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Clawback And Malus Provision: Is It Effective In Mitigating Risk-Taking Behavior?

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ABSTRACT

Purpose: This study aims to examine the role of clawback and malus provisions in moderating the effect of executive compensation on bank risk-taking behavior.

Methodology/approach: This study employed a quantitative approach with a population of all banking companies listed on the IDX for the period 2018-2023. The final sample included in the random effect regression model was 19 banks (114 fitm-year observations). All of the research data were obtained from the bank's annual report, available on their websites.

Findings: This study uncovered that executive compensation exerted no effect on bank risk-taking behavior and was also not moderated by clawback and malus provisions. However, clawback and malus provisions have been proven to reduce bank risk-taking behavior as measured by Capital Adequacy Ratio.

Practical implications: This study suggests that clawback and malus provisions are prominent factors in suppressing bank risk-taking behavior, which is represented by material risk takers (MRT). Therefore, law enforcement related to this provision needs to be strengthened to be more effective in controlling excessive risk-taking behavior in the banking sector.

Originality/value: This study examines the effectiveness of POJK No. 45/POJK.03/2015 related to the obligation of banks to implement clawback and malus provisions in material risk taker's compensation contracts.

Keywords: Bank; Clawback and Malus; Executive Compensation; Material Risk Taker; Risk-Taking Behavior.

ABSTRAK

Tujuan penelitian: Penelitian ini bertujuan untuk menguji peran ketentuan *clawback* dan *malus* dalam memoderasi pengaruh kompensasi eksekutif terhadap perilaku pengambilan risiko bank.

Metode/pendekatan: Penelitian ini menggunakan pendekatan kuantitatif dengan populasi seluruh perusahaan perbankan yang terdaftar di BEI periode 2018-2023. Sampel akhir yang diuji dalam model regresi *random effect model* adalah 19 bank (114 sampel observasi). Semua data penelitian diperoleh dari laporan tahunan bank yang tersedia di situs web perusahaan.

Hasil: Hasil pengujian menunjukkan bahwa kompensasi eksekutif tidak berpengaruh terhadap perilaku pengambilan risiko bank dan juga tidak dimoderasi oleh ketentuan *clawback* dan *malus*. Namun, ketentuan *clawback* dan *malus* terbukti menurunkan perilaku pengambilan risiko bank yang diukur dengan *Capital Adequacy Ratio*.

Implikasi praktik: Penelitian ini menunjukkan bahwa ketentuan *clawback* dan malus merupakan faktor penting dalam menekan perilaku pengambilan risiko bank yang diwakili oleh *material risk taker* (MRT). Oleh karena itu, penegakan hukum terkait ketentuan clawback dan malus perlu diperkuat agar lebih efektif dalam mengendalikan perilaku pengambilan risiko yang berlebihan di sektor perbankan.

Orisinalitas/kebaharuan: Penelitian ini menguji efektivitas POJK No. 45/POJK.03/2015 terkait kewajiban bank untuk menerapkan ketentuan *clawback* dan *malus* dalam kontrak kompensasi yang diberikan kepada MRT.

Kata kunci: Bank; Clawback dan Malus; Kompensasi Eksekutif; Material Risk Taker, Perilaku Pengambilan Risiko.

INTRODUCTION

Executive compensation and its impact on corporate risk-taking have emerged as significant issues within the banking and finance literature, particularly in the aftermath of the global financial crisis (Abedifar et al., 2013; Bourkhis & Nabi, 2013; Guo et al., 2015; Hunjra et al., 2021; Shah et al., 2017). The Global Financial Crisis (GFC) of 2007–2008, accompanied by the collapse of Lehman Brothers, demonstrated how excessive risk-taking behavior can harm financial institutions and have broad impacts on the economy as a whole (Kreilkamp et al., 2023; Williams, 2010). One of the central factors that triggered the crisis in the banking industry was the compensation structure that encouraged executives to take excessive risks that could endanger the stability of the company (Bouras & Gallali, 2016; DeYoung et al., 2013; Guo et al., 2015; Gupta et al., 2009). In addition, large banks experiencing financial

problems can trigger a domino effect (too big to fail), causing the collapse of the entire economic system and inviting government involvement to provide assistance in the event of financial failure (Houston & James, 1995).

A number of studies have identified a correlation between executive compensation and risk-taking behavior, but the results are inconsistent. Studies conducted by Guo et al. (2015), Carline et al. (2023), and Bouteska et al. (2024) indicate that executive compensation has an effect on encouraging excessive risk-taking behavior by bank managers, a factor that significantly contributes to the GFC. Meanwhile, Shah et al. (2017) discovered that the compensation structure before the financial crisis influenced a decrease in CEO risk-taking, while compensation with stock options after the financial crisis contributed to a reduction in bank risk-taking. This aligns with the findings of Rahim and Husni (2020), which revealed that executive cash compensation affects reducing bank risk-taking, such as non-performing loan risk and operational risk. Based on inconclusive results (Guo et al. (2015), Carline et al. (2023), Bouteska et al. (2024), Shah et al. (2017), dan Rahim and Husni (2020)), this study aims to fill the gap by re-examining the effect of executive compensation on the risk-taking behavior of banks listed on the Indonesia Stock Exchange (IDX), while considering the role of clawback and malus provisions as moderating variables.

