MEASURING FINANCIAL PERFORMANCE OF PT. PERUSAHAAN GAS NEGARA (PERSERO) Tbk DURING COVID-19 CRISIS IN INDONESIA

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ABSTRACT

The covid-19 pandemic is the world's biggest crisis in recent months due to the multiple effects it has caused. The domino effect caused by the pandemic turned into a social, economic, financial, and political crisis. PT. Perusahaan Gas Negara (Persero) Tbk, as a national gas company, was also affected by a decline in net profit of 87.5 percent year-on-year (YoY) to US$ 6.72 million, which occurred in the first half of this year as a result of weak demand. This study aims to analyze and measure the financial health conditions of PGN before and during the Covid-19 crisis that happened in Indonesia. The Decree of Ministry of State-owned Enterprises No. KEP-100/MBU/2002 aims to provide the framework for measuring and rating SOEs' financial health conditions. The calculation includes eight financial ratios investigating; 1) return on equity, 2) return on investment, 3) cash ratio, 4) current ratio, 5) collection period, 6) inventory turnover, 7) total asset turnover, 8) total equity to the total asset. The resulting financial ratio data from Q1 2020 and Q2 2020 is analyzed in conjunction with the previous financial performance in the same period for four years consecutively prior to the outbreak. A noticeable drop in financial performance during the Covid-19 pandemic is observed compared with the four previous periods' financial performance. The first three months of the global outbreak of the Covid-19 pandemic has resulted in the slowdown of the company's growth with minimal effect. In comparison, the first three months of the local outbreak has resulted in a further decline in financial performance. The result also shows that PT. Perusahaan Gas Negara Tbk has a healthy financial condition with A level despite going through global crises. Further study is suggested to measure the impact of a prolonged pandemic on the financial performance of PT. Perusahaan Gas Negara (Persero) Tbk. This study has added knowledge in the financial literature and vital insight into managers and national gas companies about their financial performance.

INTRODUCTION

Covid-19 is a global health problem throughout the world, including Indonesia. On December 31, 2019, the World Health Organization (WHO) confirmed the discovery of a pneumonia-like disease with a new etiology in Wuhan City, Hubei Province, China, spreading throughout China, which eventually worldwide. A month later, on January 30, 2020, the WHO declared Covid-19 a public health emergency of international concern (PHEIC). On March 2, 2020, the first case of Covid-19 in Indonesia was announced, and on March 11, the Indonesian Ministry of Health officially declared Covid-19 as a pandemic. Until October 12, 2020, Indonesia has reported 336,716 positive cases, 11,935 cases died, 258,519 cases recovered (Ministry of Health, 2020).

The spiking Covid-19 cases instantly caused a domino effect on the Indonesian economic sector (Wirajuda, 2020). To prevent the further spread of Covid-19, several countries established lockdown policies, severely limiting public activities and halting most economic activities. The World Bank projected that Indonesia's economic growth in 2020 would be declined to 2.1 percent due to the pandemic. The Covid-19 pandemic will continue to hit the world economy, along with falling commodity prices and financial market volatility.

Indonesia's energy sector contributes significantly to the gross domestic product (GDP) as 70% of the nation’s fiscal space consists of energy commodities. As the national gas company in Indonesia, PT. Perusahaan Gas Negara (Persero) Tbk (PGN) also recorded a steep decline in net profit of 87.5% in the first semester of 2020, as revenue fell amid the Covid-19 pandemic (CNBC Indonesia, 2020; Harsono, 2020). Based on the Q2 2020 financial statements, the company’s profit for the current period attributable to the parent owner amounted to US$ 6.72 million, while for the same period in the previous year, it was recorded at US$ 54.04 million. This achievement is strongly influenced by the current economic conditions, the trickle-down effect, including the impact of the Covid-19 pandemic, the decline in world oil prices, and the weakening of the Rupiah exchange rate against the US dollar. The company performance in 2020 is predicted to be under pressure due to the sentiment of the spread of Covid-19. The spread of the coronavirus is considered to reduce demand and hold back the company's expansion. The impact was also felt for industrial and commercial sectors, which experienced a decline in demand of up to 17% (Fauzan, 2020). This event is primarily caused due to many industries stopping its operation during the pandemic.

A comprehensive study is needed further to understand the implications of the Covid-19 pandemic to PGN’s financial performance. Financial ratio analysis is used to provide better insight into the company’s financial performance. Financial ratios are analytical tools that offer solutions and describe symptoms (visible symptoms) of a situation (Prastowo, 2015). Data from the financial report are drawn and analyzed to form quantitative relations between two financial statement parameters. Financial reports are the result of an accounting process that can be used as a tool to communicate between financial data or a company's activities with parties with interest in the company's data or activities (Munawir, 2014). The company's financial statements must describe the correct, relevant, and accountable financial position for accuracy. Financial performance is an analysis conducted to see the extent to which a company has implemented proper and correct financial implementation rules (Fahmi, 2014). The analysis will be used as a reference for business decision-making, mitigating the risks associated with drastic changes in demand, and minimizing the implications caused by the ongoing crisis. A financial ratio is useful to measure a small business's performance, and it can be used to predict failure (Edimsiter, 1972). Also, research on financial models' ability to provide an early warning of corporate failure is favorable (Washington, 2001). By analyzing these financial reports, information related to the company's financial position and results achieved, and information related to the company's managerial decision-making will be obtained.

