Bank Soundness Level Analysis Using Method *Risk-Based Bank Rating* (RBBR) at PT Bank Negara Indonesia (Persero), Tbk period 2018-2020

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ABSTRACT

Banks are one of the institution holding finance _ role important in Indonesian economy . As one related industries with finance, banks are wheel mover economy national, so could said as his heart service finance. Study this aim for knowing evaluation level bank health at PT Bank Negara Indonesia (Persero), Tbk seen from factor *Risk Profile, Good Corporate Governance, Earnings,* and *Capital* period 2018-2020. Type used is study quantitative with using secondary data sourced from report finance Annual *Report* PT Bank Negara Indonesia (Persero), Tbk period 2018-2020. The method used in the research this is the RBBR (*Risk-Based Bank Rating*) method and uses NPL, LDR, GCG, ROA, NIM, and CAR variables that produce evaluation for knowing level bank health. Research results level bank health at PT Bank Negara Indonesia (Persero), Tbk the period 2018-2020 obtained results rating composite 1 (PK-1) reflecting that by general bank condition in "Very Healthy" state .

Keywords: Method *Risk-Based Bank Rating* (RBBR), *Risk Profile*, *Good Corporate Governance*, *Earnings*, *Capital*.

1. INTRODUCTION

Development banking in Indonesia has experienced very fast development in a number of year last. With development banking in Indonesia, it is hoped could bring Indonesian banking is increasingly Up in face and predict all challenge economy and banking international, as well as give great benefit for Public for enhancement welfare. Banks are one of the institution holding finance role important in Indonesian economy. As one related industries with finance, banks are wheel mover economy national, so could said as his heart service finance. Banking have very important role in development economy national. This thing because the bank runs function main as intermediary connecting parties who have excess funds (*overspending units*) and those who lack funds (*deficit spending units*).

Trust Public to banking is very important for could operate role that. Trust could obtained with maintain and improve bank health. The health of the bank is aspect important thing to do noticed by leaders business, investors, creditors, government, employees. The health of the bank is also generally used as means for evaluate level health performance bank finance and the challenges faced in resolve challenge that.

Crisis 1997 and 2008, providing description that bank and system health endurance it is very important. So the bank must To do evaluation level bank health with use approach risk or known with *Risk-Based Bank Rating* (RBBR) is good by individual nor by consolidation in accordance regulation applicable banking. For analyze level bank health with use method *Risk-Based Bank Rating* (RBBR), there are 4 factors that are assessed, namely factor *Risk Profile* (Profile Risk), *Good Corporate Governance* (GCG), *Earnings* (Profitability or Income) and *Capital* (Capital). RGEC which consists of from factor first that is profile risk (*Risk Profile*) is evaluation to risk inherent and quality application management risk in activity bank operations, factors second namely governance. A good company (*Good Corporate Governance*) is a governing assessment interaction of *stakeholders* so that reach destination company, factor third that is income (*Earnings*) is ability company in produce something profit and invested capital in assets fixed, last factor that is capital (*Capital*) is big amount of capital required company for cover risk losses incurred.

2. RESEARCH METHODS

Object in study this is PT. Bank Negara Indonesia Tbk that is is one institution owned by government, in Thing this is state - owned company in Indonesia which was founded on July 5 year 1946 and has an office The center is at the Grha BNI Building, Jl. General Sudirman Kav. 1, Central Jakarta, 10220, Indonesia.

Type of data used in study this is quantitative data, namely the data obtained in form the numbers that can calculated and related with study this. Source of data used in study this is secondary data obtained through the official website (www.bni.co.id) and sources other related with study this.