Clawback and malus provisions are stipulations within management compensation contracts that authorize companies to revoke compensation previously paid to their managers should there be substantiated evidence of misconduct or fraud resulting in financial losses (Babenko et al., 2023; Chan et al., 2012; Liu et al., 2023; Prescott & Vann, 2018; Remesal, 2024). Previous studies have presented the effectiveness of clawback and malus provisions. According to the findings of Chen and Vann (2017), Lin (2017), and Velte (2020), the adoption of clawback and malus provisions has the potential to reduce excessive risk-taking and abnormal investment behaviors within companies, as executives are likely to exercise greater caution in their risk-related decisions. These results are corroborated by Liu et al. (2020), who demonstrated that clawback and malus provisions influence the reduction of risk-taking behaviors, consequently leading to lower company risk.

Clawback and malus provisions have also been impacted by regulations in the United States, such as the Sarbanes-Oxley Act of 2002 (SOX 2002) in Section 304, which requires CEOs and CFOs of public interest entities (PIEs) to return their remuneration in the event of a restatement of financial statements due to intentional material irregularities (Chan et al., 2012; Liu et al., 2023). Nevertheless, previous literature has found that the implementation of clawbacks and malus under SOX is rarely enforced by the Securities and Exchange Commission (SEC) (Brink et al., 2019; Erkens et al., 2018; Fried & Shilon, 2011; Prescott & Vann, 2018). Since the number of clawback and malus cases after the 2007-2008 financial crisis remained low, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act 2010) in Section 954 introduced stricter clawback and malus rules. Based on that, public interest entities (PIEs) must apply clawback and malus provisions to claw back executive compensation in the event of a restatement of financial statements due to material non-compliance with financial reporting requirements (Babenko et al., 2017; Chan et al., 2012; Chan et al., 2015). However, the provisions of the Dodd-Frank Act have not been fully enforced since the SEC has not issued a final rule on clawback and malus (Brink et al., 2019; Holst et al., 2019). Consequently, compliance with the Dodd-Frank Act (2010) persists as voluntary (Babenko et al., 2023; Chan et al., 2015; Dehaan et al., 2013; Velte, 2020).

In Indonesia, the clawback and malus provisions have been adopted by the Indonesian Financial Services Authority (OJK) by issuing POJK No. 45/POJK.03/2015 concerning the Implementation of Governance in the Provision of Remuneration for Commercial Banks, which allows banks to choose malus or clawback and malus provisions or a combination of both regarding the payment of variable remuneration to Material Risk Takers (MRT). The remuneration is related to the bank's performance and risk, such as the provision of bonuses (Medinda & Febrianto, 2023). To manage possible risks, banks are required to determine parties acting as MRT and suspend the payment of variable remuneration to them (POJK No. 45 of 2015 Articles 22 and 23). The suspension provisions, according to PJOK, are set to reduce operational risk in banks. In Article 26, OJK stipulates that banks can postpone the payment of all or part of the deferred variable remuneration (malus) or withdraw the variable remuneration if it has been paid (clawback). Thus, the implementation of clawback and and malus provisions is done so that managers and other employees continue to consider the risks in making decisions so as not to pose a risk to the bank. Risky decision-making can affect the variable remuneration they will receive.

In this study, an example of the application of variable remuneration provisions at Bank Mandiri can be seen. Based on Bank Mandiri's 2018 annual report, the bank has provisions to withhold or withdraw compensation that has been paid to MRT, especially if the decision taken by MRT causes financial losses or has a negative impact on the bank's capital. Thus, Bank Mandiri indirectly adopts both methods of variable remuneration payments, i.e., suspension and withdrawal of compensation that has been paid. This provision is consistent with the provisions in Article 23 of OJK Regulation Number 45/2015, exhibiting how banks can use clawback and malus provisions mechanisms to manage risks resulting from risk-taking decisions by their executives.

Specifically, this study examines the effect of executive compensation on bank risk-taking moderated by clawback and malus provisions. This study is crucial to undertake in Indonesia, given that research related to clawback and malus compensation schemes remains rare, particularly in the banking sector. Furthermore, the results of this study will contribute both theoretically and practically. Theoretically, this study proves that clawback and malus provisions have the potential to suppress excessive risk-taking behavior in the banking sector. Practically, this study recommends the importance of compliance with clawback and malus provisions in the banking sector in Indonesia as a step to mitigate conflicts of interest between executives and shareholders.

Agency theory, related to this study, asserts that companies use executive compensation to align shareholder interests, which is caused by information asymmetry that can occur before or after the contract is signed (Baiman, 1990; Jensen & Meckling, 1976). Pre-contract information asymmetry causes adverse selection, while post-contract information asymmetry can trigger moral hazard that can encourage opportunistic behavior of managers to take actions that are not in line with shareholder interests (Edmans & Liu, 2011; Kadan & Swinkels, 2008; Laux, 2015). Therefore, alignment can be achieved through performance-based or equity-based compensation, such as by providing stock option plans (cash in this study) (Bouteska et al., 2024; Cheng et al., 2015; Liu et al., 2023; Prendergast, 2002). Cash compensation such as salary, bonuses, and non-equity incentives generally focus more on short-term financial performance. On the other hand, equity-based compensation, such as stock options and other long-term incentives, is more oriented toward long-term financial performance (Liu et al., 2023).