State-owned enterprises (SOEs) in Indonesia are subjected to adhere to the Decree of the Ministry of State-owned Enterprises No. KEP-100/MBU/2002. The decree provides a regulatory framework to measure financial health based on financial ratios. Several studies on measuring SOE's financial health in Indonesia using the decree have been carried out previously (Daryanto, 2018; Darwin, 2019; Suraya & Meylani, 2019). However, literature that contains the effect of Covid-19 in the natural gas industry is minimal. Therefore, this study aims to measure PGN's financial health, validated by the Decree of the Ministry of State-Owned Enterprises No. KEP-100/MBU/2002. This study also aimed to compare PGN's financial health before and after the Covid-19 crisis hit Indonesia. The researchers defined the first quarter (Q1) 2020 as the period in which Covid-19 has not yet entered Indonesia. While the second quarter (Q2) of 2020 is the period in which Covid-19 has entered Indonesia. The main objective of this research is to answer the following questions: 1) How healthy is the financial performance of PT. Perusahaan Gas Negara (Persero) Tbk based on the decree of the Ministry of State-Owned Enterprises (SEOs) No. KEP-100/MBU/2002? 2) What are the implications of the Covid-19 pandemic to the financial performance of PT. Perusahaan Gas Negara (Persero) Tbk. This research is beneficial for students and lecturers to understand financial performance in a company better. It can also provide enlightenment for company managers in analyzing companies amid uncertain pandemic conditions to continue to run and still profitable.

LITERATURE REVIEW

Natural Gas Industry in Indonesia

Natural gas in Indonesia has been commercialized since the 1970s, and the economies of scale have grown ever since. In 2018, gas production reached 2.9 million standard cubic feet (MMSCF). Of the total natural gas produced in 2018, 1.7 MMSCF fulfills the domestic gas demand, while the rest 1.2 MMSCF were exported. Currently, Indonesia is in 12th position in terms of the natural gas exporter. Figure 1 shows the amount of production and consumption of natural gas in Indonesia. The demand for natural gas keeps increasing as the economy grows. However, the net production is declining over time, implying that the net exported natural gas is also declining. It is projected in 2040, the country will become a net gas importer (MEMR, 2019). Despite the rising demand, domestic gas utilization is far from efficient due to the fragmented distribution network.

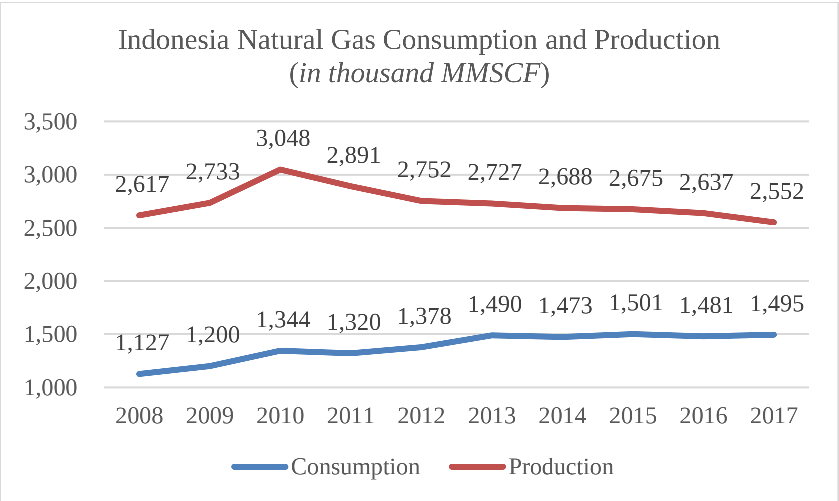

Figure 1: Overview of natural gas production and consumption in Indonesia
(Source: Ministry of Energy and Mineral Resources, 2018)

Natural gas in Indonesia is classified into three categories according to its utilization; 1) as an energy resource, 2) as raw material, and 3) as export commodities. In 2017, 23.18% of total domestic gas consumption went to the industrial sector, 14.09% went to electricity, 10.64% went to fertilizer, 5.64% went to oil and gas lifting, and 2.17% for domestic liquefied petroleum gas (LPG) consumption, and 0.15% for household gas network and gas refueling station (*Stasiun pengisian bahan bakar gas*/SPBG) (MEMR, 2018).

PT. Perusahaan Gas Negara (Persero) Tbk (PGN)

After acquiring PT. Pertamina Gas (Pertagas) in 2019, PGN has become the sole player in the midstream and downstream of Indonesia's natural gas industry. PT. Perusahaan Gas Negara Tbk., formerly Firma L.I. Enthoven & Co Gravenhage is a state-owned company established in 1859. On May 13, 1965, under Government Regulation No. 19/1965, the company changed its name to Perusahaan Gas Negara (PGN). The company then changed its legal status to a public company (*Perum/perusahaan umum*) under Government Regulation No. 2/1984. It was then changed to a limited liability company (PT/*perseroan terbatas*) owned by the state based on Government Regulation No. 3/1994 Company Establishment Deed No. 48 dated May 30, 1996, passed by notary Adam Kasdarmaji, S.H.

PGN is the largest Indonesian national company in natural gas transportation and distribution, which plays a significant role in fulfilling domestic natural gas demand. Amid the conditions of the Covid-19 pandemic, PGN is completing the construction project of the Teluk Lamong liquefied natural gas (LNG) terminal. Currently, the progress is around 90 percent, and it is ready to be tested shortly. Later, the gas will be channeled to meet gas needs in the East Java region, either by pipeline gas or in the form of retail LNG.

Currently, PGN is carrying out various SOE strategic roles as a revenue generator and an agent of development in natural gas management. The roles that are carried out include the construction and operation of downstream infrastructure, pipeline networks ± 10,000 km of pipelines, including gas networks to serve the household sector with a length of more than 3800 km, 3 receiving terminals, and SPBGs that reach 17 provinces and 63 regencies/cities. PGN is also integrating infrastructure and commodity management to become a competitive and efficient energy source. The company's business activities begin with a front to end business process, including planning, construction, production development, distribution of processed gas, and transmission to industrial, commercial, and household users.

