**Analysis of Debt Value to Negative Equity at PT Garuda Indonesia (Persero) Tbk**

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**Abstract**

This research aims to analyze the effect of debt value on negative equity at PT Garuda Indonesia (Persero) Tbk. Hypothesis testing is carried out using the t statistical test. The sampling technique used is nonprobability sampling with data taken from the second quarter of 2020 to the third quarter of 2023, when negative equity occurs. The results of the analysis show that the value of debt has a negative effect on negative equity. The new finding in this research is that companies took 25 months to gradually recover from the Covid-19 pandemic. A high debt value causes negative equity, the company obtains more capital from debt because business activity is low. It would be better for companies to increase business activities by increasing flight schedules for profitable routes.

**Keywords**: Debt Value, Negative Equity, Aviation Sector.

**1 Introduction**

Equity is a long-term investment because investors assess a company's equity by looking at its future prospects (Ariesandi, 2018). Equity is a source of funds obtained by a company to purchase assets and run company operations. The source of these funds comes from shareholder capital and debt (Budiman, 2022).

In the third quarter of 2023, the IDX announced that 47 issuers had received financial report notations with negative equity (Hafiyyan & Rajendra, 2024). The issuer with the largest negative equity is PT Garuda Indonesia (Persero) Tbk. The results of the analysis (Seto et al., 2023) show that the debt equity ratio of the company PT Garuda Indonesia (Persero) Tbk is in minus condition. This position is the result of a negative equity value.

Table 1. Debt to Equity RatioPT Garuda Indonesia (Persero) Tbk

|  |  |
| --- | --- |
| Year | DER |
| 2020 | -655,32% |
| 2021 | -217,72% |
| 2022 | -506,16% |

Source: (Mutmainah et al., 2023)

In the table above, the information obtained is that since Covid-19 occurred, PT Garuda Indonesia (Persero) Tbk experienced a negative DER, in 2021 it experienced a decline but rose again in 2022 by 288.44%.

Negative equity indicates that the company experienced very large losses exceeding the previous equity value (Samsul, 2006). Negative equity occurs when the number of liabilities is greater than the number of assets and it can be said that the company is unhealthy because it is experiencing losses (Ferdila et al., 2021). A negative equity value indicates that the company's wealth value is in a minus condition or the company has no wealth (Seto et al., 2023).

(Suwandi, 2022) in his research on the causes of negative equity using the variables net profit and debt value. The research results show that only the debt value has a negative influence on equity. (Seto et al., 2023) uses negative equity variables as the cause of minus DER and DAR. (Mutmainah et al., 2023) the results of the DER analysis from 2020 to 2022 for PT Garuda Indonesia (Persero) Tbk are minus. This research is a replica of research (Suwandi, 2022) which only uses the debt value variable. Previous research has carried out DER analysis from 2020 to 2022, so this research aims to continue previous research by adding data for three quarters in 2023 and will analyze changes every quarter.

**2 Literature Review**

## 2.1 Negative Equity

Companies with negative equity are companies that go bankrupt but continue to operate (Caballero et al., 2008). Companies with negative equity are companies that have high leverage (Urionabarrenetxea et al., 2016). From an accounting perspective, negative equity is caused by the number of assets being smaller than the number of liabilities (Nubli, 2021).

## 2.2 Company Funding Sources

Capital structure is the mix of permanent funding sources used by a company (Sawir, 2004). Capital structure is the proportion and composition of long-term debt and equity (Mardiyanto, 2009). If funds are required for the purpose of the company's activities, they can be obtained from long-term sources. Meanwhile, for worker welfare facilities, companies can obtain them from internal sources (Komarudin & Tabroni, 2019). Companies obtaining debt are generally used for their business activities (Sitorus, 2023).

## 2.3 Fundamental Analysis

In investing, investors carry out fundamental analysis by looking at the company's performance from its financial reports (Auliya, 2021). Information used in fundamental analysis includes total liabilities and total equity (Sukamulja, 2022). Investors will see the amount of company wealth (equity) at the beginning of the period, transactions that cause increases and decreases in equity, and the amount of equity at the end of the period (Budiman, 2022).