Although executive compensation provisions are generally designed to mitigate agency problems and maximize shareholder value (Bouteska et al., 2024; Garas & Tee, 2022; Jensen & Murphy, 1990; Kreilkamp et al., 2023; Nkwadi & Matemane, 2022), compensation can also motivate executives to adopt strategies that increase bank risk (Bai & Elyasiani, 2013; Bebchuk et al., 2010; Faulkender et al., 2010; Gande & Kalpathy, 2017; Larcker, 1983). Executive compensation that includes large stock options has been associated with accounting scandals and major corporate failures, as observed in the cases of Enron, WorldCom, and Lehman Brothers (Faulkender et al., 2010; Kreilkamp et al., 2023; Williams, 2010). In fact, incentive-based compensation and substantial stock option portions have been shown to encourage managers to use aggressive accounting techniques and unnatural investments rather than aligning management interests with investor interests as expected (Chen et al., 2015; Liu et al., 2023; Wu & Jones, 2010). In addition, cash compensation will also tend to encourage short-term performance that can potentially lead to excessive risk-taking behavior, such as earnings manipulation (Velte, 2020).

Previous literature provides empirical evidence on the causal relationship between managerial compensation structure and firm risk-taking incentives (Athanasakou et al., 2022; Bouteska et al., 2024; Carline et al., 2023; Dewanta & Arifin, 2020; DeYoung et al., 2013; Guo et al., 2015; Low, 2009; Wright et al., 2007). Research by Wright et al. (2007) uncovered that incentive-based compensation and large stock ownership can encourage executives to deviate from growth-oriented risk-taking. Low (2009) also provides empirical evidence that incentive-based compensation is significantly related to managerial risk-taking behavior. DeYoung et al. (2013) stated that CEO compensation structure is an important determinant of bank business terms and risk-taking, where banks with higher CEO compensation that are sensitive to volatility have higher levels of systematic and idiosyncratic risk and are more involved in non-traditional banking activities. Guo et al. (2015) also observed that a higher proportion of incentive compensation is associated with greater bank risk-taking in the pre- and post-GFC periods. Moreover, Athanasakou et al. (2022) and Carline et al. (2023) stated that large compensation can encourage CEOs to be overconfident and reckless in changing the capital structure through riskier provision choices, especially to finance risky projects that can increase personal finances.

Research by Bouteska et al. (2024) conducted in companies in the United States exhibited a positive and significant increase in the relationship between compensation and riskier corporate decisions. They argue that large compensation packages paid to CEOs in the form of salaries, bonuses, stocks, and options make them bolder. One of the main reasons is that most executives do not have sufficient ownership interests in the companies they manage. As a result, CEOs are encouraged to diversify risks to protect their own interests, even through taking provisions and actions that can harm shareholders. This supports previous research, where Dewanta and Arifin (2020) demonstrated that managerial compensation has a positive effect on corporate risk-taking. Hence, the greater the compensation received by executives, the greater the incentive for them to take higher risks. This strengthens the understanding that all types of compensation offer incentives for executives to take greater risks, especially when the compensation received is higher. Therefore, the following hypothesis is proposed:

H_1: Executive compensation has a positive effect on bank risk-taking behavior.

Managers motivated by incentives from performance-based compensation will tend to choose high-risk investment strategies, which will eventually provide them with personal

benefits (Chen & Steiner, 1999; Dechow et al., 2011; Low, 2009; Wright et al., 1996; Wright et al., 2007). Nonetheless, due to the uncertainty of risky investments, the desired results may not be achieved (Liu et al., 2018). Disappointing investment performance can cause great pressure on managers, which will encourage them to manipulate financial statements to avoid personal losses (Bens et al., 2012; Dechow et al., 2011; Gerety & Lehn, 1997). This will be difficult to detect if there is a possibility of information asymmetry between managers and shareholders (Mburu & Tang, 2018).

One way to minimize the problem of managers who do not take into account the risks taken for their personal compensation is by having clawback and malus provisions (Liu et al., 2023; Liu et al., 2020). This is due to the fact that clawback and malus provisions provide an ex-ante prevention mechanism and offer an ex-post settlement procedure (Liu et al., 2023), which allows companies to recoup some or all of the compensation that has been given to executives in the event of financial restatement, fraud, or deception (Babenko et al., 2023; Chan et al., 2012; Chan et al., 2015; Liu et al., 2023; Prescott & Vann, 2018; Remesal, 2024). Previous studies have found that after the implementation of clawback, companies have better financial reporting quality (Chen et al., 2015; Dehaan et al., 2013), the incidence of financial misstatements decreases, audit risk decreases, and audit reports are issued with shorter delays (Beck, 2012; Chan et al., 2013). Evidence also indicates that the adoption of clawback provisions can increase pay-for-performance sensitivity, improve company performance, provide greater value relevance, and have lower levels of abnormal investment (Velte, 2020). In addition, the implementation of clawback also increases market response to the company and motivates investors to invest in the company (Iskandar-Datta & Jia, 2013).