By 2024, PGN targets energy fulfillment for 4 million household connections. A volume of 1800 domestic commercial billion British thermal units per day (BBTUD) can be realized to support domestic natural gas needs. The addition of gas infrastructure to support the target is 500 km of distribution pipes for existing and area expansion, 528 km of transmission pipes, 7 LNG filling stations for trucks and ships, 5 floating storage regasification unit (FSRU), and 34 mini-LNG for all sectors of natural gas users.

Previous Research on Financial Performances

Previous research regarding financial performance has been carried out in many sectors such as hospitals, banks, oil and gas companies, aviation companies, construction industries, and others. Several studies on measuring SOE's financial health in Indonesia using the decree have been carried out previously (Daryanto, 2018; Darwin, 2019; Suraya & Meylani, 2019). One of the essential tasks for management and shareholders during the end of the accounting period is to analyze the company's financial statements. Financial statements aim to know deeper the financial conditions that are very important in producing the right decisions (Harahap, 2015). Financial performance is one of the analyses carried out to see the extent to which a company has implemented proper and correct financial implementation rules (Fahmi, 2010). By making financial reports that meet the standards in general, financial performance can be defined as performance achievement that can be achieved by a company for a certain period. The achievement refers to the company's operational effectiveness, both from an economic and management perspective. To find out the accomplishments that the company has achieved, we must assess its performance. A company can be attributed to having stellar financial performance if conditions below are met (Sugiono, 2009): 1) The company's ability to meet its obligations (debt) that will be due (liquidity); 2) The company's ability to develop a funding structure, namely the ratio between debt and equity (leverage); 3) The company's ability to gain (profitability); 4) The company's ability to develop (growth); and 5) The company's ability to manage assets maximally (activity).

The Decree of Ministry of State-owned Enterprises

SOE is a business entity owned by the government. The definition of SOE, according to Indonesian Law No. 19/2003, is an entity whose entire or most of its capital by the state through direct participation originating from separated state assets. Article 1 Paragraph 2 states that a limited liability company is a state-owned company in the form of a limited liability company whose capital is divided into shares of which the Republic of Indonesia owns all or at least 51% of the shares intending to pursue profit. The decree of the Ministry of State-owned Enterprises No. KEP-100/MBU/2002 provides a regulatory framework to measure financial health based on financial ratios. The outcome of the calculation is eight financial ratios: return on equity (ROE), return on investment (ROI), cash ratio, current ratio (CR), collection period (CP), inventory turnover (ITO), total asset turnover (TATO), total equity to the total asset (TETA).

METHODOLOGY

Eight indicators of the financial ratio analysis based on the Decree of the Ministry of SOE No. KEP-100/MUBU/2002 are used in this research to assess the overall financial health of PT. Perusahaan Gas Negara Tbk. Table 1 shows the indicators that will be measured and their weight scores. The researchers selected PGN as it is a state-owned enterprise in non-financial services that qualified in this decree. Data were collected from the company’s quarterly financial statement from 2016 until 2020. Furthermore, the analysis will determine whether the company’s financial performance is healthy, less healthy, or unhealthy.

Table 1: The Indicators and Weight Score

Indicators		Weight Score
1.	ROE	20
2.	ROI	15
3.	Cash Ratio	5
4.	Current Ratio	5
5.	Collection Period	5
6.	Inventory Turnover	5
7.	Total Asset Turnover	5
8.	Total Equity to Total Asset	10
Total Weight Score		**70**

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

The level of financial assessment is divided into very healthy (the highest level of financial literacy), healthy (the middle level of financial literacy), and unhealthy (the lowest level of financial literacy). There are three types of levels in the highest category, which are AAA (if the total score is more than 95 points), AA (if the total score is more than 80 and less than 95), and A (if the total score is more than 65 and less than 80). There are three types of levels in the middle category such as BBB (if the total score is more than 50 and less than 65), BB (if the total score is more than 40 and less than 50), and B (if the total score is more than 30 and less than 40). There are three types of levels in the lowest category such as CCC (if the total score is more than 20 and less than 30), CC (if the total score is more than 10 and less than 20), and C (if the total score is less than 10).

According to Kasmir (2016: 104) financial ratio is an activity comparing the numbers in the financial statements by dividing one number by another. Comparisons can be made between one component and the components in one financial report or among components in the financial statements, then the comparable numbers can be in the numbers in a period or several periods. Based on the explanation above, financial ratios are a comparison of the number of components contained in financial statements, both in one period and several periods and then used as material for analysis. According to Kasmir (2016: 110-114), the forms of financial ratios are as follows: "Liquidity ratio, leverage ratio, activity ratio, profitability ratio, growth ratio and valuation ratio". Financial ratios can be used to identify a company's specific strengths and weaknesses and provide detailed information about company profitability, liquidity, activity, and solvency (Hempel et al., 1994 and Dietrich, 1996). Although accounting data in financial statements are subjected to manipulation, and financial statements are backward-looking, they are the only detailed information available on its overall activities (Sinkey, 2002). Furthermore, it is the only source of information for evaluating management's potential to generate satisfactory returns in the future (Kumbirai and Webb, 2010).

