
**ANALYSIS MACRO ECONOMIC, RISK PROFILE OF FIRM
PERFORMANCE AND FIRM VALUE AT COMMERCIAL
BANKS LISTED ON THE INDONESIA STOCK EXCHANGE
New Normal Study After Covid Pandemic 2020-2021**

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Abstract

This study aims to determine the effect of Macroeconomics, Risk Profile on Company Performance and Company Value at commercial banks listed on the Indonesian stock exchange (New Normal Study after the 2020-2021 covid pandemic). The sample of this study is commercial banks listed on the IDX. This study uses a qualitative descriptive research design. The results of this study are Macroeconomics, Risk Profile and Financial Performance have an effect on Company Value at Commercial Banks Listed on the Indonesia Stock Exchange.

Key Words : *macro economy, risk profile, firm performance, firm value*

INTRODUCTION

The global economic recovery continues even though it is overshadowed by the increase in cases of the Omicron variant of the COVID-19 virus. In line with this, the IMF in its January 2022 World Economic Outlook (WEO) revised down the projection of global economic growth in 2022 to 4.4%, down from the estimated growth in 2021 of 5.9%. The revision was influenced, among other things, by various future risks, such as rising energy commodity prices and supply chain disruptions that led to rising inflation, normalization of US monetary policy, rising geopolitical tensions, particularly in Eastern Europe, and the risk of climate change. Domestically, at the end of 2021 the development of COVID-19 cases was still under control with a sloping trend in the number of cases and the death rate. In addition, the increase in energy and food commodity prices also had a positive impact on Indonesia's balance of payments.

The continued recovery of the domestic economy is also reflected in the banking sector with growth credit was recorded at 5.24% (yoy) or higher than the previous quarter (2.21%, yoy) and the same period the previous year (-2.41%, yoy). The improving credit growth was also supported by adequate deposits and quite high growth at 12.21% (yoy). The growth in deposits which was much higher than credit was one of the main factors driving the relative ample banking

liquidity as reflected in the LA/NCD and LA/DPK ratios of 157.94% and 35.12%, respectively, or well above threshold of 50% and 10%, respectively. Meanwhile, the level of banking capital is also quite solid with a CAR of 25.67% and is supported by the level of profitability with an adequate ROA. Credit risk was also maintained, reflected in the NPL ratios, both gross and net, which fell to 3.00% and 0.88%, respectively.

The high demand for investment in the financial industry has made the stock prices of financial companies, in this case banks, increase significantly, even some large banks in Indonesia are included in the leading stock category and include companies whose stock movements are volatile. The market performance of listed banking companies cannot be separated from the influence of macroeconomic factors, risk management and financial performance through published financial reports. The bank's efforts to show the level of effectiveness can be seen from the profitability side, which is seen from the bank's performance in generating profits, maintaining the stability of the components that support the bank's income and the ability of profits to increase capital to support the prospect of profit in the next year. The stock price in the market will determine the value of a company, as well as the value of the company where the company's performance and health also affect its share price. The health of the company is an investor's guarantee to predict the profits that will be received in the future.

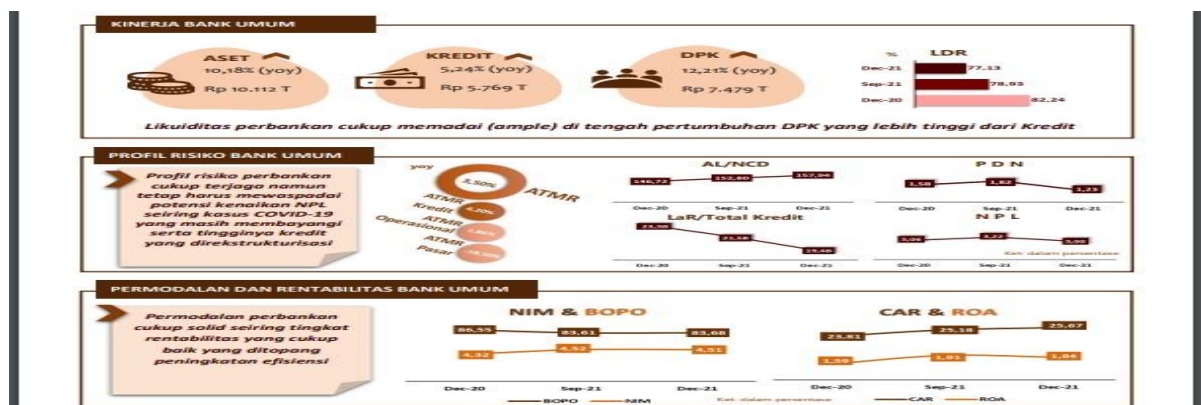


Figure 1. Risk Profile Development And Financial Performance of Banking 2020-2021

Source: www.Ojk.go.id

LITERATURE REVIEW

The value of the company

"According to", (Bringham & Houston, 2006: 19) Company value is defined as market value because the value of the company can provide maximum shareholder prosperity if the company's share price increases. Various policies are taken by management in an effort to increase the value of the company through increasing the prosperity of the owners and shareholders as reflected in the share price.