The choice to implement clawback provisions can also be related to corporate governance. Chen and Vann (2017) revealed that firms with stronger governance tend to adopt clawback provisions, which results in lower abnormal investment and reduced investment risk. In contrast, firms with weaker governance tend not to adopt clawbacks. Research by Lin (2017) highlights that the negative impact of clawbacks on excessive investment is amplified by option-based compensation. In addition, Liu et al. (2020) have proven that the presence of clawback provisions in executive compensation contracts significantly reduces corporate risk-taking and leads to lower corporate risk. Furthermore, Liu et al. (2020) also disclosed that the mitigating effect of clawback adoption on risk-taking behavior is more pronounced in small firms and firms audited by Big 4 auditors. Hence, the hypothesis below is posited:

H_2: Clawback and malus provisions have a negative impact on bank risk-taking behavior.

Studies by Sari and Sholihin (2019) tested whether the punishment effect of clawback moderates the influence of religiosity on the intention to manipulate earnings. They predicted that the implementation of clawback provisions by introducing uncertainty over some of the manager's compensation could reduce the appeal of manipulating earnings. The findings of research by Sari and Sholihin (2019) have confirmed that clawback provisions moderate the effect of religiosity on accrual earnings manipulation. This implies that religious individuals will tend to manipulate accruals less when there is a clawback mechanism. This suggests that companies that implement clawback tend to avoid taking excessive risks compared to companies that do not implement it (Dehaan et al., 2013; Sari et al., 2019). Executives will be more careful in making decisions and are motivated to act in accordance with the rules to avoid punishment. Thus, the punishment aspect of clawback and malus will weaken the effect of executive compensation on bank risk-taking behavior. Consequently, the subsequent hypothesis is put forth:

H_3: Clawback and malus provisions mitigate the positive effect of executive compensation on bank risk-taking behavior.

Based on the theoretical framework and hypotheses developed above, the model of the relationship between research variables is as follows:

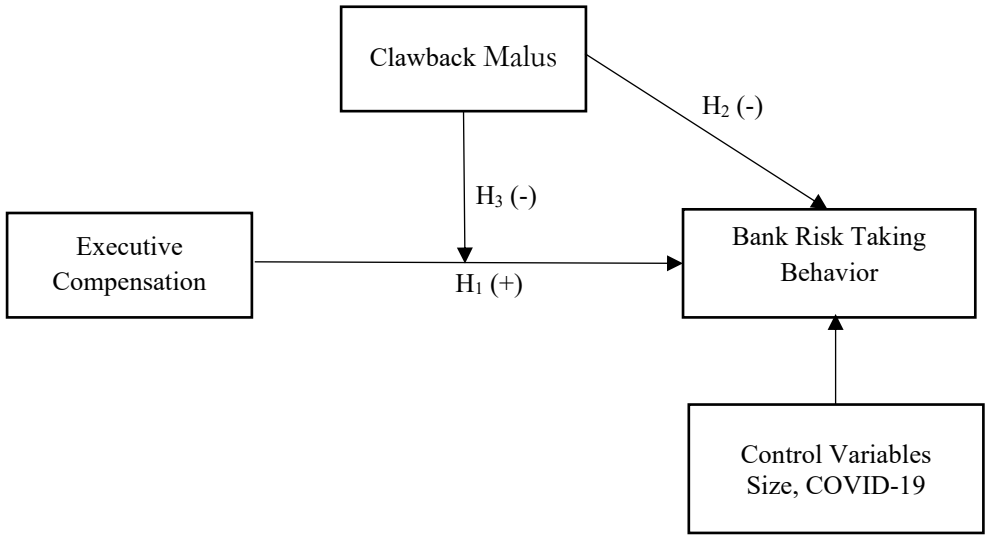

Figure 1. Research Model

METHOD

This quantitative research employed secondary data. The research data was obtained by tracing the financial statements and annual reports of banks available on the official website of the Indonesia Stock Exchange (IDX), company websites, and other publication sources relevant to this research. The population of this research was all banks listed on the IDX from 2018 to 2023. The selection of this period is based on the enforcement of Financial Services Authority Regulation (POJK) No. 45/POJK.03/2015, which became effective in 2018 for all types of banks in Indonesia. Meanwhile, the year 2023 was chosen to ensure a balanced research period covering the time before, during, and after the COVID-19 pandemic. This study used panel data from 19 commercial banks selected utilizing the purposive sampling method with the criteria displayed in Table 1.

No	Criteria	Total
1	Banking companies listed on the Indonesia Stock Exchange in 2018 – 2023	47
2	Banking companies that did not adopt clawback and malus provisions in the compensation structure given to executives	(15)
3	Banking companies that adopted clawback and malus provisions but did not disclose information related to deferred cash compensation in their annual reports	(4)
4	Banks that implemented clawback and malus provisions but there was no deferred variable remuneration (IDR 0) during a certain period as disclosed in the annual report	(9)
	Final Sample Size	19
	Number of Observations	6
	Total of Observations	114

Source: Secondary Data Processing Results (2024)