A. Profitability Performance

A1. Return on equity (ROE)

Profitability is the most common measure for a company's financial performance. Profitability is the company's ability to earn a profit related to sales, total assets, and equity (Sartono, 2010). Return on equity is an essential ratio for investors to consider its profits as it measures how efficiently a company uses shareholders' money to generate profits and grow the company (Anthony et al, 2011). Table 2 shows the assessment score of ROE. The equation for profitability measurement can be expressed as:

$$\boxed{\textbf{Return on Equity (ROE)} = \textbf{(Net Income / Shareholder's Equity)}}$$

Table 2: List of ROE Assessment Score

ROE (%)	Score
15 < ROE	20
13 < ROE <= 15	18
11 < ROE <= 13	16
9,0 < ROE <= 11	14
7,9 < ROE <= 9	12
6,6 < ROE <= 7,9	10
5,3 < ROE <= 6,6	8,5
4,0 < ROE <= 5,3	7
2,5 < ROE <= 4,0	5,5
1,0 < ROE <= 2,5	4
0 < ROE <= 1	2
ROE < 0	0

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

A2. Return on investment (ROI):
Return on investment (ROI) is a profitability ratio that calculates an investment's profits as a percentage of the original cost. ROI is also a measure of management effectiveness in managing its investment. Table 3 shows the assessment score of ROI. The equation of ROI can be expressed as:

Return on Equity (ROI) = (EBIT+Depreciation / Capital Employed)

Definition of the formula:
- Earnings before income tax (EBIT) can be calculated as revenue minus expenses, excluding tax and interest.
- Capital Employed refers to the amount of capital investment a business uses to operate and indicates how a company is investing its money or can be calculated as total assets minus current liabilities.

Table 3: List of ROI Assessment Score

ROI (%)	Score
18 < ROI	15
15 < ROI <= 18	13,5
13 < ROI <= 15	12
12 < ROI <= 13	10,5
10,5 < ROI <= 12	9
9 < ROI <= 10,5	7,5
7 < ROI <= 9	6
5 < ROI <= 7	5
3 < ROI <= 5	4
1 < ROI <= 3	3

0 < ROI <= 1	2
ROI < 0	1

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

B. Liquidity Performance

B1. Cash ratio

Liquidity performance measures the company's ability to pay its short-term debt. If the company has a cash ratio equal to one, it indicates that the company has cash ratio equal to one, it indicates that the company has the same amount of cash and debt. If the cash ratio value is more than one, it indicates that the company has more cash to pay its debt. However, if the value is less than one, it indicates that the company has less cash to pay its debt. Table 4 Shows the assessment score for the cash ratio. The equation of liquidity performance can be expressed as:

Cash Ratio = (Cash + Cash Equivalents / Current Liabilities) x

Table 4: List of Cash Ratio Assessment Score

Cash Ratio = X (%)	Score
X >= 35	5
25 <= X < 35	4
15 <= X < 25	3
10 <= X < 15	2
5 <= X < 10	1
0 <= X	0

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

B2. Current ratio

The current ratio measures the company's ability to repay its current liability with current assets. If the company has a current ratio below 1, it indicates that the company has a problem with its short-term debt. If the company has a too high current ratio, it indicates that the company has a problem managing its current asset. Table 5 shows the current ratio assessment score. The liquidity performance expressed in the formula as:

Current Ratio = (Current Asset / Current Liabilities) x

Table 5: List of Current Ratio Assessment Score

Current Ratio = X (%)	Score
125 <= X	5
110 <= X < 125	4
100 <= X < 110	3
95 <= X < 100	2
90 <= X < 95	1
X < 90	0

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

B3. Collection period (CP)

The collection period ratio is an essential indicator for the company to monitor its cash flow and its ability to pay its debt on the due date. Table 6 shows the assessment score for the collection period. Furthermore, liquidity performance also can be expressed as:

Collection Period = (Average Accounts Receivable / Sales Revenue Liabilities) x

Table 6: List of Collection Periods Assessment Score

Collection Periods = X (days)	Adjustment (days)	Score
X < = 60	30 < X	5
60 < X <= 90	30 < X <= 35	4,5
90 < X <= 120	25 < X <= 30	4
120 < X <= 150	20 < X <= 25	3,5
150 < X <= 180	15 < X <= 25	3
180 < X <= 210	10 < X <= 15	2,4
210 < X <= 240	6 < X <= 10	1,8
240 < X <= 270	3 < X <= 6	1,2
270 < X <= 300	1< X <= 3	0,6
300 < X	0 < X <= 1	0

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

C. Activity Ratio

C1. Inventory turnover (ITO)

This ratio measures how many times the inventory is being sold over a period. Table 7 shows the assessment score for inventory turnover. The activity ratio can be expressed in an equation as:

Inventory Turnover = (Cost of Goods Sold / Average

Table 7: List of Inventory Turnover Assessment Score

Inventory Turnover = X (days)	Adjustment (days)	Score
X < = 60	30 < X	5
60 < X <= 90	30 < X <= 35	4,5
90 < X <= 120	25 < X <= 30	4
120 < X <= 150	20 < X <= 25	3,5
150 < X <= 180	15 < X <= 25	3
180 < X <= 210	10 < X <= 15	2,4
210 < X <= 240	6 < X <= 10	1,8
240 < X <= 270	3 < X <= 6	1,2
270 < X <= 300	1< X <= 3	0,6
300 < X	0 < X <= 1	0

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

C2. Total asset turnover (TATO)

Besides, this ratio measures the efficiency of a company's ability to use its assets to generate sales. Table 8 shows the total asset turnover assessment score. It can be expressed in the formula as:

Total Asset Turn Over (TATO) = (Revenue / Capital Employed)

Table 8: List of Total Asset Turnover Assessment Score

Total Asset Turnover = X (days)	Adjustment (days)	Score
120 < X	20 < X	5
105 < X <= 120	15 < X <= 20	4,5
90 < X <= 105	10 < X <= 15	4
75 < X <= 90	5 < X <= 10	3,5
60 < X <= 75	0 < X <= 5	3
40 < X <= 60	X <= 0	2,5
20 < X <= 40	X < 0	2
X <= 20	X < 0	1,5

