The Effect of Income Smoothing and Procyclicality Behavior on the Bank Credit Impairment Losses with IAS 39 Adoption in PSAK 55 as a Moderating Variable

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ABSTRACT

The bank's credit impairment losses play a vital role in maintaining the stability and health of banks, as well as fulfilling the banks' function in channelling public funds. This study aims to determine the effect of income smoothing and the behavior of procyclicality against the banks' credit impairment losses, as well as the role of adoption of IAS 39 in PSAK 55 in moderating the influence of these two variables. The objects of this study are conventional commercial banks, listed on the Indonesia Stock Exchange within the research period of 2008-2017. By using a purposive sampling method, this study obtained 20 bank samples and 196 observations. The hypotheses in this research are tested using multiple regression analysis. This study shows that income smoothing has a positive effect on banks' credit impairment losses, whereas procyclicality and IAS 39 adoption in PSAK 55 does not affect the banks' credit impairment losses significantly. On the contrary, the adoption of IAS 39 in PSAK 55 weakens the positive effect of income smoothing; however, it cannot moderate the effect of procyclicality on the banks' credit impairment losses. The results of this study have implications for regulators' policies to reduce income smoothing practices, maintain financial system stability because the provision for losses from lowering credit scores is too low, accounting policies stipulated by banks emphasize the interpretation and application of standards, and professional judgment and contradictory policies that can cover deficiencies held by financial accounting standards. Another implication is the need for bank managers to anticipate that by 2020, PSAK adopted from IFRS can be useful.

ABSTRAK

Cadangan Kerugian Penurunan Nilai (CKPN) bank berperan penting dalam menjaga stabilitas dan kesehatan bank, serta memenuhi fungsi bank dalam menyalurkan dana publik. Penelitian ini bertujuan untuk mengetahui pengaruh perataan laba dan perilaku prosiklikalitas terhadap CKPN bank serta peran penerapan IAS 39 dalam PSAK 55 dalam memoderasi pengaruh kedua variabel ini. Objek penelitian ini adalah bank umum konvensional, yang terdaftar di Bursa Efek Indonesia periode 2008-2017. Dengan menggunakan metode purposive sampling, penelitian ini memperoleh 20 sampel bank dan 196 pengamatan. Hipotesisnya diuji menggunakan analisis regresi berganda. Hasilnya menunjukkan bahwa perataan laba berpengaruh positif pada CKPN bank sedangkan procyclicality dan adopsi IAS 39 dalam PSAK 55 tidak berpengaruh pada CKPN bank secara signifikan. Sebaliknya, penerapan IAS 39 dalam PSAK 55 melemahkan efek positif perataan laba, namun tidak dapat memoderasi pengaruh prosiklikalitas pada CKPN bank. Hasil penelitian ini memiliki implikasi bagi kebijakan regulator untuk mengurangi praktik perataan laba, menjaga stabilitas sistem keuangan karena provisi kerugian dari penurunan nilai kredit terlalu rendah, kebijakan akuntansi yang ditetapkan oleh bank menekankan interpretasi dan penerapan standar, dan penilaian profesional dan kebijakan kontradiktif yang dapat mencakup kekurangan yang dimiliki oleh standar akuntansi keuangan. Implikasi lain adalah perlunya manajer bank mengantisipasi bahwa pada 2020, PSAK diadopsi dari IFRS bisa efektif.

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1. INTRODUCTION

In the Indonesian Financial Services Authority Regulation No. 6 / POJK.03 / 2015 concerning Transparency and Publication of Bank Reports, it is stated that, in order to create market discipline and in line with the development of international standards, efforts are required to increase the transparency of financial conditions and bank performance through the publication of bank statements, to facilitate evaluation by the public and market participants, so that the banks required to prepare, announce, and submit a publication report containing financial statements, financial performance information, and other information (OJK, 2015). One of the aspects in banking activities — that is regulated for implementation and must be disclosed in the financial statements — is on loan loss provision or also known as impairment losses (Indonesian, it is abbreviated as CKPN), on bank loans.

According to the Indonesian Banking Accounting Guidelines (PAPI, 2008), the credit impairment losses are a reserve that must be created by the banks if there is objective evidence of impairment of financial assets or groups of financial assets as a result of one or more events. These events occur after the initial recognition of these assets (adverse events) and have an impact on the estimated future cash flows. The amount of allowance for losses is measured as the difference between the carrying value of financial assets and the pre-sent value of estimated future cash flows discounted using the initial effective interest rate of the financial assets.