## 2.4 Framework For Thought and Hypothesis

In an economic crisis, companies that experience losses caused by high leverage must face minus equity (Urionabarrenetxea et al., 2016). Negative equity can occur when total liabilities exceed total assets and the company is considered to be experiencing financial difficulties (Mokhova & Zinecker, 2016). The hypothesis in the research is

Ha: The value of debt has a negative effect on equity

**3 Research Methods**

This research uses the t test as a hypothesis test. The sampling technique used is nonprobability sampling, the sample data used is quarterly financial data when the initial period of PT Garuda Indonesia (Persero) Tbk experienced negative equity from the 2nd quarter of 2020 to the 3rd quarter of 2023.

**4 Results and Discussion**

**Results**

Table 2. Negative Equity PT Garuda Indonesia (Persero) Tbk

|  |  |  |  |
| --- | --- | --- | --- |
| **Quarterly**  | **Annual** | **Negative Equity ($)** | **Increase****/Decrease** |
| Quarterly II - 2020 |  |  (80.773.228) | - |
| Quarterly III - 2020 |  |  (455.575.100) | 464,02% |
|  | 2020 |  (1.943.024.247) | - |
| Quarterly I - 2021 |  |  (2.321.745.318) | - |
| Quarterly II - 2021 |  |  (2.848.282.660) | 22,68% |
| Quarterly III - 2021 |  |  (3.605.473.334) | 26,58% |
|  | 2021 |  (6.110.059.715) | 214,46% |
| Quarterly I - 2022 |  |  (6.334.962.198) | - |
| Quarterly II - 2022 |  |  (2.350.544.312) | -62,90% |
| Quarterly III - 2022 |  |  (2.412.264.200) | 2,63% |
|  | 2022 |  (1.535.099.150) | -74,88% |
| Quarterly I - 2023 |  |  (1.642.937.910) | - |
| Quarterly II - 2023 |  |  (1.610.077.268) | -2,00% |
| Quarterly III - 2023 |  |  (1.610.653.147) | 0,04% |

Source: Financial Statement PT Garuda Indonesia (Persero) Tbk

Table 3. Debt Value PT Garuda Indonesia (Persero) Tbk

|  |  |  |  |
| --- | --- | --- | --- |
| **Quarterly** | **Annual** | **Debt ($)** | **Increase****/Decrease** |
| Quarterly II - 2020 |  |  10.367.698.254  | - |
| Quarterly III - 2020 |  |  10.361.096.065  | -0,06% |
|  | 2020 |  12.733.004.654  | - |
| Quarterly I - 2021 |  |  12.900.600.238  | - |
| Quarterly II - 2021 |  |  12.963.057.853  | 0,48% |
| Quarterly III - 2021 |  |  13.027.027.769  | 0,49% |
|  | 2021 |  13.302.805.075  | 4,47% |
| Quarterly I - 2022 |  |  13.383.273.724  | - |
| Quarterly II - 2022 |  |  8.210.155.101  | -38,65% |
| Quarterly III - 2022 |  |  8.298.518.817  | 1,08% |
|  | 2022 |  7.770.110.129  | -41,59% |
| Quarterly I - 2023 |  |  7.828.860.146  | - |
| Quarterly II - 2023 |  |  7.892.044.635  | 0,81% |
| Quarterly III - 2023 |  |  7.766.536.580  | -1,59% |

Source: Financial Statement PT Garuda Indonesia (Persero) Tbk

The explanation from table 2 is that in the second quarter of 2020, negative equity was $80,773,228. In 2020, in the third quarter, negative equity was $455,575,100, an increase of 464.02% from the second quarter. In 2020 negative equity was $1,943,024,247.

In 2021, first quarter negative equity of $2,321,745,318. In 2021, quarter II, negative equity was $2,848,282,660, an increase of 22.68% from quarter I. In 2021, quarter III, negative equity was $3,605,473,334, an increase of 26.58% from quarter II. In 2021 negative equity was $6,110,059,715, an increase of 214.46% from 2020.

In 2022, first quarter negative equity will be $6,334,962,198. In 2022, quarter II, negative equity was $2,350,544,312, a decrease of 62.90% from quarter I. In 2022, quarter III, negative equity was $2,412,264,200, an increase of 2.63% from quarter II. In 2022 negative equity of $1,535,099,150 is a decrease of 74.88% from 2021.

In 2023, first quarter negative equity will be $1,642,937,910. In 2023, quarter II, negative equity was $1,610,077,268, a decrease of 2.00% from quarter I. In 2023, quarter III, negative equity was $1,610,653,147, an increase of 0.04% from quarter II.

The explanation from table 3 is that in the second quarter of 2020, the debt value was $10,367,698,254. In 2020, in the third quarter, the debt value was $10,361,096,065, a decrease of 0.06% from the second quarter. In 2020, the debt value was $12,733,004,654.

