Does Tax Amnesty Reduce Tax Risk in Indonesia?

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Abstract
Objective – This study examines tax risk before and after the implementation period of the tax amnesty policy in Indonesian listed companies.

Design/methodology – The method employed in this study is a quantitative approach. The research data is in the form of information in financial statements obtained from www.idx.co.id for 2011-2015 and 2017-2021. The population used in this study is all companies listed on the Indonesian Stock Exchange from 2011 to 2021. This study obtains 182 observations based on the purposive sampling method. Hypotheses were tested using the Wilcoxon Signed Rank Test.

Results – This research concludes that there is a tax risk reduction following the tax amnesty implementation based on cash ETR and GAAP ETR. These results indicate that the ratio of cash tax to pre-tax income paid by companies after the tax amnesty policy experienced a significant reduction in volatility, as well as the comparison of corporate income tax to pre-tax income after the implementation of the tax amnesty policy.

Research Limitations/Implications – Several sampling criteria, such as excluding GAAP ETR and Cash ETR values that are negative and greater than 1, result in a reduced sample size. In addition, this study only uses data from listed companies to facilitate access to the data used in the study.

Novelty/Originality – Previous studies have focused on the causality between tax risk, firm risk, or other predictive variables. This study tests tax risk before and after implementing the tax amnesty policy. Thus, this study can capture the significance of changes in the volatility of taxpayers' tax payments/ expenditures before and after the implementation of the tax amnesty in Indonesia.

Keywords: Tax Compliance, Tax Amnesty, Tax Risk, Volatility

1. Introduction

The government continues to pursue national development to improve its citizens' welfare. The government needs adequate development funds (Ashiedu et al., 2022; Ernawati et al., 2022; Ohiomu & Oluyemi, 2019). The government seeks to increase domestic government revenue through taxation as the primary source of government finance. As an essential government activity, tax collection is an absolute necessity (Enahoro & Olabisi, 2012; Eubank, 2012). In some modern countries, taxation has become a sine qua non (absolute requirement) for improving state finances (Streeck, 2014; Tcherneva, 2016). The benefit approach is used to regulate tax collection. This approach supports the state in collecting taxes that can be imposed in the sense of having coercive authority. This benefits approach is based on the state creating benefits enjoyed by all citizens living in the state, so the state has the authority to collect taxes from the people by force (Alao et al., 2015; Elmi et al., 2015; Pandu et al., 2021).

A large amount of liquid and non-liquid assets held by Indonesians outside the country's borders is one of the issues in taxation. These assets will increase the country's liquidity and expand the national economy. The owners do not declare some assets outside Indonesia in their annual income tax returns. It has tax implications, as it is deemed undeclared income and, therefore, is subject to penalties. This condition is one of the causes why the owners of these assets are reluctant to return or repatriate them and put them into economic activity (E. W. Said, 2017; L. Said, 2018; Wardhana et al., 2018). Assets abroad are difficult to trace for several reasons (Boucht, 2019). In addition, an inseparable activity of the shadow economy is saving money in a country to avoid taxes because the underground economy is a segment of economic activity deliberately disguised to avoid paying taxes (Li, 2020; Rahimi, 2021). There are usually underground economic activities in all developed and developing countries, including Indonesia. The shadow economy, often called the cash economy, is usually assessed by the value of the economy created concerning the gross domestic product (GDP) (Koufopoulou et al., 2019; Medina & Schneider, 2021; Silalahi, 2022). Of course, this will lead to difficulties in collecting taxes on the income from these assets; it may lead to tax avoidance schemes and cause damage to Indonesia (Ibrahim et al., 2018; E. W. Said, 2017; Setyorini et al., 2019). In this context, the Indonesian government passed the Indonesian Tax Amnesty Law in 2016. In this case, the tax amnesty law is expected to reduce the problem of unidentified national assets and the underground economy.

