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Analysis of Bank Soundness Before and After the Pandemic: The RGEC Approach

Alif Misbachul Arifin

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AFFILIATION:
Department of Economics, Faculty of Economics and Business, Universitas Muhammadiyah Yogyakarta, Special Region of Yogyakarta, Indonesia

*CORRESPONDENCE:
alif.misbachul.feb18@mail.umy.ac.id

Abstract: The Covid-19 pandemic has affected activities in the financial services industry, especially the banking sector, due to a slowdown in the real sector and the corporate sector, which has not yet been able to operate thoroughly. Therefore, amid a pandemic like this, it is increasingly necessary for banks to maintain and improve their level of soundness so that they can minimize possible risks and identify problems earlier. Concerning the soundness of the banks, banks are required to conduct periodic self-assessments and take corrective measures effectively by using an assessment of several factors, including risk profile, good corporate governance (GCG), earnings, and capital, abbreviated as RGEC. This study aims to determine whether there are statistical differences in banking health conditions before and after the Covid-19 pandemic. The case studies used in this study were 13 banking companies listed on the Kompas 100 Index. Using the t-test and Wilcoxon test, no statistical differences were found in the level of bank soundness before and after the pandemic for each RGEC indicator except the loan to deposit ratio (LDR), return on earnings (ROE), return on assets (ROA), and operating costs of operating income (BOPO). This finding shows the lower liquidity capacity of banks after the pandemic.
Keywords: RGEC; Bank health; Pandemic; Compass Index 100
JEL Classification: G21, C23

Introduction

The Covid-19 pandemic also impacts activities in the financial services industry, especially the banking sector, due to a slowdown in activity in the real sector and the corporate sector, which has not yet been able to operate thoroughly. The Covid-19 pandemic has also made the banking sector unable to deliberately channel its credit due to the high risk of default from creditors, individuals, and corporations. The increased credit risk was also accompanied by a decrease in capital and third-party funds, which could potentially create liquidity risk for the banking sector, particularly banks whose core business is lending. The Financial Services Authority (OJK) stated that the intermediation performance of the banking industry during 2020 was under pressure along with a decline in bank lending to a contraction of -2.41% (YoY) due to the slowdown in the real sector, which caused working capital loans to be stifled. In addition, the non-performing loans (NPL) ratio also increased compared to 2019 at 3.17%. The economic slowdown due to the pressure of the COVID-19 pandemic has also slowed the withdrawal of bank credit facilities and resulted in the number of undisbursed loans remaining reasonably high.

Referring to OJK data as of June 2020, banking undisbursed loans increased by 6.05% compared to the same period in the previous year.

Therefore, amid a pandemic like this, it is increasingly necessary for banks to continue to maintain and improve their level of health so that they can minimize possible risks and identify problems early. It aims to maintain the level of public confidence in the banking sector itself. In principle, the soundness level, bank management, and bank business continuity are the full responsibility of the bank management. Therefore, banks must maintain and improve their level of soundness by applying the principles of prudence and risk management in carrying out their business activities (Nurwijayanti & Santoso, 2018). Regarding bank soundness, Bank Indonesia is the institution authorized to supervise bank soundness. The soundness function of the bank makes Bank Indonesia to have provisions that must be fulfilled and implemented by banking institutions in Indonesia. Based on PBI No.13/1/PBI/2011, the assessment of the soundness of banks is carried out individually using a risk approach (Risk-Based Bank Rating). Banks are required to conduct self-assessments regularly on the level of stability and take corrective steps effectively by using an assessment of several factors, including risk profile (risk profile), good corporate governance (GCG), earnings (profitability), and capital (capital) which is abbreviated as RGEC.

Researchers are interested in discussing this research because much literature examines the impact of the COVID-19 pandemic on the banking's RGEC value, but comparing the effects before and after the Covid-19 pandemic is lacking. It can then be used as a basis for assessing how healthy a bank is. Previously, many studies have discussed bank soundness analysis, but the method used is still the CAMEL method, which has not been used since the enactment of the new Bank Indonesia regulation on bank soundness. Indrawati (2013) explains the difference between the CAMEL and RGEC methods. In CAMEL's assessment, if a bank's rating on asset quality and liquidity indicators is poor, it can be predicted that the bank will go bankrupt. However, in the RGEC assessment, if the rating result of a bank on the risk profile indicator is terrible, then the bank cannot be predicted to experience bankruptcy as long as the bank's risk management parameter is of good value to prevent or minimize the possibility of default.