Evaluation to RBBR factors as following:

1. **Analysis *Risk Profile***
   a. **Risk Credit *Non-Performing Loans* (NPL)**

$$NPL = \frac{Jumlah\ Kredit\ Bermasalah}{Jumlah\ Kredit} \times 100\%$$

Table 1
Bank Health Rating based on Risk Credit (NPL)

Criteria	Rating	Score
NPL < 2%	1	Very Healthy
2% < NPL 5%	2	Healthy
5% < NPL 8%	3	Enough Healthy
8% < NPL 12%	4	Unhealthy _
NPL > 12%	5	Not Healthy

Source: Codification Bank Soundness Assessment based on BI SE No.13/24/DPNP/2011

   b. **Risk Liquidity *Loan to Deposit Ratio* (LDR)**

$$LDR = \frac{Total\ Kredit}{Dana\ Pihak\ Ketiga} \times 100\%$$

Table 2
Bank Health Rating based on Risk Liquidity (LDR)

Criteria	Rating	Score
50 < LDR 75%	1	Very Healthy
75% < LDR 85%	2	Healthy
85% < LDR 100%	3	Enough Healthy
100% < LDR 120%	4	Unhealthy _
LDR > 120%	5	Not Healthy

Source: Codification Bank Soundness Assessment based on BI SE No.6/23/DPNP/2004

2. ***Good Corporate Governance* (GCG)**

Table 3
GCG Rating

Criteria	Score
Composite Value < 1.5	Very Good
1.5 < Composite Value < 2.5	Well
2.5 < Composite Value < 3.5	Enough Well
3.5 < Composite Value < 3.5	Not good
4.5 < Composite Value < 5	Not Well

Source: Bank Indonesia Regulation No.13/1/PBI/2011

3. **Analysis *Earnings***
   a. ***Return on Assets* (ROA)**

$$ROA = \frac{Laba\ Sebelum\ Pajak}{Rata - rata\ Total\ Aset} \times 100\%$$

Table 4
Bank Health Rating based on *Return on Assets* (ROA)

Criteria	Rating	Score
ROA > 1.5%	1	Very Healthy
1.25% < ROA 1.5%	2	Healthy
0.5% < ROA 1.25%	3	Enough Healthy
0% < ROA 0.5%	4	Unhealthy _
ROA 0%	5	Not Healthy

Source: Codification Bank Soundness Assessment based on BI SE No.13/24/DPNP/2011

b. *Net Interest Margin* **(NIM)**

$$NIM = \frac{Pendapatan\ Bunga\ Bersih}{Rata-rata\ Total\ Aset\ Produktif} x\ 100\%$$

Table 5
Bank Health Rating based on *Net Interest Margin* (NIM)

Criteria	Rating	Score
NIM > 3%	1	Very Healthy
2% < NIM 3%	2	Healthy
1.5% < NIM 2%	3	Enough Healthy
1% < NIM 1.5%	4	Unhealthy _
ID 1%	5	Not Healthy

Sourc : Codification Bank Soundness Assessment based on BI SE No.13/24/DPNP/2011

4. **Analysis *Capital***

$$CAR = \frac{Modal}{ATMR} x\ 100\%$$

Table 6
Bank Health Rating based on *Capital* (CAR)

Criteria	Rating	Score
CAR 12%	1	Very Healthy
9% CAR < 12%	2	Healthy
8% CAR < 9%	3	Enough Healthy
6% < CAR < 8%	4	Unhealthy _
CAR 6%	5	Not Healthy

Source: Codification Bank Soundness Assessment based on BI SE No.13/24/DPNP/2011

3. **RESULTS AND DISCUSSION**
   Analysis Discussion

1. **Analysis *Risk Profile* (Risk profile)**
   a. **Risk Credit (NPL)**

$$NPL = \frac{Jumlah\ Kredit\ Bermasalah}{Total\ Kredit} x\ 100\%$$

**Table 7 Calculations *Non-Performing Loans* (NPL)**
(in millions of rupiah)

Year	Credit Troubled	Total Credit	NPL	Rating	Component
2018	10,038,302	512,778,497	1.96%	1	Very Healthy
2019	12,961,816	556,770,947	2.33%	2	Healthy
2020	24,629,844	586,206,787	4.20%	2	Healthy

Source: *Annual Report* of PT Bank Negara Indonesia (Persero), Tbk (Data Processed)

Based on Table 7 above, *Non-Performing Loans* increase in 2018-2020 . NPL in 2018 occupied Rank 1 in "Very Healthy" category by 1.96%. In 2019, NPL rose to 2.33% from 0.37% in previously, occupy 2nd rank with "Healthy" category . In 2020, the NPL occupies 2nd place in the sector banking by 4.20%, up 1.87% from year to year. The increase in NPL in 2018-2020 especially driven by factor pandemic. Before existence pandemic, some debtor experience problem *cash flow,* then moment pandemic occur *cash flow* debtor the more disturbed so that changed Becomes credit jammed.

