



AKUMULASI: Indonesian Journal of Applied Accounting and Finance

URL: <https://journal.uns.ac.id/index.php/akumulasi/article/view/2263>

DOI: <https://doi.org/10.20961/jqgs8d67>

Volume 3, Issue 2, Page 166-186, December 2024

## Analysis of Financial Risk Disclosure in State-Owned Enterprises in the Infrastructure Sector

Annisa Rahmawati

Isna Putri Rahmawati\*

Accounting Department, Faculty of Economics and Business, Universitas Sebelas Maret, Surakarta,  
Indonesia

\*Corresponding Author: [isnaputrirahmawati@staff.uns.ac.id](mailto:isnaputrirahmawati@staff.uns.ac.id)

### ABSTRACT

This study aims to determine financial risk disclosure, liquidity risk disclosure, credit risk disclosure, interest rate risk disclosure, exchange rate risk disclosure, capital structure risk disclosure, and general risk disclosure. This research is qualitative descriptive research that describes financial risk disclosure in detail. The object of this research is the infrastructure sector State-Owned Enterprises listed on the Indonesia Stock Exchange from 2021 to 2023, totaling six companies. The data analysis method is done by content analysis. The results show that the overall level of financial risk disclosure increases from 2021 to 2022 but remains the same in 2023. The same level of risk disclosure for three years occurs in the disclosure of liquidity risk, interest rate risk, exchange rate risk, and general risk. Credit risk disclosure increases from 2021 to 2023, while capital structure risk disclosure decreases in 2023.

**Keywords:** financial risk disclosure; infrastructure sector; SOEs

**Cite this as:** Rahmawati, A., & Rahmawati, I. P. 2024. Analysis of financial risk disclosure in state-owned enterprises in the infrastructure sector. *AKUMULASI: Indonesian Journal of Applied Accounting and Finance*, 3(2), 166-186. <https://doi.org/10.20961/10.20961/jqgs8d67>

---

*Received for publication on February 1, 2025*

*Accepted after corrections on March 10, 2025*

## INTRODUCTION

Corporate scandals and financial crises resulted in many companies failing and reduced stakeholder trust (Chouaibi et al., 2023). Therefore, stakeholders demand that companies be more transparent in disclosing information related to the company's condition. Regulators view that information transparency and comprehensive reporting can prevent future crises and increase stakeholder trust so that transparency becomes an absolute necessity and an important part of corporate governance (Ibrahim et al., 2019). Transparency is one of the principles of good corporate governance (GCG) which can build trust by providing information that is relevant, easy to access, and easy to understand (Putri et al., 2022). One of the ways to realize transparency is by presenting material information in company disclosures.

One type of material disclosure that is done by company is risk disclosure. Risk disclosure is the delivery of information regarding the risks and potential faced by a company that can affect the company's sustainability (Ibrahim et al., 2022). This is because in running a business, companies face various risks, both financial risks and non-financial risks. Furthermore, Chouaibi et al in 2023 added that risk disclosure is an important part of company disclosure because it can help stakeholders understand and evaluate interrelated risks, risk impacts, and company risk management strategies (Khandelwal et al., 2021). According to Ibrahim et al (2019); Grassa et al., (2021) company risks are classified into several groups. First, operational risks such as operational risk management, customer dissatisfaction, production failures, internal control systems, asset damage, and compliance risks. Second, integrity risks such as illegal actions and earnings management. Third, strategic risks such as competitor and industry risks. Fourth, financial risks such as liquidity risk, exchange rate risk, and interest rate risk.

Financial risk is an important risk for companies because it is directly related to business activities and can have a negative impact on company performance (Butt et al., 2022). Companies that have high financial risk generally experience funding difficulties because the possibility of default is high, making them less attractive. On the other hand, companies that can manage financial risks well can increase company value (Nurjanah & Arifa, 2023). Information regarding financial risks and risk management carried out by the company is disclosed through financial risk disclosures so that stakeholders can understand the risks faced by the company and take appropriate action (Herdjiono & Yanti, 2023).

Financial risk disclosure regulations in Indonesia are regulated in PSAK 107 concerning Financial Instruments. PSAK stands for *Pernyataan Standar Akuntansi Keuangan*. In English, it is called as Financial Accounting Standards. It states that every entity is required to disclose financial information so that users of financial statements can evaluate the type and level of risk arising from financial instruments. Moreover, the Financial Services Authority of the Republic of Indonesia through SEOJK Number 16/SEOJK.04/2021 requires issuers and public companies to disclose information on the risk management system implemented. SEOJK stands for *Surat Edaran Otoritas Jasa Keuangan*. In English, it is called as Circular Letter of the Financial Service Authority. Based on these two regulations, it can be concluded that companies must disclose information regarding risk management policies that contain the risks faced and risk mitigation. This is because poor risk management can have a major impact on company performance (Brunner-Kirchmair & Wiener, 2019).

Infrastructure development is one area with the most significant portion of national strategic projects. The infrastructure sector in Indonesia has become the main focus. In the Regulation of the Coordinating Minister and Economic Affairs of the Republic of Indonesia Number 8 of 2023 concerning the Fourth Amendment to the List of National Strategic Projects, there are 204 projects and 13 programs in the 2020-2024 National Strategic Projects. State-owned enterprise (Indonesian: *Badan Usaha Milik*

*Negara*, abbreviated as BUMN) in the infrastructure sector is assigned by the government to work on several of these projects, including PT Waskita Karya (Persero) Tbk, PT Wijaya Karya (Persero) Tbk, PT Jasa Marga (Persero) Tbk, and PT Pembangunan Perumahan (Persero) Tbk (Ministry of BUMN, 2022).

However, the BUMN infrastructure sector is not free from financial problems. PT Waskita Karya's 2022 financial report shows that all of the company's cash flow items have negative values because the company's expenses are greater than its income. Thus, it affects the company's ability to meet funding needs through cash and cash equivalents. PT Waskita Karya's cash flow difficulties resulted in the Ministry of BUMN requesting approval from the DPR to provide financial assistance to increase BUMN capital through the State Capital Participation (PMN) scheme. Apart from that, PT Waskita Karya (Persero) Tbk also recorded losses for three consecutive years from 2021 to 2023, and it was even projected that in 2024 the company would still experience losses. This shows that the infrastructure sector has become a mainstay sector in recent years. However, the infrastructure sector is not free from funding problems so companies face liquidity risks and other possible risks. Therefore, it is important to see how financial risks and financial risk management are carried out by BUMN in the infrastructure sector.

Previous researchers have widely researched financial risk disclosure. Prior research on risk disclosure has examined the relationship between variables. Chouaibi et al., (2023) found that environmental and governance performance positively affects corporate financial risk disclosure, but social performance does not affect corporate financial risk disclosure. El-Haddad (2021) found that leverage and audit committees positively affect financial risk disclosure, but firm size negatively affects financial risk disclosure. Furthermore Chouaibi et al., (2023) found that the audit committee positively affects financial risk disclosure. However, profitability has a negative impact on financial risk disclosure, and liquidity, while the size of the board of commissioners does not influence financial risk disclosure.

Qualitative research was conducted by (Geraldina, 2017) and (Khandelwal et al., 2021). Geraldina (2017) analyzed the quality of risk disclosure in Indonesia's infrastructure industry. The results showed that disclosure quality of financial risk items was better than that of non-financial risk items. Meanwhile, Khandelwal et al., (2021) found that companies in India have made more disclosures since 2018 due to pressure from regulators and stakeholders demanding more detailed information about the company's financial risks. Companies that increase voluntary disclosure of financial risks are viewed better in the stock market. There is still a diverse quantity of risk disclosure in various countries and sectors. The infrastructure sector has become a mainstay sector in recent years, but it is not free from funding problems, so companies face liquidity risks and other possible financial risks. Therefore, this research analyses financial risk disclosure in the BUMN infrastructure sector.

### **Stakeholder Theory**

Stakeholder theory is related to organizational management and business ethics which views the handling of values and morals involved in managing corporate governance affairs (Norwani et al., 2011). Based on stakeholder theory, companies must view stakeholders as indirect beneficiaries of their actions or decisions (Bufarwa, et al., 2020). In this case, financial risk disclosure becomes a link between company management shareholders and other stakeholders (Ntim et al., 2013). Financial risk disclosure is often seen as a tool to communicate or connect the company with stakeholders.

### **Financial Risk Disclosure**

According to Ibrahim et al., (2022), risk disclosure is one of the most relevant types of disclosure because it can fulfill various purposes. Financial risk disclosure contains six aspects consisting of general financial risk, credit risk, liquidity risk, exchange rate risk, interest rate risk, and capital structure risk

(Dey et al 2018). Liquidity risk is the risk of a company's inability to fulfill its obligations. Liquidity risk arises when a company is unable to meet its obligations on time due to unexpected cash outflows, is unable to sell assets, and or when the company's investments lose their liquidity. Liquidity risk management is carried out by ensuring sufficient cash and cash equivalents to pay obligations on time (Bandyopadhyay & Saxena, 2023). Credit risk is the risk of debtors' failure to fulfill their debt obligations on time (Accornero et al., 2017). Debtor failure can be caused by the failure of the debtor's business or the character of the debtor who has not any intention of paying his obligations (Agustin et al., 2021).