Allowance for bad loans is an object that is often used as profit manipulation by the managers compared to other types of accruals because of the high subjectivity in determining the amount of allowance for credit losses (Ma, 1988). At present, the determination of impairment losses on bank loans is based on historical data and the existence of debtor valuations based on a professional judgment from management so that discretionary actions are very likely to be carried out (Fitriana & Arfianto 2015).

The parties' attention concerned with the company focuses on profit information, and they tend to ignore the procedure in obtaining the profit. This can trigger an agency conflict because each party, both the principal and the agent, have different interests and equally fight for their respective interests (Walter, 2004). Such a condition encourages management, as an internal party, to do something that is not supposed to be done (dysfunctional behavior), namely changing financial statement data by income smoothing (Santoso & Salim, 2017).

The irregularity in the impairment losses on bank loans measurement can also imply the existence of procyclicality behavior by banks. The impairment losses that can lead to procyclicality are in the non-discretionary component of CKPN which results in procyclicality behavior in banks which finally can lead to errors in the assessment of expected credit losses (Bouvatier & Lepetit, 2006).

The quality accounting standard is essential in preparing and presenting financial statements that lead to being accurate, systematic, and trustworthy financial information. By doing so, it can help decision-makers to make the right decisions for business survival and investment decision making for investors (Dian & Titik Aryati, 2012). With the demand to meet the quality standards of financial statements in facing the globalization, Indonesia, as one of the countries with the largest economy in the world, must make a convergence of accounting standards, namely adjusting national accounting standards with accounting standards that ap-ply internationally. The intended international accounting standard is a standard developed by the International Accounting Standard Board (IASB), namely the International Financial Reporting Standards (IFRS).

Anggraita (2012) stated that the adoption of the two PSAKs, which is adopted by IAS in the banking sector has an impact on the provision for credit losses or impairment losses. With IAS 39, an entity can only recognize impairment if there is the objective evidence of it. The objective evidence is in the form of significant financial difficulty from the debtor, breach of contract, or the debtor that is declared bankrupt by the court. This means that banks are not allowed to reserve credit losses based on the possibility of bad loans (expected loss). But, it must be based on objectivity (Adzis, Tripe & Dunmore, 2016). With the regulation regarding objective evidence, it is expected that the practice of income smoothing through CKPN can be reduced because it decreases the subjectivity of credit provision (Adzis et al., 2016).

Another implication of the IAS 39 application is its impact on procyclicality behavior in banks. Impairment losses can behave in a procyclicality or counter-cyclical manner, depending on the characteristics of the backward-looking (non-discretionary) or forward-looking (discretionary) reserve. Backward-looking backup means the backup is done when there is a problem loan. This has the potential to lead to a problem of reduced

credit supervision when the economy is in good condition, and the number of problem loans is small, resulting in low credit reserves. Conversely, when the economy is not good, the reserves increase dramatically because of the emergence of problem loans. Therefore, it can be inferred that backward-looking backups show procyclical behavior (Bolt, Haan, Hoeberichts, Van Oordt & Swank, 2012).

During this time, a previous study that examined the impact of income smoothing and procyclicality behavior of banks on impairment losses, using IAS 39 as a moderating variable, have shown inconsistent results due to the object of research conducted in various different countries. This also includes the mandatory IFRS application or voluntary. Adzis et al. (2016) show that IAS 39 could negatively and significantly influence the effect of income smoothing on impairment losses on bank loans. However, IAS 39 cannot moderate the effect of procyclicality on impairment losses on bank loans. Ozili (2015) and Leventis, Dimitropoulos & Anandarajan (2011) show the results that income smoothing and capital management have a significant and positive effect on impairment losses on bank loans. Also, IFRS can positively and significantly moderate the effect of income smoothing and signalling on impairment losses on bank loans. Next, GDP has a negative and significant effect on impairment losses on bank loans. Fernando & Ekanayake (2015) shows that the relationship between impairment losses on bank loans and net operating income before tax and provision is significantly positive at small private banks. Overall, there is a significant negative relationship between loan loss provision and net operating income before tax and provision. Packer & Zhu (2012) shows that income smoothing has a significant and positive effect on impairment losses on bank loans, but GDP does not have a significant effect on it. Based on the analysis per country, only Japan showed a procyclicality behavior, while in other Asian countries, especially India, there is a counter-cyclicality behavior.