The difference between the CAMEL and RGEC methods is explained by Hafiz (2018), where the CAMEL method has provided an overview of the soundness of an influential bank but cannot offer a conclusion that leads to an assessment. Each factor provides an evaluation that can be different in nature, while the RGEC method is more directed to the importance of quality management, which affects the income and capital factors, either directly or indirectly. The case studies used in this research are banking companies listed on the Kompas 100 Index. The selection of banking companies listed on the Kompas 100 index is based on the fundamentals and good performance of the company and has a significant market capitalization value.

There are several previous studies regarding bank soundness assessment using the RGEC method. However, this research was conducted before the Covid-19 pandemic. The analysis of Daryanto et al. (2018), for example, shows that PT. Bank UOB Indonesia and

PT. KEB Hana Bank Indonesia was in a healthy condition during the 2013-2017 period based on the RGEC analysis assessment. Ardyanfitri et al. (2019) found that BTPN Syariah was in a very healthy condition and had no potential to experience financial distress. An analysis from Ponirah et al. (2021) also stated that PT. Bank Mega Syariah Tbk during the 2016-2019 period was at a composite value of 2 or included in the healthy category.

In subsequent developments, several studies assess banks' soundness during the pandemic even though they still use the CAMELS method. The CAMELS valuation method is used to analyze and evaluate the financial performance of commercial banks in Indonesia and has been used since April 12, 2004. The CAMELS method comprises six assessment indicators: Capital, Asset Quality, Management, Earnings, Liquidity, and Sensitivity to Market Risk. Bank Indonesia then issued Circular Letter Number:13/24/DPNP in 2011, which aimed to replace the CAMELS method with a new assessment method, RGEC. Through the RGEC assessment, Bank Indonesia expects banks to be able to identify problems early, take appropriate and faster follow-up improvements.

For example, research by Dinarjito and Arisandy (2021) stated that the Covid-19 pandemic did not significantly impact the soundness of one of the regional banks, PT. Regional Development Bank of West Java and Banten Tbk (BJBR), in terms of risk, revenue, and capital. BJBR's health condition before and after the Covid-19 pandemic seemed to change only from the ratio value. In the case of Islamic banks, research by Wijayanti and Afifi (2020) found that Islamic banks are in the very healthy category and have the overall ability to grow well despite the Covid-19 pandemic situation. Furthermore, Sullivan and Widoatmodjo's (2021) research uses the subject of banking, which is included in the listing on the Indonesia Stock Exchange (IDX). The research shows that there are differences in the financial performance of banks in the CAR ratio.

Several things that make this research different from the previous ones lie in the research subjects using the Kompas100 Index. This index has covered a broader category of banking, ranging from state owned enterprise, private, sharia banking to foreign-affiliated banks in Indonesia which, of course, have good performance and fundamentals. In addition, this study uses the RGEC method as the latest method established by Bank Indonesia in calculating the soundness of banks.

Research Method

This study focuses on banking companies listed on the Kompas100 Index, comprising 13 companies. The researcher uses the Kompas100 Index as the object of research because the company's fundamentals and performance are good and have a significant market capitalization value. Table 1 records in more detail the banks that are included in the Kompas100 Index.

Table 1 List of Banking Constituents for the Kompas100 Index

Issuer Code	Company name
BBCA	Bank Central Asia Tbk.
BBNI	Bank Negara Indonesia (Persero) Tbk.
BBRI	Bank Rakyat Indonesia (Persero) Tbk.
BBTN	State Savings Bank (Persero) Tbk.
BDMN	Bank Danamon Indonesia Tbk.
BJBR	Regional Development Bank of West Java and Banten Tbk.
BJTM	Regional Development Bank of East Java Tbk.
BMRI	Bank Mandiri (Persero) Tbk.
BANGA	Bank CIMB Niaga Tbk.
BRIS	Bank Syariah Indonesia Tbk.
BTPS	Bank BTPN Syariah Tbk.
MCOR	Bank China Construction Bank Indonesia Tbk.
PNBN	Bank Pan Indonesia Tbk

This study assesses each variable from the RGEC method, which is then classified based on the order of predicates in the classification table. Based on Bank Indonesia Circular No.13/24/DPNP, the RGEC assessment includes several factors, including:

1. Risk Profile
Risk profile assessment includes several assessments: credit risk, market risk, liquidity risk, operational risk, legal risk, strategic risk, and reputation risk. In this study, the risk variables used are only credit risk and liquidity risk because both risk factors can be measured quantitatively and have clear rating criteria (Bank Indonesia, 2011). Credit risk can be measured using the Non-Performing Loan (NPL) ratio, and liquidity risk can be measured using the Loan to Deposit Ratio (LDR).