Interest rate risk is a form of financial risk related to the effect of changes in interest rates on the future financial performance of a company. Interest rate risk management is carried out by companies by making policies regarding acceptable gearing levels and appropriate fixed to floating debt interest rates because both contribute significantly to the overall level of risk faced by the company and will influence the company's ability to manage interest rate risk (Dhanani et al., 2008). Furthermore, foreign exchange rate risk is the risk that the value of financial assets owned by the company may fluctuate due to changes in currency exchange rates. Foreign exchange rate risk arises from fluctuations in foreign currency exchange rates during transactions from the inception of the contract to the time of settlement of the domestic equivalent consideration of the foreign currency amount (Kahihu et al., 2021).

Capital structure risk is related to the company's ability to continue operating. The sustainability of company operations requires strong supporting factors, especially capital. Capital structure is the specific combination of long-term debt and equity that a company uses to finance its operational activities (Ross et al., 2016). Capital structure influences management decisions regarding the company's efforts to obtain and manage long-term financing that supports its long-term investments.

## **RESEARCH METHOD**

### **Type and Object of the Research**

This research is descriptive qualitative. This research aims to systematically, factually, and accurately describe the facts and characteristics of a particular population or try to describe a phenomenon in detail. The objects of this research were State-Owned Enterprises (BUMN) in the infrastructure sector listed on the Indonesia Stock Exchange from 2021 to 2023. The researchers chose the object because the infrastructure BUMN received the assignment to carry out the National Strategic Project for the 2020-2024 period. The objects of this research were six state-owned companies in the infrastructure sector according to data on the website of the Ministry of State-Owned Enterprises of the Republic of Indonesia.

### **Method of Analyzing Data**

The data were obtained from the company's annual report downloaded via the company website from 2021 to 2023. Data analysis was carried out using the content analysis method on financial risk disclosures in State-Owned Enterprises in the infrastructure sector. Content analysis is an observational research method for systematically evaluating all forms of recorded communication (Sekaran & Bougie, 2016). This research used a disclosure index developed by Dey et al., (2018) because the items in the risk disclosure index already include the required risk disclosures. Financial risk disclosure is measured using scores of 0 and 1. A score of "0" is given if information related to financial risk is not disclosed, whereas a score of "1" is given if items related to financial risk are disclosed. The maximum score if all items are disclosed by the company is 30. The risk categories are liquidity, credit, interest rates, exchange rates, and capital structure. The table or diagram is obtained from the number of financial risk items disclosed and the percentage is obtained from the number of disclosed items divided by the total financial risk disclosure items.

## RESULTS AND DISCUSSION

### General Description of Infrastructure Sector

The infrastructure sector includes companies that play a role in infrastructure development and procurement (BEI, 2021). Table 1 presents data from the Ministry of State-Owned Enterprises of the Republic of Indonesia, until 2024 there are six companies in the infrastructure services sector registered on the Indonesian Stock Exchange.

Table 1. List of BUMN of infrastructure sector

Company Code	Company Name
ADHI	PT Adhi Karya (Persero) Tbk
JSMR	PT Jasa Marga (Persero) Tbk
PTPP	PT PP (Persero) Tbk
SMGR	PT Semen Indonesia (Persero) Tbk
WSKT	PT Waskita Karya (Persero) Tbk
WIKA	PT Wijaya Karya (Persero) Tbk

Source: Ministry of BUMN of Republic of Indonesia, 2024

### Descriptive Statistic

Table 2. Descriptive statistical analysis of financial risk disclosure quantities

Information	Minimum	Maximum	Mean	Median	Standard Deviation
Proportion of Financial Risk Disclosure	0.8222	0.8333	0.8296	0.8333	0.0064
Proportion of Financial Liquidity Disclosure	0.8333	1	0.9722	1	0.0639
Proportion of Financial Credit Disclosure	0.4286	0.8571	0.6825	0.7143	0.1433
Proportion of Interest Rate-Risk Disclosure	0.50	1.00	0.7083	0.8	0.1768
Proportion of Exchange Rate Disclosure	0.5	1	0.7917	0.75	0.1768
Proportion of Capital Structure Risk Disclosure	0.6667	1	0.8796	0.8333	0.0958
Proportion of General Risk Disclosure	1	1	1	1	0

Information:

\*= In billionaire rupiahs

Source: Data processed by excel in 2024

The results of the descriptive statistical analysis that is presented in Table 2 show the distribution of financial risk disclosure quantity data consisting of liquidity risk, credit risk, interest rate risk, exchange rate risk, capital structure risk, and general risk. Table 2 presents the average percentage of company financial risk disclosure is 82.96% with a median value of 83.33%. This shows that infrastructure sectors of BUMNs have a high level of disclosure because the level of information disclosure is above 50%. The average financial risk disclosure in the liquidity risk aspect for three years is 97.22%.

The average disclosure on credit risk aspects for three years is 68.25%. The level of credit risk disclosure has the lowest value of 42.86. This value is a credit risk disclosure carried out by PT Jasa Marga (Persero) Tbk (JSMR). The highest level of credit risk disclosure is 85.71%. This value is a credit risk disclosure carried out by PT Adhi Karya (Persero) Tbk (ADHI) and PT PP (Persero) Tbk (PTPP).

In the interest rate risk aspect, the average disclosure for three years is 70.83%. The level of tribal risk disclosure has the lowest value of 50%, which is the disclosure made by PT Adhi Karya (Persero) Tbk (ADHI) and PT PP (Persero) Tbk (PTPP). The highest value of interest rate risk disclosure level is 100%. This value is a disclosure of interest risk carried out by PT Jasa Marga (Persero) Tbk (JSMR).

In the aspect of exchange rate risk, the average disclosure for three years is 79.17%. The quantity of exchange rate risk disclosure has the lowest value of 50% which is the disclosure made by PT Adhi Karya (Persero) Tbk (ADHI). The highest value of the exchange rate risk disclosure quantity is 100%. This value is a disclosure made by PT Semen Indonesia (Persero) Tbk (SMGR) and PT Wijaya Karya (Persero) Tbk (WIKA).

In the risk aspect of capital structure, the average disclosure is 87.96%. The lowest value for the level of capital structure risk disclosure is 66.67%, which is the disclosure made by PT Waskita Karya (Persero) Tbk. The highest value of capital structure risk disclosure level is 100. This value is a disclosure made by PT PP (Persero) Tbk, PT Semen Indonesia (Persero) Tbk (SMGR), and PT Wijaya Karya (Persero) Tbk (WIKA). In the general risk aspect, the average disclosure is 100%. The general risk disclosure level has the same lowest and highest values, namely 100%. This shows the company consistently discloses all general financial risk information.

### Analysis of Financial Risk Disclosure of BUMN in Infrastructure Sector

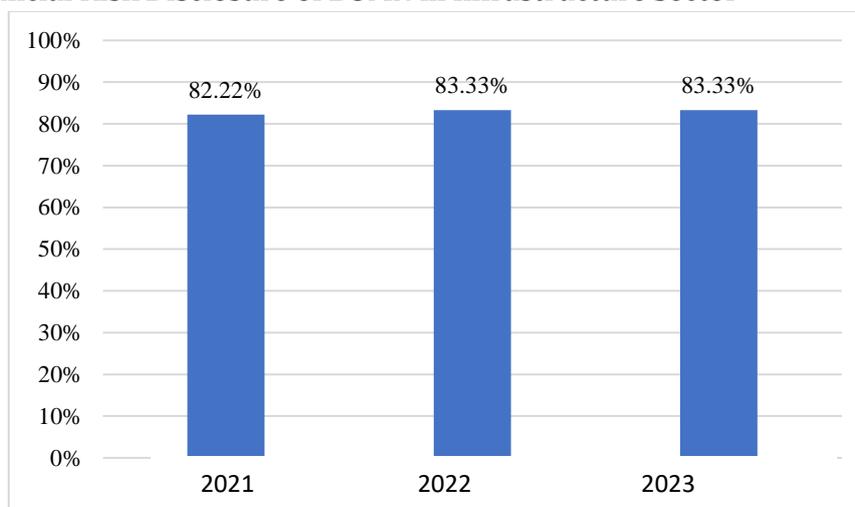


Figure 1. Chart of average percentage of financial risk disclosure

Source: Data processed by excel in 2024

Figure 1 shows the overall average financial risk disclosure is above 50%, which indicates a high level of financial risk disclosure. The level of financial risk disclosure consists of liquidity risk, credit risk, interest rate risk, exchange rate risk, capital structure risk, and general risk fluctuates due to changes in the quantity of information disclosed by the company. In 2021, the percentage of financial risk disclosure was 82.22, then it increased by 1.11% in 2022 to 83.33%, and remained the same in 2023. The change in the level of financial risk disclosure was caused by an increase in credit risk disclosure in 2022 and 2023, as well as a decrease in capital structure risk disclosure in 2023.