Based on Table 7, then could depicted chart bank health PT Bank Negara Indonesia (Persero), Tbk period 2018-2020 with use ratio *Non Performing Loan* (NPL) as following :
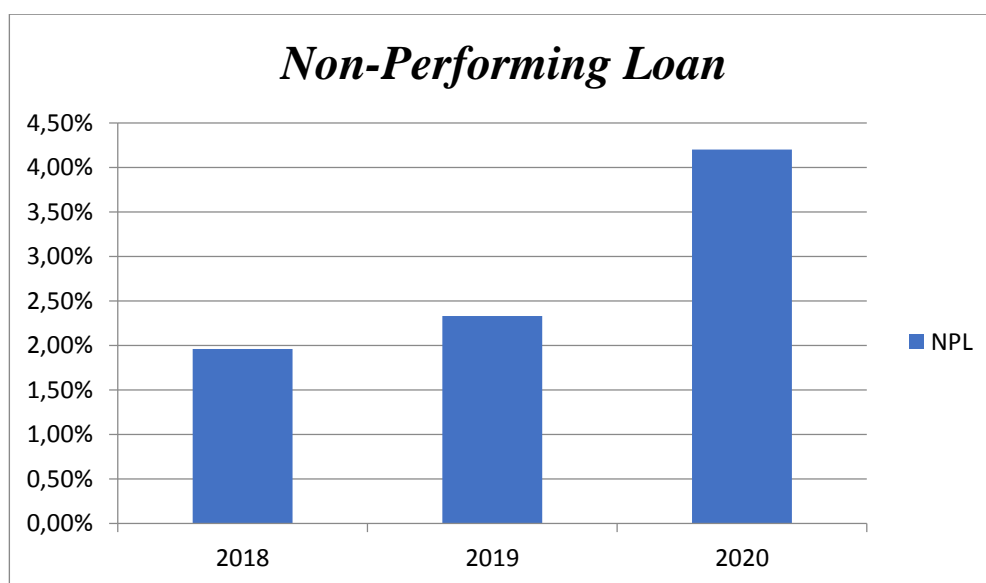
Figure 1 NPL Graph
PT Bank Negara Indonesia (Persero), Tbk 2018-2020 period

b. **Risk Liquidity (LDR)**

$$LDR = \frac{Total\ Kredit}{Dana\ Pihak\ Ketiga}\ x\ 100\%$$

**Table 8 Calculations *Loan to Deposit Ratio* (LDR)**
(in millions of rupiah)

Year	Total Credit	Party Fund Third	LDR	Rating	Component
2018	512,778,497	552,172,000	93%	3	Enough Healthy

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| 2019 | 556,770,947 | 582,541,000 | 96% | 3 | Enough Healthy |
| 2020 | 586,206,787 | 647.572.000 | 91% | 3 | Enough Healthy |

Source: *Annual Report* of PT Bank Negara Indonesia (Persero), Tbk (Data Processed)

Based on Table 8 above, the *Loan to Deposit Ratio* in 2018 is by 93% who occupy rank 3 in sector banking "Enough Healthy". In 2019, LDR rose 0.3% from year previously to 96% occupy rank 3 in bank category "Enough Healthy". LDR down from 0.5% to 90% in 2020, entering rank 3 with category "Enough Healthy". From the data above, it can be seen that that LDR increased in 2018-2019 and decreased in 2019-2020. The rise and fall of LDR can be originated from internal and external external company banking. However by In general, the rise and fall of LDR can be caused by condition economy influencing society. Request credit and amount stash, this affect LDR if third party funds third slow down then LDR will tighten, and ethnic group rising and falling flowers because policy monetary regulation regulated by the central bank that affect LDR if ethnic group flower low Request credit allow can increase.