2. Good Corporate Governance
Good corporate governance is one of the essential pillars in banking, which includes a total commitment from all levels of bank management to the lowest employees to implement these provisions (Sunardi, 2019). Therefore, all employees must uphold sound corporate governance principles: transparency, accountability, responsibility, independence, and fairness.

3. Earning
Earning is one common way of measuring a bank's soundness. The characteristics of banks in terms of income can be seen from the bank's performance in managing their profits, the stability of the components that support core income, and the ability of profits to increase capital and prospects for future profits (Daryanto et al., 2018). In this study, the profitability assessment used is the ratio of Return on Assets (ROA), Return on Equity (ROE), and Operating Expenses compared to Operating Income (BOPO).

4. Capital
The capital adequacy ratio is a performance ratio that measures bank capital adequacy in supporting assets that contain or generate risk, such as credit (Daryanto et al., 2018). According to Basel (II), CAR is calculated using two main items: core capital and

supplementary capital. Both must be added up and divided by risk-weighted assets (RWA) and contingent liabilities.

Each indicator in the RGEC is tested for values differences before and after the pandemic. If the difference in indicator values before and after the pandemic is usually distributed, then the paired sample t-test is used. However, if it is not normally distributed, the following difference test is carried out using the Wilcoxon test.

Result and Discussion

Before testing the hypothesis, it is necessary to test for normality first. A normality test is used to determine whether or not the data collected is usually distributed. In this study, the normality test was carried out using the Shapiro-Wilk method because the number of available simulation data was not more than 50 samples.

Table 2 Normality Test Results

Indicator	Shapiro-Wilk		
	Z	Obs	Sig
dNPL	-0.581	13	0.719
dLDR	-0.661	13	0.745
dGCG	3,599	13	0.000
dROA	2,984	13	0.001
dROE	-3,583	13	0.999
dBOPO	-1,611	13	0.946
dCAR	2,213	13	0.013

Based on the results of the normality test in Table 2 using the Shapiro-Wilk method, it can be seen that the variables that have a significance below 0.05 are GCG, ROA, and CAR, which means that the three data are not normally distributed. Meanwhile, the NPL, LDR, ROE, and BOPO variables have a significance value of more than 0.05, which means that all of these variables are normally distributed. Based on the test results, to answer the hypothesis on the GCG, ROA, and CAR variables, the paired sample t-test will be used, while for the NPL, LDR, ROE, and BOPO variables, the Wilcoxon test method will be used.

Table 3 Results of Paired Sample t-test

		Z	N	asymp
Pair 1	ROA19	2,551	13	0.008
	ROA20			
Pair 2	GCG19	1.413	13	0.500
	GCG20			
Pair 3	CAR19	-0.734	13	0.497
	CAR20			

Based on the results of the paired sample t-test in Table 3, there are statistically significant differences in the efficiency level in the use of banking assets as measured by the ROA indicator before and after the covid-19 pandemic. Different results are found in the GCG

variable, where there is no significant difference between the banking GCG assessment before and after the covid-19 pandemic. Furthermore, from testing on the CAR variable, the same results were obtained where there was no significant difference in the performance of banking capital before and after the covid-19 pandemic.

Then, the Wilcoxon test was performed to account for two different data sets. This test also aims to find out in which parts there are differences between the two data groups. Based on the results of the Wilcoxon test in Table 4, it can be seen that there is no difference in the level of bad loans or banking NPLs before and after the covid-19 pandemic. Different results are found in the LDR variable, where there is a significant difference in banking liquidity levels before and after the covid-19 pandemic. Furthermore, testing on the ROE variable shows differences in the rate of return on bank equity returns before and after the covid-19 pandemic.

