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Derivative Instrument and Earnings Management: Does Listing on the Stock Exchange matter?

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Abstract - The researcher conducted this study to obtain empirical evidence of derivative instruments, on the earnings management, which was moderated by listing factors on the Indonesian Stock Exchange in banking industry for the 2015-2020 period. This study applies a quantitative approach, which highlights the analysis of numerical data processed by statistical procedures. This study applies unbalanced panel data with 268 banking data listed and non-listed on the Indonesia Stock Exchange. The results describe that derivative instrument negatively effect on earnings management, while the listing factor has a positive impact on earnings management. In addition, banks listed on the Indonesia Stock Exchange have a lower effect of derivative instruments on earnings management. This study has limitations in terms of the use of variables that have not considered the effect of implementing IFRS 9 on the provision of defaulted loans which may have different results if this is considered. In the end, the researcher hopes that the authorities will increase the effectiveness of monetary policy transmission by increasing derivative transactions with hedging purposes that can function as a tool to minimize bank profits. In addition, further research can use other variables that affect banking earnings management by adding new indicators to make this measurement robust and generally accepted.

Keywords — Derivative Instruments, Hedging, Listing, Earnings Management, Discretionary Loan Loss Provisions

I. INTRODUCTION

Earnings management in the financial institutions are described by the importance of the discretionary loan loss provision, which means that the higher discretionary loan loss provision, the higher the earnings management in banking (Basu *et al.,* 2020). Allowance for impairment losses as a form of accumulation of loan loss provision is the essential accrual that arises mainly from credit failure expectations and the substantial policy of bank managers in deciding the estimated amount of credit loss reserves (Danisman *et al.,* 2020; Bushman and Williams, 2015; Curcio and Hasan, 2015; Beatty and Liao, 2014). Procyclical actions from the allowance for impairment losses (CKPN) have received increasing attention since the Covid-19 pandemic in 2020. Banks tend to keep greater provisions as a result of identifying non-performing loans through the monetary stoppage. To anticipate this, in 2020, the Financial Services Authority (OJK) issued policies associated to reserves for restructuring due to the COVID-19 pandemic, such as POJK No.48/POJK.03/2020 as a step in implementing better risk management while still making reserves due to restructuring. Moreover, assessing debtors who can outlive the effect of COVID-19 and still have company possibilities so that credit or financing restructuring can be provided according to these regulations (OJK, 2020).

The phenomenon of banking earnings management associated with establishing provisions for potential loan losses occurred in Indonesia in 2018. One of the managements of conventional commercial banks in Indonesia openly revised their financial statements for the 2015, 2016, and 2017 reporting years due to discretionary actions. In 2016, management charged a smaller allowance for impairment losses than it should have to make the resulting profit more significant. Consequently, the allowance for impairment losses on commercial assets for the year was adjusted sharply. (Banjarnahor, 2018).

On the other hand, increasing derivative transactions among investors are quite an alternative for companies to protect against earnings volatility due to economic uncertainty. The impact of the pandemic on financial markets increasingly demonstrates the demand to reinforce hedging structures to enable funding and support stockholders in overseeing stock and article of trade impulsiveness as well as period and exchange rate disparities. Nevertheless, the variety of derivative products in Indonesia is minimal. Only two equity derivative products are traded on the Indonesia Stock Exchange, namely IDX LQ45 Futures and Indonesia Government

Bond Futures (Sya'bani, 2020). In addition, to increase the effectiveness of monetary policy transmission, Bank Indonesia also accelerated by responding to global challenges in G20 OTC Derivative Market Reform. This event is part of implementing the Money Market Development Blueprint 2025, launched on December 14, 2020, to support financing the national economy and increase the resilience (resilience) of the domestic financial market.