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Company value calculation formula:

1. Price Earning Ratio(PER)

$$PER = \frac{\text{Stock Market Price}}{\text{Earnings Per Share}}$$

2. Price to Book Value(PBV)

$$PBV = \frac{\text{Market Price Per Share}}{\text{Book Value Per Share}}$$

Financial performance

"According to",Mishkin (2001) states that the performance of a bank is seen from its main goal, namely how they operate to get the highest profit potential. Based on the operation or business basically the manager of a bank is concerned with four main things. First, liquidity management where the bank ensures that it has sufficient cash to pay depositors who will withdraw their funds. Second, asset management where the bank must pursue a low level of risk by acquiring assets that have low risk and diversifying asset ownership. Third, liability management where the bank pays attention to how to get funds at a low cost. Finally, capital adequacy management where the bank must decide the amount of capital that must be managed and get the required amount of capital.

The banking financial performance formula is as follows:

No.	Nama	Rumus
Indikator Kinerja Perbankan		
1.	Capital Adequacy Ratio (CAR)	$\frac{\text{Modal}}{\text{Aktiva Tertimbang Menurut Risiko (ATMR)}}$
2.	Return on Asset (ROA)	$\frac{\text{Laba Sebelum Pajak}}{\text{Rata – rata Total Aset}}$
3.	Beban Operasional terhadap Pendapatan Operasional (BOPO)	$\frac{\text{Total Beban Operasional}}{\text{Total Pendapatan Operasional}}$
4.	Net Interest Margin (NIM)	$\frac{\text{Pendapatan Bunga Bersih}}{\text{Rata – rata Aktiva Produktif}}$
5.	Net Operation Margin (NOM)	$\frac{\text{Pendapatan Operasional Bersih}}{\text{Rata – rata Aktiva Produktif}}$
6.	Cash Ratio (CR)	$\frac{\text{Total Alat Likuid}}{\text{Total Hutang Lancar}}$

Source www.ojk.go.id

Macro Economy

“According to” (Blancard and Fischer, 1998),Behind all the complexities of financial markets, in general it is usually represented in macroeconomic models with only two variables, namely interest rates and money stock. However, currently there are various kinds of literature which state that interest rates alone are not sufficient to reflect the relationship between financial markets, one of which is a bank and an economy. Credit availability and the quality of the balance sheet are the main determinants of investment levels. emphasizes the role of credit in the business cycle and especially in the transmission of monetary policy to influence the economy.

The macroeconomic formula is as follows:

$$\text{Inflation Rate} = \frac{\text{Price Level } t - \text{Price Level } t-1}{\text{LevelPrice } t-1} \times 100\%$$

$$\text{Interest Rate/ Bi Rate} = \frac{SB_t - Sb - Sbt-1}{Sbt-1}$$

Risk Profile

According to "Financial services authority Circular No. 14/seojk.03/2017" The risk profile rating is based on the results of the assessment of 8 (eight) types of Risks assessed by the Bank. The Bank considers the significance and materiality of the assessed Risks in determining the risk profile rating. Namely Credit Risk, Market Risk, Liquidity Risk, Operational Risk, Legal Risk, Reputational Risk, Strategic Risk, Compliance Risk, Risk Level Determination Matrix, this matrix basically maps the Risk level resulting from the combination of inherent Risk and the quality of Risk Management implementation. The Risk Level is the final conclusion on the Bank's Risk after considering the mitigation carried out through the implementation of Risk Management. To determine the Risk level, the Bank can refer to the following Risk level matrix

Risiko Inheren	Kualitas Penerapan Manajemen Risiko				
	Strong	Satisfactory	Fair	Marginal	Unsatisfactory
Low	1	1	2	3	3
Low to Moderate	1	2	2	3	4
Moderate	2	2	3	4	4
Moderate to High	2	3	4	4	5
High	3	3	4	5	5

The formula for calculating the risk profile which is calculated using financial ratios:

Risiko Kredit		
7.	<i>Non Performing Loan (NPL) atau Non Performing Finance (NPF) Gross</i>	$\frac{\text{Kredit/Pembiayaan Bermasalah}}{\text{Total Kredit/Pembiayaan}}$
8.	<i>Non Performing Loan (NPL) atau Non Performing Finance (NPF) Net</i>	$\frac{\text{Kredit/Pembiayaan Bermasalah} - \text{CKPN atas Kredit/Pby Bermasalah}}{\text{Total Kredit/Pembiayaan}}$
Risiko Pasar		
9.	Rasio PDN	$\frac{\text{Posisi Devisa Netto}}{\text{Total Modal}}$
10.	Rasio PDN Valuta Utama	$\frac{\text{Posisi Devisa Netto Valuta Utama}}{\text{Total Modal}}$
11.	Rasio Interest Risk Rate in the Banking Book (IRBB)	$\frac{\text{Kewajiban Suku Bunga Tetap Jangka Waktu} > 1 \text{ tahun}}{\text{Aset Suku Bunga Tetap Jangka Waktu} > 1 \text{ tahun}}$
Risiko Likuiditas		
12.	Loan to Deposit Ratio (LDR)	$\frac{\text{Total Kredit kepada Pihak Ketiga Bukan Bank}}{\text{Total Dana Pihak Ketiga (DPK)}}$
13.	Finance to Deposit Ratio (FDR)	$\frac{\text{Total Pembiayaan kepada Pihak Ketiga Bukan Bank}}{\text{Total Dana Pihak Ketiga (DPK)}}$
14.	AL/DPK	$\frac{\text{Alat Likuid}}{\text{Total Dana Pihak Ketiga (DPK)}}$
15.	AL/NCD	$\frac{\text{Alat Likuid}}{30\% \text{ Tabungan} + 30\% \text{ Giro} + 10\% \text{ Deposito}}$
16.	Liquidity Coverage Ratio (LCR)	$\frac{\text{High Quality Liquid Assets (HQLA)}}{\text{Net Cash Outflow (NCO)}}$

Conceptual Framework

Based on the description in the literature review, a conceptual framework emerges that has a function as a reference and provides a flow of thinking in solving research problems and formulating hypotheses. The conceptual framework can be seen in the image below:

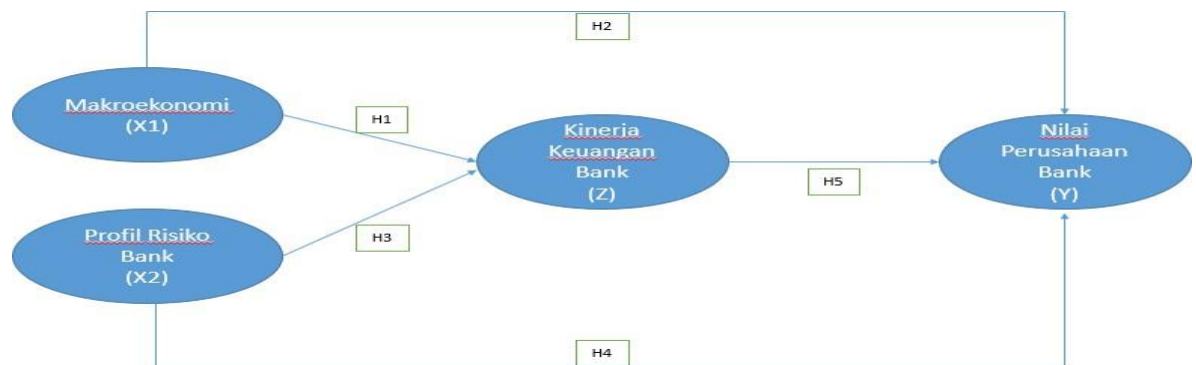


Figure 2. Conceptual Framework

Research Hypothesis

- H1 :Macroeconomics affect the company's performance at Commercial Banks National Foreign Exchange Go Public
- H2 :Macroeconomics affect the value company at the National Foreign Exchange Bank Go Public
- H3 :Risk Profile affects the company's performance at the National Commercial Bank Go Public
- H4 :Risk profile affects the company's value at the National Commercial Bank Go Public
- H5 :Financial Performance has an effect on the value of the company at the National Commercial Bank for Foreign Exchange Go Public

Research methods

This study uses a qualitative descriptive research design. The population in this study is a Go Public Conventional Foreign Exchange Commercial Bank listed on the IDX. Likewise, the number of samples in this study are banking companies listed on the IDX.