Based on Table 8, then could depicted chart bank health at PT Bank Negara Indonesia (Persero), Tbk period 2018-2020 with use ratio *Loan to Deposit Ratio* (LDR) as following.
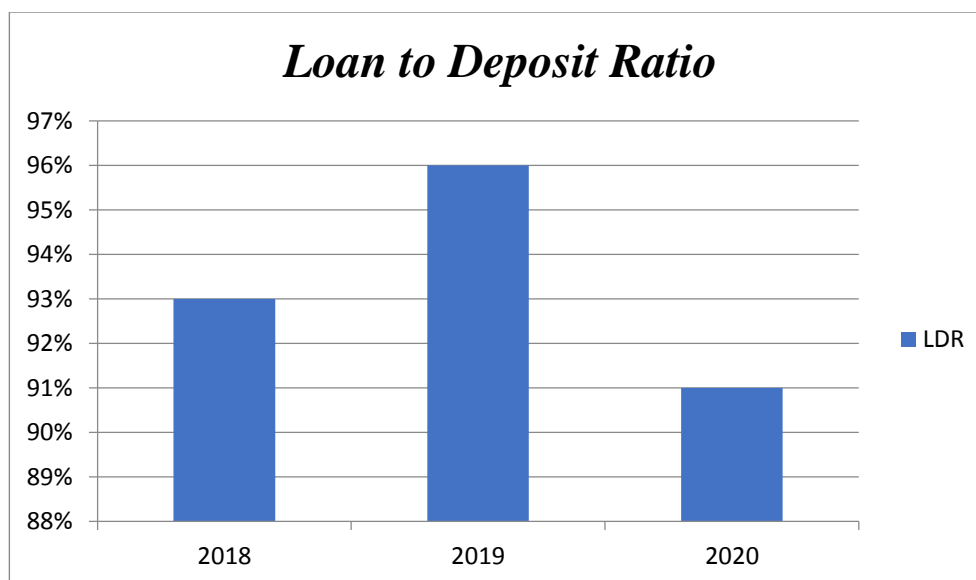
Figure 2 LDR Grafik Graph
PT Bank Negara Indonesia (Persero), Tbk 2018-2020 period

2. **Factor *Good Corporate Governance* (GCG)**

Table 9
**Composite Value of PT Bank Negara Indonesia (Persero), Tbk**

Year	Composite Value	Information
2018	2	Well
2019	2	Well
2020	2	Well

Source: Report Annual Implementation of Governance 2020 PT Bank Negara Indonesia (Persero), Tbk

Based on Table 9 above, shows that GCG at PT Bank Negara Indonesia (Persero), Tbk the period 2018-2020 reflects bank management has To do application *Good Corporate* Governance which general good. This thing reflected from adequate fulfillment on principle *Good Corporate Governance,* if there is weakness application

principle *Good Corporate Governance*, general weakness the not enough significant and can solved with normal actions by Bank Management. Based on score the composite obtained, can be drawn conclusion that PT Bank Negara Indonesia (Persero), Tbk period 2018-2020 at the level of *Good Corporate Governance* can it says "Good" with composite 2.

Based on Table 9, then could depicted chart bank health PT Bank Negara Indonesia (Persero), Tbk period 2018-2020 with use principle *Good Corporate Governance* (GCG) as following:
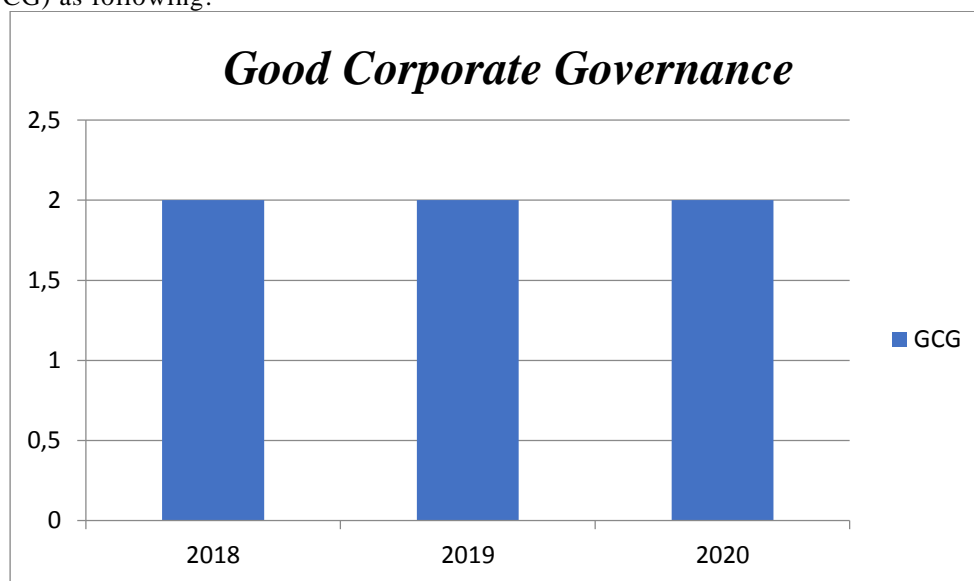
Figure 3 GCG Chart
PT Bank Negara Indonesia (Persero), Tbk period 2018-2020