Based on the phenomena described above, the researcher wants to investigate and explore the effect of ownership of banking derivative instruments associated with earnings management in this study. The researcher assumes that there is an influence of proprietorship of derivative instruments on earnings management but from a positive and negative side. In addition, researchers also want to see whether conventional commercial banks registered on the Indonesian stock exchange have a significant effect on the influence of derivative instruments on earnings management. Several previous studies have explained that there is a positive effect between derivative instruments and earnings management if the company fails to meet the hedging criteria for its derivative transactions, which causes earnings volatility to increase. (Phua *et al.*, 2021; Murwaningsari *et al.,* 2015; Asdrubali and Kim, 2008). However, on the other hand, if the financial derivative transaction can meet the criteria for hedge accounting, the company will be able to counterbalance the gain or loss occurring from the financial derivative transaction with the gain or loss arising from the underlying asset (Oktavia *et al.,* 2019; Huang *et al.,* 2009). In addition, the researcher realizes that in previous studies, minimal literature discusses the effect of listing on banking earnings management. This research uses data on banking financial statements, whether listed or not, from Conventional Commercial Banks for the 2015-2020 period.

The exploration is expected to provide a theoretical contribution regarding ownership of derivative instruments associated with banking earnings management. In addition, the researcher hopes this research can provide an overview of the differences between commercial banks listed on the stock exchange and the effect of derivative instruments on earnings management.

II. LITERATURE REVIEW

Agency theory justifies management's participation in earnings management, contemplating the stewardship association and agency standards. By sacrificing the management association, business executive will protect their concerns in front of shareholders (Noor *et al.,* 2015). stakeholders break to legalize and use command procedures properly, management will use their control to meet their concerns (Kirubel and Akmel, 2019; Fathi, 2013). Earnings management theory is a derivative of agency theory. Healy and Wahlen (1999) state that earnings management happens when a business entity's executive uses policies to prepare financial statements and form transactions to change financial statements. The goal is to manipulate the number of earnings reported to shareholders and influence the outcome of the agreement that depends on the accounting numbers reported. There are two concepts of earnings management (informative earnings management, and opportunistic earnings management). Opportunistic earnings management negatively effect on business performing, while informative earnings management will enhance business performing (Scott, 2019). Based on enlightening earnings management concept, managers will utilize their judgment to connect their viewpoints based on the data they have as insiders (personal information) about the business's income expectations in the future (Tucker and Zarowin, 2006).

Concerning derivative instruments, this instrument is a financial instrument whose amount is based on the performance of other assets such as stocks, bonds, foreign currencies, interest rates, or other assets. Guniarti (2015) defines hedging purposes as an action to avoid or decrease the danger of losses that occur, and this is done to protect the company's foreign exchange risk from business transactions. While the derivative instruments are speculative, management dares to take risks on their instruments. Foreign currency derivative instruments that can be used are futures contracts, forward contracts, options, and swaps. Eiteman *et al.* (2010) explained that management prefers to hedge because it can maintain company profits by reducing cash flow volatility. After all, the value of the domestic currency has decreased against the value of foreign currencies. Other studies also explain that the association between derivative instruments and discretionary accruals tends to be substitution (Barton, 2001). The study says that hedging derivatives will reduce earnings volatility. Thus, discretionary accruals can be replaced using hedging. This argument is supported by previous studies that state that derivative instruments negatively effect on earnings management (Julien *et al.,* 2020; Oktavia *et al.,* 2019; Choi *et al.,* 2015) but contrary to previous studies that state that derivative instruments affect earnings management. Positive on earnings management ((Phua *et al.,* 2021; Murwaningsari et al., 2015)

H1. Derivative instruments negatively effect on earnings management.

Following the stakeholder theory (Freeman, 2001), the company is not an entity that only operates for its interests but must provide benefits to other stakeholders. Public interest from banks listed on the Indonesia Stock Exchange has a more significant portion than non-listed banks, causing pressure on management to provide the best results for other stakeholders. Those phenomena can incentivize management to manage

earnings when reality does not match expectations. So, the researcher assumes that banks listed on the Indonesian stock exchange weaken the negatively effect of derivative instruments on earnings management.

H2. Banks listed on the Stock Exchange positively effect on earnings management.

H3. Banks listed on the Stock Exchange weaken the negatively effect of derivative instruments on earnings management

III. METHOD

This study tests the hypotheses and goals to investigate the consequence of derivative instruments on earnings management with the listing factor as a moderating variable in Conventional Commercial Banks for the 2015-2020 period. This study applies a quantitative approach, which highlights the analysis of numerical data processed by statistical procedures (Cooper and Schindler, 2014). This study applies unbalanced panel data because inadequate panel data are more probable to be the standard or better data in a typical experimental research setting. For example, in gathering data about countries, states, or companies over time, a researcher may discover that some firms were established earlier or later than others or that some had ceased operations in this single data set (Baltagi and Song, 2006).