Table 3. Average financial risk disclosure

Financial Risk	In the year of 2021		In the year of 2022		In the year of 2023	
	Quantity	%	Quantity	%	Quantity	%
Liquidity Risk	5.83	97.22%	5.83	97.22%	5.83	97.22%
Credit Risk	4.50	64.29%	4.83	69.05%	5.00	71.43%
Interest Rate Risk	2.83	70.83%	2.83	70.83%	2.83	70.83%
Rate-Risk Disclosure	3.17	79.17%	3.17	79.17%	3.17	79.17%
Capital Structure Risk	5.33	88.89%	5.33	88.89%	5.17	86.11%
General Risk	3	100%	3	100%	3	100%

Source: Data processed by excel in 2024

Table 3 shows the highest average risk disclosure occurs for general risks, that is 100%. This shows that all companies make full disclosure regarding general risks. General risk information has a relation to the company's financial risk management policy as well as information about responsibilities in establishing and monitoring the risk management framework. In addition, general risk information relates to a review of risk management policies, systems, and procedures to reflect changes in market conditions and company activities. The Financial Services Authority of the Republic of Indonesia through SEOJK Number 16/SEOJK.04/2021 requires issuers and public companies to disclose information on the risk management system implemented. In addition, the Ministry of BUMN through the Regulation of the Minister of State-Owned Enterprises of the Republic of Indonesia Number PER-2/MBU/03/2023 concerning Guidelines for Governance and Significant Corporate Activities of State-Owned Enterprises requires every BUMN to implement risk management.

The average constant interest rate risk disclosure is 70.83% for three years. This shows that companies tend to disclose the same information every year. Information that many companies do not disclose is information on interest rate sensitivity analysis and interest rate hedging mechanisms. The annual report of the company reveals information in which the company is not too affected by the risk of loan interest rates, but the company still monitors changes in interest rates. This might be caused by the low level of disclosure of sensitivity analysis information and interest rate hedging mechanisms.

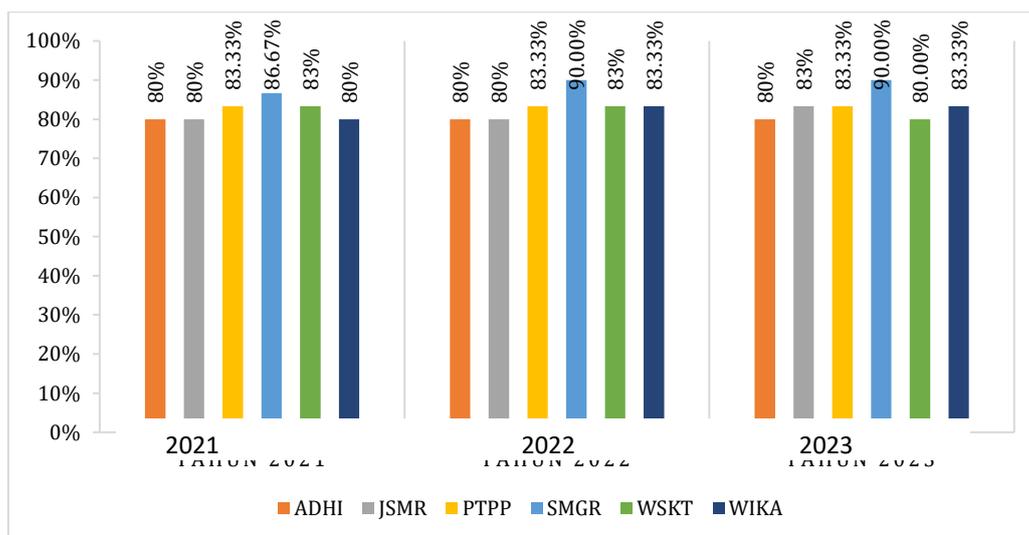


Figure 2. Percentage chart of financial risk disclosure per company

Source: Data processed by excel in 2024

In general, the average financial risk disclosure for each company is good because the disclosure level is above 50%. The highest level of financial risk disclosure is owned by PT Semen Indonesia (Persero) Tbk (SMGR) for three consecutive years, namely 86.67% in 2021, then 90% in 2022 and 2023. Even though based on company size, PT Semen Indonesia (Persero) Tbk has total assets in third place compared to other companies. The risk disclosure items that are most fully disclosed are liquidity risk and capital structure risk, while those that are not widely disclosed are interest rate risk. The company considers interest rate risk from cash in banks to be immaterial, and all financial assets and liabilities other than loans and lease liabilities are interest-free. At PT Semen Indonesia (Persero) Tbk (SMGR), the company does not implement a hedging mechanism against changes in interest rates.

PT Adhi Karya (Persero) Tbk (ADHI) has the lowest level of financial risk disclosure compared to other state-owned infrastructure sector companies. The level of financial risk disclosure of PT Adhi Karya (Persero) Tbk (ADHI) is 80% from 2021 to 2023. The lowest disclosure is in the disclosure items of interest rate risk and exchange rate risk. PT Adhi Karya does not hedge loan interest rates, the company negotiates interest rates with creditors if interest rates rise significantly. Apart from that, PT Adhi Karya also does not explain the reasons why the company is exposed to foreign exchange rate risk and analyzed exchange rate sensitivity. In this case, the company only explains the translation of monetary assets and liabilities in foreign currency, as well as the functional currency and presentation currency used by the company.

### Liquidity Risk Disclosure

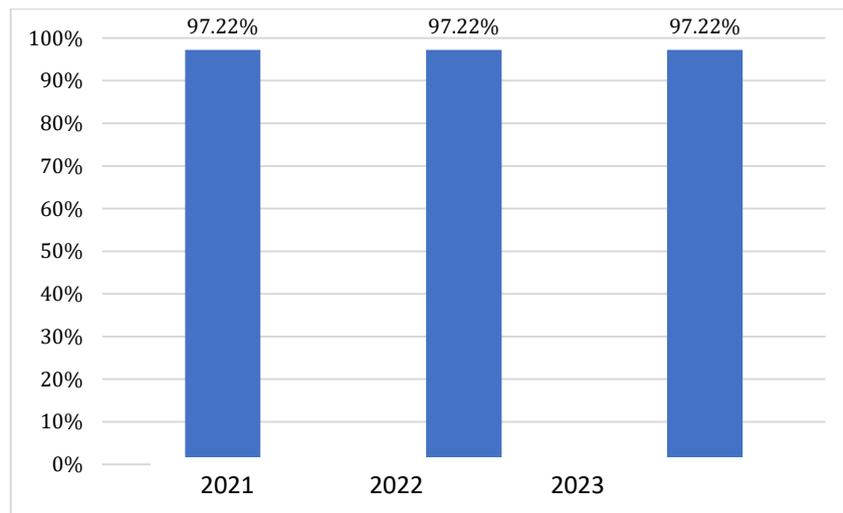


Figure 3. Diagram of average percentage of liquidity risk disclosure  
Source: Data processed by excel in 2024

Figure 3 shows that there is not any change in the level of liquidity risk disclosure over three years. This shows that BUMN in the infrastructure sector consistently discloses liquidity risk items.

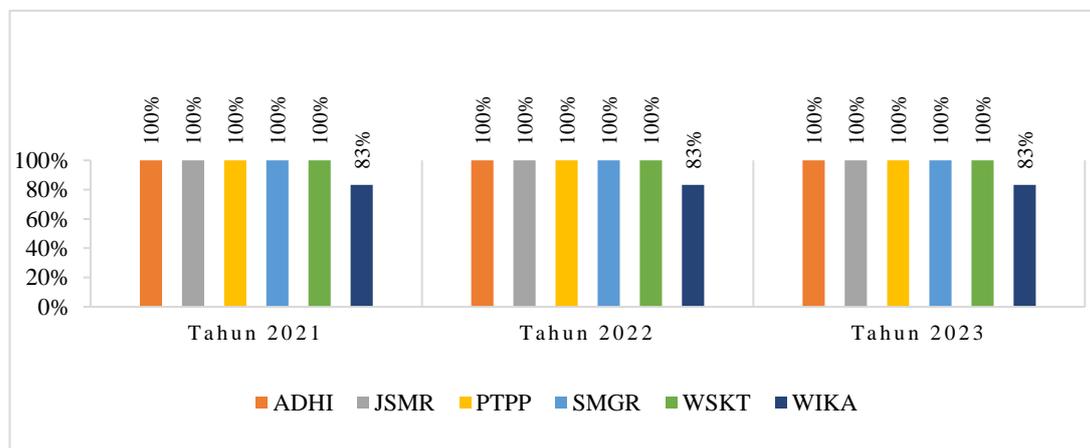


Figure 4. Percentage diagram of liquidity risk disclosure per company

Source: Data processed by excel in 2024

In general, the company's liquidity risk disclosure level is very good because it is close to 100%. This shows that infrastructure sector of BUMNs are transparent in disclosing information regarding liquidity risks. However, there is one company that has a disclosure level of 83%, namely PT Wijaya Karya (Persero) Tbk (WIKA). PT Wijaya Karya does not disclose information regarding the causes of the company being exposed to liquidity risk.