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

D. Solvency Ratio

This ratio is similar to the debt to equity ratio. If the company has less value, it indicates that the company is funding its asset inefficiently. In other words, the company has a very low net value for the investor. Table 9 shows the solvency assessment score. This ratio can be expressed in an equation as:

Total Equity to Total Asset = (Total Equity / Total Asset) x

Table 9: List of Solvency Assessment Score

Total Equity to Total Asset (%) = X	Score
X < 0	0
0 <= X < 10	4
10 <= X < 20	6
20 <= X < 30	7,25
30 <= X < 40	10
40 <= X < 50	9
50 <= X < 60	8,5
60 <= X < 70	8
70 <= X < 80	7,5
80 <= X < 90	7
90 <= X < 100	6,5

Source: The decree of Ministry of SOE No. KEP 100/MBU/2002

DISCUSSION

A. Profitability Performance Measurement

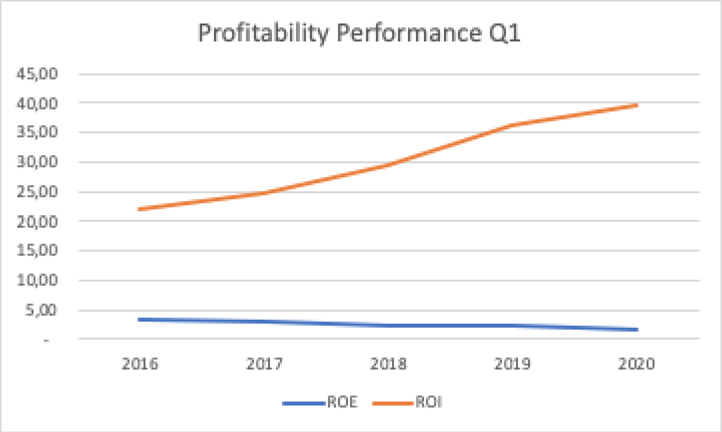

Figure 2: Profitability trend on Q1 of the observed period

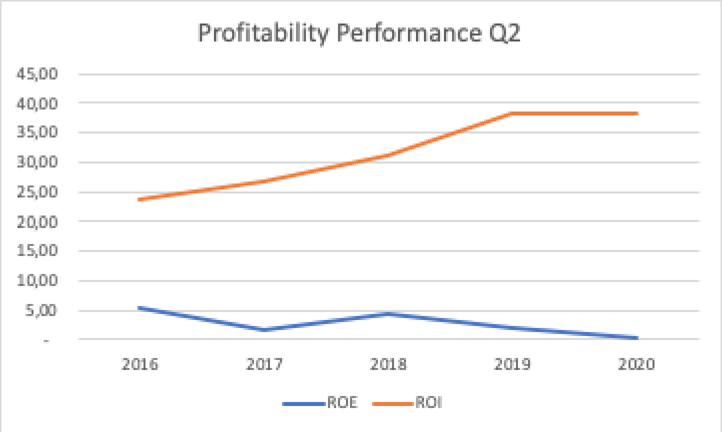

Figure 3: Profitability trend on Q2 of the observed period

Figure 2 and 3 present the PGN's profitability performance during the first quarter (Q1) and second quarter (Q2) of the observed period. At first glance, the return on equity (ROE) and return on investment (ROI) during the observed period is diverging over time. The ROI ratios for Q1 are 22.06%, 24.60%, 29.36%, 36.26%, and 39.53% consecutively, while the ROI ratios for Q2 are 23.67%, 26.82%, 31.26%, 38.10%, and 38.15% consecutively. According to the Decree, ROI ratios above 18% yielded the best result with a score of 15. Therefore, PGN's ROI ratios were achieved above the standard level during the observed period. As described in Table 11, the ROI in Q1 keeps increasing from 22.06% in 2015 to 39,53% in 2020. While the ROI ratio in Q1 keeps increasing, the ROI ratio levelled in Q2 2020, implicating that the ROI performance was impacted by the local outbreak of the Covid-19 pandemic. Still, the Covid-19 pandemic before entering Indonesia yielded no impact on the ROI ratios in Q1 2020.

The ROE ratios for Q1 are 3.22%, 2.97%, 2.48%, 2.46%, and 1.84% consecutively, while the ROE ratios for Q2 are 5.32%, 1.63%, 4.52%, 2.15%, and 0.27% consecutively. The ROE ratios during the observed period fluctuate over time but show a declining trend overall. According to the Decree of the Ministry of SOE, there are no ROE on the observed period that met the top criteria. Although the ROE ratio in Q1 2020 is slightly declining, the ROE ratio in Q2 2020 plummeted from 2.15% in Q2 2019 to 0.27% in Q2 2020. The resulting ROE ratio implies that the local outbreak of the Covid-19 pandemic has impacted the ROE ratios in Q2 2020.