Research Results and Discussion

Macroeconomics

In the IMF World Economic Outlook January 2022, the global economy in 2021 is estimated to grow by 5.9% (yoy), improving from 2020 which contracted by -3.1% (yoy). Furthermore, global economic growth in 2022 is estimated to slow down by 4.4% (yoy) (downward revision from 4.9% in WEO October 2021) in line with the increase in cases of the Omicron variant of COVID-19. In addition, several risks are still a factor influencing the slowdown in global economic growth projections in the future, such as rising energy prices and supply chain disruptions that drive inflation, normalization of US monetary policy, geopolitical tensions, especially in Eastern Europe, and the risk of climate change.

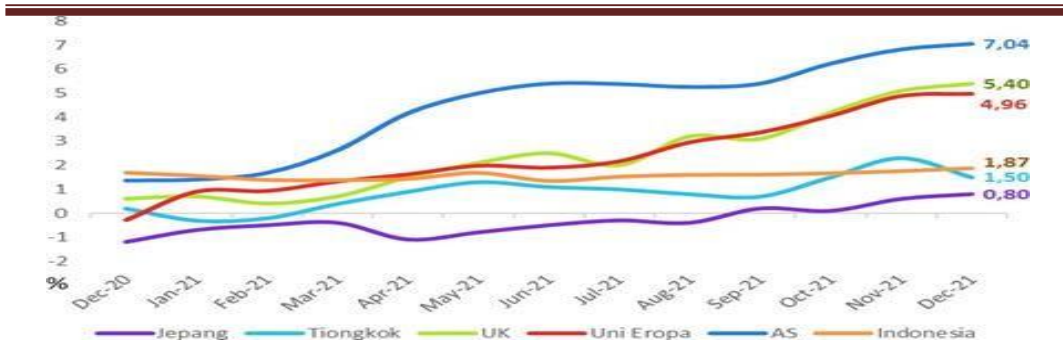


Figure 3. Indonesia's Inflation Data for 2020-2021



Figure 4. Indonesia GDP Data

Source: Bps.go.id

In quarter IV-2021, consumption grew 3.55% (yoy), driven by household consumption and Non-Profit Institutions Serving Households (LNPRIT). The increase in household consumption was driven by all sub-sectors, especially the food and beverage sector as well as transportation and communication. This is in line with the recovery in demand for food as supported by the consumer confidence index which is increasing and is at an optimistic level (118.3 as of December 2021) as well as the gradual relaxation of mobility as indicated by the Google Community Mobility Index for Indonesia which increased at the end of 2021.

Investment or Gross Fixed Capital Formation (PMTB) grew 4.49% (yoy), driven mainly by building investment and investment in machinery and equipment. Investment growth in the current period was driven, among others, by the continued completion of the Government's National Strategic Projects (PSN) as well as business activities which were gradually recovering and were at the expansion level as indicated by the Manufacturing PMI at the level of 53.5 as of December 2021.

Government spending grew 5.25% (yoy) in line with the ongoing National Economic Recovery (PEN) 2021 program with realization as of December 28, 2021 at Rp658.6 trillion or 88.43% of the Rp744.8 trillion budget ceiling. The largest budget realization was in the health sector at Rp198.5 or 92.34% of the target of Rp215.0 trillion. Meanwhile, the highest realization was found in the

business/tax incentive program with a realization of Rp. 67.7 trillion or 107.75% of the target of Rp. 62.8 trillion.

Banking Risk Profile

The banking risk profile was maintained in line with credit risk and market risk being maintained, while liquidity risk improved in line with growth in deposits which were higher than credit. However, there is a potential increase in credit risk as a result of weakening loan demand due to slowing economic growth and accompanied by increased prudential on the bank side due to the tendency of increasing NPLs.

1. Risk Weighted Assets (RWA)

In quarter IV-2021, risk exposure in banking assets increased slightly as reflected in RWA which grew 3.50% (yoy) higher than the previous year which contracted -2.86% (yoy). The increase in the RWA was influenced by the increase in the RWA for Credit, while the RWA for Operations experienced a slowdown and the RWA for the Market experienced a decline.