Table 1. Sample Selection Based on Criteria

According to Table 1, the total number of observations was 114 observations during the observation period of 2018 - 2023. The dependent variable in this study was the bank's risk-taking behavior, measured using the Capital Adequacy Ratio (CAR). The reason for choosing CAR as a proxy to measure risk-taking behavior is because it can show the bank's ability to provide capital as an effort to cover existing risks due to the company's operational activities and business growth (Iskandar, 2020). The higher the CAR, the better the capitalization of a bank which is categorized as healthy (CAR> 8%), which can maintain banking financial stability and reduce the risks faced by the bank (Putri, 2023). In this study, CAR was determined by calculating Capital I (tier I) and Capital II (tier II) against risk-weighted assets (Putri, 2023). Under Basel regulations, CAR is used to mitigate excessive risk-taking by requiring banks to hold capital proportional to their risk exposure. In addition, the bank's risk-taking behavior variable was also calculated using a Non-Performing Loan (NPL) to confirm the results of previous studies (Putri & Setiawan, 2021; Satria & M Juhro, 2011). The NPL ratio describes the proportion of non-performing loans to total loans disbursed. For testing, the NPL ratio was gauged by the number of non-performing loans to total loans disbursed (Dwihandayani, 2018).

The independent variable in this study was executive compensation. Executives represent the parties who become Material Risk Taking (MRT) in the bank. Braendle and Rahdari (2016) explain executive compensation as all compensation in the form of basic salary, allowances, bonuses, stock options, restricted stock plans (stock grants), pensions, and other benefits (cars, health care, and others), received by executives. Compensation in this study is defined as a bonus given to MRT as an appreciation for the performance they have done. Bonuses were chosen as the main measurement because bonuses are variable, adjusted to performance, and are generally the main component affected by clawback and malus provisions. It differs from basic salary, which tends to be fixed and is not affected by clawback and malus provisions. Therefore, this variable was measured by calculating the ratio of total bonus to total cash compensation.

The moderating variables in this study were clawback and malus provisions. Clawback and malus provisions are regulated in POJK No. 45 of 2015, which stipulates that banks have the authority to postpone the payment of deferred variable remuneration (malus) or withdraw variable remuneration that has been paid (clawback) to parties who become MRT under certain conditions that the bank has determined. In contrast to Febrianto et al. (2022), who measured the clawback and malus provision variables by the ratio of total clawback and malus to total compensation, this study computed the clawback and malus provision variables by calculating the ratio of total clawback and malus to total bonus because these provisions are attached to variable compensation.

Then, to strengthen the statistical results, this study included variables of company size and the COVID-19 pandemic period as control variables. Company size reflects the scale and scope of business operations, including human resources, assets, investments, and organizational capabilities. A large company size indicates that the company has a strong market share and many resources (Kholid et al., 2022). Company size in this study was measured by ln (natural algorithm) of market capitalization (stock market price multiplied by the number of shares outstanding) (Mufreni & Amanah, 2015). Furthermore, the World Health Organization (WHO) declared March 11, 2020, as a global pandemic period. This pandemic caused a multi-dimensional crisis, one of which had an impact on the sustainability of company operations (Ding et al., 2022). Therefore, in this study, the COVID-19 period was assessed with a dummy variable, namely 0 for the period when the company was affected by the pandemic and 1 for the period when the company was not affected by the pandemic.

The analysis method used in this study was panel data regression utilizing EViews 12 software. Panel data combines time series and cross-sections, where the same cross-section unit is measured at different times. Before conducting hypothesis testing, this study selected an estimation model between the Fixed Effect Model (FEM) and the Random Effect Model (REM). Additionally, this study also conducted a classical assumption test to obtain accurate estimation results. Furthermore, hypothesis testing was carried out with a research model as in equations 1 and 2 as follows:

$$CAR_{i,t} = \alpha_0 + \beta_1 COMP_{i,t} + \beta_2 CM_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 COVID_{i,t} + e$$

$$CAR_{i,t} = \alpha_0 + \beta_1 COMP_{i,t} + \beta_2 CM_{i,t} + \beta_3 COMP_{i,t} * CM_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 COVID_{i,t} + e$$

Description:

CAR	: Bank's Risk-Taking Behavior
α	: Constants
β	: Coefficient
COMP	: Executive Compensation
CM	: Clawback and Malus Provisions
SIZE	: Market Capitalization
COVID	: Covid
e	: Error

RESULTS AND DISCUSSION

Descriptive Statistical Test

Variable	CAR	NPL	COMP	CM	SIZE	COVID
Mean	0.259018	0.025167	0.439187	0.096057	22.81272	0.666667
Median	0.236050	0.025700	0.431631	0.086084	23.63728	1.000000
Maximum	0.728700	0.080000	0.871322	0.340575	27.76834	1.000000
Minimum	0.156900	0.002100	0.062392	0.000000	20.27032	0.000000
Std. Dev	0.094628	0.011211	0.214943	0.086143	1.75963	0.473486
Observations	114	144	114	114	114	114

Table 2. Descriptive Statistical Test

Source: Secondary Data Processing Results (2024)

Based on Table 3, the number of observations in this study was 114. The results of the descriptive statistical test show that all banks in the study sample have sufficient capital to anticipate potential asset declines. This is reflected in the average CAR value of 25.90%, far above the minimum standard required in Bank Indonesia Regulation No. 10/15/PBI/2008 of 8%. A higher CAR value also indicates lower risk-taking behavior because banks are able to maintain their financial stability and reduce the risks they face (Putri, 2023). In addition to CAR, bank risk-taking behavior is also proxied by NPL. In this study, the average NPL value was 2.51%, indicating a low level of credit risk, below the maximum standard set in Bank Indonesia Regulation No. 17/11/PBI/2015 of 5%. COMP represents the bonus compensation given to MRT with an average value of 43.92%. This figure indicates that the bonuses given to MRTs are quite substantial, accounting for nearly 50% of the cash compensation they receive. The data also shows that 9% of the sample gave bonuses to MRTs amounting to more than 75% of their cash compensation.