This study is a replication of the research by Adzis et al. (2016) regarding the role of IAS 39 in moderating the relationship between income smoothing and the banks' behavior of procyclicality to impairment loss-es in Hong Kong, and it contributes in two ways. First, this research will expand the research time span to 10 years, namely from 2008-2017, because the previous research conducted in Indonesia generally only takes a short span of time, which is under ten years. The subsequent studies using periods of less than ten years are Febriati (2013), Ozili (2017), Skala (2015), Fonseca & Gonzalez (2008), Packer & Zhu (2012), Leventis et al. (2011), Gebhardt and Farkas (2011), and Adzis et al. (2016).

Although the period prior to the adoption of PSAK 55 used by other researchers was five years or since 2005 as in Leventis et al. (2011), this study is considered sufficient to see the readiness of banks in adopting PSAK 55. Second, this research examines the effect of procyclicality on banks in Indonesia on CKPN by using IAS 39 as a moderating variable because this relationship has never been studied previously in banks in Indonesia.

2. THEORETICAL FRAMEWORK AND HYPOTHESES

Jensen and Meckling (1976) describe agency relationships as arising from contracts established between the principals that use agents to perform services. The principals' interest is in the event of separation of owner-ship and control of the company. Agency theory is also based on several assumptions (Eisenhardt, 1989). These assumptions are divided into three types, namely assumption about human nature, organizational assumption, and information assumption. Assumption of human nature emphasizes on humans who have selfishness (self-interest), have limited rationality (bounded rationality), and do not like risk (risk aversion).

In the context of banking companies, banks have various stakeholders who are not responsible for decision making. They are employees, minority shareholders, and banking regulators. Anandarajan, Hasan & McCarthy (2007) argued that banks are under regulatory supervision, while bank managers as agents of bank shareholders are under pressure to generate high profits. To generate high profits, shareholders provide incentives for management to perform well, such as by giving bonuses. This results in the management responsible for decision making and company policies taking certain ways to generate the bonus, where the action can be either ethical or unethical.

Impairment losses are one item in the financial statement whose recognition and measurement are based on management's discretion. In PSAK 55, an entity must recognize losses from impairment at the best estimate in the range, considering all relevant information available. This estimate has a high dependence on a judgment from management, and the things that underlie this estimate. This results in asymmetric adverse selection information, where managers and other insiders usually know more about the circumstances and prospects of the

company than outsiders (Scott, 2015).

Agency theory implies that there is motivation toward income smoothing behavior. Lambert (1984) showed that the management compensation scheme by the principal could encourage income smoothing. It can occur because of the principals' desire to offer compensation that can benefit them, namely the provision of compensation for increasing the profits. If income smoothing produces stability in stock prices, the principals can further encourage income smoothing behavior (Greenawalt & Sinkey, 1988).

Impairment Losses is the amount derived from the carrying amount to the amount that can be recovered from assets (Febriati, 2013). The bank reserves the credit losses to provide a signal regarding the bank's health and profitability. The amount of credit loss reserves allocated by a bank is determined by the bank it-self. According to PBI No. 14/15 / PBI / 2012, impairment losses, both for credit or other productive and non-productive assets, are formed in accordance with applicable accounting standards.

There are two different interests in terms of recognition and measurement of bank credit impairment losses. The parties that make accounting standards prioritize the reliability of the financial statements so that reserves that are forward-looking are considered to be able to open up opportunities for banks to flatten their profits. They also produce financial statements that do not reflect the actual financial position of the bank. In addition, forward-looking reserves are considered to increase earnings volatility, due to market interest rate volatility to discount cash flow on the balance sheet (Borio, Furfine & Lowe, 2001).

On the contrary, the regulators' interests regarding credit loss reserve regulation are focused on the im-pact of accounting standards on the banks' macro-prudential aspects and their implication on the financial system stability, namely by protecting consumers and mitigating risks to financial system stability. One of the things that concern the regulator is procyclicality behavior. The credit loss reserve model in the form of incurred loss is indicated to be the cause of the 2007-2009 global financial crises, which is caused by the delayed and asymmetrical information and reducing market discipline (Barth & Landsman, 2010).

Income smoothing is one method of earnings management that aims to reduce earnings volatility or make earnings stable. According to Gebhardt & Farkas (2011), investors and creditors see companies that have stable earnings as companies have a lower risk. Income smoothing can affect the amount of credit impairment losses because it is one of the banks' discretionary accruals, where the amount of credit impairment losses is determined by the bank itself. Therefore, income smoothing, which also derived from the banks' accrual discretionary, can influence the impairment losses (Leventis et al. 2011; Ozili, 2017). If income smoothing affects credit impairment losses, then it will produce a positive relationship between earnings before taxes (earnings before taxes and provisions) and credit impairment losses (Bouvatier & Lepetit, 2006). From this argument, the first hypothesis can be stated as follows:

H1: Income smoothing has a positive effect on the bank's credit impairment losses.