The Tax Amnesty Law is intended to protect Indonesian citizens willing to transfer and disclose their assets in exchange for a tax amnesty (Mansyuroh, 2018; E. W. Said, 2017). This policy aims to increase the public's compliance with the voluntary payment of taxes and encourage people to register as taxpayers to pay their taxes (Inasius et al., 2020; Mehmet, 2015; Sayidah & Assagaf, 2019). This policy is expected to increase the taxes and those taxes to pay (Pratami et al., 2017; Ragimun, 2011; Wahyudi & Arditio, 2018). The tax object can increase the number of taxpayers, while the tax subject can be a foreign refund. In addition to increasing the number of taxpayers, the 2016 Tax Amnesty is expected to increase the revenue potential of the state budget both in 2016 and in subsequent years, making the state budget more sustainable. The tax amnesty policy can also support the government's efforts to improve economic conditions, development, unemployment, poverty, and inequality (Insan & Maghijn, 2018; Kusumawati & Sawarjuwono, 2019).

Moreover, the risk of Indonesia not achieving its tax revenue targets can be at least reduced by the expected increase in tax compliance from the program. On the other hand, the volatility due to aggressive tax planning and the tendency of tax avoidance behavior will continue to make it difficult for the government to achieve the tax revenue target in the future. This condition can be referred to as tax risk. As defined by Hutchens & Rego (2015), tax risk is a measure used to capture the tax uncertainty that creates various costs for the firm, including compliance, enforcement, operational, and reputational costs that can affect the present and future of the firm.

An uncontrollable tax risk can lead to a reduction in the company's tax obligations to the government. Government-regulated tax amnesties may also increase the transparency of company information to various stakeholders, including shareholders. The existence of an information asymmetry between managers and shareholders may favor managers in adopting specific policies that benefit managers. The existence of a tax amnesty is expected to allow managers to be more transparent in presenting information related to the fulfillment of their tax obligations. Tax avoidance by managers is not always in the interests of shareholders. Managers may have certain motives for engaging in tax avoidance activities. These policies, which may be implemented unilaterally by managers, may lead to instability in fulfilling corporate tax obligations to the government, which may encourage tax risk and result in losses for shareholders.

Previous studies testing tax risk before and after tax amnesty policies are rare. Hutchens & Rego (2015) tested tax risk on firm value, while Hutchens & Rego (2015) performed a test of firm risk. In another test, tax risk was used as a moderating variable to test tax avoidance on firm value (Irawan & Turwanto, 2020). Irawan & Turwanto (2020) found that tax amnesty policies are associated with a favorable relationship between tax risk and firm value. The presence of tax risk moderates the relationship between tax avoidance and firm value. It is impossible to isolate the presence of tax risk from tax avoidance. Irawan & Turwanto (2020) suggested that tax amnesty can backfire on Indonesia's tax authority. Tax amnesty can harm taxpayers who have complied and fulfilled their tax obligations without waiting for the tax amnesty policy, namely in the form of a decrease in compliance and an increase in tax avoidance activities. A tax amnesty should have the effect of a reduction in tax risk, as taxpayers will be more compliant with tax rules. However, if there is an opposite result, there should be a rethink about whether the next tax amnesty should be in place.

This study examines the effect of tax amnesty policies on the volatility of tax payments/expenses as a proxy for firm-level tax risk. While previous research has focused on the causality between tax risk and firm risk or other predictive variables (Hutchens & Rego, 2015; Irawan & Turwanto, 2020), this study tests tax risk before and after implementing the tax amnesty policy. This study provides several contributions to Indonesia's accounting literature and tax policy recommendations. First, this study can capture the significance of changes in the volatility of taxpayers' tax payments/ expenditures before and after the implementation of the tax amnesty in Indonesia. Second, tax authorities can use this research to formulate other taxpayer compliance policies to open up similar policy opportunities and alternatives.

The article is structured into five sections. Section two, theoretical review and hypothesis development, will scrutinize related literature to frame a theoretical construct. The literature review will then craft hypotheses germane to this study based on pre-existing theories. Section three, research methods, will explain the sample selection method utilized in this study and the operationalization of variables. The technical details and reasoning behind each methodological decision will be outlined to guarantee data validity and reliability. The fourth section will interpret the data statistics, making comparisons to previous studies for coherence and deviations. Finally, the fifth section will summarise the findings, outline research limitations, and present theoretical and practical implications of interest in taxation.