The first liquidity risk disclosure item is the definition and causes of a company being exposed to liquidity risk. In general, companies define liquidity risk as the risk of the company having difficulty meeting short-term liabilities. In this case, PT Jasa Marga (Persero) Tbk (JSMR) and PT Semen Indonesia (Persero) Tbk explicitly stated that liquidity risk is a situation where the company has difficulty obtaining funding.

The second liquidity risk disclosure item is information on the classification of company liabilities based on liability type and maturity. There are differences in maturity stated by each company. The classification of different liability periods is adjusted to the company's liability period. The company's short-term liabilities represent bills to contractors for the completed toll road construction. Therefore, PT Jasa Marga (Persero) Tbk groups liability maturities into less than one year, <1-5 years, and more than five years.

The third disclosure of liquidity risk information is a comparison of the classification of company liabilities based on liability type and maturity. The company discloses the classification of financial liabilities in a table and compares it with the previous year for the last two years.

The fourth disclosure of liquidity risk information is cash and cash equivalents. Quantitative data on cash and cash equivalents include total cash and cash equivalent balances, a comparison of cash and cash equivalents with the previous year, as well as changes in cash and cash equivalents both nominally and in percentage. Qualitative data on cash and cash equivalents in the form of explanations of accounts included in cash and cash equivalents. PT PP (Persero) Tbk (PTPP) revealed changes in cash and cash equivalent balances more completely by making a graph of the growth of cash and cash equivalent balances over five years. The condition of PT PP (Persero) Tbk's cash and cash equivalents decreased relatively from 20219 to 2023. In general, the liquidity risk management information disclosed by the company generates and maintains sufficient cash and cash equivalents. Projected cash flows and actual cash flows are monitored and evaluated regularly, but the company does not provide much explanation of the monitoring mechanisms implemented. In addition, the company also monitors the maturity date schedule for financial assets and liabilities. In managing liquidity risk, PT Semen Indonesia (Persero) Tbk (SMGR) and PT Wijaya Karya (Persero) Tbk (WIKA) also utilize credit facilities from banks and reserve loan facilities.

The last liquidity risk disclosure item is information regarding the current ratio and quick ratio. The current ratio and quick ratio are liquidity ratios calculated to show the company's ability to meet short-term financial obligations. PT PP (Persero) Tbk (PTPP) discloses a more complete ratio comparison compared to other companies because it has been disclosed for five years along with changes.

**Credit Risk Disclosure**

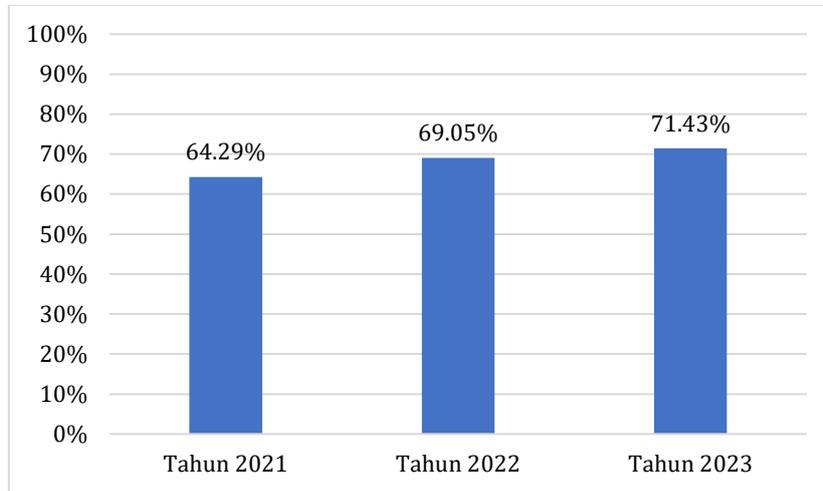


Figure 5. Chart of average percentage of credit risk disclosure  
Source: Data processed by excel in 2024

Figure 5 shows there is an increase in credit risk disclosure by 4.76% in 2022. In 2023, credit risk disclosure increases by 2.38% to 71.43. This shows that the company is more transparent in disclosing information related to credit risk.

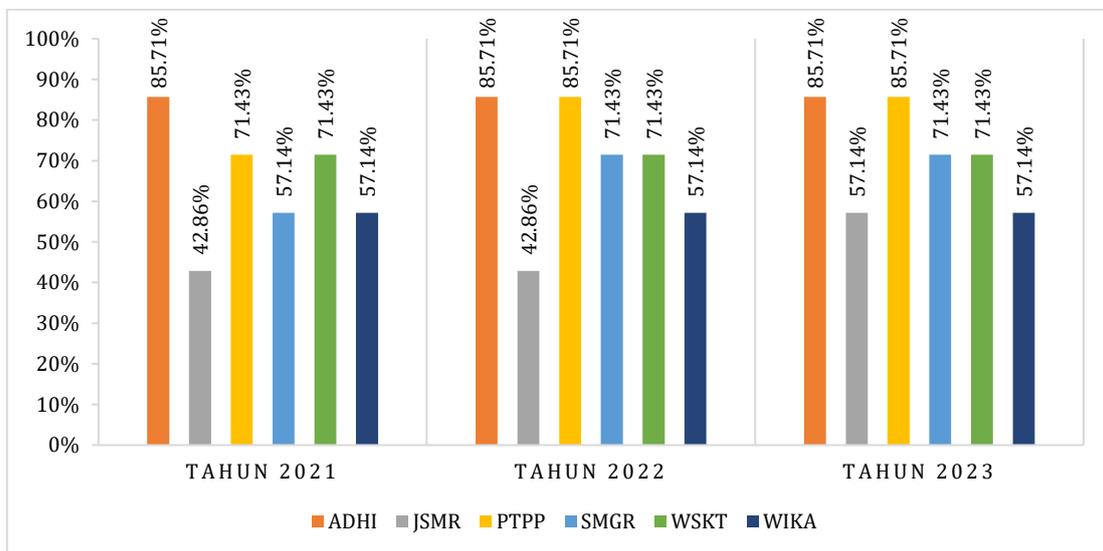


Figure 6. Chart percentage of credit risk disclosure per company  
Source: Data processed by excel in 2024

However, there are quite significant differences on the level of credit risk disclosure for each company. Figure 6 depicts a percentage diagram of credit risk disclosure for each infrastructure sector company from 2021 to 2023. PT PP (Persero) Tbk (PTPP) specifically reveals that the company's credit

risk is the risk if the project owner is late in paying or even does not pay for part or all of the project work results. This has a negative impact on the company's working capital turnover, resulting in changes in funding allocations for several projects both currently underway and projects that is implemented. In addition, operational cash flow used for capital expenditure in the short term is limited.

The second credit risk disclosure item is credit risk exposure information. In general, companies disclose the amount of the company's maximum credit risk exposure equal to the carrying value of the financial instrument. The third disclosure of credit risk information is the classification of customer obligations related to creditworthiness. In this case, all research object companies do not disclose customer creditworthiness classification information. Nevertheless, the company continues to mitigate credit risk in terms of receivables from customers.

Table 4. List of aged company receivables

Company Name	Aging Report
PT Adhi Karya (Persero) Tbk	<12 months, >12-24 months, >24-36 months, >36 months
PT Jasa Marga (Persero) Tbk	0-1 year, >1 year
PT PP (Persero) Tbk	1-12 months, 12-15 months, 18-21 months, >21 months
PT Semen Indonesia (Persero) Tbk	Current Liabilities, 1-45 days, 46-135 days, >365 days
PT Waskita Karya (Persero) Tbk	Long-term Liabilities, ≤12 months, 13-24 months, 25-36 months, >36 months
PT Wijaya Karya (Persero) Tbk	Long-term Liabilities, 1-3 months, 3-6 months, 6-12 months, >12 months

Source: Company annual report

The fourth disclosure of information regarding credit risk is a list of aging accounts receivables. In general, company receivables are receivables from the government, banks, and other companies. The company discloses a list of aging accounts receivables in the notes to the financial statements in a table. However, the list of accounts receivable ages made by each company is different. The list of aging accounts receivables made by each research object company is presented in Table 4.

Table 4 shows there are differences in the list of ages of receivables made by companies. This is due to differences in business segments and projects carried out, as well as company customers. PT PP (Persero) Tbk (PTPP) has the largest business segments among other infrastructure sector of BUMNs. The company's business segments consist of (1) construction engineering, procurement, and construction, (2) property and realty, (3) precast, (4) equipment, (5) toll road, (6) and energy.