B. Liquidity Performance Measurement

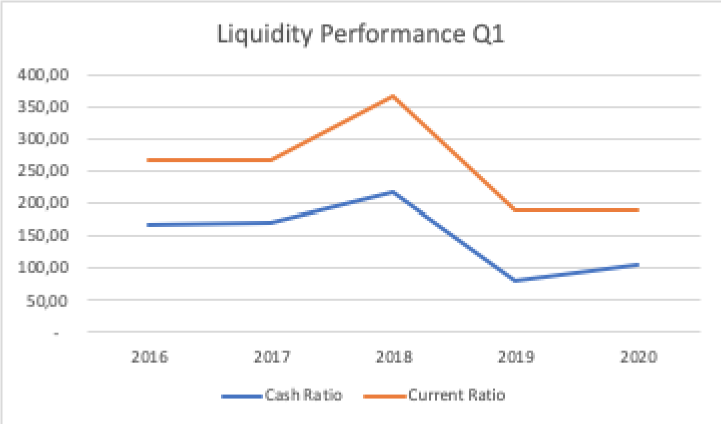

Figure 4: Liquidity trend on Q1 of the observed period

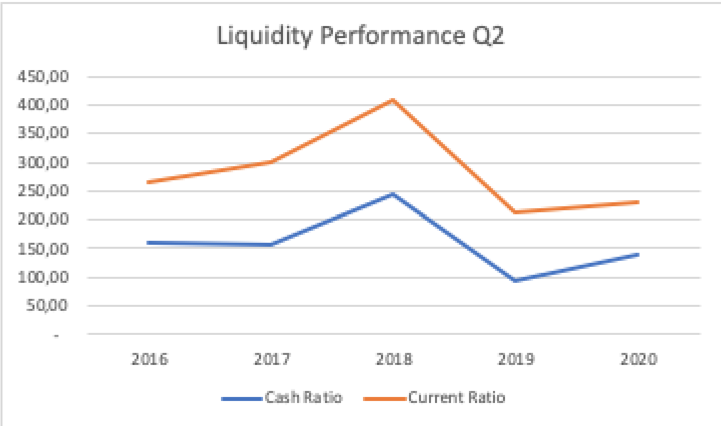

Figure 5: Liquidity trend on Q2 of the observed period

Figure 4 and 5 present the liquidity performance of PGN during Q1 and Q2 of its accounting period. The current ratios for Q1 are 265.76%, 267.93%, 365.25%, 190.31%, and 188.38% consecutively, while the current ratios for Q2 are 265.38%, 299.86%, 406.67%, 213.05%, and 230.86% consecutively. Average current ratios for Q1 in the past five years are 147.68%, implying that for every IDR 1 of current liability is guaranteed by IDR 1.47 of current assets. For Q2, the average current ratios in the past five years are 283.16%, implying that for every IDR 1 of current liability is guaranteed by IDR 2.83 of current assets. The Decree stated that every current ratio above 125% yielded the best performer, and PGN has maintained their current ratios during the observed period above standard. The result also shows that PGN has maintained its liquidity performance above standard even after the first three months of the local outbreak have begun, thus leaving the company without short term financial problems.

The cash ratios for Q1 are 167.65%, 170.18%, 216.26%, 79.82%, and 104.49% consecutively, while the cash ratio for Q2 are 158.91%, 157.47%, 245.96%, 95.29%, and 138.28% consecutively. According to the Decree, every cash ratio above 35% yielded the best performer. Therefore, PGN's cash ratio was maintained at the best performance during the observed period, and Covid-19 has no impact on the cash ratio performance. The outstanding result of the current and cash ratio proves that the ongoing crisis did not affect PGN's liquidity performance.

C. Activity Ratio Measurement

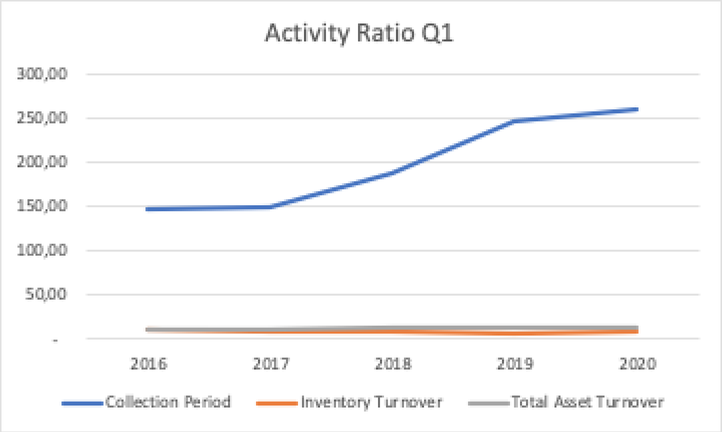

Figure 6: Activity trend on Q1 of the observed period

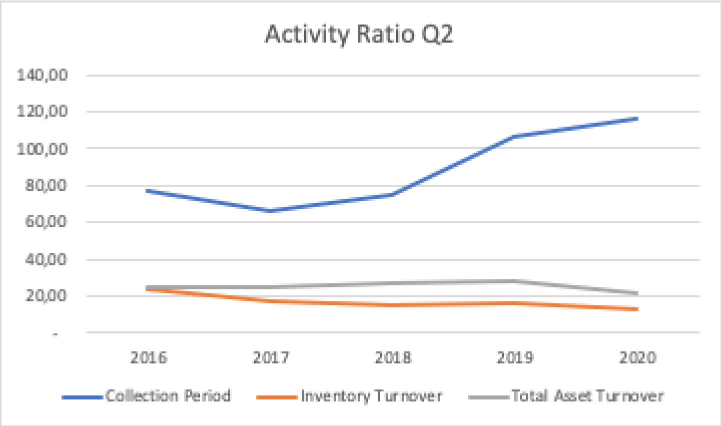

Figure 7: Activity trend on Q2 of the observed period

Figure 6 and 7 present the PGN's activity ratio during Q1 and Q2 of its accounting period. A first glance into the figures shows that the collection period (CP) increases over time, while the inventory turnover (ITO) and total asset turnover (TATO) fluctuate during the observed period. Table 11 and 12 provide the detailed result of CP during Q1 and Q2 of the observed period. CP in Q1 was recorded at 146.82, 149.55, 187.43, 245.74, and 259.82 days consecutively. Simultaneously, ITO in Q2 was recorded at 76.74, 66.32, 74.78, 106.06, and 116.39 days consecutively. Q2 collection period reduced in 2017 from 76.74 days in 2016 to 66.32 days in 2017 but kept increasing afterwards to 116.39 days in 2020. The Q1 collection period is slightly increased in 2017 from 146.82 days in 2016 to 149.55 days in 2017 and spiked during the rest of the observed period. The collection period's poor performance implies that the company's suppliers did not practice exemplary commitment to their contract, especially during the ongoing pandemic, and suggested improving the collection period.