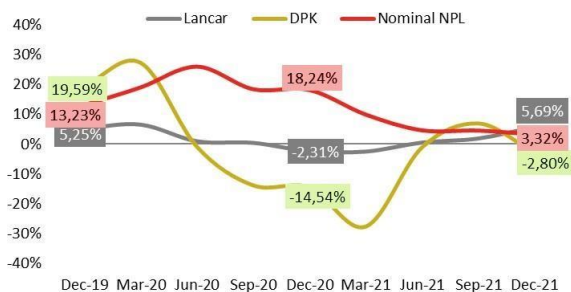
RWA Credit, which has the largest portion, grew by 4.20% (yoy), an increase from last year's contraction of -4.01% (yoy), in line with the increase in lending. Operational RWA grew by 1.86% (yoy), slower than the previous year's -20.37% (yoy), partly in line with the decline in the Net Open Position (NOP) and placement of bank funds in securities in the trading book category. OJK continues to strengthen banking risk mitigation through the implementation of banking governance, which is supported by, among others, improvements in internal control in banking and an increasingly effective supervisory function. During the COVID-19 pandemic,

Operational RWA, among others, is still affected by the decline in banking profits during 2021 as a result of the COVID-19 pandemic 3 . Meanwhile, the Market RWA continued to decline by -18.50% (yoy) after the previous year's contraction

2. Credit Risk

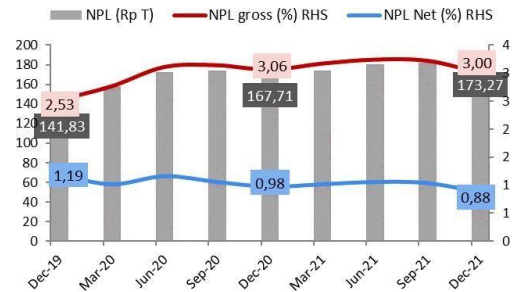
Credit Quality Nominal Growth Chart

Nominal Growth of Credit Quality



Trend Graph of Gross NPL and Net NPL

Trends in Gross NPL and Net NPL Ratios



SPI Source

In December 2021, credit risk decreased as reflected in the gross NPL ratio of 3.00%, compared to 3.06% in the previous year. In addition, the net NPL ratio

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was also recorded to improve from the same period the previous year of 0.98% to 0.88%. The net NPL improvement was in line with the quite high growth in CKPN of 13.79% (yoy) although it slowed from last year's growth of 84.21% (yoy) in line with the implementation of PSAK 71 since early 2020.

On the other hand, bank restructuring loans fell -11.51% (yoy) from December 2020 which grew at 266.12% (yoy). Meanwhile, restructuring loans are still dominated by restructuring loans of current quality with a portion of 73.40% of the total restructuring loans. Credit restructuring Current quality decreased -18.02% (yoy) compared to the previous year which grew 565.75% (yoy) to Rp713.54 trillion. The portion of current quality restructuring loans to total loans is still high, although it decreased to 12.37% from 15.88% in December 2020. This is in line with the continued implementation of credit restructuring policies for the banking industry as a countercyclical policy due to the impact of the spread of COVID-19 which has come into effect effectively. since March 13, 2020 and has been extended twice to March 31, 2023 (POJK Number 17/POJK).

Although CKPN growth slowed, CKPN coverage for restructuring loans of Current and Special Mention (DPK) quality increased to 10.38% and 42.40%, respectively, from 7.05% and 34.68% in the previous year. The increase in CKPN coverage indicates the anticipated increase in credit risk by banks. In this case, in order to maintain credit quality, banks need to be encouraged to slowly continue to increase CKPN coverage for restructured loans, mainly on current quality and deposits that have the potential to become NPLs, especially if there are signs of deterioration in debtors.

In line with the uncertainty over the end of the COVID-19 pandemic, which greatly affected business activities, in the future it is still necessary to pay attention to the potential for an increase in credit risk. This is indicated, among other things, by the nominal NPL growth of 3.32% (yoy) as well as the portion of credit that has the potential to experience a decline in quality (Current quality restructuring credit and TPF quality credit) which is still high at 16.47%, although both have decreased from the previous year.