A. Variable Measurement

IAS 39 and IFRS 9 require that derivative instruments be documented as assets or liabilities and informed in financial statement at fair value measurement. Derivative insgtruments measurements, both for hedging and speculative reasons, apply the absolute amount of the net fair amount of the derivative instrument (Firmansyah *et al.,* 2020; Oktavia and Martani, 2013). The listing factor in this study is measured by a dummy variable which states that commercial banks listed on the stock exchange are given a value of 1, and those that are not listed are given a value of 0.

There are many empirical studies on earnings management in the accounting and economics literature. For the banking (financial institutions) sector, prior empirical studies using the discretionary loan loss provision (DLLP) are one of the most used alternatives for measuring earnings management practices (Beaver and Engel, 1996; Kanagaretnam et al., 2004; Kanagaretnam et al., 2010). In this study, researchers used the earnings management model of Kanagaretnam *et al.,* 2010.

Additionally, researchers use control variables such as earnings before and tax, liquidity, capital adequacy, net interest margin, and total assets to prevent biased calculation results and higher statistical power in this study. The variables measurements in this study are explained in table 1.

Table 1. Variable Measurements

Variable	Variables Name	Measurement		
X	Derivative Instruments (DERIV)	DERIV	=	Absolute net fair value of the derivative instruments / Lag Total Assets
Z	Listed / Non-Listed (LISTED)	FRID	=	Listed = 1; Non-listed = 0
Y	Earnings Management (ABS_DLLP)	LLP	=	a0 + a1LLAt-1 + a2NPLt-1 + a3DNPLit + a4COit + a5LOANit +a6DLOANit + eit
		NDLLP	=	a0 + a1LLAt-1 + a2NPLt-1 + a3DNPLit + a4COit + a5LOANit +a6DLOANit + zit
		ABS_DLLP	=	ABS [LLP - NDLLP]
Control 1	Pre-managed Earnings (EBTP)	EBTP	=	Earning before tax and provisions / Lag Total Assets
Control 2	Liquidity (LDR)	LDR	=	Total Gross Loan / Total Deposits
Control 3	Net Interest Margin (NIM)	NIM	=	Net Interest Margin / Average Assets
Control 4	Capital Adequacy (CAR)	CAR	=	Tier 1 Capital + Tier 2 Capital / Risk Weighted Assets
Control 5	Bank Size (SIZE)	SIZE	=	Ln (Total Assest)

B. Research Design

Hypothesis testing in this study expending moderated regression analysis (MRA). The use of MRA is because this study uses a moderator variable, so the panel data regression equation for the moderator variable is to use the MRA equation. The research equation can be expressed as follows:

$$ABS\_DLLP = \alpha_0 + \alpha_1 DERIV + \alpha_2 LISTED + \alpha_3 LISTED*DERIV + \alpha_4 EBTP + \alpha_5 LDR + \alpha_6 NIM + \alpha_7 CAR + \alpha_8 SIZE + \varepsilon$$

From figure 1, in this study, the researcher wanted to prove the three existing hypotheses empirically. In each hypothesis test, there is the influence of other variables not tested in this study which is symbolized by the error (ε) for the magnitude of the error in testing the consequence of derivative instruments (DERIV) on the dependent variable earnings management (DLLP) with the listing factor (LISTED) as moderating variable.

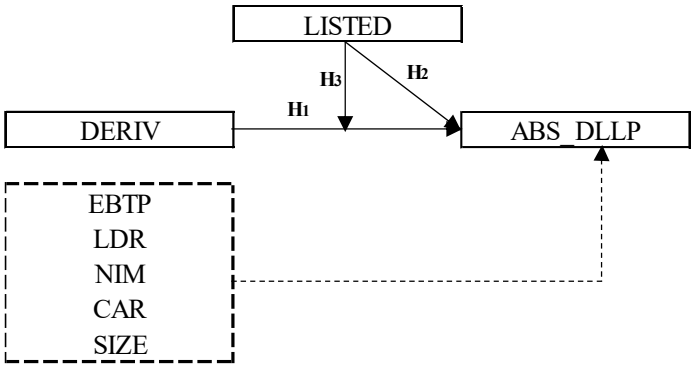


Figure 1. Research Design

C. Research Sample

In this study, the research object is 268 data on conventional commercial banks registered with the Financial Services Authority, either listed or non-listed on the Indonesia Stock Exchange 2015-2020 period. The examination data includes financial data in the financial statements and annual banking reports in each banking website for the 2015-2020 period.