Procyclicality is closely related to the phases in the economic cycle. For example, at a time when the economy is expanding—characterized by the increased economic growth in the business cycle—will cause investors' behavior to be optimistic. In that case, then they tend to ignore the risk. Finally, it can lead to increasing demand for credit and asset prices (Adzis et al. 2016)

Procyclicality is also related to excessive lending behavior during an expansion in the economy. This condition can affect the banks' perception of credit risk assessment, including credit impairment losses. For example, when the economy is expanding, the number of credit losses identified by banks is small, and the reserve is also low. However, when the economy is experiencing a contraction, the reserve increases dramatically. It is because the banks have identified higher credit losses. In this case, credit risk should be estimated when credit is given, not just when the economy is contracting (Bouvatier & Lepetit, 2006). The real GDP (Gross Domestic Product) can be used to measure whether procyclicality behavior in banks affects the amount of the bank's credit impairment losses (Ozili, 2017, 2015; Adzis, 2012). Therefore, the second hypothesis is stated as follows:

H2: GDP has a negative effect on the bank's credit impairment losses so as to show procyclicality behavior.

IAS 39-Financial Instruments: recognition and measurement are one of the IFRS standards that have been adopted by Indonesian standards, namely PSAK No. 55. This concerns financial instruments: recognition and measurement. IAS 39-Financial Instruments: recognition and

measurement regulate the recognition and measurement obligations of financial assets, financial liabilities, and contracts for buying or selling the non-financial items. Financial instruments are recognized when an entity becomes a party involved in contracting an instrument. It is classified into several categories according to the type of financial instrument. This classification can determine the measurement of the instrument that is amortized cost or fair value (Deloitte, 2017).

IAS 39 can moderate the effect of income smoothing on credit impairment losses. IAS-39 requires banks to disclose accurate reserves for NPLs, and it also prohibits hidden reserves. In addition, banks are no longer permitted to make provisions based on the expected loss approach. It should be based on the incurred loss so as to reduce managerial discretion in measuring loan loss provisions (Adzis et al., 2016). On the one hand, IAS 39 can reduce income smoothing, which, in turn, has an impact on the calculation of the bank's credit impairment losses. On the other hand, IAS 39 also raises concerns about the procyclicality of banking behavior, as Ernst and Young (2006) described. This is because IAS-39 uses the incurred loss method, and allowance for losses is not permitted for recognition of losses estimated, even though the probability of occurrence is high. In addition, the amount of the loss that is reserved must reflect the economic condition. The calculation of loan losses based on IAS 39 must, therefore, reflect the net value of future recovery, dis-counted by the initial effective interest rate on loan. Based on the above argument, the third, fourth, and fifth hypotheses can be stated as follows:

H3: The adoption of IAS-39 in PSAK 55 has a negative effect on the bank's credit impairment losses.

H4: The adoption of IAS-39 in PSAK 55 weakens the positive effect of income smoothing on the bank's credit impairment losses.

H5: The adoption of IAS-39 on PSAK 55 strengthens the significant negative effect of GDP on the bank's credit impairment losses, thus demonstrating procyclicality behavior.

3. RESEARCH METHOD

This study used a population consisting of conventional-commercial banks listed on the Indonesia Stock Exchange in the period of 2008-2017. They were taken using non-probability sampling, and the method used for it was purposive sampling. The purposive sampling is a judgment sampling, and based on the criteria such as the conventional banks that 1) are in Indonesia, listed on the Indonesia Stock Exchange in the period 2008-2017 in succession, 2) use the rupiah in financial statements, and 3) provide all the data needed in calculating the variables in this study.

This research used secondary data, which were the annual financial statements of conventional commercial banks in the 2008-2017 observation years through the Indonesia Stock Exchange website, the Financial Services Authority publication report, and the official website of each bank. In addition, Indonesian GDP data for the 2008-2017 observation years was obtained from the official website of the World Bank.

The dependent variable is the bank's credit impairment losses (CKPN). The credit impairment losses are provided if the carrying amount of the credit after the impairment is less than the initial carrying amount (PAPI, 2008). The measurement of the credit impairment (CKPN) in this study is credit impairment losses divided by total assets.

The next is the moderating variable that is the adoption of IAS-39 on PSAK 55. The proxy for this variable was done by using a dummy variable, which is 1 for the banks that have applied PSAK 55, and 0 if the banks have not applied PSAK 55.