3. **Analysis *Earnings***
   a. **Calculation *Return on Assets* (ROA)**

$$ROA = \frac{Laba\ Sebelum\ Pajak}{Rata - rata\ Total\ Aset}\ x\ 100\%$$

Table 10 Calculations *Return on Assets* (ROA)
(in millions of rupiah)

Year	Profit Before Tax	Average Total Assets	ROA	Rating	Component
2018	19,820.715	758,951,048	2.61%	1	Very Healthy
2019	19,369,106	827,088,610	2.34%	1	Very Healthy
2020	5,112.153	868,471,317	0.59%	3	Enough Healthy

Source: *Annual Report* of PT Bank Negara Indonesia (Data Processed)

Based on Table 10 above, *Return on Assets* of PT Bank Negara Indonesia (Persero), Tbk experience decline in 2018-2020. In 2019 down from year previously by 0.27% to 2.34% and still enter 1st rank with "Very Healthy" category. 2020 is back down from year previously by 1.75% to 0.59% entered rank 3 with category "Enough Healthy". Decrease ratio this caused by a decrease profit before taxes, and causes drop ratio the is because existence the triggering pandemic instability economy, limiting bank's ability to set profit currently no aggressive. because of that, PT Bank Negara Indonesia (Persero), Tbk must increase growth bank performance through enhancement quality and improvement productivity.

Based on Table 10, then could depicted chart bank health PT Bank Negara Indonesia (Persero), Tbk period 2018-2020 with use ratio *Return On Assets* (ROA) as following:
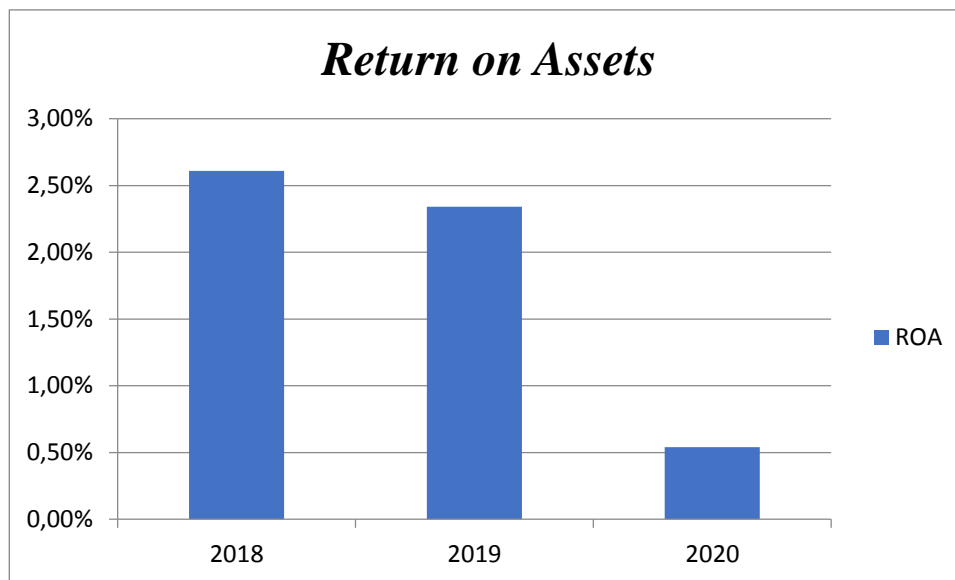
Figure 4 Graph of ROA
PT Bank Negara Indonesia (Persero), Tbk 2018-2020 period

b. **Calculation** *Net Interest Margin* **(NIM)**

$$NIM = \frac{Pendapatan\ Bunga\ Bersih}{Rata-rata\ Total\ Aset\ Produktif} x100\%$$