Clawback dan malus provisitions (CM), as a variable of interest in this study, shows an average value of 9.61%. This means that only a small portion of the bonus compensation is subject to clawback and/or malus provisions. The maximum CM value of 87.13% (IDR

57,920,000,000) was the deferred compensation by PT Bank Central Asia Tbk in 2023. Of the 47 banks listed on the Indonesia Stock Exchange, only 19 banks consistently applied the CM provisions and disclosed the amount of deferred variable remuneration in their annual reports. A total of 9 banks claimed to apply these provisions, but there was no deferred variable remuneration (IDR 0). Then, 4 banks stated that they had applied CM provisions but did not disclose information regarding the deferred variable remuneration, and the remaining 15 banks had not implemented clawback and malus provisions. Furthermore, the descriptive statistics of the control variables are market capitalization (SIZE) and the COVID-19 pandemic period (COVID). In this study, 66,67% observation samples(76 firms) took place during the COVID-19 pandemic period.

Test	Prob.	Best Estimation Model
Chow Test	0.0000	FEM
Hausman Test	1.0000	REM
Breusch Pagan Lagrange Multiplier Test	0.0000	REM

Source: Secondary Data Processing Results (2024)

Before performing regression processing, a model test was first carried out to select the best estimation model. Referring to Table 3, the test results disclosed that the best estimation model was the Random Effect Model (REM). REM uses the Generalized Least Square (GLS) method, which automatically overcomes the problem of heteroscedasticity. Therefore, the only classical assumption test required was the multicollinearity test, measuring the relationship between independent variables. The collinearity value between independent variables was around -0.3927 to 0.7346 or below 0.8. According to the rule of thumb, multicollinearity is considered to exist if the collinearity value between independent variables is above 0.8 (Ghozali & Ratmono Dwi, 2013). In addition, this study had a large sample size (114 observations), so a normality test was not needed, or the data is considered normal (Ghozali & Ratmono Dwi, 2013; Kholid & Prayoga, 2022; Verbeek, 2017). In conclusion, all data in this study have met the Best Linear Unbiased Estimator (BLUE) criteria and are suitable for hypothesis testing.

Hypothesis Testing

Variable	CAR		NPL	
	Coef.	Prob.	Coef.	Prob.
C	0.201081	0.0000***	0.014078	0.0000***
COMP	0.031306	0.2575	-0.004848	0.0792*
CM	-0.291335	0.0038**	-0.000536	0.4727
SIZE	-0.002029	0.0584*	0.000063	0.2709
COVID	0.003865	0.3704	0.001109	0.1118
R-squared	0.123296		0.039895	
Adjusted R-squared	0.091124		0.004662	
Prob(F-statistic)	0.005930		0.345156	
Method	Random Effect Model (REM)			
Observation	114			

Note: ***; **; *: sig. at 1%, 5%, and 10% levels (one-tailed).

Table 4. First Equation Regression Test

Source: Secondary Data Processing Results (2024)

Hypothesis testing was conducted to see the effect of executive compensation on bank risk-taking behavior by considering the effects of clawback and malus Provisions implementation. In the first hypothesis (H_1), executive compensation is suspected to have a positive effect on bank risk-taking behavior. This means that the higher the executive compensation, the lower the CAR. CAR presents the stability or financial health of the bank, which suggests that the

lower CAR reflects high risk-taking behavior. As Table 4 presents, the results of the regression analysis of the effect of executive compensation variables on bank risk-taking behavior as measured by CAR showed a significance value of 0.2575. This implies that the p-value is more than 0.05. In addition, this study also tested bank risk-taking behavior as determined using NPL to confirm the results and produced similar findings, namely that executive compensation did not affect bank risk-taking behavior with a significance value of 0.0792 more than 0.05. Thus, it can be concluded that executive compensation did not affect bank risk-taking behavior, or the first hypothesis (H_1) was not supported.

In the second hypothesis (H_2), it is assumed that clawback and malus provisions have a negative effect on bank risk-taking behavior. In other words, the higher the clawback and malus Provisions (CM), the higher the CAR. A high CAR indicates that the bank is in a healthy financial stability condition, reflecting low risk-taking behavior. Based on Table 4, the results of the regression analysis of the effect of clawback and malus provisions on bank risk-taking behavior as calculated by CAR exhibited a significance value of 0.0038, less than 0.05. The regression coefficient in this study had a negative value of -0.291335, in line with the hypothesis. However, different results were found when using the NPL measure, revealing that executive compensation did not affect bank risk-taking behavior, with a significance value of 0.4727 more than 0.05. Thus, clawback and malus provisions can be concluded to have a negative effect on bank risk-taking behavior as measured by CAR, or the second hypothesis (H_2) was supported.