The independent variables consisted of two, namely the income smoothing and procyclicality behavior. The measurement of income smoothing was done using profit before tax and impairment loss on loans (EBTP) divided by total assets. The bank's procyclicality behavior was measured by changes in the amount of gross domestic product (GDP). In addition to the three variables mentioned above, this study also used a control variable. The control variable consisted of three, namely non-performing loans, credit growth, and company size.

The data analysis was done using multiple panel data regression. It includes descriptive statistical analysis, panel data regression analysis, classic assumptions test, and hypothesis testing. In the classic assumption test, the researchers conducted the tests of normality, multicollinearity, heteroscedasticity, and autocorrelation. Finally, the hypothesis testing was done using the t-test.

The panel data method has three approaches, namely the fixed effect model (FEM), the common effect model (CEM), and the random effect model (REM). To see whether the panel fits, the regression equation used FEM, CEM or REM, chow and Hausman tests. A chow test was done to test whether the panel data regression equation can use

FEM or CEM. If the results of the F-test and the statistical log-likelihood ratio (LR-test) of Ho are accepted, the fit model is CEM so that the Hausman test does not need to be done. It is, therefore, sufficient to use just the Chow test (Widarjono, 2009). If the Chow of Ha test result is accepted (significant at 5% alpha), the regression equation using fit panel data can be done using FEM, but it must be continued with the Hausman test to ascertain whether the regression model is fit by using FEM or REM. If the Hausman Ho test result is accepted, then the fit regression model is used as the REM model. However, if Ha is accepted, then the fit model is the FEM model (Widarjono, 2009).

The panel data regression equation used in this study is as follows.

$$CKPN_{it} = \beta_0 + \beta_1 EBTP_{it} + \beta_2 \Delta GDP_{it} + \beta_3 IFRS_{it} + \beta_4 (EBTP_{it} * IFRS_{it}) + \beta_5 (\Delta GDP_{it} * IFRS_{it}) + \beta_6 NPL_{it} + \beta_7 \Delta LOAN_{it} + \beta_8 SIZE_{it} + \epsilon_{it}$$

Description:

CIL	= Credit impairment losses
β_0	= Constant
EBTP	= Earnings before tax and loan loss provisions divided by aset, proxied by income smoothing
ΔGDP	= GDP growth, proxied to procyclicality behavior
IFRS	= Dummy variable adopting IAS-39 of PSAK 55
NPL	= Non performing loan
ΔLOAN	= Credit growth
SIZE	= Firm size
ε	= error term
i	= bank
t	= yearly report period
$\beta_1 \ldots \beta_8$	= Regression coefficient

4. DATA ANALYSIS AND DISCUSSION

Using the purposive sampling method, the researchers had done 200 observations. After the final number of observations was examined, it reached 196 observations, which consisted of 20 conventional commercial bank companies listed on the Stock Exchange from 2008-2017. Descriptive statistical analysis also does not provide an overview of the independent variables. The statistical measure includes the mean, maximum, minimum, and standard deviation of each variable. Descriptive statistics of the research variables can be seen in Table 1.

The dependent variable is credit impairment losses (CKPN). The average value of this variable in the period 2008-2017 is 0.013 with the maximum value found in PT Bank of India Indonesia Tbk. in 2016. Then, for the minimum value, there is at Bank Capital Indonesia Tbk. in 2015.

The first independent variable in this study is income smoothing (EBTP). The average value of this variable during the period 2008-2017 is 0.028 with the maximum value owned by PT Bank Panin Indonesia Tbk in 2012. The minimum value was found in PT Bank of India Indonesia Tbk in 2016. Next is the second de-pendent variable that is the bank's procyclicality behavior which is measured by Indonesia's gross domestic product (GDP). The

average, minimum and maximum values are as presented in Table 1.

The moderating variable is the adoption of IAS-39 in PSAK 55. This variable is a dummy variable indicating the number 1 for the banks that have applied PSAK 55, and 0 if the bank has implemented PSAK 55 so that the maximum and minimum values are 1 and 0. The average of this PSAK 55 variable is 0.796, which indicates that most banks have implemented PSAK 55.