**Table 11 Calculations *Net Interest Margin* (NIM)**
(in millions of rupiah)

Year	Net Interest Income	Average Assets Productive	NIM	Rating	Component
2018	35,447,000	512,778,497	6.91%	1	Very Healthy
2019	36,602,000	556,770,947	6.57%	1	Very Healthy
2020	37,152,000	586,206,787	6.34%	1	Very Healthy

Source: *Annual Report* of PT Bank Negara Indonesia (Persero), Tbk (Data Processed)

Based on Table 11 above, *Net Interest Margin* experienced decline in 2018-2020. With an NIM of 6.91% in 2018 it occupies 1st rank with bank category "Very Healthy". In 2019, NIM experienced drop from year previously with percentage drop by 0.34% to 0.57% occupied 1st rank with bank category "Very Healthy". In 2020, NIM is back experience drop with percentage by 0.23% to 6.34% occupying 1st rank with bank category "Very Healthy". Decrease the occur because impact on the decline ethnic group Bank Indonesia interest rates are affected by the decline in growth flower show plan restructurisation not yet significant.

Based on Table 11, then could depicted chart bank health PT Bank Negara Indonesia (Persero), Tbk period 2018-2020 with use ratio *Net Interest Margin* (NIM) as following:
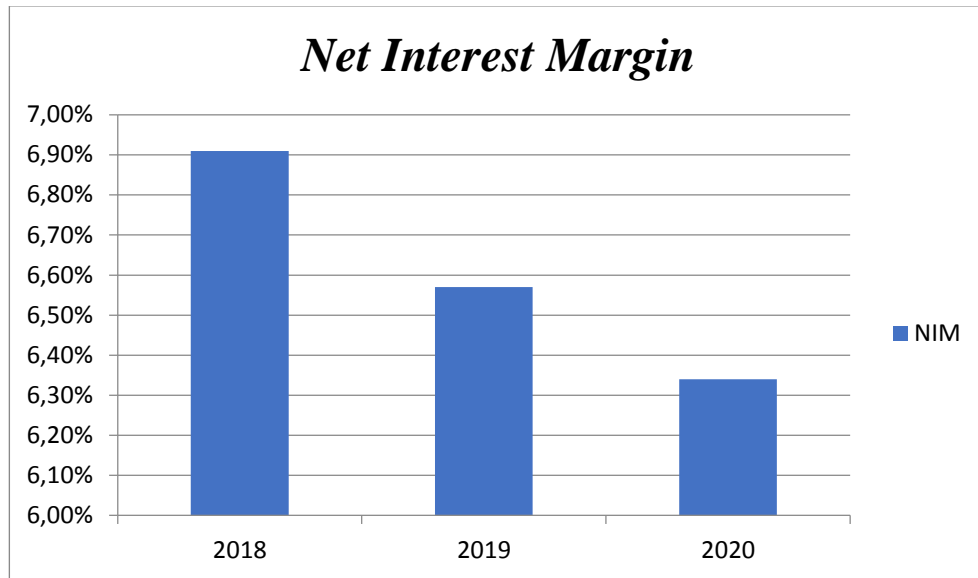
Figure 5 NIM Grafik Graph
PT Bank Negara Indonesia (Persero), Tbk 2018-2020 period

4. **Analysis** *Capital*
   a. **Calculation** *Capital Adequacy Ratio* **(CAR)**

$$CAR = \frac{Modal}{ATMR} x100\%$$

Table 12 Calculations *Capital Adequacy Ratio* (CAR)
**(in millions of rupiah)**

Year	Capital	ATMR	CAR	Rating	Component
2018	104,254,000	563,440,000	18.5%	1	Very Healthy
2019	118,096,000	598,484,000	19.7%	1	Very Healthy
2020	103,146,000	614,633,000	16.8%	1	Very Healthy

Source: *Annual Report* of PT Bank Negara Indonesia (Persero), Tbk (Data Processed)

Based on Table 12 above *Capital Adequacy Ratio* in 2018 of 18.5 % entered 1st rank with bank category "Very Healthy". CAR year 2019 experienced increase from year previously with percentage increase by 1.2% to 19.7% entered 1st rank with bank category "Very Healthy". CAR in 2020 is experiencing drop with percentage drop by 2.9% to 16.8% and still enter 1st rank with bank category "Very Healthy". Ascension this occur because the capital consists of from core capital and supplementary capital experience enhancement profit detained with optimization assets productive. Whereas drop occur because expansion the credit increase but on the other hand balance profit decrease caused small profit year walk.