The fifth disclosure of credit risk information is a comparison of the aging list of receivables with the previous year. In general, companies compare the list of aging receivables for the two years ending, namely the financial reporting year and the previous year. In this case, PT Adhi Karya (Persero) Tbk (ADHI) and PT PP (Persero) Tbk (PTPP) disclosed a comparison of the list of ages of receivables for two years accompanied by changes in the value of receivables in nominal and percentage terms. In PT Adhi Karya (Persero) Tbk's annual report for 2023, the number of receivables up to 12 months increased by 286.66% compared to the previous year. Meanwhile, in PT PP (Persero) Tbk's 2023 annual report, all of the company's trade receivables based on the age of receivables increased by 14% compared to the previous year.

The sixth disclosure of credit risk information is credit classification. The companies that disclose credit classification information are PT Adhi Karya (Persero) Tbk (ADHI) and PT PP (Persero) Tbk (PTPP). PT Adhi Karya (Persero) Tbk (ADHI) discloses information on the list of receivables based on customers, based on business type, based on currency, and based on the maturity of the receivables.

PT PP (Persero) Tbk (PTPP) discloses information on the list of receivables based on customers, based on currency, and based on the maturity of the receivables.

**Interest Rate Risk Disclosure**

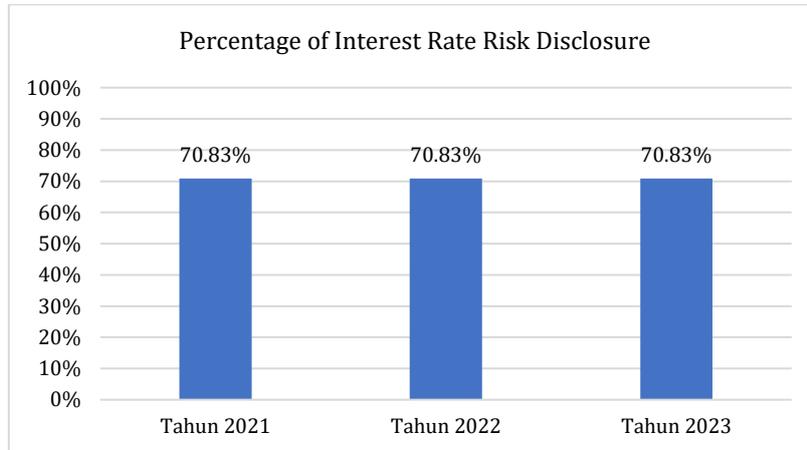


Figure 7. Chart of average percentage of interest rate risk disclosure  
 Source: Data processed by excel in 2024

Figure 7 shows there is not any change in the level of interest rate risk disclosure made by the company. This shows that the company consistently discloses the same information regarding interest rate risk for three consecutive years. The average interest rate risk disclosure for infrastructure sector companies is generally quite high, that is 70.83%. However, the level of interest rate risk disclosure for each company is different.



Figure 8. Percentage of interest risk disclosure per company  
 Source: Data processed by excel in 2024

The first interest rate risk disclosure item is the definition and causes of a company's exposure to interest rate risk. In general, companies define interest rate risk as the risk of future fluctuations in cash flows due to changes in market interest rates. Financial instruments that are potentially affected by interest rate risk include short-term loans, long-term loans, and rental debt. In terms of disclosing this information, PT PP (Persero) Tbk (PTPP) stated that the company was not significantly exposed to loan interest rate risk. However, the company continues to closely monitor possible changes in loan interest rates.

The second interest rate risk disclosure item is the classification of liabilities based on interest rate types. Companies have liabilities to various parties such as banks, non-bank financial institutions, suppliers, employers, contractors, consultants, and partners. Information on the classification of liabilities based on the type of interest rate is disclosed by the company in a table and disclosed in the notes to the financial statements. Each company is different in classifying its liabilities based on the type of interest rate.

The third disclosure of interest rate risk information is information regarding interest rate sensitivity analysis. In this case, PT Adhi Karya (Persero) Tbk (ADHI) and PT PP (Persero) Tbk (PTPP) does not disclose information on the interest rate sensitivity analysis of the company's financial liabilities. However, other companies in this research object disclose their interest rate sensitivity analysis information, but each company uses different basis points in conducting sensitivity analysis.

The fourth disclosure of information regarding interest rate risk is information on hedging instruments. However, only PT Jasa Marga (Persero) Tbk (JSMR) discloses interest rate hedging information. PT Jasa Marga (Persero) Tbk's hedging mechanism is in line with research (Hecht, 2019) which states that non-financial companies manage interest rate risk by using hedging instruments.

### Exchange Rate Disclosure

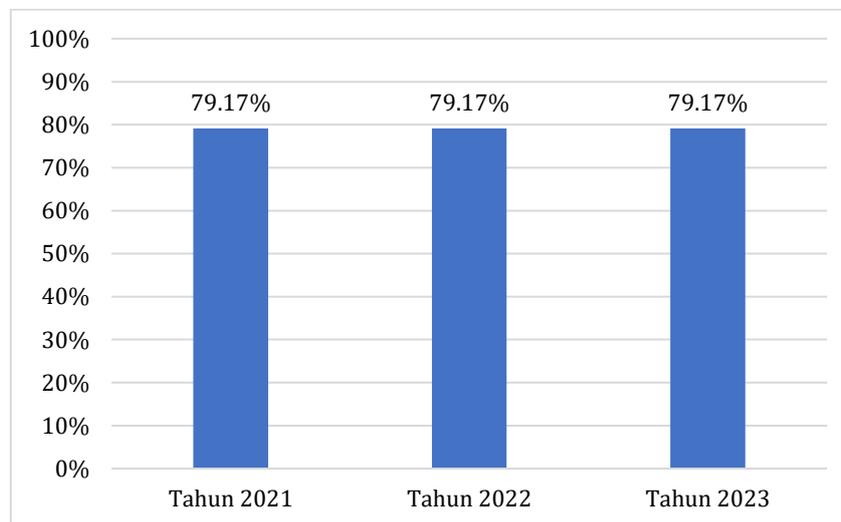


Figure 9. Chart of average percentage of exchange rate disclosure  
Source: Data processed by excel in 2024

Figure 9 shows there is not any change in the level of exchange rate risk disclosure made by the company. This shows that the company disclosed the same information regarding exchange rate risk for three years. In general, the company's exchange rate risk disclosure level is high because it is above 50%. However, the level of exchange rate risk disclosure of each company is different.

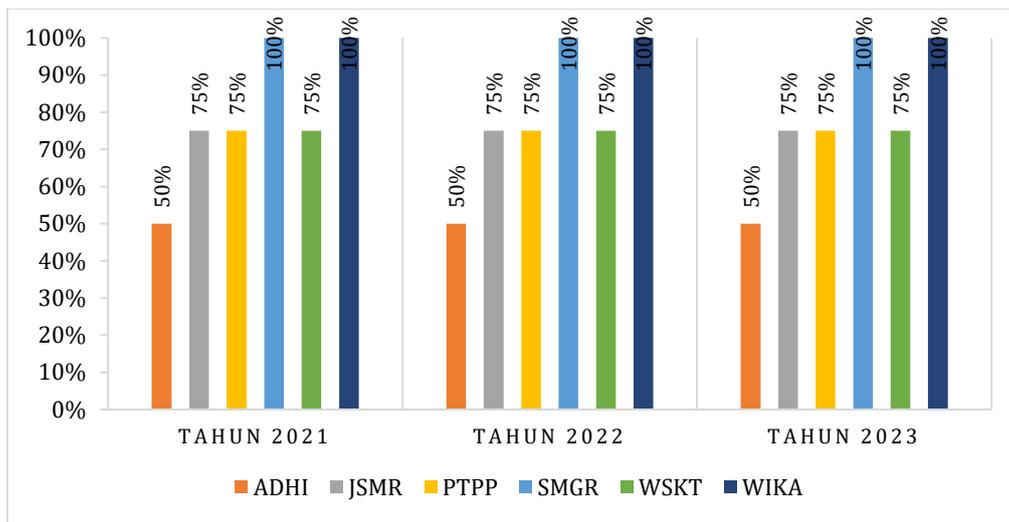


Figure 10. Percentage chart of exchange rate disclosure per company  
Source: Data processed by excel in 2024

Figure 10 depicts a percentage diagram of exchange rate risk disclosure for each infrastructure sector company. The lowest level of exchange rate risk disclosure is 50% carried out by PT Adhi Karya (Persero) Tbk (ADHI). PT Adhi Karya only discloses partial information regarding exchange rate risk in the form of foreign currency translation in the annual report and comparisons between the current year and the previous year.

The first exchange rate risk disclosure item is the definition of exchange rate risk and the causes of exchange rate exposure. In general, companies define foreign exchange rate risk as the risk of fluctuations in the fair value of financial instruments in the future due to changes in foreign currency exchange rates. Exchange rate risk exposure arises from monetary assets and liabilities recognized in foreign currencies, as well as company operational transactions using foreign currencies. Several BUMNs in the infrastructure sector reveal that exchange rate risk does not expose the company significantly.