The first control variable is non-performing loans (NPL) that are total non-performing loans divided by the number of loans. This variable has an average of 0.026, and the maximum value is found in PT. Bank of India Indonesia Tbk. in 2016 and the minimum value is in PT. Bank QNB Indonesia Tbk in 2013. The second control variable is credit growth (LOAN). This variable has an average of 0.008. On the contrary, the maxi-mum value of this variable is found in PT Bank Mayapada Tbk in 2016 and the minimum value at PT Bank of India Indonesia in 2016. The third control variable is the firm size (SIZE). This variable has an average of 24,307, the maximum value was in PT Bank Central Asia Tbk in 2009, and the minimum value is in PT Bank of India Indonesia Tbk. in 2008.

Table 1
Descriptive Statistics without Outliers*)

	CKPN	EBTP	GDP	IFRS	LOAN	NPL	SIZE
Mean	0.0130	0.0280	0.0550	0.7960	0.0080	0.0260	24.3080
Median	0.0120	0.0260	0.0560	1.0000	6.05E-12	0.0230	24.2370
Max	0.0720	0.2130	0.0620	1.0000	0.3780	0.1580	28.4560
Min	2.97E-05	-0.0620	0.0460	0.0000	-0.3040	0.0020	21.0310
Std. Dev.	0.0090	0.025	0.5800	0.4040	0.0630	0.0180	1.6980
N	196	196	196	196	196	196	196

*). Outlier used above and below with the stipulation for the maximum limit of the mean plus 3 and multiplied by standard deviation, and for the lower limit, the minimum level of mean average subtracted by 3 and multiplied by standard deviation
Source: processed data

The normality test aims to find out whether the residuals of the regression equation are normally distributed. Normally distributed data is one of the requirements for conducting a panel data regression analysis technique. From the results of the normality test conducted after the outliers are discarded, a probability yield of 0.186 is obtained. It is higher than 0.05. Therefore, it can be concluded that Ho is accepted, which means the data distribution is normal.

A multicollinearity test is used to test whether there is a linear correlation between the independent variables. From the results of the multicollinearity test, it can be concluded that in this research model, there is no multicollinearity between variables because all the coefficient of variation between variables is below 0.80. The results of the multicollinearity test can be seen in Table 2

The next is the heteroscedasticity test. It was done by regressing the independent variable on the squared residual. Based on the heteroscedasticity test, it indicates that that the coefficient of each independent variable produces value above 0.05. Therefore, it can be concluded that there is no heteroscedasticity problem in the model, and this accepts the null hypothesis that the data is homoscedastic.

Table 2
Correlation

	EBTP	GDP	IFRS	LOAN	NPL	SIZE
EBTP	1.0000					
GDP	0.1240	1.0000				
IFRS	0.0030	0.1280	1.0000			
LOAN	0.1790	-0.0990	0.0680	1.0000		
NPL	-0.2610	-0.1460	-0.0230	-0.2250	1.0000	
SIZE	0.4810	-0.1230	0.1920	0.1450	-0.1050	1.0000

Source: processed data

The autocorrelation test aims to test whether, in the linear regression model, there is a correlation between the error of the intruder in the t-period and the error of the intruder in the t-1 period or (Ghozali, 2013). To test the existence of autocorrelation, the researchers did it by looking at the DW table with a total number of observations in the study of 196 (n = 196) and the number of independent variables in the study of 7 (k = 7). Then, based on the DW table, this study obtained values such as dL = 1.6928 and du = 1.8406. As the DW value in the study is higher than *du*, and the value (4-DW) = 1.918106 is higher than *du*, it can be concluded that there is no positive or negative autocorrelation. Chow test results in this study can be seen in Table 3.

Table 3
Chow Test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	7.9302	(19,1750)	0.0000
Cross-section Chi-square	124.2227	19	0.0000

Source: processed data

The results presented in Table 3 show the Chi-square cross-section probability of 0.000. The probability value is less than 0.05; thus, the conclusion that can be drawn for rejecting Ho and choosing the fixed effect model. Since the chosen model is the fixed effect, the Hausman test must go on determining the value between the random effect and fixed-effect models. Hausman test results in this study can be seen in Table 4.

Table 4
Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.0000	5	1.0000

Source: processed data

The results from Table 4 represent the random cross-section probability value of 1, 0000. This probability value is higher than 0.05. Therefore, it can be concluded that Ho is accepted and the model chosen is a random effect. The results of the panel data regression equation using the random effect model can be seen in Table 5.

As shown in Table 5, it indicates that the adjusted R square value is 0.638, which means that the independent variable could explain the bank's credit impairment variable of 63.81%, where the remaining 36.19% is explained by other factors. This result indicates that the regression model is good enough to explain the dependent variable because it is at a level above 50%.