In 2021, in the first quarter, the debt value is $12,900,600,238. In 2021, in the second quarter, the debt value was $12,963,057,853, an increase of 0.48% from the first quarter. In 2021, in the third quarter, the debt value was $13,027,027,769, an increase of 0.49% from the second quarter. In 2021, the debt value was $13,302,805,075, an increase of 4.47% from 2020.

In 2022, in the first quarter, the debt value will be $13,383,273,724. In 2022, in the second quarter, the debt value was $8,210,155,101, a decrease of 38.65% from the first quarter. In 2022, in the third quarter, the debt value was $8,298,518,817, an increase of 1.08% from the second quarter. In 2022, the debt value will be $7,770,110,129, a decrease of 41.59% from 2021.

In 2023, in the first quarter, the debt value will be $7,828,860,146. In 2023, in the second quarter, the debt value was $7,892,044,635, an increase of 0.81% from the first quarter. In 2023, in the third quarter, the debt value was $7,766,536,580, a decrease of 1.59% from the second quarter.

Table 4. Coefficient of Determination Test Results

|  |
| --- |
| *Regression Statistics* |
| Multiple R | 0,587014045 |
| R Square | 0,344585489 |
| Adjusted R Square | 0,289967613 |
| Standard Error | 1527762340 |
| Observations | 14 |

Multiple R shows 0.5870, which means there is a relationship between negative equity and the debt value. R Square 0.3446 means that 34.46% of the negative equity variable can be explained by the debt value variable while the remaining 65.54% can be explained by other variables. The regression equation for this research is

Y = 2055744850 - 0.43351 (x)

If debt increases by one unit, negative equity decreases by 0.43351. The standard error of 1527762340 is smaller than the standard deviation of 1855302168, so the regression model is correct in predicting negative equity.

Table 5. ANOVA

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ANOVA |  |  |  |  |  |
|  | *df* | *SS* |  *MS*  | *F* | *Significance F* |
| Regression | 1 | 1,47256E+19 |  14.725.626.397.297.100.000  | 6,309023969 | 0,027318556 |
| Residual | 12 | 2,80087E+19 |  2.334.057.766.991.240.000  |  |  |
| Total | 13 | 4,27343E+19 |   |   |   |

Table 6. t Statistical Test Results

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | *Coefficients* | *Standard Error* |  *t Stat*  | *P-value* |
| Intercept | 2055744850 | 1855302168 | 1 | 0,289560428 |
| utang | -0,433513785 | 0,172592462 | (3) | 0,027318556 |

**Discussion**

Table 5 and table 6 show that the P value is 0.02731 < 0.05 and the significance F is 0.02731 < 0.05, so Ha is accepted, meaning that the debt value affects equity negatively. This research is in accordance with research (Suwandi, 2022) which states that the value of debt has a negative influence on negative equity. The increase in negative equity started from the second quarter of 2020 when the Covid-19 pandemic began. This increase continued until the first quarter of 2022, and began to gradually decline from the second quarter of 2022. This means that the company needed 25 months to recover from the pandemic. In accordance with predictions (Krisdamarjati, 2022) the aviation industry is predicted to improve at the end of 2022. Negative equity will decrease until the second quarter of 2023 and rise again in the third quarter but the increase is only 0.04%, according to predictions (Satyakti, 2021) the aviation industry will improve no later than 2024.

The largest increase in negative equity occurred in the third quarter of 2020, namely 464.02%. This happened because in the first semester of 2020 the government allowed the maximum capacity of passengers for flights to be only 70% (Riyanto, 2020). The largest decrease in negative equity occurred in 2022, namely 74.88%. This happened because the government began to encourage recovery in the aviation sector (Istiartono, 2022).

A high debt value means that more capital obtained by the company comes from debt than from business activities. This happened because of flight restrictions due to the pandemic. Research results (Urionabarrenetxea et al., 2016) when liabilities are high, company assets cannot cover liabilities, because the company stops operating.

**5 Conclusions and Recommendations**

This research focuses on the effect of debt value on negative equity. The research results show that the value of debt has a negative effect on negative equity. Negative equity occurred at the start of the pandemic, it took airline companies 25 months to gradually improve. A high debt value causes negative equity, the company obtains more capital from debt because business activity is low. It would be better for companies to increase business activities by increasing flight schedules for profitable routes.

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