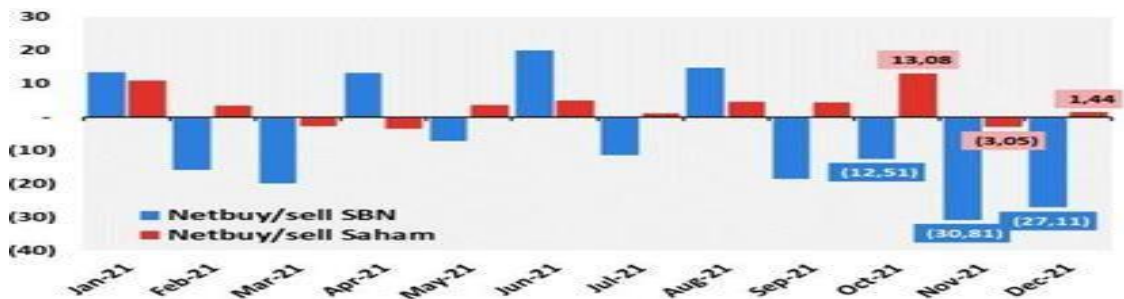
3. Market Risk

In the fourth quarter of 2021, the pressure on global financial markets has not fully eased even though the global economy is starting to show signs of recovery. This is because there are still potential risks ahead, including the risk of the spread of the COVID-19 omicron variant which is increasing in several countries as well as concerns about the normalization of monetary policy in the US in line with rising inflationary pressures due to supply chain disruptions and rising demand. This was reflected in the volatility index, which had increased at the end of the fourth quarter of 2021, although it was still lower than the previous year. Concerns about tightening monetary policy.

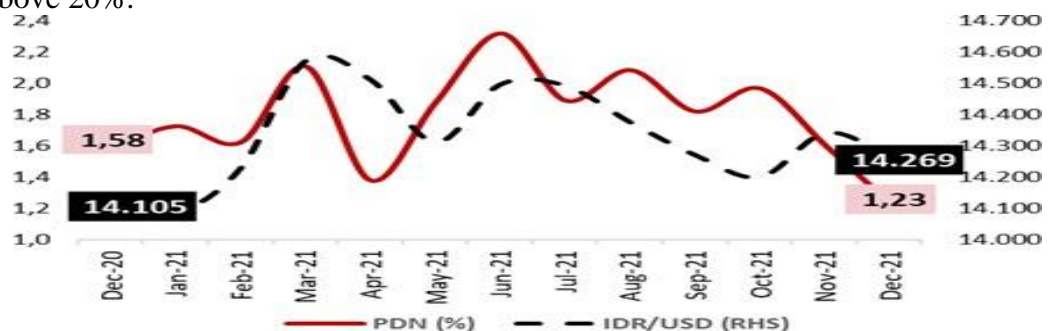
3.1 Exchange Rate Risk

At the end of December 2021, the exchange rate of the Rupiah against the USD was recorded at Rp. 14,269/USD, down 1.16% from the position at the end of December 2020 of Rp. 14,105/USD. The weakening was influenced by, among

others, capital outflows, reflected in transactions by non-resident investors in the government securities market during the past year which recorded a net sell of Rp82.57 trillion. However, the deeper weakening was restrained by the entry of foreign capital in the stock market which recorded a net buy of IDR 37.70 trillion.



In the banking sector, exposure to exchange rate risk on the bank's foreign exchange portfolio declined and was maintained, as reflected in the NOP ratio, which was still at a low level, far below the 20% threshold, which was 1.23%, down from 1.58% last year. In addition, PDN is still in the Long position, which shows that the foreign currency assets owned by the bank are still greater than their foreign currency liabilities. Based on individual banks, most foreign exchange banks (54 banks) have a low NOP ratio (<2%) and no bank has a PDN ratio above 20%.



3.2 Interest Rate Risk

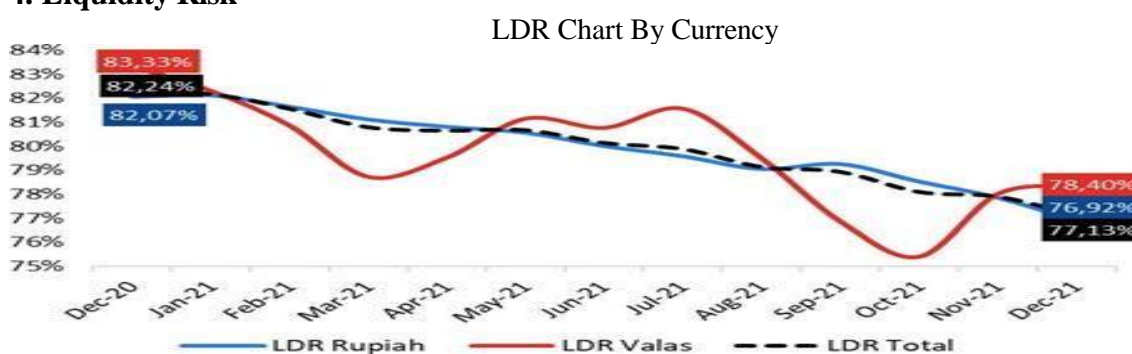
IRRBB Progress Chart



Interest rate risk stemming from the banking book portfolio was maintained, as reflected in the Interest Rate Risk in the Banking Book (IRRBB) which was at a low level of 2.10%, down from 2.84% in the previous year. The decrease in IRRBB was driven by a decrease in long-term fixed rate liabilities primarily in the form of time deposits and loans received, while assets with long-