Again as referred to Table 5, it can describe that income smoothing as measured by earnings before tax-es, earnings before taxes and loan loss provisions have an effect on the bank's credit impairment losses. Therefore, the first hypothesis is accepted. This positive relationship shows that when banks predict high profits, they can increase their credit impairment losses so that they can also flatten earnings and reduce earnings volatility. Finally, they can also reduce the investors' perception of the banks' risk (Greenwalt & Sinkey, 1988). In this case, it is due to the fact that the banks as the object of research are those that are listed on the stock exchange. Their shares are traded publicly and they have an interest in keeping earnings volatility at a low level. This evidence is in accordance with the studies by Packer and Zhu (2012), Leventis et al. (2011), Gebhardt & Farkas (2011), Ozili (2017), Adzis et al. (2016), Fonseca & Gonzalez (2008), Ozili (2015), Skala (2015), and Adzis et al. (2016).

Table 5
Results of Regression of Panel Data Equation Using Random Effect Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.	Conclusion
EBTP	0.1970	0.0450	4.3550	0.000	Significant
GDP	0.0010	0.0010	0.5040	0.615	Insignificant
IFRS	-0.0060	0.0060	-0.8960	0.371	Insignificant
EBTP*IFRS	-0.1860	0.0450	-4.1200	0.000	Significant
GDP*IFRS	0.0010	0.0010	1.2180	0.224	Insignificant.
LOAN	-0.0190	0.0050	-3.8360	0.000	Significant
NPL	0.3150	0.0190	16.620	0.000	Significant
SIZE	0.0020	0.0000	6.0350	0.000	Significant
C	-0.0480	0.0090	-5.1280	0.000	
R-squared	0.6530				
Adjusted R-squared	0.6380				
F-statistic	43.9820				
Probability (F-statistic)	0.0000				
Durbin-Watson stat.	1.2840				

Source: processed data

The banks' procyclicality as measured by Gross Domestic Product (GDP) has no significant effect on the cred-it impairment losses so that the second hypothesis is rejected. There was no significant effect found between procyclicality behavior and credit impairment losses caused by the scope and regulatory environment in Indonesia. It should be noted that in the study by Packer and Zhu (2012), they use the banks in Southeast Asia, including Indonesia. These banks tended to adopt a contradictory policy for the banks' credit impairment losses, and therefore, the level of GDP had no effect on the level of the banks' credit impairment losses. It is general that contradictory policies are the policies that are against the flow of the business cycle. This means that during a recession, the government implements an expansionary policy in the form of fiscal and monetary easing (Kaminsky, Carmen & Vegh, 2004). This result is in accordance with the research by Packer & Zhu (2012).

The next is the adoption of IAS-39 on PSAK 55, measured by dummy variables. It has no significant effect on the bank's credit for impairment losses. Therefore, the third hypothesis is rejected. It proved that there was no significant effect found between the adoptions of IAS-39 in PSAK 55 as it was allegedly because this adoption is a moderating variable in this study. In fact, it only has a role in strengthening or weakening the relationship between one variable and another. Accounting standards cannot determine by themselves with the level of items in the financial statements, including reserves for the banks' credit impairment losses. This is reinforced by the adoption of principles-based IFRS.

The principles above are such as the emphasis on interpretation and application of standards, the assessment of the substance of transactions, evaluating whether accounting presentations reflect economic real-ity, and professional judgment on the application of accounting standards. Therefore, it is necessary for the researchers to study how accounting standard is applied to meet certain managerial motives or prevent them, including income smoothing and banks' procyclicality. This is indicated by the significant effect of the adoption of IAS 39 in moderating the two variables. This evidence is also in accordance with the research by Adzis et al. (2016), Gebhardt & Farkas (2011), and Leventis et al. (2011).

The adoption of IAS 39 in PSAK 55 could weaken the positive effect of income smoothing as measured by earnings before taxes and earnings before taxes and loan loss provisions on the banks' credit impairment losses. Therefore, the fourth hypothesis is accepted. This result indicates that the application of incurred loss or the recognition of credit impairment will exist when the objective evidence of impairment as a result of one or more events occur after the acquisition of assets. This also leads to the bank's obligation to disclose the basis for recognition of credit impairment losses. All these proved to be able to limit the manager's scope to subjective assessment and opportunistic behavior such as income smoothing. Based on this evidence, it can be inferred that by the adoption of IAS 39 in PSAK 55, the quality of financial statements can increase.