Table 2. Research Sampling Process

Research Sample Criteria	Listed	Non-Listed	Total
Total Data for Conventional Commercial Banks for the 2015-2020 Period	280	324	**604**
Number of data on Banks that do not have derivative transactions during the study period	(138)	(196)	**(334)**
Number of banks that became the research sample	**142**	**128**	**268**

IV. RESULT AND DISCUSSION

Table 3 offers the descriptive statistical assessment results of the banks tested in this study. Based on the output of the statistical analysis results above, it can be explained that the overall average value of the variables is greater than the standard deviation value. It indicates that the data for all variables have a small distribution, so the data deviation of all these variables can be said to be good. The exciting thing about table 3 (descriptive statistics lies in the value of the derivative, which is the core of this research. The average value of ownership in the net value of derivative banking instruments for the 2015-2020 period is dominated by ownership of derivative assets compared to derivative liabilities.

Table 3. Descriptive Statistics

	Mean	Maximum	Minimum	Std. Deviation	N
ABS_DLLP	0.00885	0.05177	0.00000	0.00824	268
DERIV	0.00340	0.13032	0.00000	0.00157	268
LISTED	0.52612	1.00000	0.00000	0.50025	268
EBTP	0.02881	0.31977	-0.03322	0.00034	268
LDR	1.04300	9.96740	0.12590	0.74294	268
NIM	0.04497	0.12000	-0.05370	0.02081	268
CAR	0.25275	0.87750	0.10520	0.12889	268
SIZE	31.57807	34.95208	28.54369	1.40360	268

In addition, the value of facts explains that Indonesian banks' derivative transactions are still relatively low compared to other countries. This phenomenon has also become the focus of the central bank (Bank Indonesia) in financial market development and deepening directed at achieving liquid, efficient, and deep financial markets. In addition, the final target of the financial market deepening and development program is also directed to support increased economic growth by creating alternative sources of national development financing (Bank Indonesia, 2020). Another fact explains that derivative transactions in Indonesia are still inferior to neighboring countries.

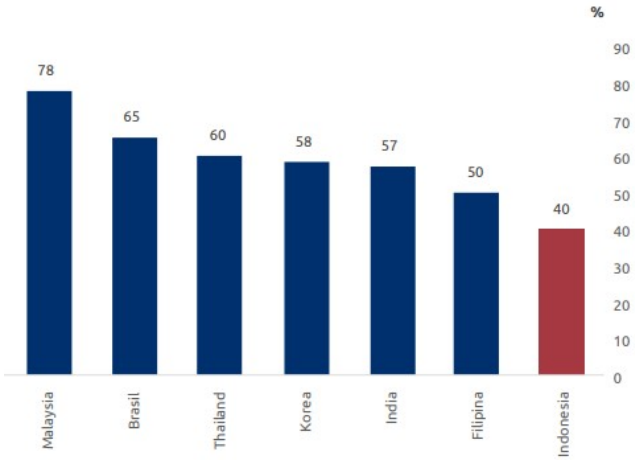


Figure 2. Composition of derivatives to total transactions
Sources: Bank Indonesia, BIS Triennial Survey 2019
https://www.bi.go.id/en/publikasi/laporan/Documents/10.LPI2020_full.pdf

Before testing the hypothesis, the researcher tested whether there was a association between the independent variables using a multicollinearity test. The multicollinearity testing method in this study looks at the association value between the independent, moderator, and control variables in the regression model. If the correlation value between independent variables does not surpass 0.90 (Ghozali, 2021), it is determined that there is no multicollinearity amomg them. However, if there is a great association between the independent variables, the correlation between the independent and dependent variables will be disrupted.