term fixed interest rates increased driven by securities. Long-term securities held by banks grew quite high at 27.07% (yoy), although it slowed down from last year's growth of 79.46% (yoy). The high placement of banks in securities, among others, as an alternative in the midst of still limited demand for credit, also influenced by the enactment of BI regulations regarding the easing of Statutory Reserves (Rupiah Statutory Reserves decreased by 200 bps for BUK and 50 bps for BUS) and an increase in PLM (4% to 6% for BUK and 4% to 4.5% for BUS) which took effect from 1 May 2020. The relaxation of the Statutory Reserves allows banks to have additional liquidity which can then be placed into securities to meet the increase in PLM. However, to respond to the sentiment of normalization of global monetary policy (especially the US), BI will gradually increase its statutory reserve requirement which will take effect in March 2022. The relaxation of the Statutory Reserves allows banks to have additional liquidity which can then be placed into securities to fulfill the increase in PLM. However, to respond to the sentiment of normalization of global monetary policy (especially the US), BI will gradually increase its statutory reserve requirement which will take effect in March 2022. The relaxation of the Statutory Reserves allows banks to have additional liquidity which can then be placed into securities to fulfill the increase in PLM. However, to respond to the sentiment of normalization of global monetary policy (especially the US), BI will gradually increase its statutory reserve requirement which will take effect in March 2022.

4. Liquidity Risk



During the reporting period, the condition of banking liquidity was still very adequate in line with the high growth in deposits in the midst of limited credit growth. The ability of banks' liquidity to meet short-term obligations is maintained, as reflected in the LA/NCD and LA/DPK ratios which are still increasing and well above the threshold, the LCR ratio is above 100%, and banks' access to liquidity sources in the Interbank Money Market (PUAB) which is also good. In addition, the ability of banks to manage stable funds is also maintained with an adequate Net Stable Funding Ratio (NSFR).

In December 2021, banking LDR was recorded at 77.13%, a decrease compared to the same period in the previous year of 82.24%. The decrease in

LDR was driven by the decline in the rupiah LDR and foreign currency LDR to 76.92% and 78.40%, respectively.

Financial performance

BUK's intermediation function showed improvement, indicated by growing credit and deposits compared to the previous year. Adequate liquidity was observed as reflected in the LA/NCD and LA/DPK ratios which were also quite high at 158.34% and 35.35%, respectively, or well above the thresholds of 50% and 10%.

The resilience of BUK is also quite solid with a fairly high level of capital, and also accompanied by improvements in credit quality compared to the previous year.

Indicator	Dec '20	Sep '21	Dec '21	Sep '21	Dec '21	Dec '20	Dec '21
Total Assets (Rp Billion)	8,780,681	9,316,623	9,670,515	3.52%	3.80%	6.92%	10.13% ↑
Credit (Rp billion)	5,235,027	5,395,966	5,512,366	1.27%	2.16%	-2.91%	5.30% ↑
DPK (Rp billion)	6,342,538	6,820.953	7,114,041	2.90%	4.30%	11.08%	12.16% ↑
- Current Account (Rp Billion)	1,636,387	1,935,581	2,089,193	6.36%	7.94%	14.93%	27.67% ↑
- Savings (Rp billion)	2,053,575	2,169,470	2,295.109	2.31%	5.79%	11.33%	11.76% ↑
- Deposit (Rp billion)	2,652,575	2,715,902	2,729,739	1.03%	0.51%	8.65%	2.91% ↑
CAR (%)	23.89	25.18	25.66	88	48	49	177
ROA (%)	1.59	1.91	1.85	3	(6)	(88)	26
NIM (%)	4.45	4.62	4.63	(4)	1	(46)	18
BOPO (%)	86.58	83.68	83.65	(91)	(3)	719	(293)
NPL Gross (%)	3.06	3.22	3.02	(2)	(20)	56	(4)
Net NPL (%)	0.95	1.02	0.88	(2)	(14)	(21)	(7)
LDR (%)	82.54	79.11	77.49	(128)	(162)	(1189)	(505)
Navy/DPK(%)	32.03	33.65	35.35	78	170	1132	332
AL/NCD(%)	148.05	152.71	158.34	256	563	5150	1029

Conclusion

Based on the description of the previous analysis and discussion, the following conclusions can be drawn:

In the fourth quarter of 2021, the global economic recovery continued even though it was overshadowed by the increase in cases of the Omicron variant of the COVID-19 virus. Domestically, the economic recovery also continued with the COVID-19 cases under control and driven by an increase in net exports, which was mainly influenced by rising commodity prices. This condition has contributed to improving credit growth, which is still supported by quite solid capital resilience and adequate banking liquidity conditions.