2. Literature Review, Theoretical Framework, and Hypothesis Development

Agency theories are based on the delegation of authority from stockholders (principals) to executives (agents) for the conduct of business (Jensen & Meckling, 1976). Managers, who should act as an extension of shareholders, do not necessarily align their interests with those of shareholders (Davis et al., 1997; Zogning, 2017). Shareholders are looking for the highest possible return on their investment in the firm, while managers are looking for the highest possible compensation (Demsetz, 1983). To optimize their own goals, managers may make decisions that are not in the best interests of shareholders, leading to agency problems (Jensen & Meckling, 1976). One form of the application of agency theory is tax avoidance. According to Putra et al. (2018), in this agency theory, the principals want the managers to minimize the tax burden by creating a scheme that minimizes the profit earned. In the practice of the agency theory, the managers will look for ways to use the valuation schemes of assets, liabilities, capital, income, and costs that are not in conflict with the applicable tax regulations.

Tax risk is the combined risk of economic risk, the uncertainty of the tax law, and inaccurate information processing. Economic risk is the range of possible outcomes or results from an investment (e.g., Faccio et al., 2011; Guenther et al., 2017; John et al., 2008). Inaccurate information processing may be due to accounting system failures,

poor management, poor monitoring, or poor decisions. Economic risk, tax law uncertainty, and inaccurate information processing can arise from any business activity, not just tax avoidance activities. These factors create tax risk because they create predictable and unpredictable uncertainty about future tax outcomes. Predictable uncertainty occurs when it is possible to estimate possible future tax results, whereas unanticipated uncertainty occurs when the unique nature of the situation makes it very difficult to estimate possible future tax results (Keynes, 1937; Knight, 1921). Overall, as the predictable and unpredictable uncertainties inherent in the three sources of tax risk are reflected in business transactions or activities, firm-specific tax risk increases.

Tax risk reflects how a firm can maintain its tax position over time, while tax avoidance is the application of tax rules that reduce corporate income tax payments (Guenther et al., 2013). As tax avoidance increases, so does tax risk. Firmansyah & Muliana (2018) investigated the impact of tax avoidance and tax risk on corporate risk. The results of this study revealed that tax avoidance and tax risk do not affect corporate risk. On the other hand, according to Mangoting et al. (2021), there is a positive relationship between tax avoidance and tax risk. Tax risk affects tax avoidance because it involves uncertainty about future tax outcomes. This finding may be due to poor tax planning within the company or an increase in tax control by the Directorate General of Taxes to increase Indonesia's revenue sources.

Meanwhile, research by Irawan & Turwanto (2020) found empirical evidence that tax risk moderates the relationship between tax avoidance and firm value. Chen (2021) further finds that more standardized territorial systems have higher levels of the rule of law and governance. The implication is that business transaction costs and risks will be low, and the tax policy and implementation transparency will be high. Companies can better anticipate future tax policy changes to carry out appropriate tax management in advance to deal with possible risks and reduce future tax volatility, thereby reducing tax risk.

Effective tax management can play an essential role in enhancing shareholder wealth. However, aggressive tax planning, or even tax avoidance, can lead to a deterioration of the company's brand image in the eyes of investors. Managers need to engage in good tax planning to avoid volatility in tax payments so that tax payments cannot be estimated. The uncertainty in future tax payments is often associated with tax risk. According to Guenther et al. (2017), tax risk differs from tax aggressiveness and tax avoidance. The concept of tax risk reflects more on the ability of the company to maintain its tax position over time. Several reasons can cause tax payments that tend to change, such as changes in tax regulations, economic conditions, the company's ability to maintain investments, and others (Guenther et al., 2013; Ojong et al., 2016; Olufemi et al., 2018). An example of a tax scheme that affects tax payments is the tax amnesty scheme. In the short run, participation in this scheme has ransom payment consequences that may increase the firm's tax burden. In the long run, companies should be better able to estimate their tax payments, as compliance and disclosure will encourage managers to avoid engaging in more aggressive tax planning. As a result, the uncertainty of tax payments on the part of taxpayers and the government can be minimized, so tax risk should decrease after taxpayers participate in the tax amnesty program.