The total asset turnover of PGN did not perform exceptionally well either. TATO in Q2 over the observed period fluctuates slightly starting from 24.42% in 2016, 24.63% in 2017, then increased to 27.45% in 2018, further increased to 28,45% in 2019 and fell down to 22.06% in 2020. The decrease in TATO in Q2 2020 can be associated with the decline in gas demand during the shutdown of industries across the nation due to the implementation of the work-from-home policy. TATO in Q1 yielded an even lower ratio than of the Q2 but less fluctuate than the Q2. The poor TATO performance implies that the company's practice in managing its assets to generate revenues is far from efficient.

On the other hand, the inventory turnover (ITO) of PGN performed very well over the observed period. ITO in Q1 saw a steep downfall in 2017 from 11.72 days in 2016 to 8.72 days in 2017 and in 2019 from 9.48 days in 2018 to 7.30 days in 2019. However, ITO in Q1 2020 increased to 8.96 days; thus, the global outbreak has not yet impacted the sales of natural gas of PGN. ITO in Q2 shows a downward trend from 24.19 days in 2016 to 12.97 days in 2020 with the exclusion of 2019, which slightly increased from 15.46 days in 2018 to 16.35 days in 2019. Overall, the company has demonstrated an exceptional practice in managing its inventory even during the ongoing pandemic.

D. Solvency Measurement

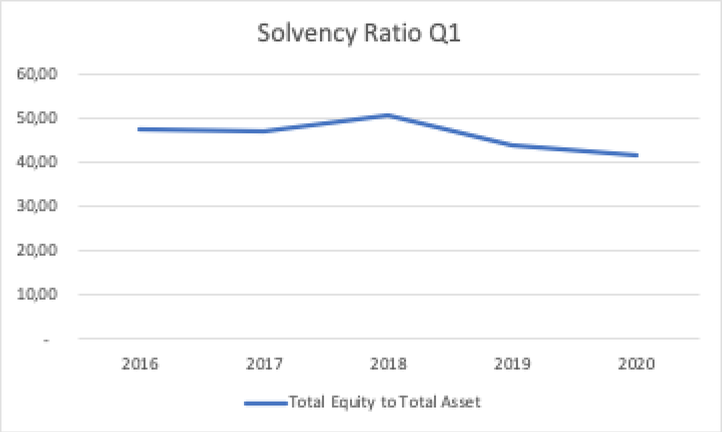

Figure 8: Solvency trend on Q1 of the observed period

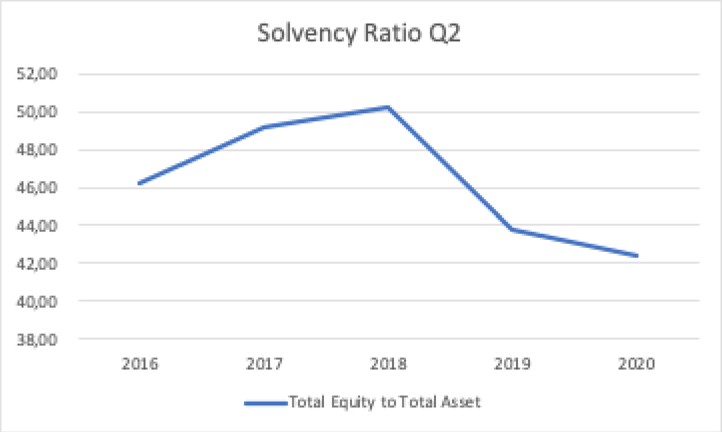

Figure 9: Solvency trend on Q2 of the observed period

The owner's equity to asset ratio is measured to determine the percentage of its assets are owned by the shareholders. The higher the ratio implies that the shareholders own more of its assets instead of the creditor. According to the Decree, total equity to total asset (TETA) ratio of 30-40% yields the best performance. Although fluctuating, PGN has maintained their TETA ratio quite well. TETA in Q1 2018 was slightly increased from 46.94% in 2017 to 50.46% in 2018 before declining to 43.88% in 2019 and further decline to 41.35% in 2020. A similar phenomenon is observed in Q2, given the TETA ratio was increased from 46.17% in 2016 to 50.21% in 2018, where it began to decline to 43.88% in 2019 and increased to 41.35% in 2020. For most of the observed period, PGN financed more than half of its total assets through its liability except in 2018. Therefore, PGN needs to pay attention to their long-term obligations.

E. Validation Testing

The Decree of the Ministry of State-Owned Enterprises No. KEP-100/MBU/2002 is used to assess SOE's overall financial performance in Indonesia based on eight financial ratios. Table 11 and 12 provides the total score, total weight, level and category of each period being validated. The summary of the total weight is presented as levels and categories that have been defined in the Decree (Table 10). Despite the steep decline of the ROE during Q2 2020, PGN has achieved a higher score of the financial performance compared to Q1 2020. This phenomenon is primarily due to the company achieved better collection period and total asset turnover in Q2 2020 than in Q1 2020. Overall, PGN achieved a healthy category with an A level across the observed period. However, the overall result presents a downward trend, except for Q2 2018, which the total weight increased from 70.71% in 2017 to 74.29% in 2018 (Figure 9).