Information on foreign currency translation and details is disclosed in the notes to the financial statements. In general, the company discloses that the functional currency and presentation currency is Rupiah so that transactions in foreign currencies are translated into Rupiah using the currency exchange rate in effect on the date of the transaction. At the end of the reporting period, monetary assets and liabilities denominated in foreign currency are converted into Rupiah using the closing rate. The next disclosure of exchange rate risk information is information regarding exchange rate sensitivity analysis. In this case, only PT Semen Indonesia (Persero) Tbk (SMGR) and PT Wijaya Karya (Persero) Tbk (WIKA) disclose information on foreign exchange rate sensitivity analysis. Both companies use the same basis points in sensitivity analysis, that is 5%.

**Capital Structure Risk Disclosure**

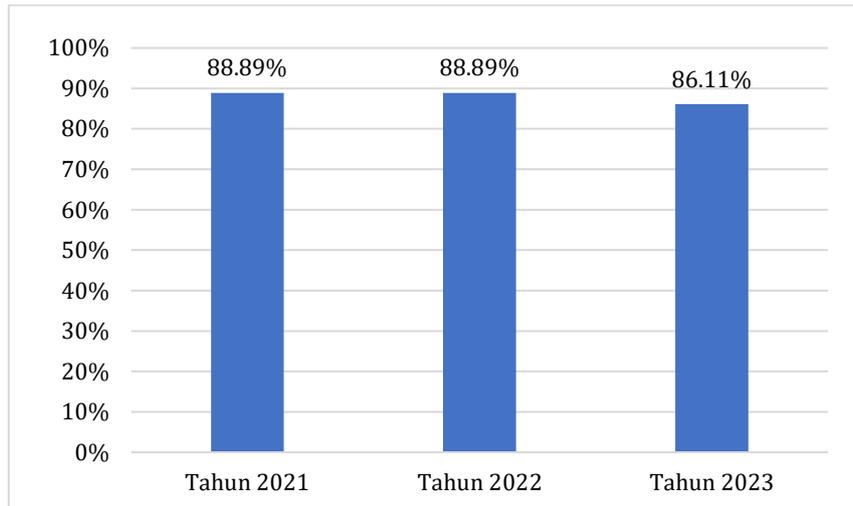


Figure 11. Chart of average percentage of capital structure risk  
 Source: Data processed by excel in 2024

Figure 11 depicts a diagram of the average percentage disclosure of capital structure risk for infrastructure sector companies from 2021 to 2023. The level of capital structure risk disclosure in 2021 and 2022 is the same, namely 88.89%. Then in 2023, the level of capital structure risk disclosure decreases by 0.028% to 86.11%. In general, the level of risk disclosure on the capital structure of the infrastructure sector of BUMN is good because the level of disclosure is above 50%. However, there is a level of capital structure risk disclosure and fluctuations in information disclosure for each company.

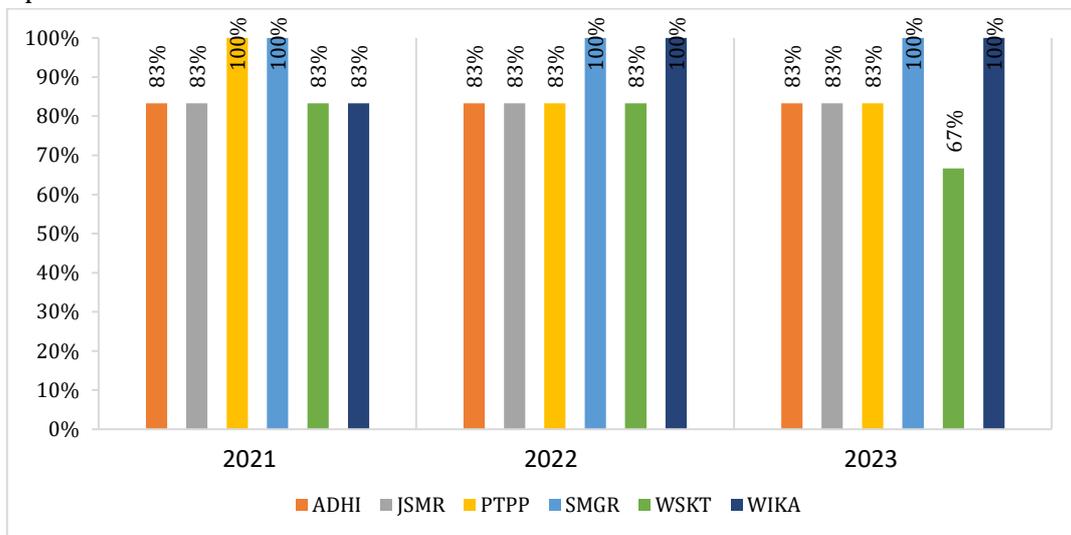


Figure 12. Percentage chart of capital structure risk disclosure per company  
 Source: Data processed by excel in 2024

The first capital structure risk disclosure item is the company's going concern capability. PT Waskita Karya (Persero) Tbk (WSKT) and PT Wijaya Karya (Persero) Tbk (WIKA) disclosed going concern information in a separate section in the notes to the financial statements, even though both companies experienced losses. PT Waskita Karya (Persero) Tbk experienced losses for three consecutive years. In 2021, the company records a loss of IDR 1.8 billion, in 2022 a loss of IDR 1.6 billion, and in 2023 a loss of IDR 4 billion. The company's losses are caused by a problematic project that required funding from debt, so the company restructured the debt agreement. This shows that there is

material uncertainty and results in significant doubts regarding the company's ability to continue as a going concern.

The second disclosure of capital structure risk information is the leverage ratio. The leverage ratio is calculated to measure a company's ability to settle long-term obligations according to maturity. In general, companies disclose the leverage ratio in the annual report and compare it with the previous year to see changes in the ratio between years. Furthermore, regarding information regarding capital expenditure plans, BUMN in the infrastructure sector discloses information on capital expenditure plans for the purchase of fixed assets and to complete projects.

The fourth disclosure of capital structure risk is information on company growth estimates. The company reveals that the company's growth projections are made by considering global and national economic growth, as well as government policies and programs. In general, the projected growth of BUMN in the infrastructure sector is related to the acquisition of new project contracts.

The fifth capital structure risk information disclosure item is information on capital expenditure commitments. In general, state-owned companies in the infrastructure sector do not have ties or commitments to purchase or invest in capital goods. This follows the characteristics of the infrastructure sector, namely that the assets used for operations are leased so that the company does not have a lot of capital expenditure in implementing its projects. This causes there is not any information regarding the purpose of the purchase commitment, the source of funds expected to be used to fulfill the purchase commitment, the currency in which it is denominated, and the company's strategy to protect risks from the relevant currency. However, several companies have purchase commitments and disclose information regarding purchase commitments.

The final disclosure of capital structure risk is information on long-term liability ratings. Long-term liability that is rated is *sukuk* (Arabic name for financial certificates) and bonds with maturities of more than one year. This bond debt rating is carried out by PT Indonesian Securities Ratings (Pefindo). In general, companies disclose bond debt rating information in the annual report in the form of a table containing the number of bonds, interest rate, tenor, maturity, bond rating compared to the previous year, and trustee.

### General Risk Disclosure

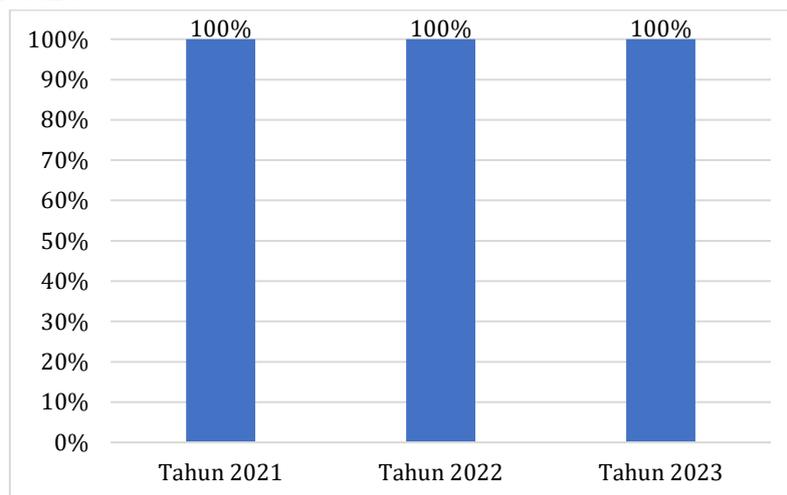


Figure 13. Chart of average percentage of general risk disclosure  
Source: Data processed by excel in 2024

The average level of general risk disclosure of the company is very good because it has a value of 100% for three consecutive years. Apart from that, each company also has the same level of general

risk disclosure. This shows that the companies that are the object of research are consistent in disclosing information related to general risks.