H1. There is a reduced tax risk following the tax amnesty period compared to before the tax amnesty period.

3. Research Method

The data employed in this study is secondary data in the form of audited financial statements available on the website www.idx.co.id or through the official website of the respective company. The sample in this study consisted of all companies

listed on the Indonesia Stock Exchange. The sample is drawn using the purposive sampling method, where the selection of elements to be included in the sample is made deliberately to meet the criteria used, with a record that the sample is sufficiently representative of the population. The criteria used in sampling are as follows:

Criteria	Number
Companies listed on 1 November 2022 on the Indonesia Stock Exchange	810
Companies listed after 1 January 2011	(426)
Companies that have negative earnings (losses) during the period 2011-2021	(232)
Companies with Cash ETR and GAAP ETR > 1 and GAPP ETR < 0	(36)
Incomplete company data	(25)
The number of companies that can be used in research	91
Test period	2
Total sample	**182**

Table 1. Research Sample

Previous studies, such as Hutchens & Rego (2015), Irawan & Turwanto (2020), and Guenther et al. (2013), employed the standard deviation of the cash ETR for five years to measure tax risk. Before the tax amnesty policy was enacted, tax risk was measured from 2011 to 2015. Meanwhile, tax risk after the enactment of the tax amnesty policy is measured from 2017 to 2021. A high standard deviation indicates a high level of tax risk. Conversely, a low standard deviation indicates a low tax risk level. Below is a formula for calculating tax risk based on cash ETR.

$$\text{Cash ETR} = \frac{\text{cash tax paid}}{\text{total pre} - \text{tax accounting income}}$$

$$\text{Tax Risk} - \text{Before TA}_{\text{Cash ETR}_{it}} = \sqrt{\frac{\sum_{t-4}^{t}\left(\text{Cash ETR}_{it} - \overline{\text{Cash ETR}}\right)^2}{n-1}}$$

$$\text{Tax Risk} - \text{After TA}_{\text{Cash ETR}_{it}} = \sqrt{\frac{\sum_{t+4}^{t}\left(\text{Cash ETR}_{it} - \overline{\text{Cash ETR}}\right)^2}{n-1}}$$

In this study, a sensitivity test was performed with the addition of a proxy for tax risk, namely the standard deviation of GAAP ETR over five years. Cash ETR is calculated by dividing cash taxes paid by profit before tax, while GAAP ETR is calculated by dividing income tax expense in the income statement by profit before tax. The difference between Cash ETR and GAAP ETR is in the numerator of the formula. In Cash ETR, the cash tax paid is calculated by adjusting the income tax expense by the income tax payable. Below is a formula for calculating tax risk based on GAAP ETR.

$$G\text{AAP ETR} = \frac{\text{income tax expense}}{\text{total pre} - \text{tax accounting income}}$$

$$\text{Tax Risk} - \text{Before TA}_{\text{GAAP ETR}_{it}} = \sqrt{\frac{\sum_{t-4}^{t}(\text{GAAP ETR}_{it} - \overline{\text{GAAP ETR}})^2}{n-1}}$$

$$\text{Tax Risk} - \text{After TA}_{\text{GAAP ETR}_{it}} = \sqrt{\frac{\sum_{t+4}^{t}(\text{GAAP ETR}_{it} - \overline{\text{GAAP ETR}})^2}{n-1}}$$

Specifically, the researchers separate the tax risk before and after implementing the tax amnesty policy in Indonesia to conduct statistical tests. The reference year for calculating tax risk is the value of t in the tax risk formula above. In the tax risk formula before the tax amnesty, the reference year is 2015. Therefore, the values of $t-1, t-2, t-3$, and $t-4$ are from 2014, 2013, 2012, and 2011 respectively. In the post-amnesty

tax risk formula, the reference year is 2017, so the values of $t + 1, t + 2, t + 3$, and $t + 4$ are 2018, 2019, 2020, and 2021, respectively.