The difference in test results measured using CAR and NPL may be due to the distinct characteristics of the two indicators. CAR is an indicator of the overall financial health of a bank and reflects the bank's capacity to cover existing risks (Al Maidah et al., 2024; Putri, 2023). Thus, effectively implemented clawback and malus provisions can help banks maintain higher CAR, which is obtained from lower risk-taking. Meanwhile, NPL only measures credit quality that represents the timely payment of debtors (Al Maidah et al., 2024; Putri & Setiawan, 2021), which is influenced by external factors and credit risk management that may not be directly related to clawback and malus provisions. Clawback and malus provisions focus more on risk control at the management level and broad risk-taking behavior, so their impact on specific credit indicators, such as NPL, may not be immediately visible.

Furthermore, the third hypothesis (H_3) presumes that clawback and malus provisions moderate the effect of executive compensation on bank risk-taking behavior. As detailed in Table 5, the test results uncovered that the interaction between clawback and malus provisions and executive compensation on bank risk-taking behavior had no effect with a significance value of 0.3155, more than 0.05. This result suggests that clawback could not weaken the effect of executive compensation on bank risk-taking behavior. Hence, clawback and malus did not act as a moderating variable, as it could only affect bank risk-taking behavior as calculated by CAR when it became an independent variable (sig. 0.0222 <0.05). Similar results were also obtained in the test using NPL, where a significance value of 0.2554, more than 0.05, indicates that this interaction was not significant. This result also denotes that clawback could not weaken the effect of executive compensation on bank risk-taking behavior. Thus, in conclusion, clawback and malus provisions did not moderate the effect of executive compensation on bank risk-taking behavior, or the third hypothesis (H_3) was not supported.

Variable	CAR		NPL	
	Coef.	Prob.	Coef.	Prob.

Table 5. Moderation Equation Regression Test

C	0.212896	0.0000***	0.013258	0.0001***
COMP	0.022260	0.3500	-0.002856	0.2659
CM	-0.344380	0.0222**	0.006388	0.3158
COMP*CM	0.221563	0.3155	-0.023976	0.2554
SIZE	-0.001388	0.1386	0.000070	0.2568
COVID	0.002351	0.4216	-0.001165	0.1058
R-squared	0.108834		0.045259	
Adjusted R-squared	0.067191		0.000645	
Prob(F-statistic)	0.028551		0.041289	
Method	Random Effect Model (REM)			
Observation	114			

Note: ***; **; *: sig. at 1%, 5%, and 10% levels (one-tailed).

Source: Primary Data Processing Results (2024)

Other results showed that the control variables SIZE and COVID exerted no effect on CAR, with significance values of 0.0584 and 0.3704, more than 0.05. Similar results were also obtained in testing using NPL with significance values of SIZE and COVID of 0.2709 and 0.1118, respectively, more than 0.05. This indicates that market capitalization and the COVID-19 pandemic did not affect bank risk-taking behavior. As Table 5 displays, the adjusted R-squared coefficient value of 0.067 means that the independent variables, control variables, and interaction of moderating variables can explain bank risk-taking behavior by 6.7%. Meanwhile, 93.3% is explained by other variables outside this study.

Discussion

The findings of this study indicate that executive compensation has no effect on bank risk-taking behavior. This result inconsistent with the research of Athanasakou et al. (2022), Carline et al. (2023), Gande and Kalpathy (2017), Bhagat and Bolton (2019), Dewanta and Arifin (2020), and Bouteska et al. (2024), which found that compensation has a positive effect on risk-taking behavior. This study also contradicts Liu et al. (2020), who uncovered that incentive-based compensation can encourage executives to deviate from growth-oriented risk-taking. Unlike previous studies that used cash compensation, equity, or a combination of both as a measure of compensation magnitude, this study uses the amount of variable compensation, namely cash bonuses, granted to MRT as a measure of compensation. It is to accommodate POJK No. 45 of 2015, which states that the CM policy is applied to variable remuneration. It should be noted that risk-taking behavior is influenced not only by variable cash compensation, such as bonuses but also by other forms of compensation, such as stock-based compensation or options. As in the research of Chen et al. (2006), option-based compensation and option-based bank CEO wealth encourage greater risk taking among commercial banks in the United States. Sanders and Hambrick (2007) and Dong et al. (2010), likewise, indicate that option-based compensation is associated with greater losses, as it results in overly risky financing strategies, thus casting doubt on the alignment of shareholder interests. By having direct ownership or potential claim on the company's stock, executives may be encouraged to make high-risk decisions in the hope that the stock value will increase.

Therefore, the varible cash-based executive compensation this study might not have the same driving force in influencing executive risk-taking behavior as stock- or option-based compensation. Thus, the results of this study provide an indication that the type of compensation implemented in a bank can be a major factor in risk-taking. Theoretically, differences in the form of compensation can have different impacts on TM risk behavior (Jensen & Murphy, 1990). In the case of Indonesia, variable compensation may not be sufficiently large, as shown in Table 3, or may be more closely tied to short-term metrics,

thereby distorting incentives without necessarily encouraging risk-taking. Management that is assumed to be risk-averse will prefer to secure stable jobs and income rather than adopt more risky policies.