Based on the table 12 so could depicted chart bank health PT Bank Negara Indonesia (Persero), Tbk period 2018-2020 with use ratio *Capital Adequacy Ratio* (CAR) as following:
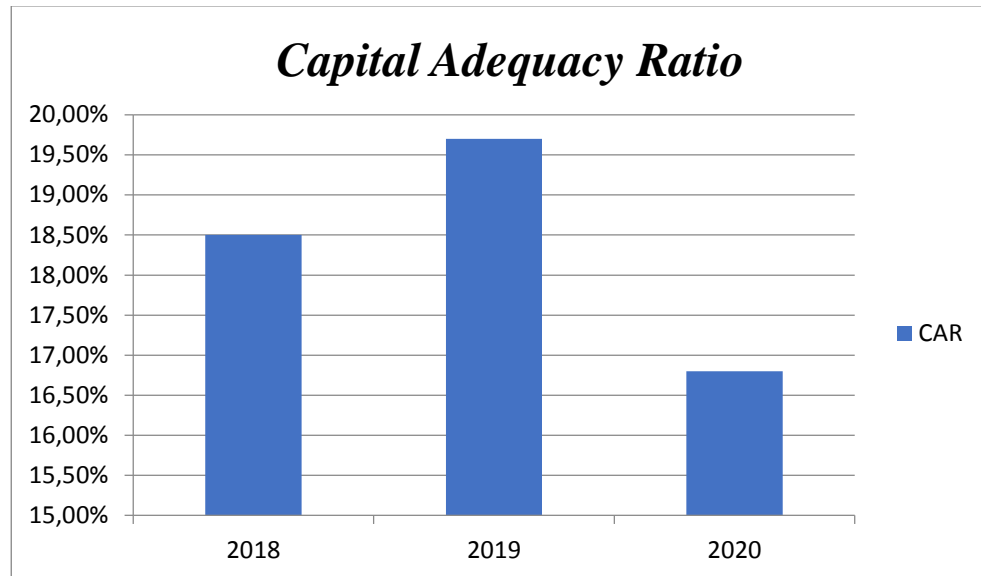
Figure 6 CAR Grafik Graph
PT Bank Negara Indonesia (Persero), Tbk 2018-2020 period

4. CONCLUSIONS AND SUGGESTIONS

Based on results and data analysis from research that has been conducted so could drawn conclusion as following:

a. Based on results evaluation *Risk Profile* with using 2 variables that is NPL ratio and LDR ratio where NPL ratio gain 2nd rank with predicate "Healthy". Whereas LDR ratio gain rank 3 with predicate "Enough Healthy".

b. Based on aspect *Good Corporate Governance* (GCG), that rating composite PT Bank Negara Indonesia (Persero) is in "Good" rating. This thing reflect application from adequate fulfillment on GCG aspects and the bank implements good governance company with guided by the aspects of good governance.

c. Based on results evaluation *Earnings* uses 2 variables that is ROA ratio and ratio Where 's NIM? ROA ratio gain 1st rank with predicate "Very Healthy". Whereas NIM ratio gain 1st rank with predicate "Very Healthy".

d. Based on results evaluation *Capital* that uses ratio *Capital Adequacy Ratio* (CAR) obtained 1st rank with predicate "Very Healthy".

Based on conclusion from analysis level bank health using method *Risk - Based Bank Rating* (RBBR) above, so suggestions that can be made put forward in research this is for expand object research and not stuck in one bank so that could see comparison about condition bank health with other banks, using period longer so capable see development the health of the bank and for expand scope study about level bank health with use indicator ratio finance other for measurement level appropriate bank health by Circular from Bank Indonesia and the Financial Services Authority.

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