Table 4 Wilcoxon. Test Results

		T	df	Sig.
Pair 1	NPL19	1.5283	12	0.152
	NPL20			
Pair 2	LDR19	4.3363	12	0.001
	LDR20			
Pair 3	ROE19	1.9495	12	0.075
	ROE20			
Pair 4	BOPO19	-2.7438	12	0.017
	BOPO20			

The risk profile in this study is represented by the NPL (Non-Performing Loan) ratio and LDR (Loan to Deposit Ratio). The NPL ratio measures the number of non-performing loans from the total loans that have been disbursed. According to statistical calculations, there are no significant differences in banking NPLs both before and after the COVID-19 pandemic. The absence of a difference in the harmful loan levels before and after the covid-19 pandemic was caused by anticipatory steps taken by the government through the regulator by implementing stimulus policies through credit restructuring and financing. According to OJK, the credit restructuring policy is an effort to improve credit activities for debtors with the potential to experience difficulties meeting obligations. The existence of credit restructuring is expected to facilitate debtors in the process of fulfilling their responsibilities. This program also helps banks reduce the number of non-performing loans to reduce the NPL ratio to a minimum. In this case, OJK stipulates a restructuring policy through POJK No. 11/POJK.03 of 2020 concerning National Economic Stimulus as a Countercyclical Policy on the Impact of the 2019 Coronavirus Disease Spread.

Based on the results of the Wilcoxon test, there is a significant difference in the banking liquidity level measured by the LDR indicator before and after the covid-19 pandemic. This study's results align with a study conducted by Sulistiani and Iswanaji (2021) which stated that banks experienced a decrease in the LDR ratio after the covid-19 pandemic. The COVID-19 pandemic has also affected the performance of the banking industry, where the level of credit disbursed is lower so that banks can save more deposits. The decline in the

LDR ratio also indicates that banks remain in healthy liquidity after the COVID-19 pandemic.

Meanwhile, there are no significant differences in the assessment of banking GCG before and during the covid-19 pandemic. This study's results align with a study conducted by Wijayanti and Afifi (2020) which stated that the banking GCG assessment was relatively consistent with no decline or increase before and after the covid-19 pandemic. It indicates that the company can still carry out the principles of Good Corporate Governance during the COVID-19 pandemic well and can survive in crisis conditions, accompanied by implementing adaptive policies.

There is a significant difference in the ROA variable's efficiency in using banking assets before and after the covid-19 pandemic. This study's results align with a study conducted by Tiono & Djaddang (2021) which stated that during the covid-19 pandemic, many banking institutions, mainly from BUKU IV category banks, experienced a decline in their profitability ratios. Meanwhile, there is a significant difference in the rate of return on equity. The results of this study are consistent with a study conducted by Ihsan and Hosen (2021). Due to the inefficient allocation of capital, banks cannot maximize their utilization, and the return on equity is not optimal. For the BOPO variable, there is a significant difference in the level of operational management efficiency. This study's results align with a study conducted by Yasin and Fisabilillah (2021) which stated that during the COVID-19 pandemic, many banking institutions experienced an increase in the BOPO ratio. The Covid-19 pandemic has an effect on banking performance which becomes inefficient because the operational costs that must be spent are more than the amount of income that can be obtained. Not only did they experience an increase, but several banks recorded positive performance marked by a decrease in the value of the BOPO.

There is no significant difference in the performance of banking capital for the CAR variable. The results of this study are also in line with a study conducted by Tiono & Djaddang (2021) which stated that there was no difference in banking CAR performance before and after the COVID-19 pandemic and was still in good condition. The absence of a difference in performance is supported by the government's efforts through the Minister of Finance Regulation no. 70/PMK.05/2020 to maintain the stability of the national banking capital.

Conclusion

This study shows that several banking indicators in the RGEC experienced significant changes during the pandemic. Meanwhile, these indicators include risk profile indicators (LDR) and profitability indicators (ROA, ROE, BOPO). Other indicators such as good corporate governance and capital have not changed statistically during the pandemic. Changes in the LDR, which tend to fall during the pandemic, indicate that the level of credit disbursed is lower so that banks can save more deposits. In this case, banks remain in healthy liquidity. For reliability indicators, there is a tendency to increase ROA and decrease ROE and BOPO during the pandemic.