Table 10: Criteria for level and category based on the Decree of the Ministry of SOE

Category	Level	Criteria
HEALTHY (*SEHAT*)	AAA	Total Weight > 95
	AA	80 < Total Weight ≤ 95
	A	65 < Total Weight ≤ 80
UNWELL (*KURANG SEHAT*)	BBB	50 < Total Weight ≤ 65
	BB	40 < Total Weight ≤ 50
	B	30 < Total Weight ≤ 40
UNHEALTHY (*TIDAK SEHAT*)	CCC	20 < Total Weight ≤ 30
	CC	10 < Total Weight ≤ 20
	C	Total Weight ≤ 10

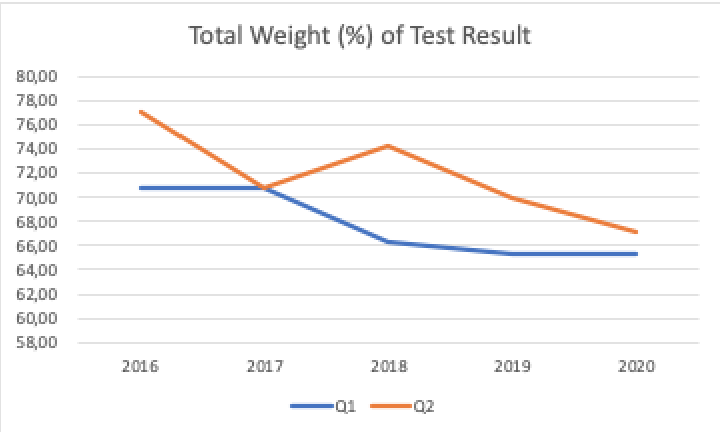

Figure 9: Total weight (%) of test result

Table 11: Q1 test result

Indicators	2016 Q1 Ratio	2016 Q1 Score	2017 Q1 Ratio	2017 Q1 Score	2018 Q1 Ratio	2018 Q1 Score	2019 Q1 Ratio	2019 Q1 Score	2020 Q1 Ratio	2020 Q1 Score
Return on Equity	3.22	5.5	2.97	5.5	2.48	4	2.46	4	1.84	4
Return on Investment	22.06	15	24.60	15	29.36	15	36.26	15	39.53	15
Cash Ratio	167.65	5	170.18	5	216.26	5	79.82	5	104.49	5
Current Ratio	265.76	5	267.93	5	365.25	5	190.31	5	188.38	5
Collection Period	146.82	3.5	149.55	3.5	187.43	2.4	245.74	1.2	259.82	1.2
Inventory Turnover	11.72	5	8.72	5	9.48	5	7.30	5	8.96	5
Total Asset Turnover	12.10	1.5	12.15	1.5	13.50	1.5	13.41	1.5	13.14	1.5
Total Equity to Total Asset	47.23	9	46.94	9	50.46	8.5	43.88	9	41.35	9
Total Score	**49.5**		**49.5**		**46.4**		**45.7**		**45.7**	
Total Weight (%)	**70.71**		**70.71**		**66.29**		**65.29**		**65.29**	
Level	**A**		**A**		**A**		**A**		**A**	
Category	**Healthy**		**Healthy**		**Healthy**		**Healthy**		**Healthy**	

Table 12: Q2 test results

Indicators	2016 Q2		2017 Q2		2018 Q2		2019 Q2		2020 Q2	
	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score	Ratio	Score
Return on Equity	5.32	8.5	1.63	4	4.52	7	2.15	4	0.27	2
Return on Investment	23.67	15	26.82	15	31.26	15	38.10	15	38.15	15
Cash Ratio	158.91	5	157.47	5	245.96	5	95.29	5	138.28	5
Current Ratio	265.38	5	299.86	5	406.67	5	213.05	5	230.86	5
Collection Period	76.74	4.5	66.32	4.5	74.78	4.5	106.06	4	116.39	4
Inventory Turnover	24.19	5	16.99	5	15.46	5	16.35	5	12.97	5
Total Asset Turnover	24.42	2	24.63	2	27.45	2	28.47	2	22.06	2
Total Equity to Total Asset	46.17	9	49.14	9	50.21	8.5	43.83	9	42.38	9
Total Score	**54.0**		**49.5**		**52.0**		**49.0**		**47.0**	
Total Weight (%)	**77.14**		**70.71**		**74.29**		**70.00**		**67.14**	
Level	**A**		**A**		**A**		**A**		**A**	
Category	**Healthy**		**Healthy**		**Healthy**		**Healthy**		**Healthy**	

CONCLUSION AND RECOMMENDATION

The study of the financial performance of PGN is carried out based on the Decree of the Ministry of State-owned Enterprises No. KEP-100/MBU/2002. The decree provides a regulatory framework to assess the financial health of SOEs in Indonesia based on four classifications: profitability, liquidity, solvency, and activity ratios. The validation results implied that disruption caused by the Covid-19 pandemic has an adverse effect on PGN's financial performance. The test result shows that the total score in Q1 2020 has levelled at 65.29, implying that the company's opportunity to grow hindered by the pandemic. Also, the decline in total score in Q2 2020 (from 70.00 to 67.14) further implies that the company is struggling during the ongoing local outbreak. The demand for natural gas has been declining since mid-March 2020 as the large-scale social restriction enforces workers to work from home and industries being shut down in an attempt to reduce the spread of Covid-19 infection. However, despite going through the crisis, the company successfully maintained its healthy A-level financial performance throughout the first three months of the local Covid-19 outbreak. Reflecting on the activity ratio, the company is suggested to improve the collection period and total asset turnover to improve its financial performance. It is also recommended that PGN continuously monitor and adapt to government policies regarding the social restrictions during the crises. However, further study related to the prolonged effect of the Covid-19 pandemic on PGN's financial performance is suggested to reflect a more detailed result.

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