Tabel 4. Multicollinearity test

	DERIV	LISTED	EBTP	LDR	NIM	SIZE	CAR
DERIV	1.00000	-0.22495	0.40004	0.04642	-0.11685	-0.20737	0.07817
LISTED	-0.22495	1.00000	-0.16270	-0.30341	0.13200	0.34829	-0.39237
EBTP	0.40004	-0.16270	1.00000	-0.02496	0.22675	0.03395	0.19554
LDR	0.04642	-0.30341	-0.02496	1.00000	-0.08211	-0.06874	0.43636
NIM	-0.11685	0.13200	0.22675	-0.08211	1.00000	0.36947	-0.08901
SIZE	-0.20737	0.34829	0.03395	-0.06874	0.36947	1.00000	-0.18847
CAR	0.07817	-0.39237	0.19554	0.43636	-0.08901	-0.18847	1.00000

Sources: The results of data processing using Eviews 10

From the results of table 4, the correlation value between variables does not exceed 0.9. The most significant correlation value between the capital adequacy ratio (CAR) and liquidity (LDR) variables is 0.43636, while the smallest correlation value is in the pre-managed earnings (EBTP) and liquidity (LDR) variables, which is -0.02496. So, it can be decided that this study's model does not have multicollinearity concerns.

Furthermore, the researcher tries to test the hypothesis on the effect of proprietorship of derivative instruments on earnings management which is moderated by the listing factor on the Indonesia Stock Exchange for the 2015-2020. From the probability results in table 5, some tests have a significant result because the p-value < 0.10 (*), < 0.05 (**) or < 0.01 (***) and some tests have no significant result because the p-value > 0.10.

Based on table 5, the value of Adjusted R2 is 0.1935. It means that 19.35% of earnings management is influenced by variables such as instrument derivative (DERIV), listing factor (DIVER), pre-managed earnings (EBTP), capital adequacy (CAR), net interest margin (NIM), liquidity (LDR), and banking size (SIZE), while the remaining 80.65% (100% – 19.35%) is predisposed by other variables not observed in this study. Table 5 also shows that the Probability value (F Stat.) is worth (0.000 < 0.05), which represents H_0 is refused or, in other words, that this regression model is feasible to use in this study.

In analyzing the first hypothesis, namely derivative instruments on earnings management, the coefficient estimate is -0.0799, and the p-value is 0.0829; it is stated that derivative instruments have a substantial adverse impact on earnings management. The findings of this study follow the agency theory stated in the previous section. In hedging activities involving two stakeholders, namely the shareholders and the company management, both have different perceptions regarding hedging activities on derivative instruments. According to Eisenhardt's (1989) agency theory, the company's management prefers to prevent the third threat of hedging purposes. Eiteman *et al.,* (2010) explained that management prefers hedging because it can maintain company profits by reducing earnings volatility. After all, currency values can fluctuate against foreign currency values. Another argument explains that companies' usage of derivatives instruments can also affect the perseverance of earnings factors. Banks utilize derivative instruments for hedging reasons are more visible in releasing evidence to outsiders than companies that use derivative instruments for speculative reasons. Thus, providing confidence that banks with high derivative instruments for hedging reasons will be less involved in earnings management behaviours (Oktavia *et al.,* 2019; Huang *et al.,* 2009; Shaw, 2003; Pincus and Rajgopal, 2002).