In the midst of global and domestic economic conditions that are still affected by the COVID-19 pandemic, banking resilience in general was maintained in the fourth quarter of 2021, as reflected in the condition of bank

capital which was quite solid and supported by adequate liquidity. The banking intermediation function has also improved, as can be seen from credit which began to increase compared to the previous year amid high growth in third party funds. Furthermore, bank profitability also recorded an increase as reflected in better ROA and BOPO compared to the previous year accompanied by improvements in credit quality.

The banking risk profile is still manageable, reflected in market risk and relatively stable liquidity, while credit risk tends to improve. However, due to rising inflationary pressures in the US which is likely to be followed by an increase in FFR as well as an increase in the spread of the Omicron case globally and domestically, the potential for future shifts in foreign capital flows needs to be watched out for as it can result in increased liquidity risk, market risk, and credit risk.

The value of the bank's company is still very well maintained considering the condition of the bank's capital which is quite solid and supported by the availability of adequate liquidity. The banking intermediation function has also improved, as can be seen from credit which began to increase compared to the previous year amid high growth in third party funds. So it is expected that investors will invest more in commercial bank companies.

REFERENCES

- Ali, Mashud. 2009. "Risk Management: Banking and Business Strategy in Facing the Challenges of Business Globalization". Jakarta: PT Raja Grafindo Persada.
- Anwar Sanusi, 2013. Business Research Methodology. Jakarta: Four Salemba.
- Bambang Riyanto. 2011, "Basics of Corporate Spending", Fourth Edition, Seventh Printing, Yogyakarta : YBPFE UGM.
- Hanafi, Mahmud M. 2012. Fundamentals of Financial Management. Jakarta: Balai Pustaka Publisher.
- Hermuningsih, Sri. 2012. Introduction to the Indonesian Capital Market. Yogyakarta: UPP STIM YKPN.
- Indonesian Bankers Association, 2013. Understanding the Bank's Business. Jakarta : PT Gramedia Pustaka Utama.
- Ismail, 2011. Banking Management: From Theory Towards Application. Jakarta : PT. date.
- Imam Ghozali. 2014. Partial least squares concept, method and application using the PLS Warp Program, Publishing Agency, Diponegoro University, Semarang
- Kasidi, 2010."Risk Management". Bogor: Ghalia Indonesia.
- Kasmir, 2012. Banking Management. Revised Edition Jakarta :PT. King Grafindo Persada.
- Lukman Dendawijaya, 2009. Banking Management: Revised Edition Ciawi Bogor. Indonesian Ghalia.
- Nanang Martono, 2010. Qualitative Research Methods. Jakarta : Rajagrafindo.

- Mudrajad Kuncoro Suhardjono, 2011. First Print Banking Management, BPFE-YOGYAKARTA Member of IKAPI No.008
- Bank Indonesia Regulation Number 15/12/PBI/2013. Minimum Capital Adequacy Requirements for Commercial Banks.
- PBI Number 11/25/PBI/2009. Changes to Bank Indonesia Regulations
- PBI Number 12/10/PBI/2010. Commercial Bank Net Open Position
- Pindyck, Robert S. and Rubinfeld, Daniel L. 2009. Microeconomics Edition 6 Volume 1. Jakatra: Index.
- Rudianto. 2013. Information Management Accounting for Strategic Decision Making. Jakarta: Erlangga.
- Sugiyono. (2017). Quantitative, Qualitative, and R&D Research Methods. Bandung: Alfabeta
- Bank Indonesia Circular Letter No. 13/30/DPNP On 16 December 2011. Regarding Quarterly and Monthly Published Financial Reports for Commercial Banks and Certain Reports Submitted to Bank Indonesia.
- Taswan.2010. "Banking Management".Yogyakarta:UPP STIM YKPN Yogyakarta.
- VeithzalRivai, 2013. "Commercial Bank Management: Banking Management from Theory to Practice". Jakarta : PT. RajaGrafindo Persada.
- Website of the Financial Services Authority www.ojk.go.id Bank Published Financial Statements.
- Indonesia Stock Exchange Website www.idx.co.id
- Bank Indonesia Website www.Bi.go.id
- Central Bureau of Statistics website www.bps.go.id