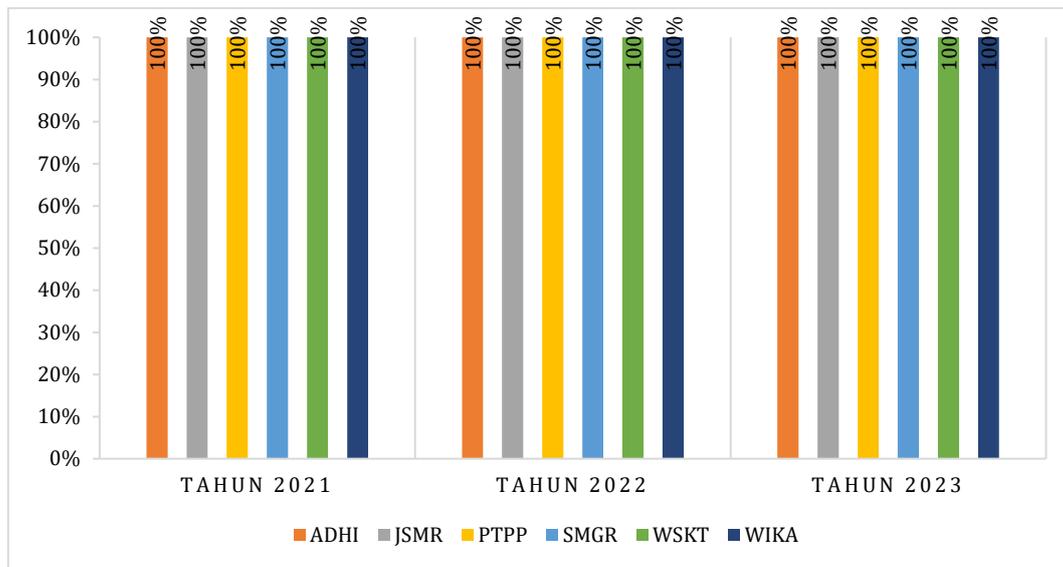


Figure 14. Percentage chart of general risk disclosure per company  
 Source: Data processed by excel in 2024

Figure 14 shows the general risk disclosure level for all companies which is 100%. This shows that infrastructure sector of BUMNs disclose all general risk information. Financial risk policy information includes the definition of financial risk, risk management objectives, financial risks faced by the company, and how the company manages these financial risks. Related to information regarding responsibility for establishing and monitoring the risk management framework. All research object companies form a risk management committee which has the task and authority to develop risk management policies and supervise the implementation of company risk management, as well as submit risk management performance reports.

The third general risk disclosure is information on reviewing risk management policies to reflect changes in market conditions and company activities. In general, research object companies disclose information on reviewing risk management policies by disclosing information on evaluating the implementation of risk management and assessing risk management maturity.

**Comparison of Company Characteristics and Level of Disclosure**

Table 5. Comparison of company disclosure and level of disclosure

Company Code	Year	Total of Asset (billion)	Profit (billion)	ROA	Dividend (billion)	DER (time)	Current ratio (time)	Level of Disclosure
ADHI	2021	39.900	86	0.0022	-	1.90	1.01	80%
	2022	39.986	175	0.0044	-	1.20	1.20	80%
	2023	40.492	289	0.0071	-	1.30	1.14	80%
JSMR	2021	101.242	871	0.0086	-	3.00	0.90	80%
	2022	91.139	2.323	0.0255	549	2.30	1.00	80%
	2023	129.311	6.749	0.0522	-	2.60	0.30	83%
PTPP	2021	55.573	361	0.0065	-	2.88	1.12	83%
	2022	57.612	365	0.0063	-	2.89	1.21	83%

	2023	56.525	127	0.0022	-	2.73	1.16	83%
	2021	81.766	2.117	0.0259	1.024	0.53	1.11	87%
SMGR	2022	82.960	2.499	0.0301	1.655	0.39	1.45	90%
	2023	81.820	2.295	0.0280	-	0.37	1.23	90%
	2021	103.601	- 1.838	-0.0177	-	4.85	1.56	83%
WSKT	2022	98.232	- 1.672	-0.0170	-	5.27	1.56	83%
	2023	95.595	- 4.018	-0.0420	-	7.12	0.99	80%
	2021	69.385	214	0.0031	-	2.98	1.05	80%
WIKA	2022	75.069	12	0.0002	-	3.29	1.90	83%
	2023	65.981	- 7.898	-0.1197	-	5.89	0.80	83%

Source: Annual report and data processed by excel (2024)

Table 5 illustrates a comparison between the characteristics of company conditions consisting of total assets, profits, return on assets, dividends, debt to equity ratio, and current ratio with the level of disclosure of financial risk information for BUMN in the infrastructure sector from 2021 to 2023. Table 5 shows that there are companies where total assets, profits, and ROA increase or decrease, then the level of information disclosure increases or decreases. In addition, there are companies where total assets, profits, and ROA increase or decrease, but the level of information disclosure remains the same.

PT Semen Indonesia (Persero) Tbk (SMGR) has the highest level of information disclosure compared to other infrastructure sector BUMNs with a disclosure level of almost 100%. This is relevant to the company's performance as seen from the company's most stable profits for three years because there is not any significant increase or decrease in profits. Most of the information disclosed by PT Semen Indonesia (Persero) Tbk is information regarding liquidity risk, exchange rate risk, and capital structure information. The level of disclosure of these three pieces of information is 100%.

PT Jasa Marga (Persero) Tbk (JSMR) has the highest profits compared to other state-owned companies in the infrastructure sector. The company's profit performance is also very good because it has increased significantly over three years. Most of the information disclosed by PT Jasa Marga (Persero) Tbk is information regarding liquidity risk, interest rate risk, and capital structure risk. The level of disclosure of liquidity risk and interest rate risk information is 100%, while the level of disclosure of capital structure risk information is 83%.

At PT Waskita Karya (Persero) Tbk (WSKT), there is a decline in total assets and losses for three years. This loss is caused by the company's revenue decreasing, while financial burdens are large and general and administrative expenses increase. Apart from that, various problems occur in the company. Reporting from (katadata.co.id, 2023), PT Waskita Karya (Persero) Tbk has accumulated debt due to project assignments from the government that were not accompanied by state capital participation (PMN). Corruption problems also occur involving the company's main director in connection with cases of misuse of subsidiary company funds. Nevertheless, the level of company information disclosure is quite high and stable. The level of company information disclosure in 2021 and in 2022 is the same, namely 83%, then in 2023 it decreases to 80%. The information that many companies disclose is information regarding liquidity risk, interest rate risk, exchange rate risk, and capital structure risk.

Meanwhile, the company's profit decreases from 2021 to 2023 at PT Wijaya Karya (Persero) Tbk (WIKA). In 2021, the company's profit is IDR 214 billion, then in 2022 it decreases to IDR 12 billion, and in 2023 it decreases drastically to a loss of IDR 7.8 billion. This loss is caused by an increase in interest expenses because the company has to issue debt securities (bonds) to finance the "Whoosh" project and other expenses borne by the company (tempo.co, 2024). Apart from that, there are problems with receivables because the owners of projects taken on by the company in previous years have not made

payments (Kontan.co.id, 2024). When the company's condition declines, the level of disclosure of the company's financial risk information increases. The level of company information disclosure in 2021 is 80%, then in 2022, it increases to 83%. Most of the information disclosed by PT Wijaya Karya (Persero) Tbk is information regarding liquidity risk, interest rate risk, exchange rate risk, and capital structure risk.

The most stable level of disclosure of financial risk information is owned by PT PP (Persero) Tbk (PTPP) and PT Adhi Karya (Persero) Tbk (ADHI). Most of the information disclosed by PT PP (Persero) Tbk is information regarding liquidity risk, credit risk, and capital structure risk. The company remains consistent in disclosing information even though the company's financial condition changes. The company's total assets, profits, and ROA from 2021 to 2022 increase but it decreases in 2023. The decline in company profits in 2023 is due to a significant increase in other expenses while company revenues decrease. The largest contribution to PT PP (Persero) Tbk's revenue in 2023 is the construction services segment and the EPC (engineering, procurement, construction) segment. The decline in company revenue is influenced by the property and realty segments.

A similar thing happens to PT Adhi Karya (Persero) Tbk (ADHI). The level of disclosure of financial risk information for three years is the same at 80%. Most of the information disclosed by PT Adhi Karya (Persero) Tbk is information regarding liquidity risk, credit risk, and capital structure risk. The stability of this information disclosure is in line with the increase in the company's total assets, profits, and ROA from 2021 to 2023. This increase in company profits is mainly due to an increase in operating profits from each business segment with the largest profits being the engineering and construction segments. Several types of projects being carried out by the company include road construction, buildings, industrial engineering, and railway crossings.

Based on quantity, the level of disclosure of financial risk information for BUMN in the infrastructure sector from 2021 to 2023 is almost the same. When the company's condition is stable, the level of information disclosure is also stable. On the other hand, when the company's condition declines, the level of company information disclosure tends to be stable and places greater emphasis on the risks faced by the company. In addition, companies are more detailed in terms of disclosing information.