References

Ardyanfitri, H., Pratikto, M. I. S., & Faizah, E. A. K. (2019). Analisis Kesehatan Bank dan Potensi Financial Distress Menggunakan Metode RGEC pada Bank BTPN Syariah Tahun 2014-2018. *Jurnal MEBIS (Manajemen dan Bisnis), 4*(2) 59-69. https://doi.org/10.33005/mebis.v4i2.63

Bank Indonesia, (2011). Peraturan Bank Indonesia Nomor: 13/1/PBI/2011 Tentang Penilaian Tingkat Kesehatan Bank Umum. Retrieved from https://www.bi.go.id/id/publikasi/peraturan/Pages/pbi_130111.aspx

Daryanto, W, M., Utami, A, S., & Rakhmawati, T, S. (2018). Banking Health Assesment of Commercial Banks in Indonesia Using RGEC Methods: A Comparative Study. *International Journal of Business Studies, 2*(3), 122-132. https://doi.org/10.32924/ijbs.v2i3.76

Dinarjito, A., & Arisandy. D. (2021). Kesehatan Keuangan Dan Valuasi BJBR Menggunakan Risk Based Bank Rating Method. *Jurnal Pajak dan Keuangan Negara, 3*(1), 197-208. https://doi.org/10.31092/jpkn.v3i1.1327

Hafiz, A, P. (2018). Penilaian Tingkat Kesehatan Bank Syariah Dengan Metode CAMEL dan RGEC (Studi Pada Bank BNI Syariah 2011-2015). *Iltizam Journal of Shariah Economic Research, 2*(1), 66-67. https://doi.org/10.30631/iltizam.v2i1.108

Ihsan, D. N., & Hosen, M. N. (2021). Performance Bank BNI Syariah Di Masa Pandemi Covid-19. *Jurnal Ilmiah Ekonomi Islam, 7*(2), 756-770. https://doi.org/10.29040/jiei.v7i2.2494

Nurwijayanti, M., & Santoso. L. (2018). Analisis Tingkat Kesehatan Bank Dengan Menggunakan Metode RGEC (Risk Profile, Good Corporate Governance, Earnings, Capital) Pada BNI Syariah Tahun 2014-2017. *El-Barka Journal of Islamic Economics and Business, 1*(2), 207-233. https://doi.org/10.21154/elbarka.v1i2.1451

Ponirah, A., Nurazizah, F., & Sari, Y. T. P. (2021). Analisis Kesehatan Bank dengan Menggunakan Metode RGEC pada PT. Bank Mega Syariah Tbk. Periode 2016-2019. EKSISBANK (Ekonomi Syariah dan Bisnis Perbankan), 5(1), 87-97. https://doi.org/10.37726/ee.v5i1.162

Sulistiani, E., & Iswanaji. C. (2021). Analisis Kesehatan Bank Umum Syariah Di Masa Pandemi Covid-19 Tahun 2020 Dengan Pendekatan RGEC. *Jurnal Nisbah, 7*(2), 106-116. https://doi.org/10.30997/jn.v7i2.4575

Sullivan, V. S., & Widoatmodjo, S. (2021). Kinerja Keuangan Bank Sebelum dan Selama Pandemi (Covid-19). *Jurnal Manajerial dan Kewirausahaan, 3*(1), 257-266. http://dx.doi.org/10.24912/jmk.v3i1.11319

Sunardi, N. (2019). Mekanisme Good Corporate Governance Terhadap Nilai Perusahaan dengan Leverage Sebagai Variabel Intervening pada Perusahaan Manufaktur yang Terdaftar di Bursa Efek Indonesia Tahun 2012-2018. *JIMF (Jurnal Ilmiah Manajemen Forkamma), 2*(3), 48-61. http://dx.doi.org/10.32493/frkm.v2i3.3397

Tiono, I., & Djaddang. S. (2021). Analisis Komparasi Kinerja Keuangan Pada Perbankan Konvensional BUKU IV di Indonesia Sebelum dan Sesudah Pandemi Covid-19. *BALANCE: Jurnal Akuntansi, Auditing dan Keuangan, 18*(1), 72-90. https://doi.org/10.25170/balance.v18i1.2336

Wijayanti, S., & Afifi. Z. (2020). Pandemic Impact of Covid-19 On The Health of Syariah Banks. *International Journal of Economics, Business, and Accounting Research (IJEBAR), 4*(4), 1060-1067. Retrieved from https://jurnal.stie-aas.ac.id/index.php/IJEBAR/article/view/1507

Yasin, A., & Fisabilillah, L. W. P. (2021). Analisis Komparasi Kinerja Keuangan Bank Perkreditan Rakyat (BPR) Sebelum Dan Pada Pandemi Covid-19. *Equilibrium: Jurnal*

Ilmiah Ekonomi dan Pembelajarannya, 9(2), 142-152.
https://doi.org/10.25273/equilibrium.v9i2.10011