The statistical tests are carried out by testing the tax risk before and after the tax amnesty policy in Indonesia. In the stages of testing, partial tests are used for the research variables with the paired samples t-test. This study's significance level or alpha value is 0.05 or 5%. This hypothesis testing uses paired samples t-tests because it is based on the accuracy of the research model. The t-test is used to evaluate specific treatments on the same sample in two periods observed, namely before and after the treatment. The specific treatment in this study is the 2016 tax amnesty policy in Indonesia.

4. Results and Discussion

The results of the statistical tests show that the average value of tax risk before the tax amnesty policy was enacted was 0.30156 in the case of the Cash ETR proxy and 0.25366 in the case of the GAAP ETR. The average tax risk is 0.10110 for the Cash ETR proxy and 0.05209 for the GAAP ETR after the tax amnesty policy is enacted. The median values of tax risk for cashETR and GAAPETR are 0.27672 and 0.25108, respectively, before the tax amnesty and 0.07179 and 0.03047 after the tax amnesty. The maximum value of tax risk based on Cash ETR and GAAP ETR before the tax amnesty policy was 0.98099 and 0.63395, respectively, but after the tax amnesty policy, there was a difference in the maximum value of tax risk was 0.39083 for Cash ETR and 0.36692 for GAAP ETR. It shows that the maximum value for the volatility of Cash ETR and GAAP ETR is higher before the tax amnesty period than after the tax amnesty period. The highest value of tax risk based on Cash ETR and GAAP ETR before the tax amnesty policy period is PT Astra Agro Lestari (AALI) and PT Bumi Citra Permai (BCIP) respectively, while the highest value for Cash ETR and GAAP ETR after the tax amnesty policy period is BCIP.

Table 2. Research Descriptive Statistics

Statistics	N	Tax Risk Based on Cash – ETR Before TA	Tax Risk Based on Cash – ETR After TA	Tax Risk Based on GAAP – ETR Before TA	Tax Risk Based on GAAP – ETR After TA
Mean	91	0.30156	0.10110	0.25366	0.05209
Median	91	0.27672	0.07179	0.25108	0.03047
Std. Dev	91	0.19523	0.08661	0.11702	0.06511
Min	91	0.00000	0.0000	0.00024	0.00000
Max	91	0.98099	0.39083	0.63395	0.36692

Normality Test

The normality test determines whether or not data is normally distributed. If the p-value level is > 0.05, then the data is normally distributed, but if the p-value level is <0.05, it can be concluded that the data distribution is abnormal (Ahad et al., 2011; Quraisy, 2020). The classic assumption tests used to determine data normality are the Kolmogorov-Smirnov and Shapiro-Wilk statistical tests. The overall data normality test results are presented in Table 2 (data before the tax amnesty program) and Table 3 (data after the tax amnesty program). Based on the statistical test results in Tables 1 and 2, the Asymp. Sig. (2-tailed) The total tax risk variable with the cash ETR proxy and the GAPP ETR proxy before and after the tax amnesty policy shows a value between 0.000 and 0.001. This value is below 0.05, meaning the total tax risk variable with the Cash ETR and GAAP ETR proxies is not normally distributed. Based on the normality test results, the tool used in the different tests is the Wilcoxon Signed Rank Test, which is a non-parametric test because the data of the variables to be tested are not normally distributed.

Table 3. Normality Test Results Before the Tax Amnesty Program

Variable	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Tax Risk Based on CETR	0.128	91	0.001	0.929	91	0.000
Tax Risk Based on GAAP ETR	0.199	91	0.000	0.888	91	0.000

Table 4. Normality Test Results After the Tax Amnesty Program

Variable	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Tax Risk Based on CETR	0.167	91	0.000	0.836	91	0.000
Tax Risk Based on GAAP ETR	0.245	91	0.000	0.644	91	0.000

Difference Test

The summary of the hypothesis testing results based on the Wilcoxon paired t-test is presented in Table 5. Based on Table 5 for hypothesis testing, it is known that the tax risk variable with the Cash ETR proxy and in the period before and after the tax amnesty policy has Asymp. Sig. (2-tailed) of 0.000. It means that the value is below the significance level of 0.05. The value below significance means a difference in tax risk before and after the tax amnesty policy. The negative rank indicates a decrease in the value of tax risk after the tax amnesty law was passed.