## CONCLUSION

The results of the analysis show that infrastructure sectors of BUMNs are more informative and transparent in disclosing risk information. The level of disclosure for each aspect of financial risk is also good because the percentage is above 50%. The company is transparent and consistent in disclosing information regarding liquidity and credit risks. BUMN in the infrastructure sector is consistent in disclosing information regarding interest rate risk, exchange rate risk, and general risk. However, in the aspect of capital structure risk, information disclosure decreased in 2023.

The limitation of this research is that it only analyzes the presence or absence of financial risk disclosure items in companies so it does not reveal whether company characteristics can motivate companies to disclose risk information or not. Apart from that, this research also focuses on financial risk disclosure so it does not explain the risks faced by companies more broadly. Therefore, further research can link company characteristics with the level of financial risk disclosure faced by the company.

This study implies that the company discloses all financial risks faced in the annual report, although the infrastructure sector has a low level of profitability due to the large number of government projects. Disclosing all financial risks is very useful for stakeholders because it can measure the risks faced by the company.

**REFERENCES**

- Accornero, M., Cascarino, G., Felici, R., Parlapiano, F., & Sorrentino, A. M. (2017). Credit risk in banks' exposures to nonfinancial firms. *European Financial Management*, 24(5), 775-791. <https://doi.org/10.1111/eufm.12138>
- Agustin, P., Maharani, B., & Effendi, R. (2021). Financial risk disclosure and corporate governance: Empirical evidence on banking companies in Indonesian stock exchange. *Advances in Economics, Business and Management Research by Atlantis Press*, 161, 32-39. <https://doi.org/10.2991/aebmr.k.210121.006>
- Bandyopadhyay, A., & Saxena, M. (2023). Interaction between credit risk, liquidity risk, and bank solvency performance: A panel study of Indian Banks. *Indian Economic Review*, 58(2), 311-328. <https://doi.org/10.1007/s41775-023-00202-y>
- BEI. (2021). Saham. Diakses pada tahun 2024 di <https://www.idx.co.id/id/produk/saham/>
- Brunner-Kirchmair, T. M., & Wiener, M. (2019). Knowledge is power – conceptualizing collaborative financial risk assessment. *The Journal of Risk Finance*, 20(3), 226-248. <https://doi.org/10.1108/JRF-05-2018-0083>
- Bufarwa, I. M., Elamer, A. A., Ntim, C. G., & AlHares, A. (2020). Gender diversity, corporate governance and financial risk disclosure in the UK. *International Journal of Law and Management*, 62(6), 521-538. <https://doi.org/10.1108/IJLMA-10-2018-0245>
- Butt, M. A., Ayub, H., Latif, B., Asif, F., Shabbir, M. S., & Raja, A. A. (2022). Financial risks and performance of conventional and Islamic banks: Do reputational risk matters?. *Journal of Islamic Accounting and Business Research*, 13(4), 581-595. <https://doi.org/10.1108/IJABR-10-2020-0336>
- Chouaibi, J., Benmansour, H., Ben Fatma, H., & Zouari-Hadiji, R. (2023). Does environmental, social, and governance performance affect financial risk disclosure? evidence from European ESG companies. *Competitiveness Review: An International Business Journal*, 24(6), 1057-1076. <https://doi.org/10.1108/CR-07-2023-0181>
- Dey, R. K., Hossain, S. Z., & Rezaee, Z. (2018). Financial risk disclosure and financial attributes among publicly traded manufacturing companies: Evidence from Bangladesh. *Journal of Risk and Financial Management*, 11(3), 2-16. <https://doi.org/10.3390/jrfm11030050>
- Dhanani, A., Fifield, S., Helliard, C., & Stevenson, L. (2008). The management of interest rate risk: Evidence from UK Companies. *Journal of Applied Accounting Research*, 9(1), 52-70. <https://doi.org/10.1108/09675420810886123>
- El-Haddad, R. (2021). The determinants of financial risk disclosure in annual reports in emerging economies: Evidence from Egypt. *Journal of Accounting and Auditing of AARU*, 10(2), 36-58. <https://doi.org/10.21608/naus.2021.186287>
- Geraldina, I. (2017). The quality of risk disclosure: Evidence from infrastructure industry in Indonesia. *Jurnal Dinamika Akuntansi Dan Bisnis*, 4(2), 211-230. <https://doi.org/10.24815/jdab.v4i2.8053>
- Grassa, R., Moumen, N., & Hussainey, K. (2021). What drives risk disclosure in Islamic and conventional banks? an international comparison. *International Journal of Finance & Economics*, 26(4), 6338-6361. <https://doi.org/10.1002/ijfe.2122>
- Hecht, A. (2019). How do firms manage their interest rate exposure?. *The Journal of Risk Finance*, 20(5), 501-519. <https://doi.org/10.1108/JRF-02-2019-0037>
- Herdjiono, I., & Yanti, M. (2023). Financial aspects, corporate governance and disclosure of financial risk: Case of Indonesia. *Finance, Accounting and Business Analysis*, 5(1), 79-89. <https://faba.bg/index.php/faba/article/view/149/75>

- Ibrahim, A. E. A., Hussainey, K., Nawaz, T., Ntim, C., & Elamer, A. (2022). A systematic literature review on risk disclosure research: State-of-the-art and future research agenda. *International Review of Financial Analysis*, 82, 1-23. <https://doi.org/10.1016/j.irfa.2022.102217>
- Ibrahim, A., Habbash, M., & Hussainey, K. (2019). Corporate governance and risk disclosure: Evidence from Saudi Arabia. *International Journal of Accounting, Auditing and Performance Evaluation*, 15(1), 89-111. <https://www.researchgate.net/publication/330061555>
- Kahihu, P. K., Wachira, D. M., & Muathe, S. M. (2021). Managing market risk for financial performance: Experience from micro finance institutionin Kenya. *Journal of Financial Regulation and Compliance*, 29 (5), 561-579. <https://doi.org/10.1108/JFRC-02-2021-0014>
- Kementerian BUMN. (2022). *Akselerator proyek strategis nasional*. <https://Bumn.Go.Id/Penggerak/Detail/Akselerator-Proyek-Strategis-Nasional-1105670322>
- Kementerian BUMN Republik Indonesia. (2024). *Portofolio BUMN jasa infrastruktur*. <https://Bumn.Go.Id/Portofolio/Bumn#Wakil%20Menteri%20BUMNjasa%20Infrastruktur>
- Kementerian BUMN Republik Indonesia. (2023). Peraturan Menteri Badan Usaha Milik Negara Republik Indonesia No. PER-2/MBU/03/2023 Tentang Pedoman Tata Kelola dan Kegiatan Korporasi Signifikan Badan Usaha Milik Negara. Indonesia.
- Khandelwal, C., Kumar, S., & Verma, D. (2021). Exploring financial risks disclosure: Evidence from indian listed companies. *Qualitative Research in Financial Markets*, 13(5), 549-579. <https://doi.org/10.1108/QRFM-11-2019-0140>
- Menteri Koordinator dan Bidang Perekonomian Republik Indonesia. (2023). Peraturan Menteri Koordinator dan Bidang Perekonomian Republik Indonesia Nomor 8 Tahun 2023 tentang Perubahan Keempat atas Daftar Proyek Strategis Nasional. Indonesia
- Norwani, N. M., Mohamad, Z. Z., & Chek, I. T. (2011). Corporate governance failure and its impact on financial reporting within selected companies. *International Journal of Business and Social Science*, 2(2), 205-213. <https://api.semanticscholar.org/CorpusID:167833781>
- Ntim, C. G., Lindop, S., & Thomas, D. A. (2013). Corporate governance and risk reporting in South Africa: A study of corporate risk disclosures in the pre- and post-2007/2008 global financial crisis periods. *International Review of Financial Analysis*, 30, 363-383. <https://doi.org/10.1016/j.irfa.2013.07.001>
- Nurjanah, I., & Arifa, C. (2023). How does corporate social responsibility disclosure affect firm value: Firm maturity and firm financial risk context. *The Indonesian Journal of Accounting Research*, 26(3), 393-424. <http://doi.org/10.33312/ijar.716>
- Otoritas Jasa Keuangan. (2021). Surat Edaran Otoritas Jasa Keuangan Nomor 16/SEOJK.04/2021 Tentang Bentuk dan Isi Laporan Tahunan Emiten atau Perusahaan Publik. Indonesia
- Putri, P. P. S., Damayanti, R., & Hapsari, A. N. S. (2022). Village fund allocation practice: The investigation of accountability and transparency. *Jurnal Ilmiah Akuntansi*, 6(2), 455-470. <https://doi.org/10.23887/jia.v6i2.40390>
- Ross, S. A., Westerfield, R. W., & Jordan, B. D. (2016). *Fundamentals of corporate finance*. (11th ed.). McGraw-Hill Education.
- Sekaran, U., & Bougie, R. (2016). *Research methods for business: A skill building approach*. (7th ed.). John Wiley & Sons.