The adoption of IAS 39 on PSAK 55 could not moderate the effect of procyclicality as measured by Gross Domestic Product (GDP) on the bank's credit impairment losses. Therefore, the fourth hypothesis is rejected. As described previously, procyclicality behavior towards the banks' credit impairment losses could not be proven because the result is not significant. It is consistent with the result of the previous study that IAS 39 cannot moderate the effect of GDP on the banks' credit impairment losses allegedly because of the scope and regulatory environment in Indonesia. In this case, the reserve policy for the bank's credit impairment losses is contradictory. The contradictory policies in banking are based on regulations set by the central bank or related authorities. Therefore, the contradictory policies adopted in Indonesian banks have a more significant in-fluence than the applied accounting standards. This result is consistent with the results of the study by Adzis et al. (2016).

5. CONCLUSION, IMPLICATION, SUGGES-TION, AND LIMITATIONS

This study provides some evidence. First of all, it proves that income smoothing has a significant and positive effect on the bank's credit impairment losses. The next is related to the banks' procyclicality that it does not significantly affect the bank's credit impairment losses. The third conclusion is that the adoption of IAS 39 in PSAK 55 has no significant effect on the banks' credit impairment losses.

Besides the above evidence, the third is that this study also shows that there is no significant effect be-tween the adoptions of IAS 39 in PSAK 55. It is probably due to the adoption of IAS 39 in PSAK 55, which is as the moderating variable. It only affects it in strengthening or weakening the relationship between one variable and another. Next is the fourth conclusion that the adoption of IAS 39 on PSAK 55 could weaken the positive effect of income smoothing on the bank's credit impairment losses (CKPN). Finally, the fifth conclusion is related to the

evidence that the adoption of IAS 39 in PSAK 55 does not moderate the effect of procyclicality on the bank's credit impairment losses.

It can be implied that income smoothing conducted by banks aims to reduce stakeholder perceptions about the risks inherent in banks. However, it can create unreliable earnings information for the stakeholders, especially investors, because it endangers the banks that sell shares to the public. Therefore, external or independent auditors play an important role in reducing the practice of income smoothing. Besides that, it can also be implied that managerially, it is important for the role of regulators in maintaining financial system stability because excessive bank credit growth— including undervalued credit reserves— has the potential to disrupt financial system stability. Bank Indonesia and the financial service authority (OJK) must be cautious in implementing their policies in the banking sector, especially those that go public. Banks must also maintain their prudential attitude so that it is not easy for them to reduce their perception of risk when the economy expands. Another managerial implication is the adoption of IFRS, which is based on principles. The ac-counting policies established at the bank emphasize the interpretation and application of standards and professional judgment. The adoption of PSAK 55 does not directly increase or decrease the amount of the banks' credit impairment losses. Therefore, it needs to be examined by the regulator whether there are managerial motives in their determination, which includes discretionary accruals.

Still, the managerial implication of this study, the successful adoption of IAS 39 in PSAK 55 in reducing the discretionary is inherent towards the application of the banks' impairment losses. Yet, this result has implications for banks, namely the need to be anticipated by their managers that in 2020, PSAK 71 adopted from IFRS 9 will be effective. This PSAK re-implements the expected loss, which is a provision for losses based on estimates of the consequences of future events. For that reason, high credit expansion will have a high risk so that the banks' credit impairment losses (CKPN) will also increase. And, the last managerial implication is that it shows the important role of regulators in maintaining financial system stability, one of which is the implementation of counter-cyclical policies that can cover the deficiencies of financial accounting standards. Bank Indonesia and financial service authority (OJK) must be prudent in implementing their policies in the banking sector.

This supervision also includes the application of financial accounting standards for the banks.

This study has limitations and suggestions for further research, namely: This study only discusses two independent variables, namely income smoothing and procyclicality, one moderation variable is the adoption of IAS 39 on PSAK 55, and three control variables namely credit growth, NPL, and company size. This is due to time constraints and publicly available research data. Previous research (Fonseca & Gonzales, 2008; Gebhardt & Farkas, 2011) included the variable protection of minority shareholdings in countries where banks operate, audit quality, and bank ownership structure. So the suggestion for further research is to add other variables that affect the allowance for impairment losses, such as the influence of central bank policy (loan to value, countercyclical buffer), audit quality, conduct additional research for foreign and non-foreign ownership banks or variable characteristics of conventional banks and shariah (dummy variable). The next suggestion is the object of research is limited to conventional commercial banks listed on the Indonesia Stock Exchange. This is because most of the financial statements for banks that are not listed are not made public. The suggestion for further research is to list all banks registered with Bank Indonesia and the Financial Services Authority, both those listed and not listed on the exchange.

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