Table 5. The Summary of Hypothesis Test Results

	Z	Asymp. Sig. (2-tailed)
$CashETR_{t+1} - CashETR_{t-1}$	-7.518*	0.000
$GAAPETR_{t+1} - GAAPETR_{t-1}$	-8.173*	0.000

*Based on positive ranks.

Table 6. Wilcoxon Signed Ranks Test

	Ranks	N – Cash ETR	N – GAAP ETR
After - Before	Negative Ranks	82[a]	86[a]
	Positive Ranks	8[b]	5[b]
	Ties	1[c]	0[c]
	Total	91	91

a. After < Before
b. After > Before
c. After = Before

The hypothesis testing result suggests that the tax risk based on Cash ETR decreased after the tax amnesty policy period. Based on the sensitivity test, the tax risk based on GAAP ETR decreased after the tax amnesty period compared to before the tax amnesty period. Cash ETR-based tax risk means that the volatility of tax avoidance or tax aggressiveness is measured by the ratio of cash taxes paid to pre-tax profit, while GAAP ETR is obtained by dividing the income tax expense in the income statement by pre-tax profit. The reduced volatility of Cash ETR before and after the tax amnesty means that the ratio of the cash tax paid to the company's pre-tax income is more stable than before the tax amnesty policy. Meanwhile, on the GAAP ETR proxy, the corporate tax to pre-tax income ratio is also more stable after the tax amnesty.

The reduction in the volatility of the GAAP ETR proxy when the after-tax amnesty policy is enacted has several consequences. For companies, a reduction in the volatility of the tax burden on the government makes the number of dividends paid to shareholders more predictable in the future. Income tax expense, as one of the costs that can reduce net income, will become more predictable each year as a result of the reduction in the volatility of tax expense. Although this measure is not the only one used by shareholders to predict shareholder welfare from dividend payments, shareholders can consider this information when making investment decisions. Investors and potential investors may consider companies with lower GAAP ETR volatility as an indicator for investment decisions compared to companies with high GAAP ETR volatility.

On the other hand, too high GAAP ETR volatility can lead to a deterioration in the quality of the public's assessment of the company's management. Managers are seen as failing to manage the company by maintaining the ratio of tax expense to pre-tax profit each year. This information is perceived as bad news by shareholders. Effective tax management can be reflected in a GAAP ETR with low year-to-year variability, allowing managers to mitigate tax risk. After a tax amnesty, the value of GAAP ETR is empirically less volatile than before the tax amnesty. This phenomenon is a positive signal for investors, reflecting the value of future dividends.

The Indonesian government's tax amnesty policy's provisions also impact individual companies' accounting books. Based on the Minister of Finance's Regulation No. 118/PMK.03/2016 on the Implementation of Law No. 11 the Year 2016 on Tax Amnesty, it is stated that taxpayers who participate in the tax amnesty and are required to perform accounting following the provisions of the Law on General Provisions and Tax Procedures, they must record the difference between the net asset value submitted in the Declaration Letter minus the net asset value that the company is required to report to the government as an addition to the retained earnings balance in the balance sheet. If the additional assets disclosed in the Declaration Letter are intangible, the company cannot depreciate them for tax purposes. However, if the additional assets disclosed in the declaration are tangible, the company cannot amortize the tangible assets for tax purposes (Kusmantoro, 2018; Miniawati et al., 2018). This provision also indirectly affects the company's GAAP ETR and cash ETR values each year. In commercial accounting, depreciation and amortization expenses will always appear after the tax amnesty disclosure period. However, according to the accounting books recognized by the tax regulations in Indonesia (fiscal), these expenses cannot be recognized. It will make the value of the pre-tax profit according to commercial and tax accounting have a different value due to a permanent difference, so a different income tax expense will be obtained based on commercial and tax accounting profit. Although, in principle, this will undoubtedly add to the company's agenda to do better tax planning, the impact of the tax amnesty policy setting makes the value of tax risk volatility more manageable. Maintaining the value of tax risk after the tax amnesty is in line with the findings of Chen's research (2021), which stated that the stronger the supervision of the tax authorities, the lower the tax risk, although in this case, better tax planning will have to be done.