Table 5. Moderated Regression Analysis

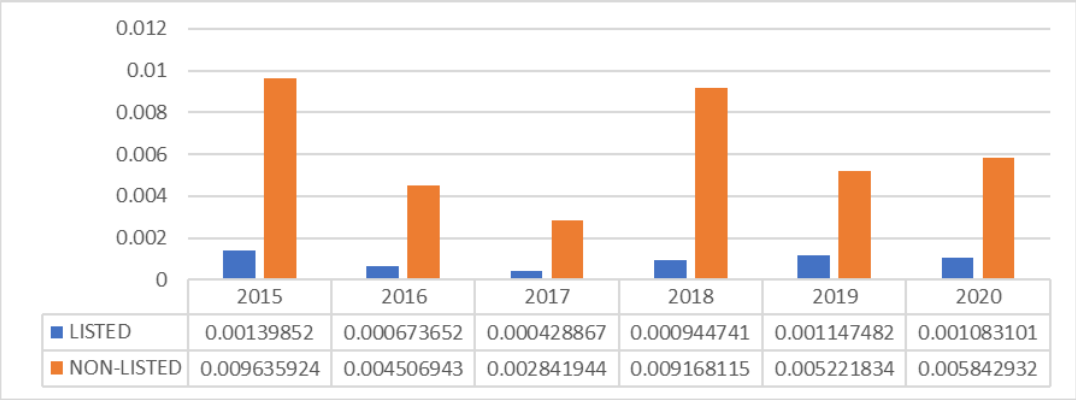
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.0419	0.0116	3.6032	0.0004
DERIV	-0.0799	0.0459	-1.7408	0.0829*
LISTED	0.0031	0.0011	2.8321	0.0050***
DERIV*LISTED	0.4253	0.2551	1.6673	0.0967*
EBTP	0.0245	0.0178	1.3773	0.1696
LDR	0.0051	0.0007	7.3842	0.0000***
NIM	-0.0166	0.0245	-0.6770	0.4990
SIZE	-0.0012	0.0004	-3.2595	0.0013***
CAR	-0.0037	0.0042	-0.8685	0.3859
R-squared	0.2177	F-statistic		9.0076
Adjusted R-squared	0.1935	Prob(F-statistic)		0.0000

Notes: p-value < 0.10 (*), < 0.05 (**) or < 0.01(***)

Sources: The results of data processing using E-views 10

In analyzing the second hypothesis, namely the listing factor on earnings management, the coefficient estimate is 0.0031, and the p-value is 0.0050. It is acknowledged that the listing factor positively effect on earnings management. Following the stakeholder theory (Freeman, 2001), the company is not an entity that only operates for its interests but must provide benefits to other stakeholders. Public interest from banks listed on the Indonesia Stock Exchange has a more significant portion than non-listed banks. It causes pressure on management to provide the best results for other stakeholders, which can incentivize management to carry out earnings management when reality does not match expectations.

In analyzing the third hypothesis, the coefficient estimate is 0.4253, and the p-value is 0.0967, which states that banks listed on the Indonesia Stock Exchange weaken the negative influence of derivative instruments on earnings management. Figure 3 explains that the average derivative transactions of commercial banks listed on the Indonesia stock exchange for the 2015-2020 period have a lower average derivative ratio than non-listed banks. It explains that the minimal ownership of derivative transactions owned by listed banks cannot substitute for ownership of derivative instruments for banking discretionary accrual actions. So, management incentives to carry out earnings management are greater for banks with derivative instruments with lower hedging purposes (Oktavia et al., 2019).



	2015	2016	2017	2018	2019	2020
LISTED	0.00139852	0.000673652	0.000428867	0.000944741	0.001147482	0.001083101
NON-LISTED	0.009635924	0.004506943	0.002841944	0.009168115	0.005221834	0.005842932

Figure 3. Averages of Derivative Instruments (Listed and Non-Listed) 2015-2020
Sources: Bank Indonesia, BIS Triennial Survey 2019

V. CONCLUSION

This study was conducted to obtain empirical evidence of the derivative instruments on tearnings management, which is moderated by listing factors on the Indonesian stock exchange in banking companies for the 2015-2020. Based on the results of analysis and hypothesis testing, and analysis results, it can be concluded that derivative instruments negatively affect earnings management. The authority through Central Bank of Indonesia law Number 15/8/PBI/2013 article 3 paragraph 5 requires banks to comply with Central Bank of Indonesia regulations to carry out hedging transactions for derivative transactions to implement bank risk management. The higher of derivatives instruments for hedging reasons, the lower the significance of earnings management. In addition, public companies have more incentives to carry out earnings management because the pressures they face are from internal parties (management) and external parties (investors). The effect of ownership of derivative instruments will reduce its effect on public companies in terms of reducing earnings management actions. It happens because the proportion of ownership of derivative instruments from listed banks on the Indonesian stock exchange is insignificant assessed to non-listed banks. It similarly reveals that the higher the derivative instrument for hedging purposes will minimize the management's incentive to take earnings management actions.