Additionally, the results of this study show that clawback and malus provisions have a negative effect on bank risk-taking behavior. This proves that the implementation of clawback and malus provisions can suppress excessive risk-taking behavior by executives. Executives will try to avoid clawback and malus penalties by being more careful in decision-making. In line with the research of Liu et al. (2020), it is stated that the adoption of clawback provisions affects reducing excessive risk-taking and leads to lower company risk. The results of this study align with previous studies, stating that the implementation of clawback provisions leads to better financial reporting quality (Chen et al., 2015; Dehaan et al., 2013), such as reduced incidents of financial misstatements, decreased audit risk (Beck, 2012; Chan et al., 2013), increased company performance, and lower levels of abnormal investment (Velte, 2020), as well as motivating investors to invest in the company (Iskandar-Datta & Jia, 2013). This supports El Mahdy's (2020) statement that the implementation of clawback can contribute to better incentive alignment between executives and shareholders and can create a culture of ethical management. Also, clawback and malus provisions can limit the potential for financial statement manipulation that executives often do to cover up excessive corporate risk-taking (Velte, 2020).

Subsequently, the results of this study indicate that clawback and malus provisions were not proven to weaken the influence of executive compensation on bank risk-taking behavior. This finding opposes the research of Sari and Sholihin (2019), which found that clawback provisions have a punishment effect that moderates the influence of religiosity on accrual manipulation. Sari and Sholihin (2019) also stated that religious individuals tend to manipulate accruals less when there is a clawback mechanism. In their study, Sari and Sholihin (2019) used an experimental method on personnel from the finance department who were studying for their Master's. Participants were asked to act as CFOs in a fictitious organization and make decisions based on proposals presented in the scenario. The experiments conducted included two compensation schemes—bonus compensation and clawback. Nevertheless, Sari and Sholihin's (2019) research was limited to primary data. As such, this study extends previous studies by using secondary data and total bonus as a proxy for clawback and malus provisions. The findings of this study denote that clawback and malus could not moderate the effect of executive compensation on bank risk-taking behavior. Clawback and malus provisions only had a direct effect on bank risk-taking behavior, so they are more appropriately categorized as independent variables in the context of this study.

This study also found that the implementation of clawback and malus provisions in the banking sector in Indonesia remains not comprehensive. One of the factors causing the low implementation of clawback and malus is the non-compliance of most banks with OJK Regulation Number 45/POJK.03/2015, which requires banks to implement clawback and malus provisions. The research data revealed that the number of samples was 114 observations (19 banks) for 6 years, indicating that only 40% of the 47 banks on the IDX transparently disclosed the implementation of clawback and malus provisions. The remaining 60% of banks exhibited inconsistent implementation or even did not disclose information related to clawback and malus provisions in their annual reports. This non-compliance is caused by the absence of clear law enforcement from OJK as a regulator in handling violations related to clawback and malus provisions in Indonesia.

CONCLUSION

This study seeks to evaluate OJK Regulation Number 45/POJK.03/2015, which requires all banks to adopt CH rules commencing in 2018. We tested our hypothesis on 114 firm-sample observations of banks listed on the Indonesia Stock Exchange. The findings indicate that pay, as measured by the variable cash bonus, does not influence MRT's risk-taking behaviour. These results remain consistent regardless of whether risk-taking behaviour is assessed using CAR or NPL. On the other hand, CH provisions have a negative effect on risk-taking behaviour as measured by CAR, instead of being a moderating variable. This means that clawback and malus provisions may discourage MRT from excessive risk taking, no matter how much their variable cash bonus is. Theoretically, this study supports the agency theory argument that implies the necessity for optimal compensation contracts that align the interests of management and shareholders, which in the context of this study is the clawback and malus provisions.

The implications of this study are significant. For policymakers and regulators, namely Bank Indonesia and the Financial Services Authority (OJK), these findings highlight the importance of clawback and malus provisions as a risk management control mechanism in Indonesian banking sector. Regulation of CH provisions will only be effective when accompanied by strong law enforcement. Although regulations have been issued through OJK Regulation Number 45/POJK.03/2015, this study uncovered that the implementation of clawback and malus provisions is still limited and inconsistent in the Indonesian banking sector. As a result, OJK needs to consider strengthening regulatory supervision and enforcement mechanisms, including the application of stricter sanctions for banks that do not comply with these provisions. This includes banks that attempt to gloss over regulatory non-compliance by stating they adopt CH provisions, but the value is IDR 0. For investors, this study emphasizes the importance of considering whether banks implement clawback and malus provisions as a form of regulatory compliance in an effort to mitigate excessive risk-taking behavior of MRT. Ultimately, this study offers valuable insights for academics, practitioners, and regulators as they strive to improve good governance practices to ensure bank sustainability.

This study does have several limitations. The implementation of remuneration provisions in the banking sector, which are not yet fully consistent. Even though Bank Indonesia has required all banks to separate fixed and variable remuneration, not all banks comply with the regulation in practice. This causes 60% of the 47 on the IDX that are members of the research population could not be used as research samples. This limitation has a potential to affect the results of the study, specifically in evaluating the effectiveness of clawback and malus policies as risk mitigation instruments. Additionally, this study does not consider other types of compensation that can influence risk-taking behavior, such as equity compensation, and does not examine its subsequent effect on bank performance. Future research could re-examine this topic by considering data avalaibility and equity-based compensation with a more complex model.

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