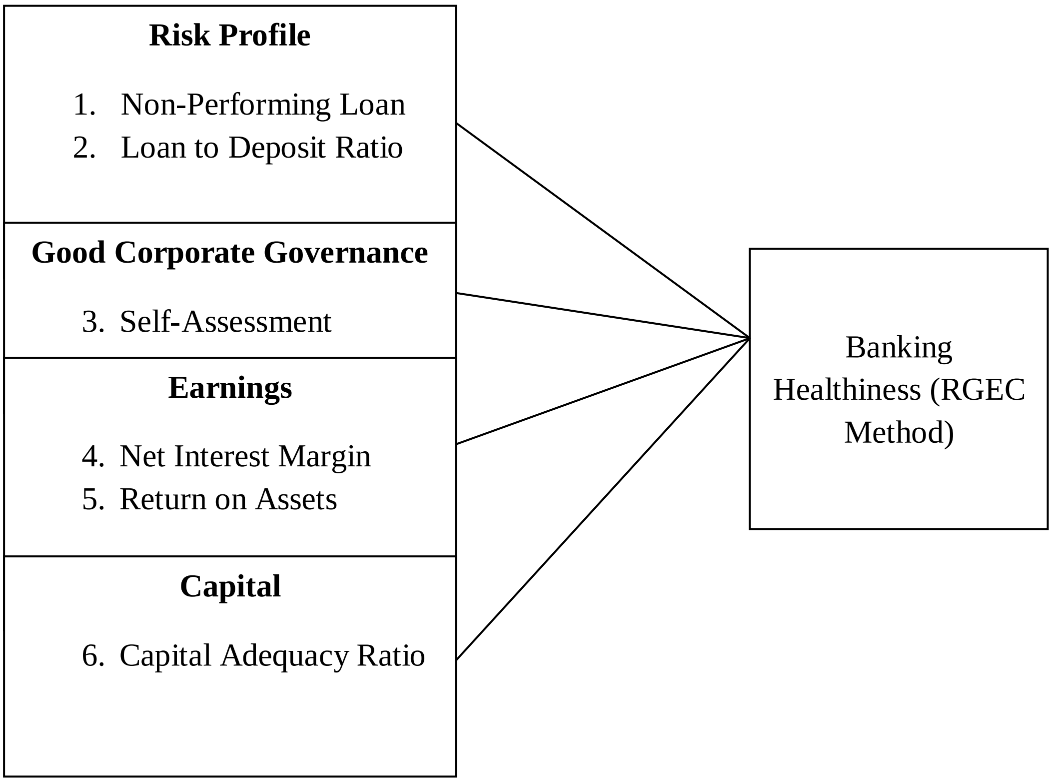


Figure 2.3 Framework of RGEC Model