The researcher realizes that this study has limitations in terms of the use of variables that have not considered the effect of applying IFRS 9 to the provision for defaulted loans which may have different results if this is considered. To improve this study, the researcher hopes that the authorities will increase the effectiveness of monetary policy transmission by increasing derivative transactions with hedging purposes that can function as a tool to minimize bank profits. In addition, further research is expected to be able to use other variables that affect banking earnings management by adding new indicators so that this measurement is robust and generally accepted.

REFERENCES

Asdrubali, P., and Kim, S. (2008). On the empirics of international smoothing. *Journal of Banking and Finance*, 32(3), 374–381. https://doi.org/10.1016/j.jbankfin.2007.05.005

Banjaranahor, D. (2018). *Drama Bank Bukopin: Kartu Kredit Modifikasi dan Rights Issue.* CNBC Indonesia [on-line]. Accessed on August 06th, 2022 from https://www.cnbcindonesia.com/market/20180427144303-17-12810/drama-bank-bukopin-kartu-kredit-modifikasi-dan-rights-issue

Bank Indonesia. (2020). *Akselarasi Pendalaman Pasar Keuangan.* www.bi.go.id. Accessed on September 23rd, 2022 from https://www.bi.go.id/id/publikasi/laporan/Documents/7_LPI2020_BAB5.pdf

Baltagi, B., and Song, S. (2006). Unbalanced panel data: A survey. *Statistical Papers*. 47. 493-523. http://doi.org/10.1007/s00362-006-0304-0.

Barton, J. (2001). Does the Use of Financial Derivatives Affect Earnings Management Decisions? *The Accounting Review*, 76(1), 1–26.

Basu, Sudipta, Vitanza, Justin dan Wang, Wei. (2020). Asymmetric Loan Loss Provision Models. *Journal of Accounting and Economics*. 70. 101359. http://doi.org/10.1016/j.jacceco.2020.101359

Beatty, A., and Liao, S. (2014). Financial accounting in the banking industry: A review of the empirical literature. *Journal of Accounting and Economics, Elsevier, vol. 58(2),* pages 339-383.

Bushman, R. M., and Williams, C. D. (2015). Delayed expected loss recognition and the risk profile of banks. *Journal of Accounting Research, 53*(3), 511-553.

Choi, J., Mao, C., and Upadhyay, A. (2015). Earnings Management and Derivative Hedging with Fair Valuation: Evidence from the Effects of FAS 133. *The Accounting Review*. 90. 1437-1467. http://doi.org/10.2308/accr-50972

Cooper dan Schindler. (2014). *Bussiness Research Method*. New York: McGrawHill

Curcio, D., and Hasan, I. (2015). Earnings and capital management and signaling: the use of loan-loss provisions by European banks. *The European Journal of Finance, 21*(1), 26-50.

Danisman G.O., Demir E. and Ozili P. (2020). Loan loss provisioning of US banks: Economic policy uncertainty and discretionary behavior. *International Review of Economics and Finance.* doi: https://doi.org/10.1016/j.iref.2020.10.016

Eiteman, D.K., Stonehill, A.I. and Moffett, M.H. (2010). *Multinational Business Finance.* 12th Edition, Boston: Pearson Prentice Hall.

Fathi J. (2013). The determinants of the quality of financial information disclosed by French listed companies. *Mediterranean Journal of Social Sciences*;4(2).

Firmansyah, A., Utami, W., Umar, H., and Mulyani, Susi. (2020). The Role of Derivative Instruments On Risk Relevance From Emerging Market Non-Financial Companies. *Journal of Governance and Regulation*. 9. 45-63. http://doi.org/10.22495/jgrv9i2art3

Freeman, R. and Mcvea, John. (2001). A Stakeholder Approach to Strategic Management. *SSRN Electronic Journal*. http://doi.org/10.2139/ssrn.263511

Ghozali, Imam. (2021). *Partial Least Squares, Konsep Teknik dan Aplikasi menggunakan program SmartPLS 3.2.9.* Semarang: BP Universitas Diponegoro.