The findings of this study demonstrate that the tax risk associated with Cash ETR declines following the implementation of the tax amnesty policy period. The use of Agency Theory, which elucidates the relationship between executives (agency) and shareholders (principal business) (Jensen & Meckling, 1976), may provide a framework for comprehending these results. It should be noted that managers, who are expected to act in the interests of shareholders, may have varying objectives to those of the shareholders, as Zogning (2017) argued. In the context of tax risk and tax avoidance, Putra et al. (2018) noted that principals desire tax burden reduction via profit-minimizing schemes. Concerning Agency Theory, managers can opt for valuation schemes that comply with relevant tax regulations while simultaneously raising tax risk. As Keynes (1937) and Knight (1921) defined, tax risk comprises economic uncertainty, tax law uncertainty, and inaccurate information processing. Previous studies, including those by Firmansyah & Muliana (2018) and Mangoting et al. (2021), have investigated the correlation between tax avoidance and tax risk, yielding diverse outcomes.

Upon examining the effects of the tax amnesty policy on GAAP ETR, businesses experience less instability in their tax obligations post-amnesty. It is consistent with the notion that managers may have altered their approaches to ensure greater adherence to tax regulations following amnesty, as discovered by Chen (2021). In the Indonesian context, Irawan & Turwanto (2020) and Chen (2021) suggested that firms can improve tax planning to lower future tax volatility, reducing tax risk. These findings offer more

empirical evidence on the correlation between tax risk, tax avoidance, and Agency Theory, specifically within the tax amnesty policy context. It is critical for shareholders, managers, and policymakers to comprehend these dynamics for making informed decisions on tax management and planning (Guenther et al., 2017; Ojong et al., 2016; Olufemi et al., 2018).

5. Conclusion, Implication and Limitations

A large amount of liquid and non-liquid assets held by Indonesians outside the country's borders is one of the issues in taxation. The disclosure of these assets would positively impact domestic liquidity and the country's economic expansion. One of the policy measures that can be used to encourage the disclosure of these assets by taxpayers is the policy of tax amnesty. Tax amnesty policies increase compliance with tax obligations and meet the state's financial needs. The volatility of taxpayers' compliance with tax obligations is expected to decrease due to tax amnesty. An unstable fulfillment of companies' tax obligations to the government may encourage greater tax risk, resulting in losses to be borne by the management, the shareholders, and the government. The objective of this study is to capture the difference in tax risk based on cash ETR and GAAP ETR before and after the enactment of the tax amnesty policy. The results of the hypothesis testing show that after the enactment of the tax amnesty policy, there is a decrease in the tax risk based on both the cash ETR and the GAAP ETR. These results imply that the ratio of cash tax to pre-tax income paid by firms after the enactment of the tax amnesty policy has significantly reduced the volatility and the ratio of corporate income tax to pre-tax income after the enactment of the tax amnesty policy.

For the government, the fluctuating values of GAAP ETR and cash ETR will challenge forecasting tax revenues and tax ratios each year. The existence of a tax amnesty can empirically reduce the tax risk so that excessive fluctuations in the tax risk can be suppressed. In this case, the expected tax compliance after the tax amnesty looks better than before the tax amnesty. In this case, the challenge for the government is to formulate a fair tax enforcement policy. Taxpayers who do not participate in the tax amnesty program are expected to be monitored more closely to ensure the same justice as taxpayers who participate in the program. As for the company, the increased value of tax risk will negatively impact public confidence in management. It will discourage investors and reduce the company's value in the public's eyes. Therefore, the company's management is expected to maintain the GAAP ETR and Cash ETR ratios so they do not fluctuate too much.

This study has several limitations. The existence of several sampling criteria, such as the exclusion of GAAP ETR and Cash ETR values that are negative and greater than 1, results in a reduced sample size. In addition, this study only uses data from listed companies to facilitate access to the data used in the study. Future research can use data from unlisted companies to increase the number of research samples. In addition, future research can use data from other state-owned enterprises with similar programs to compare the test results with this research. Using new tax risk proxies is also expected to provide a new picture.

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