Guniarti, F. (2015). Faktor-faktor yang mempengaruhi aktivitas hedging dengan instrumen derivatif valuta asing. *Jurnal Dinamika Manajemen.* 5. http://doi.org/10.15294/jdm.v5i1.3651

Huang, P., Zhang, Y., Deis, D. R., and Moffitt, J. S. (2009). Do artificial income smoothing and real income smoothing contribute to firm value equivalently? *Journal of Banking and Finance*, 33(2), 224–233.

Julien, C., Amir, R., and Rebecca, B.C. (2020). Earnings management and derivatives reporting: evidence from the adoption of IFRS standards in Europe, *Applied Economics*, http://doi.org/10.1080/00036846.2020.1841085

Kanagaretnam, K., Lobo, G.J. and Mathieu, R. (2004). Earnings management to reduce earnings variability: evidence from bank loan loss provisions. *Review of Accounting and Finance,* 3(1): 128 – 148.

Kanagaretnam, K., Lim, C., and Lobo, G. (2010). Auditor Reputation and Earnings Management: International Evidence from the Banking Industry. *SSRN Electronic Journal.* http://doi.org/10.2139/ssrn.1533855

Kirubel, A and Akmel, S. (2019). Earning Management: From Agency and Signalling Theory Perspective in Ethiopia. *Journal of Economics, Management and Trade* 24. 1-12. http://doi.org/10.9734/JEMT/2019/v24i630181

Murwaningsari, E., Utama, S., and Rossieta, H. (2015). The Combined Effects of Financial Derivatives and Discretionary Accruals on the Value Relevance of Earnings and the Book Value of Equity. *Gadjah Mada International Journal of Business.* 17. 179-198. https://doi.org/10.22146/gamaijb.6909.

Noor, N., Mohd-Sanusi, Z., Heang, L., Iskandar, T., and Isa, Y. (2015). Fraud Motives and Opportunities Factors on Earnings Manipulations. *Procedia Economics and Finance.* 28. 126-135. http://doi.org/10.1016/S2212-5671(15)01091-6Oktavia, O., Siregar, S., Wardhani, R., and Rahayu, N. (2019). The Effects of Financial Derivatives on Earnings Management and Market Mispricing. *Gadjah Mada International Journal of Business*. https://doi.org/10.22146/gamaijb.34112

Oktavia, O., and Martani, D. (2013). The level of disclosure and use of financial derivatives in tax avoidance activities. *Indonesian Journal of Accounting and Finance,* 10(2), 129-146.

Otoritas Jasa Keuangan. (2020). *Peraturan OJK Nomor 48/POJK.03/2020 Tentang perubahan atas peraturan Otoritas Jasa Keuangan nomor 11/POJK.03/2020 tentang Stimulus Perekonomian Nasional Sebagai Kebijakan Countercylicial Dampak Penyebaran Covid-19.* Jakarta: Otoritas Jasa Keuangan

Phua, L.K., Lok, C.L., Chua, Y.X., and Lim, T.C. (2021). Earnings Volatility, the Use of Financial Derivatives and Earnings Management: Evidence from an Emerging Market. *Malaysian Journal of Economic Studies*, Vol. 58 No. 1 https://doi.org/10.22452/MJES.vol58no1.1

Pincus, M., and Rajgopal, S. (2002). The Interaction between Accrual Management and Hedging: Evidence from Oil and Gas Firms. *The Accounting Review,* 77(1), 127–160. http://www.jstor.org/stable/3068859

Scott, William R. (2019). Financial Accounting Theory. Sixth Edition Canada: Pearson Prentice Hall.

Shaw, K. (2003). Corporate disclosure quality, earnings smoothing, and earnings' timeliness. *Journal of Business Research*. 56. 1043-1050. http://doi.org/10.1016/S0148-2963(01)00328-9

Sya'bani, A. (2020). Derivatif Jadi Alternatif Lindungi Investasi, Sayang Pilihannya Terbatas. [on-line]. Accessed on September 23rd, 2022 from https://ekonomi.bisnis.com/read/20200617/9/1253800/derivatif-jadi-alternatif-lindungi-investasi-sayang-pilihannya-terbatas

Tucker, J.W., and Zarowin, P. (2006). Does Income Smoothing Improves Earnings Informativeness? *Accounting Review*. 81: 251–270